CHAPTER 16

Social

GOWRIE TO HELIDON ENVIRONMENTAL IMPACT STATEMENT

IR_1536

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.

Contents

Figures

Tables

16. Social

16.1 Summary

This Social Impact Assessment (SIA) has been prepared as part of the Inland Rail Gowrie to Helidon (G2H) Project (the Project) Environmental Impact Statement (EIS). The purpose of the SIA is to identify how the Project may affect local and regional communities, and how the Project will work with stakeholders to ensure that negative social impacts are mitigated, and Project benefits are enhanced.

Social impacts and benefits have been assessed with respect to:

- Landholders and residents in the Project disturbance footprint and the surrounding areas, generally within the EIS investigation corridor
- Potentially impacted communities in and near the EIS investigation corridor including Kingsthorpe, Charlton, Gowrie Junction, Cranley, Cotswold Hills, Wilsonton Heights, Rockville, Harlaxton, Mount Kynoch, Mount Lofty, Ballard, Blue Mountain Heights, Lockyer, Withcott, Postmans Ridge, Helidon Spa and Helidon
- The Project region, which refers to the Toowoomba and Lockyer Valley local government areas (LGAs).

The Project is located within Country to which the Western Wakka Wakka People and Yuggera Ugarapul People are connected.

Engagement undertaken for the SIA indicates that community members enjoy the following attributes that contribute to their quality of life:

- A rural or semi-rural lifestyle, with access to services in Toowoomba
- Agriculture as a cornerstone of local communities, with tourism based in natural and rural community settings also important
- Relationships to land and the natural elements of place, including flora and fauna
- The rural landscape, characterised by agricultural character and the topography of mountains and valleys
- Close-knit communities, with strong social networks and mutual reliance between neighbours.

Land uses in and around the potentially impacted communities include residential, rural residential, community infrastructure, cropping, irrigated cropping, grazing, and industrial, logistics and manufacturing uses.

Project stakeholders include:

- Landholders in the EIS investigation corridor
- Members of potentially impacted communities
- Lockyer Valley Regional Council (LVRC)
- Toowoomba Regional Council (TRC)
- Western Wakka Wakka People
- Yuggera Ugarapul People
- Businesses and business organisations
- Community and government agencies.

The SIA drew on the results of ARTC's stakeholder engagement processes. Additional SIA-specific engagement included:

- A community survey involving residents in the Toowoomba, Lockyer Valley, Ipswich and Scenic Rim LGAs
- Meetings with LVRC and TRC officers to discuss community concerns, potential social impacts and benefits, and mitigation and management measures
- Involvement in community information sessions and Community Consultative Committee (CCC) meetings
- Workshops with community and Government agencies to discuss social infrastructure access, potential social impacts and mitigation strategies
- Meetings with business groups
- Consultation with the Office of the Coordinator-General (OCG).

The SIA has identified social impacts and opportunities during the construction and operational phases of the Project, regarding:

- Land acquisition
- Amenity
- Local character and identify
- Disadvantage
- Community cohesion and connectivity
- Employment
- Housing
- Health and wellbeing
- Community, health and recreational facilities
- Mental health
- Police and emergency services
- Safety
- Business and industry
- Cumulative impacts.

In developing and implementing management measures to reduce the significance of social impacts to local communities, a Social Impact Management Plan (SIMP) has been created, which outlines the objectives, outcomes and actions for the mitigation of social impacts. Measures intended to enhance Project benefits and opportunities are also provided. The SIMP includes five action plans, provided for:

- Community and stakeholder engagement
- Workforce management
- Housing and accommodation
- Health and community wellbeing
- Local business and industry content.

The SIMP also includes a monitoring and reporting framework to:

- Track and enable reporting on the delivery of measures that mitigate social impacts or increase community benefits
- Collect data on the effectiveness of mitigation and benefit enhancement measures
- Support identification of corrective actions to improve the effectiveness of management measures.

ARTC will track the SIMP implementation and review performance measures quarterly (where information is available), to facilitate continual improvement of strategies and practices.

ARTC will review the SIMP annually during the construction phase and, where necessary, update the SIMP based on monitoring results, including stakeholder feedback.

16.2 Scope of chapter

This SIA has been prepared for the Project. The purpose of the Social chapter is to assess, identify and summarise how the Project may affect local and regional communities, and how ARTC will work with stakeholders to ensure that negative social impacts are mitigated and Project benefits are enhanced.

The objectives of the chapter are to:

- Identify potentially impacted communities, having regard to all potential social impacts throughout the Project's life (construction and operation)
- Enable potentially impacted stakeholders and communities to provide input into the SIA, including the scope, social impacts and mitigation measures
- Develop a comprehensive baseline of social characteristics against which potential Project-related changes can be assessed

- Provide a detailed assessment of likely social impacts and benefits, including their significance to stakeholders and communities during each stage of the Project
- Provide a SIMP and monitoring strategy to support adaptive management of social impacts and opportunities for the Project to benefit local communities.

The Project has a design life of 100 years and decommissioning of the Project cannot be foreseen at this point in time, so the social impacts of decommissioning have not been considered.

16.3 Terms of Reference requirements

The Terms of Reference (ToR) describe the matters the proponent must address in the EIS for the Project. The objectives, information requirements and key matters to be addressed in the SIA are detailed in Table 16.1.

TABLE 16.1: TERMS OF REFERENCE REQUIREMENTS

Terms of Reference requirements		Where addressed in the Chapter and the broader EIS
Information requirements		
11.136.	Conduct a social impact assessment (SIA) in accordance with the Coordinator-General's Social impact assessment guideline (July 2013) and the Coordinator-General's Social impact assessment guideline (draft) (October, 2016) or the guideline in place at the time of delivery of the SIA.	Section 16.4 and Table 16.2 Appendix Q: Social Impact Assessment, Section 2.3
11.137.	The SIA should be developed in consultation with the Coordinated Project Delivery Division in the Office of the Coordinator-General, Department of State Development, and describe the potential social impacts (positive and negative) on affected communities. The proposed mitigation measures are to be discussed. Matters to be considered in the SIA are detailed in the following sections.	Section 16.9 Appendix Q: Social Impact Assessment, Section 6.2
11.138.	The SIA is to include: a) a profile of key stakeholders b) a social baseline study of potentially impacted communities within the SIA study area c) an overview of state government legislation and policies and priorities which complement the mitigation measures for the Project's social impacts d) an explanation of sources used to gather information and analysis methods used. Discuss rationale for both primary and secondary data e) a description of how the potentially impacted communities and affected stakeholders were engaged and consulted with during the development of the SIA f) identification of potential social impacts and their likely significance, including duration g) the proponent's proposed enhancement and mitigation/management measures in relation to project impacts h) details of the proponent's proposed monitoring and reporting framework	a) Sections 16.6, 16.8 and 16.9 Appendix Q: Social Impact Assessment, Section 4.3.1 b) Sections 16.6.2 and 16.8 Appendix Q: Social Impact Assessment, Sections 5.1–5.7 c) Section 16.4 Appendix Q: Social Impact Assessment, Section 2.4 d) Section 16.5 Appendix Q: Social Impact Assessment, Section 3.4 e) Sections 16.5, 16.8 and 16.9 Appendix Q: Social Impact Assessment, Sections 6.1 and 6.2 f) Sections 16.10 and 16.12 Appendix Q: Social Impact Assessment, Sections 7.1–7.7 and 9 g) Section 16.11 and Appendix Q: Social Impact Assessment, Sections 8.1–8.6 h) Section 16.11.10 Appendix Q: Social Impact Assessment, Section 8.7

Terms of Reference requirements		Where addressed in the Chapter and the broader EIS
Existing environment		
11.139.	Define the Project's SIA study area (including the local, district, regional and state level as relevant), taking into account the: a) potential for social impacts to occur b) location of other relevant projects (existing major projects and/or developments and those which are progressing through planning and approval processes and public information is available) c) location and types of physical and social infrastructure, settlements and land use patterns d) social values that might be affected by the Project including integrity of social conditions, liveability, social harmony and wellbeing and sense of community e) Indigenous social and cultural characteristics, such as native title rights and interests, and cultural heritage.	Sections 16.6 and 16.8 Appendix Q: Social Impact Assessment, Section 4.2 a) Section 16.6 Appendix Q: Social Impact Assessment, Section 4.4 b) Section 16.13 Appendix Q: Social Impact Assessment, Section 4.2.7 c) Sections 16.8.1 and 16.8.9 Appendix Q: Social Impact Assessment, Sections 5.1 and 5.6 d) Section 16.8.2 Appendix Q: Social Impact Assessment, Section 5.3 e) Sections 16.8.1.4 and 16.8.2.2 Appendix Q: Social Impact Assessment, Sections 5.1.1 and 5.3.1
11.140.	Undertake a targeted baseline study of the people residing within the Project's SIA study area. This will provide a benchmark against which to identify the Project's social issues, potential negative and positive social impacts, and the mitigation measures and management plans to address these impacts.	Section 16.8 Appendix Q: Social Impact Assessment, Section 5.1–5.7
11.141.	The social baseline study should be based on qualitative, quantitative and participatory methods. It should be supplemented by community engagement processes and primary data collection, and should reference relevant data contained in local and state government publications, reports, plans, guidelines and documentation, including regional and community plans.	Sections 16.5 and 16.8 Appendix Q: Social Impact Assessment, Section 5.1–5.7
11.142.	A consultative and inclusive community and stakeholder engagement process should inform the baseline study, assessment of potential social impacts and development of appropriate mitigation measures and management plans. The engagement should commence at an early stage of the EIS process. It should include consultation with a broad range of stakeholder groups including affected landholders, local residents, community groups, traditional owners, state and local government agencies, and non-government organisations, local businesses and traditionally under-represented stakeholders (for example vulnerable groups, women, people with a disability, indigenous people and persons from diverse ethnic or linguistic backgrounds).	Section 16.9 Appendix Q: Social Impact Assessment, Section 6.1–6.3
11.143.	The community and stakeholder engagement process should be adequately described and documented in the EIS report. This should include details such as stakeholders consulted and how and when they were consulted, principles and processes adopted, overview of the consultation program and key events, stakeholder feedback and issues raised (including the means by which these have been or will be addressed), and a statement of agreement/s reached, or to be negotiated, for impact mitigation and management.	Sections 16.5 and 16.9 Appendix Q: Social Impact Assessment, Sections 6.2, 6.3 and 8.1.4 Chapter 5: Stakeholder Engagement and Appendix D: Community Consultation

Terms of Reference requirements		Where addressed in the Chapter and the broader EIS
Potential impacts and mitigation		
11.144.	Assess and describe the type, level and significance of the Project's social impacts (both negative and positive), based on the outcomes of the community engagement, social baseline study and impact analysis processes. This should include sufficient data to enable affected local and state authorities to make informed decisions about the Project's effects. The potential social impacts will be identified by considering the potential changes to key aspects included in the social baseline study as a result of the Project.	Sections 16.10 and 16.12 Appendix Q: Social Impact Assessment, Sections 7.1–7.6 and 9
11.145.	Impact assessment should include an assessment of the potential scope and significance of impacts at the local and regional level, considering factors such as: a) population and demographic changes b) workforce c) lifestyles and amenity d) community values e) housing f) local and regional planning outcomes g) social infrastructure h) the health and social/cultural wellbeing of families and communities.	a) Section 16.10.1 Appendix Q: Social Impact Assessment, Section 7.1.10 b) Section 16.10.2 Appendix Q: Social Impact Assessment, Section 7.2 c) Section 16.10.1 and 16.10.4 Appendix Q: Social Impact Assessment, Sections 7.1.3 and 7.1.4 d) Section 16.10.1 Appendix Q: Social Impact Assessment, Sections 7.1.3–7.1.8 e) Section 16.10.3 Appendix Q: Social Impact Assessment, Section 7.3 f) Section 16.10.1 Appendix Q: Social Impact Assessment, Section 2.4.9 g) Section 16.10.5 Appendix Q: Social Impact Assessment, Section 7.4.1 h) Section 16.10.4 Appendix Q: Social Impact Assessment, Sections 7.4.1–7.4.11
11.146.	The impact assessment should also evaluate and discuss the potential cumulative social impacts resulting from the proposed project in combination with other existing major projects and/or developments and those which are progressing through planning and approval processes (where public information is available) within the SIA study area. Key issues assessed should include: a) population b) workforce (construction and operation) c) workforce accommodation d) local and regional housing markets e) use of and access to community infrastructure, services and facilities (including social and health services and facilities).	Section 16.13 Appendix Q: Social Impact Assessment, Section 7.6

Terms of Reference requirements		Where addressed in the Chapter and the broader EIS
11.147.	The impact assessment should include: a) the impacts identified by the SIA process b) impacted stakeholders c) the timing or timeframes of impacts and the mitigation and management measures d) description of the mitigation and management measures e) defined outcomes, and the performance indicators and targets to achieve the outcomes f) monitoring and reporting framework g) residual impacts (after mitigation and management measures) and how these will be addressed.	a) Sections 16.10 and 16.12 Appendix Q: Social Impact Assessment, Sections 7.1–7.6 and 9 b) Sections 16.10 and 16.12 Appendix Q: Social Impact Assessment, Sections 4.4.1, 6.2 and 9 c) Sections 16.10 and 16.12 Appendix Q: Social Impact Assessment, Sections 8.1–8.6 d) Section 16.11 Appendix Q: Social Impact Assessment, Sections 8.1–8.6 e) Section 16.12 Appendix Q: Social Impact Assessment, Sections 8.1–8.6 f) Section 16.11.10 Appendix Q: Social Impact Assessment, Section 8.7 g) Section 16.12 Appendix Q: Social Impact Assessment, Sections 9 and 10
11.148.	Management plans for the following are to be provided as part of the SIA: a) community and stakeholder engagement b) workforce management c) housing and accommodation d) local business and industry content e) health and community wellbeing.	a) Section 16.11.5 and Appendix Q: Social Impact Assessment, Section 8.2 b) Section 16.11.6 Appendix Q: Social Impact Assessment, Section 8.3 c) Section 16.11.7 Appendix Q: Social Impact Assessment, Section 8.4 d) Section 16.11.9 Appendix Q: Social Impact Assessment, Section 8.6 e) Section 16.11.8 Appendix Q: Social Impact Assessment, Section 8.5

16.4 Legislation, policy and guidelines

State legislation, policy and guidelines relevant to social impact management of the Project are summarised in Table 16.2.

The social impact assessment (Appendix Q: Social Impact Assessment) has addressed the Coordinator-General's statutory requirements as provided by the final ToR and the *Social Impact Assessment Guideline* (Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP), 2018d) (SIA Guideline).

Further guidance on legislation and corresponding potential Project approval requirements are provided in Chapter 3: Project Approvals and Appendix Q: Social Impact Assessment.

TABLE 16.2: SUMMARY OF REGULATORY CONTEXT

Legislation, policy or guideline	Relevance to the Project
State Development and Public Works Organisation Act 1971 (Qld) (SDPWO Act)	The SDPWO Act aims to facilitate *'timely, coordinated and environmentally responsible infrastructure planning and development to support Queensland's economic and social progress'*. The Act provides for the appointment of a Coordinator-General, as a corporation sole, to represent the Crown, and gives the Coordinator-General powers to (among other things) declare a project to be a 'coordinated project' and coordinate a whole-of-government environmental impact assessment process for the project, evaluate an environmental impact statement for a coordinated project, and evaluate proposed changes to coordinated projects. As the Project was declared a 'coordinated project for which an environmental impact statement is required', ARTC must prepare an EIS that addresses the ToR to the satisfaction of the Coordinator-General (refer Chapter 3: Project Approvals for further details).
SIA Guideline (DSDMIP, 2018d)	The Coordinator-General published the SIA Guideline in March 2018, pursuant to the *Strong and Sustainable Resources Communities Act 2017* (Qld). The SIA Guideline is a non-statutory guideline for non-resource projects subject to an EIS under the SDPWO Act or *Environmental Protection Act 1994* (Qld) (EP Act). The SIA Guideline requires that the type, level and significance of the Project's social impacts (both negative and positive) must be analysed and described, based on the outcomes of the community engagement, social baseline study and impact analysis processes, and considering the potential changes to key aspects included in the social baseline study as a result of the Project. This should include assessment of the potential scope and significance of impacts at the local and regional level, including cumulative impacts. Community and stakeholder engagement requirements include commencement of engagement at an early stage of the EIS process and the involvement of stakeholders, including affected landholders, local residents, community groups, traditional owners, State and local government agencies, non-government organisations, local businesses and traditionally underrepresented stakeholders, including Indigenous people and young people.
State Planning Policy (SPP) 2017 (Qld) (Department of Infrastructure, Local Government and Planning (DILGP), 2017b)	The SPP identifies 17 State interests relating to land development, with five key themes: ▸ Liveable communities and housing ▸ Economic growth ▸ Environment and heritage ▸ Safety and resilience to hazards ▸ Infrastructure. State interests for liveable communities that must be integrated into local government plan making through local government planning schemes and the designating land for community infrastructure include (in summary): ▸ Providing for quality urban design that reflects and enhances local character and community identity ▸ Providing attractive and accessible natural environments and public open spaces that are functional, accessible and connected ▸ Facilitating vibrant places and spaces, diverse communities, and good neighbourhood planning and centres design ▸ Facilitating the provision of pedestrian, cycling and public transport infrastructure and connectivity within and between these networks ▸ Planning for cost-effective and well-located community facilities and utilities.

Legislation, policy or guideline	Relevance to the Project
South East Queensland (SEQ) Regional Plan 2017 (ShapingSEQ) (DILGP, 2017a)	The SEQ Regional Plan (ShapingSEQ) sets out five goals for the Region's development: ▸ Goal 1: Grow ▸ Goal 2: Prosper ▸ Goal 3: Connect ▸ Goal 4: Sustain ▸ Goal 5: Live. Outcomes for the western sub-region, in which the Project would be located, include a dispersed network of urban and rural centres, significant expansion areas, Regional Economic Clusters (RECs) and infrastructure connections of national significance. Key actions include: ▸ Grow: Focusing density in and around appropriate locations along urban corridors, and in areas with superior access to public transport, employment and services ▸ Prosper: Identifying, protecting and growing economic opportunities and synergies within and between RECs, which includes the Western Gateway (the intersection of three national highways), the Toowoomba Wellcamp Airport, the Charlton Wellcamp Enterprise Area, Toowoomba Bypass and Inland Rail ▸ Connect: The intent to be a region of interconnected communities that moves people and freight efficiently to maximise community and economic benefits, with key improvements to the integrated regional transport system, including supporting delivery of the Inland Rail ▸ Sustain: Protect and nurture the regional biodiversity network and manage regional landscapes, including recognition of Traditional Owners' cultural knowledge, and connection to land and sea in planning ▸ Live: Developing and promoting great places will support the sub-region's liveability, prosperity, sense of identity and community, including the Toowoomba city centre.
Darling Downs Regional Plan (Department of State Development, Infrastructure and Planning (DSDIP), 2013a)	The *Darling Downs Regional Plan* aims to achieve specific, regionally focused outcomes and resolve competing State interests on a regional scale. Of relevance to the Project region, the eastern area of the Darling Downs contains the region's largest population centre, Toowoomba, and serves as 'the gateway' to the region. The eastern Darling Downs is at the junction of several strategic highways and railway lines, and is the major transport and service hub of the region. Accelerated development of the Wellcamp industrial node, with enhancements to the transport network including the Toowoomba Second Range Crossing (TSRC) (now known as the Toowoomba Bypass) and increased rail capacity, is anticipated. The Region's economy is largely driven by the agricultural sector, in addition to emerging resources industries, food processing industries and government administrative services. Toowoomba facilitates the movement of goods and resources between Queensland's south-east and west, enabling access to domestic and international markets through the strategic port facilities along the east coast. The broader region also has major transport linkages to southern markets.
Regional Development Australia (RDA): Darling Downs South West Roadmap (RDA, 2012)	The Australian Government established the RDA to help set up committees that seek to strengthen economic development in regional areas of Australia. The RDA Darling Downs South West Regional Roadmap notes that the Darling Downs and South West region is one of the most dynamic and diverse growth areas in Australia and is a major contributor to the Queensland economy, with key issues for the region being connectivity and infrastructure investment (RDA, 2012). To achieve the vision for the region, the *RDA Darling Downs South West Regional Roadmap* has identified the following regional priorities: ▸ Social infrastructure, including health facilities, and community and cultural centres ▸ Local government planning reforms and certainty of funding ▸ Connectivity ▸ Diversifying local economies ▸ Infrastructure supporting connectivity, community vitality and regional economic development.

Legislation, policy or guideline	Relevance to the Project
RDA: Ipswich and West Moreton Regional Development Plan (RDA, 2018b)	The *RDA Ipswich and West Moreton Regional Development Plan* notes the Lockyer Valley region as predominantly rural land used for farming and agriculture, particularly vegetable and grain growing, and sheep and cattle grazing. Key regional priorities in the *Ipswich and West Moreton Regional Development Plan* lie in the food and agriculture, infrastructure and tourism sectors. The *Ipswich and West Moreton Regional Development Plan* focuses on five key economic development areas: ▸ Food and agriculture ▸ Infrastructure ▸ Growth sectors ▸ Intelligent region ▸ Tourism. The *2018 Project Status Report for RDA Ipswich and West Moreton* (RDA, 2018a) identifies a number of recent investment projects in the Lockyer Valley region, including the Helidon Travel Centre (Warrego Highway), Grantham Agricultural Industry Food Processing Plant, Lockyer District State High School, Gatton Landfill and the Lockyer Valley Cultural Centre.
Our Community Vision—Toowoomba Regional Community Plan: Mid-Term Review 2014 (TRC, 2014b)	The *Our Community Vision—Toowoomba Regional Community Plan: Mid-Term Review 2014*articulates the long-term vision, goals and priorities to strengthen the assets of the Toowoomba Region and serves as the key driver for TRC's *Corporate Plan 2019–2024* (TRC, 2019a), *Toowoomba Regional Council Planning Scheme* (TRC, 2012) and other planning projects in the LGA. Transport and mobility is identified as one of the key themes of the Plan and enhanced freight transport is identified as a key priority. It is recognised that an efficient freight transport system enhances the region's position as a major freight distribution centre, while minimising the associated impacts of freight movement on the community and its environment. The Plan's key priorities include: ▸ A compact urban form and a network of rural towns, with Toowoomba as the principal regional activity centre ▸ Diverse rural communities with a strong sense of place linked to local heritage, character and identity ▸ Equitable access to affordable, suitable and good quality housing ▸ An integrated passenger transport system, an efficient and integrated freight transport system, and access to active transport ▸ Protecting primary production and areas of environmental significance ▸ Coordinated infrastructure planning and delivery, integrated water management, improved waste management, and up-to-date information and communications technology ▸ Protection of ecosystems and biodiversity networks ▸ Well-managed scenic landscapes and regional greenspaces.

Legislation, policy or guideline	Relevance to the Project
Lockyer—Our Valley Our Vision Community Plan 2017–2027 (LVRC, 2017a)	The *'Lockyer—Our Valley, Our Vision' Community Plan 2017–2027* sets out the 10-year vision for the region based on strategic objectives that address the key focus areas of: ▸ Community, including access to social infrastructure and events that bring people together ▸ Leadership, including sustainable, connected organisations that are supported by Council ▸ Farming, including appropriate management of farming land, innovation and research ▸ Business, including sustainable economic development and infrastructure to support growth ▸ Livelihood, including opportunities for lifelong learning, access to specialised training organisations and agriculture as a career path ▸ Nature, including protection and showcasing of natural assets, and harmony between conservation and farming ▸ Planned, including access to affordable housing, good urban design and reliable broadband and mobile networks. The Plan continues to position the Lockyer Valley as a leading agricultural production zone in Australia. Gatton is identified as the region's principal rural activity centre, supporting future growth of the business, retail and commercial, government and health sectors. Laidley and Plainlands are also identified as growth areas for local service provision, to supplement the role of Gatton. The Plan identifies that effective management of the region's projected population growth to 2031 is one of its greatest future challenges.
Gowrie to Grandchester Rail Corridor Study (Queensland Rail and Queensland Transport, 2003)	The Gowrie to Grandchester rail corridor was declared a 'public passenger rail corridor' in 2005 (now referred to as a future state transport corridor) in the Public Passenger Transport Guideline pursuant to section 8E of the *Transport Planning and Coordination Act 1994* (Qld) (TPC Act). This declaration followed the *Gowrie to Grandchester Rail Corridor Study* prepared by a joint venture between the Queensland Transport (now DTMR) and Queensland Rail (QR). The purpose of the study was to investigate a rail corridor that would help mitigate constraints on rail operations caused by the Toowoomba and Little Liverpool Range crossings. Technical, environmental and cultural heritage studies were undertaken as part of the project, along with community consultation. The future state transport corridor provides for a high level of rail service to connect the south-west of the State to Brisbane and was designed to accommodate design speeds up to 200 kilometres per hour (km/hr), possible future double-stacked container freight trains and a potential link to any 'future private sector proposal for the Melbourne–Darwin inland rail concept'. Given the Project alignment predominantly follows the QR West Moreton System rail corridor and the Gowrie to Grandchester future state transport corridor, the Project is generally consistent and compatible with the intent of State and regional land use, and infrastructure planning in the area. This includes the SPP and ShapingSEQ, which identifies the Inland Rail Program as key region-shaping infrastructure that supports the vision for SEQ. Although the Project does not propose railway stations or passenger services, it has been aligned with the Gowrie to Grandchester future state transport corridor to co-locate the future transport corridors, where possible, while not precluding the construction of a future electrified passenger rail service within the future state transport corridor at a later date. The Project also has potential to catalyse development and growth of nearby regional intermodal hubs associated with InterLinkSQ and Charlton-Wellcamp Enterprise Area.

16.4.1 Alignment with planning priorities

The Project will support the following local and regional planning outcomes, as outlined in Table 16.3. No specific conflicts with local and regional planning outcomes have been identified; however, the potential for impacts on scenic landscapes, agricultural land and connectivity are considered in the SIA.

TABLE 16.3: PROJECT ALIGNMENT WITH LOCAL AND REGIONAL PLANNING PRIORITIES

Document	Alignment with local and regional planning priorities
SPP Themes (DILGP, 2017b)	▸ Project co-location with the existing QR West Moreton System rail corridor (i.e. brownfield), the tunnel and the Gowrie to Grandchester future state transport corridor to minimise impacts on the liveability of local communities ▸ Provision of freight rail infrastructure that will support regional economic growth for the long-term
ShapingSEQ (DILGP, 2017a)	▸ Support for economic opportunities and synergies within and between RECs ▸ Support for the development of interconnected communities that move freight efficiently ▸ Recognition of the regional biodiversity network in the EIS (refer e.g. Appendix I: Terrestrial and Aquatic Ecology).
Darling Downs Regional Plan (DSDIP, 2013a)	▸ Strengthening inter-regional linkages to facilitate the movement of commodities ▸ Development of opportunities for employment and infrastructure ▸ Provision of rail infrastructure to leverage economic development
RDA Darling Downs South West Roadmap (RDA, 2012)	▸ Provision of freight rail infrastructure will support economic development and address key issues for the region; being, connectivity and infrastructure investment.
RDA Ipswich and West Moreton Regional Development Plan (RDA, 2018b)	▸ Addresses a key regional priority for infrastructure development ▸ Project alignment aims to minimise impacts on agricultural land and businesses. Project impacts on agricultural land are discussed in Appendix Q: Social Impact Assessment, Section 7.5.1. ▸ The Project does not require level crossings, which would impact on the connectivity of the road network. The potential for other impacts on connectivity is assessed in Appendix Q: Social Impact Assessment, Section 7.1.8.
Our Community Vision—Toowoomba Regional Community Plan: Mid-Term Review 2014 (TRC, 2014b)	▸ Support for an enhanced freight transport system ▸ Enhancement of the region's position as a major freight distribution centre ▸ Design minimises impacts on natural economic resources, such as productive rural land and forestry ▸ Support for opportunities for economic diversification ▸ Project avoids towns, with the exception of the urban area to the south of Gowrie Junction ▸ While the Project traverses under Mount Kynoch and key infrastructure (e.g. Toowoomba Waste Management Centre), impacts on the functions of existing infrastructure would be avoided. The tunnel is also not located directly below any residential or business buildings. ▸ Project use of brownfield section, the tunnel and the Project alignment will minimise impacts on primary production ▸ The potential for impacts on scenic landscapes has been considered in the EIS (Chapter 10: Landscape and Visual Amenity) ▸ The potential for impacts on sense of place linked to local character is discussed in Appendix Q: Social Impact Assessment, Section 7.1.5.
Lockyer—Our Valley Our Vision Community Plan 2017–2027 (LVRC, 2017a)	▸ The Project's alignment avoids town centres in the Lockyer Valley LGA ▸ Where possible, the Project alignment has been placed on the border of properties, and structures have been designed to minimise impacts on agriculture ▸ Provision of training, development and employment opportunities for the LGA's residents ▸ The potential for impacts on agricultural land are considered in the EIS (refer Chapter 8: Land Use and Tenure). ▸ The potential for impacts on sense of place linked to local character is discussed in Appendix Q: Social Impact Assessment, Section 7.1.5
Gowrie to Grandchester Rail Corridor Study (Queensland Rail and Queensland Transport, 2003)	▸ Project does not propose railway stations or passenger services but has been aligned with the Gowrie to Grandchester future state transport corridor to co-locate with future transport corridors, where possible, while also allowing the corridor to be used by QR for future electrified passenger rail service ▸ Project does not impact any proposed railway stations identified as part of this study Further information on this study is provided in Chapter 2: Project Rationale.

16.5 Methodology

The key steps in the SIA included:

- Engagement with stakeholders and communities to identify the scope of potential social impacts and benefits, and ensure community views and knowledge are considered in the SIA
- Defining the study area and the scope of assessment
- Developing a social baseline that combines quantitative and qualitative data, to provide a detailed analysis of existing conditions in local and regional communities
- Assessing the likelihood, nature and distribution of potential social impacts and benefits, and evaluating their significance for social conditions and stakeholders
- Considering the results of EIS technical studies with a bearing on social impacts and benefits
- Assessing the potential for cumulative social impacts of multiple projects
- Developing management measures that avoid, reduce or offset social impacts and maximise Project benefits
- Evaluating the significance of social impacts and benefits.
- The provision of a transparent and rigorous SIA assists to develop a project's 'social licence to operate', which refers to the level of acceptance or approval of the project by its stakeholders, especially local impacted communities (Vanclay et al., 2015).
- The SIA methodology is detailed in Appendix Q: Social Impact Assessment.

16.5.1 Stakeholder engagement

ARTC has undertaken a comprehensive community and stakeholder engagement process to ensure that community members in the Project region were aware of the Project design and potential impacts; and were provided with updates as the Project design and EIS, along with other relevant ancillary works, progressed. This has ensured that residents are informed about Project elements, and potential impacts and benefits, as the basis of their participation in the EIS process.

SIA engagement was integrated with ARTC engagement processes for the Project (refer Appendix Q: Social Impact Assessment and Chapter 5: Stakeholder Engagement).

SIA-specific engagement was also undertaken to ensure that directly affected stakeholders and other community members had the opportunity to provide informed input to the social baseline, impact assessment and mitigation. SIA engagement objectives are shown in Table 16.4.

TABLE 16.4: SOCIAL IMPACT ASSESSMENT ENGAGEMENT PRINCIPLES

Principles	How achieved
SIA is informed by consultation with directly affected stakeholders	The views of community members who may be affected by the Project's impacts, or benefit from Project opportunities, are represented in the SIA
SIA engagement is inclusive of all interested stakeholders	SIA engagement was conducted through the SIA community survey, community information sessions, CCC meetings and workshops
Stakeholders are able to provide informed inputs to the SIA	Stakeholders have access to information about the Project and its impacts, and opportunities to provide input to the assessment, through face-to-face and online options

SIA-specific engagement is detailed in Appendix Q: Social Impact Assessment and included:

- A community survey involving more than 400 residents in the Toowoomba, Lockyer Valley, Ipswich and Scenic Rim LGAs (capturing input across the Project and neighbouring Inland Rail projects (Helidon to Calvert (H2C) and Calvert to Kagaru (C2K)) overlapping these LGAs)
- SIA team attendance at the Project's community information sessions
- Meetings with TRC and LVRC managers to discuss community concerns, potential social impacts and benefits, and potential mitigation measures
- Workshops with community organisations and government agencies in Toowoomba and Gatton to discuss social infrastructure access and community concerns about the Project.

A profile of SIA stakeholders and their key issues is provided in Appendix Q: Social Impact Assessment. The results of stakeholder engagement are provided in Appendix Q: Social Impact Assessment and have been incorporated throughout the assessment.

16.5.2 Scoping

The purpose of the SIA scoping process is to identify potentially impacted communities and define the focus for assessment. The scoping process identified potentially impacted communities and matters to be assessed by considering:

- Statutory requirements for the SIA
- The stakeholder profile and stakeholder inputs of relevance to the SIA
- The nature and scale of the Project, including associated infrastructure, and its interactions with stakeholders and communities, as identified by:
  - Consultation with landholders and other residents living near the Project
  - Native title rights and other interests held by Indigenous people
  - The Project's interactions with the settlement pattern, including urban and rural centres, land uses and infrastructure
- The nature and scale of potential social impacts and benefits throughout the Project lifecycle, based on experience with linear infrastructure projects
- The location of other projects in the region that may contribute to cumulative social impacts over time.

Following consideration of these factors, the SIA study area was defined (refer Section 16.6 and Appendix Q: Social Impact Assessment), and potential impacts and benefits to be assessed were identified. The outcomes of the scoping process are reported in Section 16.6 and Appendix Q: Social Impact Assessment.

16.5.3 Social baseline

Investigations undertaken to develop the social baseline included research and analysis of:

- Potentially affected communities' history, land use and settlement patterns
- Population size, composition and growth
- Housing and accommodation availability and affordability
- Community values
- Community health and safety
- Employment, labour force and skills
- Business and industry
- Infrastructure provision, including physical infrastructure and social infrastructure (community facilities, services and networks).
- Stakeholder engagement outcomes assisted to define community values and validate research findings.

16.5.4 Impact assessment

Impacts were assessed for the construction and operational phases of the Project. The SIA includes assessment of potential cumulative impacts in relation to the adjoining Inland Rail sections, and other major projects in the Lockyer Valley and Toowoomba LGAs.

Further detail on the assessment methodology is provided in Appendix Q: Social Impact Assessment.

16.5.5 Integration with Environmental Impact Statement findings

Changes to the biophysical environment, infrastructure or land use may result in social impacts, including impacts on amenity, health, safety or sense of place. The SIA integrates the relevant findings of the EIS technical studies. Further detail on links to EIS findings is provided in Appendix Q: Social Impact Assessment.

16.5.6 Cumulative impact assessment

The cumulative impact assessment in the SIA considers the potential for the combined impacts of a set of projects to affect a social environment over time. The SIA considers the potential impacts of Inland Rail's adjacent Border to Gowrie (B2G) and H2C projects, and other proposed major projects in the vicinity of the Project whose construction may coincide with that of the Project; as well as the potential for cumulative social impacts relating to the construction of major rail projects in SEQ.

The potential area of influence was identified with respect to potential spatial impacts at the local level, and social change processes at the local and regional levels. The assessment included:

- Development of a list of applicable projects and operations for consideration in the cumulative impact assessment
- Consideration of the Project's areas of spatial and social influence, and its overlap with applicable projects or operations
- Development of a timeline (construction and operation) to show the temporal relationship between the Project and other projects and operations
- Consideration of social values (e.g. populations, housing demands, labour and skill demands, and community values) and the projects that may affect them
- Consideration of community fatigue associated with ongoing consultation and construction of other major projects.

Key issues addressed as part of the cumulative SIA include: population; workforce; workforce accommodation; local and regional housing markets; connectivity; amenity; and use of, and access to, community infrastructure.

Review of other projects' EISs and associated literature, consideration of cumulative workforce numbers and qualitative analysis identified the potential for cumulative impacts at local and regional levels. Cumulative impacts were considered in evaluating the significance of social impacts and benefits.

16.5.7 Significance assessment

At the conclusion of the impact assessment stage, a two-stage significance assessment was undertaken. This considered:

- Stakeholder inputs on how the Project would affect their communities or households
- The likelihood and consequence of potential social impacts and benefits
- Proposed mitigation and enhancement strategies identified as part of the assessment process
- Identification of the residual significance of impacts and benefits, with the implementation of mitigation and enhancement measures.

16.5.8 Social Impact Management Plan

The SIMP provides mitigation strategies and management measures for social impacts and strategies designed to enhance Project benefits. The SIMP includes five sub-plans addressing community and stakeholder engagement, workforce management, housing and accommodation, local business and industry content, and health and community wellbeing. The process for SIMP development included:

- Stakeholder engagement to identify stakeholders' suggestions about mitigation
- Incorporation of proposed management and enhancement measures
- Identifying additional mitigation, management and enhancement measures, where residual impacts remained as either medium or high
- Developing performance measures and a monitoring and reporting framework to support adaptive management of social impacts.

16.5.9 Limitations of the social impact assessment

The findings of the SIA are based on the information available to date regarding the Project and existing social conditions.

If approved, the Project will undergo a detailed design phase during which the design and/or construction methodologies may be refined. Should the final design or construction methodology differ from the currently available information, social impacts may also vary; for example, this assessment includes assumptions about the number of land acquisitions required based on the number of properties directly affected and ARTC's consultation with landholders to date (refer Appendix Q: Social Impact Assessment). The number of acquisitions may change as the result of design changes or discussions between the constructing authority and landholders during the detailed design phase. ARTC will conduct a review of any material changes to social impacts as a result of Project changes, as outlined in Appendix Q: Social Impact Assessment.

As the construction and operation of new freight rail lines in similar rural and semi-rural settings is relatively uncommon, there is no evidence on which to draw regarding social impacts, such as changes to property values, and the extent to which changes to road networks may affect tourism or other businesses. Such uncertainties are reflected in relevant sections of this report.

At the time that the SIA was being completed, uncertainties were emerging regarding changes to social and economic conditions as a result of the COVID-19 pandemic. Potential changes to social baseline conditions in the SIA study area include:

- Increased unemployment, resulting in increased availability of labour to the Project and other projects considered as part of the cumulative SIA
- Changes to labour mobility, which, in the short-term, may be constrained and in the longer term may increase as specific industries and regions recover from changes to economic conditions
- Loss of the viability of small businesses, with the retail, accommodation and tourism sectors among those likely to be affected
- Potential to decrease household incomes, savings or asset value, leading to the potential for increased disadvantage
- Changes to the capacity of health, police and ambulance services due to the need for services to respond to the pandemic
- Increased anxiety levels and changes to mental health, with an increased need for mental health services
- Increased service capacity as a result of government and community responses to the pandemic, e.g. investment in training or mental health services, which may or may not be of adequate capacity to respond to social and economic changes
- Changes to community resilience, cohesion and/or livability due to physical distancing measures and/or other unknown changes to social dynamics.

Such changes to the social baseline could change the way that communities experience the social impacts and benefits of major projects, e.g.:

- The availability of employment and business opportunities will become critical to community and economic recovery
- Increased labour availability in the SIA study area would reduce the potential for cumulative impacts on housing and accommodation
- Changes to community resilience (either positive or negative) or mental health may affect the way people experience Project impacts
- People may be more tolerant of temporary impacts, such as the effects of construction work on amenity, in recognition of broader community benefits such as employment and business opportunities.

Some data on indicators such as unemployment and labour force availability will become available during 2021, while data on indicators such as income levels, housing tenure, the relative economic strength of industry sectors and indicators of community cohesion may only be available after the *Australian Bureau of Statistics (ABS) Census of Population and Housing 2021* (with this data expected to be available from 2022–2023).

Assuming the Project is approved and progresses to detailed design, ARTC will review the data on key indicators such as labour and housing availability, as it becomes available, and engage with LVRC and TRC to discuss changes to social conditions in the SIA study area. Any need for a review of the significance of social impacts and benefits in light of social and economic changes resulting from the COVID-19 pandemic will be agreed with the OCG at that time.

16.6 Social impact assessment study area

The SIA study area was identified by considering:

- The Project's location and activities in relation to population centres, rural localities, and physical and social infrastructure
- Social values that might be affected by the Project
- The potential for, and likely distribution of, potential social impacts and benefits at local and regional levels
- Indigenous social and cultural characteristics, such as native title rights and interests, and cultural heritage
- The results of ARTC consultation prior to commencement of the EIS, including alignment optioneering through the Toowoomba Range as detailed in Chapter 2: Project Rationale. Further information on the consultation undertaken during this period is provided in Appendix D: Community Consultation.
- The location of other relevant projects that may contribute to cumulative social impacts.

The geographic reach of impacts can vary depending on the impact being assessed; for example, residents who live close to the Project could experience impacts related to land acquisition, land severance or noise, while those who live in nearby communities could experience different impacts, e.g. traffic disruptions or changes to service access.

Impacts, such as demand for accommodation and benefits related to employment, may be experienced across a region.

The SIA study area comprises:

- The EIS investigation corridor, which incorporates the Project disturbance footprint and a buffer of approximately 1 km, as described below in Section 16.6.1
- Potentially impacted communities as identified in Section 16.6.2
- The Project region, which refers to the Toowoomba and Lockyer Valley LGAs, is identified in Section 16.6.3.
- The SIA study area is shown in Figure 16.1.

16.6.1 Environmental Impact Statement investigation corridor and Project disturbance footprint

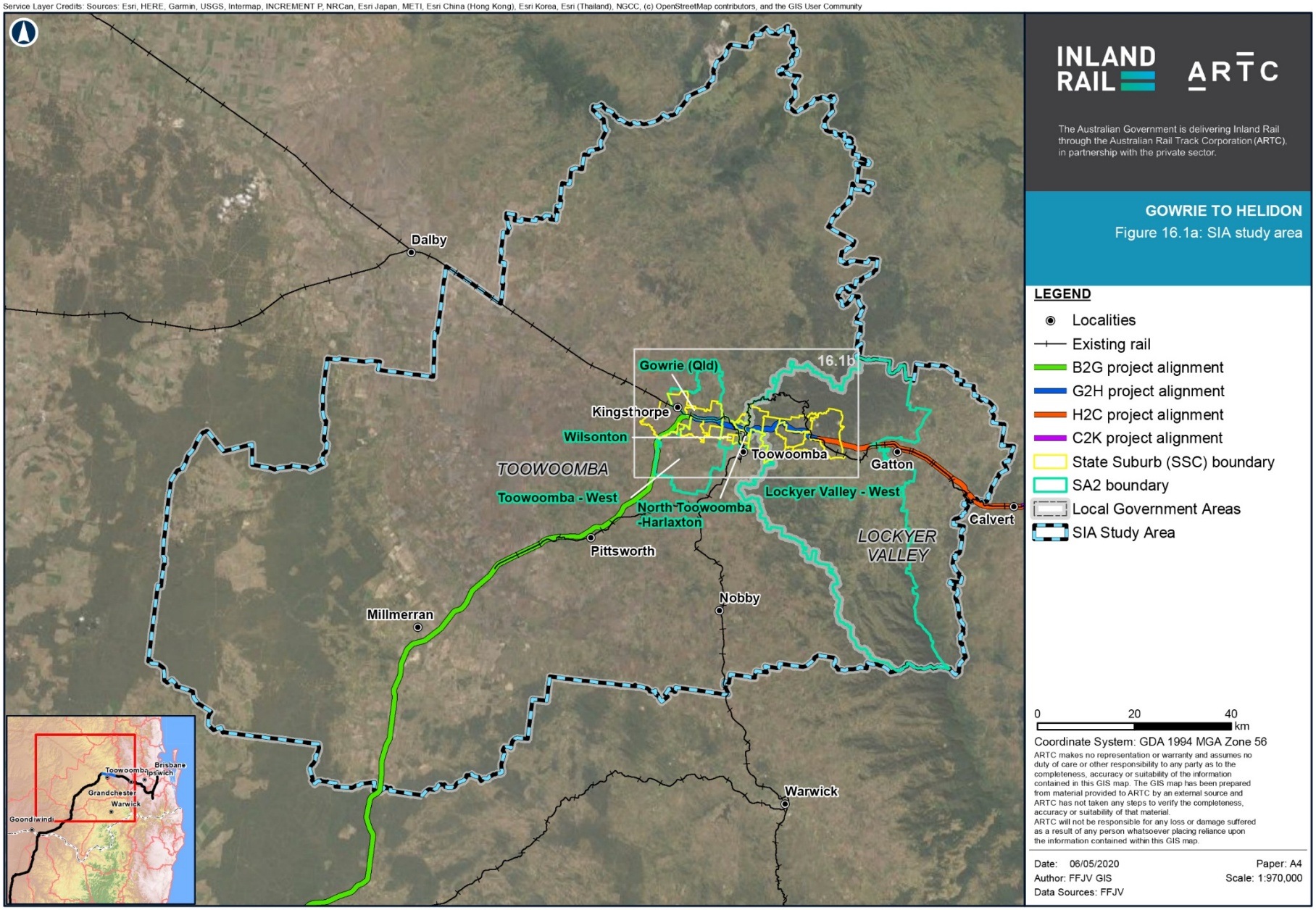
The EIS investigation corridor includes the Project disturbance footprint and a zone of approximately 1 km either side of the disturbance footprint. Investigations for the purposes of the Project's EIS and design were generally undertaken in the EIS investigation corridor, or as required by the individual technical assessments.

The Project disturbance footprint includes:

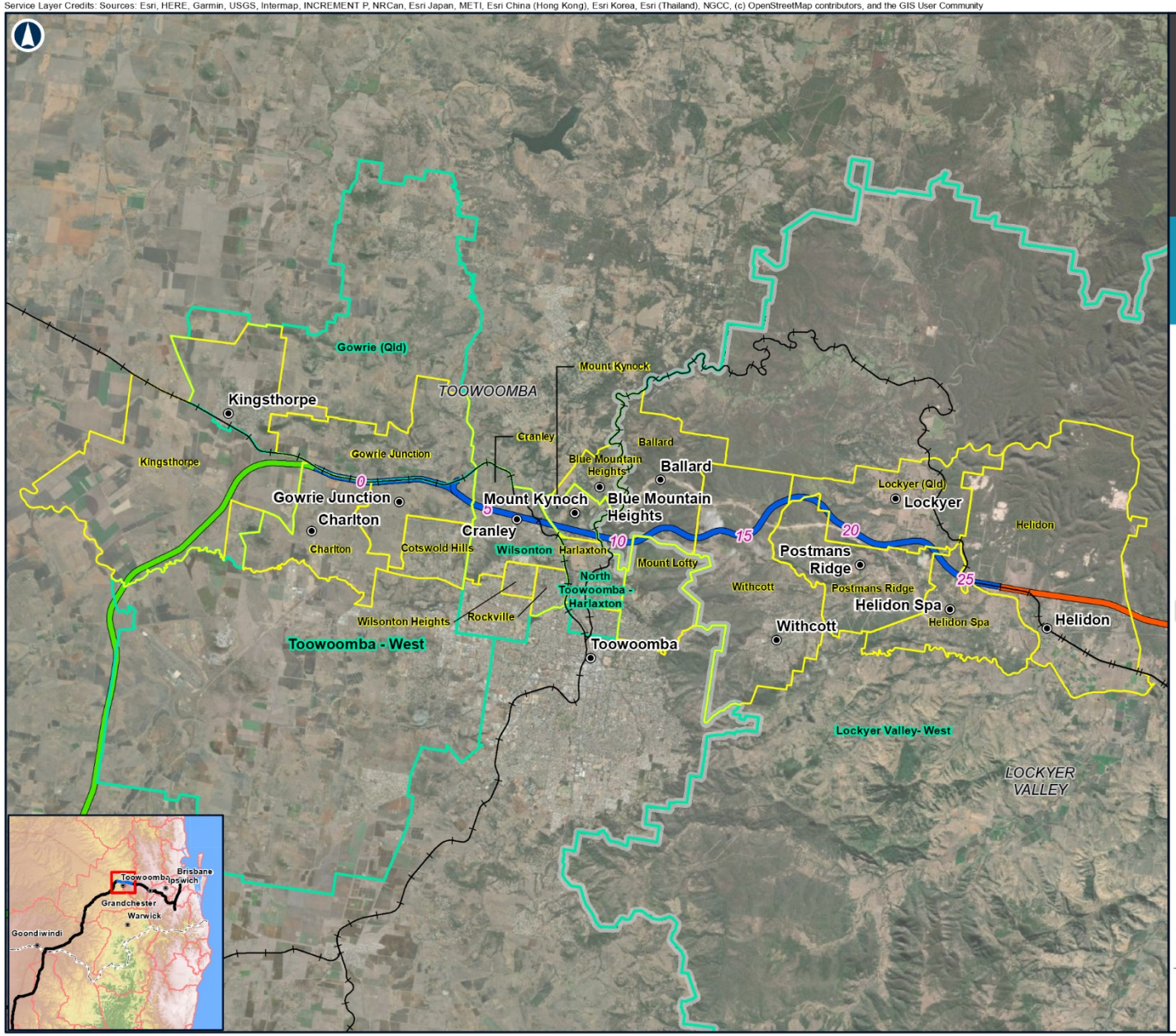
- The permanent disturbance footprint, which refers to the rail corridor and associated crossing loops, maintenance sidings, road network changes, viaducts and bridges, culverts and infrastructure
- The temporary construction disturbance footprint, which refers to land required temporarily for construction, including for laydown areas, access tracks and work areas.

The SIA includes a focus on residents, landholders and businesses within the Project disturbance footprint (those whose land would be partially or wholly acquired or used during construction) and those near the Project disturbance footprint, generally within 1 km, but as relevant to the social and environmental qualities being considered.

Key characteristics of Statistical Area 1 (SA1) areas within approximately 1 km of the Project were identified in order to understand population distribution and potential community vulnerabilities within the EIS investigation corridor (refer Section 16.8.1.1, with Figure 16.3 showing the location of the Project in relation to SA1s).


Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Dalby
Gowrie (Qld)
16.1b
Kingsthorpe
Wilsonton
Toowoomba
Gatton
TOOWOOMBA
Toowoomba - West
North Toowoomba -Harlaxton
Lockyer Valley - West
Calvert
LOCKYER VALLEY
Pittsworth
Nobby
Millmerran
Warwick
Brisbane
Ipswich
Toowoomba
Grandchester
Warwick
Goondiwindi
INLAND RAIL
ARTC
The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.
GOWRIE TO HELIDON
Figure 16.1a: SIA study area
LEGEND
Localities
Existing rail
B2G project alignment
G2H project alignment
H2C project alignment
C2K project alignment
State Suburb (SSC) boundary
SA2 boundary
Local Government Areas
SIA Study Area
0
20
40
km
Coordinate System: GDA 1994 MGA Zone 56
ARTC makes no representation or warranty and assumes no duty of care or other responsibility to any party as to the completeness, accuracy or suitability of the information contained in this GIS map. The GIS map has been prepared from material provided to ARTC by an external source and ARTC has not taken any steps to verify the completeness, accuracy or suitability of that material.
ARTC will not be responsible for any loss or damage suffered as a result of any person whatsoever placing reliance upon the information contained within this GIS map.
Date: 06/05/2020
Paper: A4
Author: FFJV GIS
Scale: 1:970,000
Data Sources: FFJV
Map by: LCT/IW/RB Z:\GIS\GIS_3200_G2H\Tasks\320-EAP-202002130931 _Social_Impact_Assessment\320-EAP-202002130931_ARTC_Fig16.1_StudyArea_v6.mxd Date: 6/05/2020 11:12

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



INLAND RAIL

ARTC

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.

GOWRIE TO HELIDON

Figure 16.1b: SIA study area

LEGEND

- 5 Chainage (km)
- Localities
- Existing rail
- B2G project alignment
- G2H project alignment
- H2C project alignment
- SA2 boundary
- State Suburb (SSC) boundary
- Local Government Areas

0 4.5 9 km

Coordinate System: GDA 1994 MGA Zone 56

Date: 06/05/2020
Author: FFJV GIS
Data Sources: FFJV

Paper: A4
Scale: 1:200,000

Map by: LCT/RB Z:\GIS\GIS_3200_G2H\Tasks\320-EAP-202002130931 _Social_Impact_Assessment\320-EAP-202002130931_ARTC_Fig16.1b_StudyArea_v5.mxd Date: 6/05/2020 10:41

16.6.2 Potentially impacted communities

The SIA includes a focus on potentially impacted communities; being the towns and rural localities in the Toowoomba and Lockyer Valley LGAs that may experience Project impacts, such as impacts on residential amenity, the road network, farms and other businesses, community facilities or community values. Potentially impacted communities include:

- Towns and rural localities (defined by ABS State Suburb codes (SSCs)) through which the Project would pass:
  - Charlton (where the Project commences)
  - Gowrie Junction (including the location of the eastern tunnel portal)
  - Cranley (in tunnel and the location of the intermediate ventilation shaft)
  - Mount Kynoch (in tunnel)
  - Ballard (in tunnel and location of the eastern tunnel portal)
  - Mount Lofty
  - Withcott
  - Lockyer
  - Postmans Ridge
  - Helidon Spa
  - Helidon
- Toowoomba suburbs to the south of the Project:
  - Cotswold Hills, with the western tunnel portal located approximately 1 km north of the nearest homes
  - Rockville, with the Project located in tunnel, approximately 1.5 km north of the nearest homes
  - Wilsonton Heights, with the Project located in tunnel, approximately 1.6 km to north of the nearest homes
  - Harlaxton, with the Project located in tunnel, 500 m north of the nearest homes
- The suburb of Kingsthorpe (approximately 2.5 km west of the Project) due to the potential for cumulative impacts associated with the B2G project
- The suburb of Blue Mountain Heights (approximately 1 km north of the Project), where there is potential for visual impacts as a result of views to the eastern tunnel portal.

Section 16.6.4 provides the statistical geography for all potentially impacted communities.

16.6.2.1 Kingsthorpe

Kingsthorpe is located approximately 2.5 km north-east of the connection between B2G and the Project. Kingsthorpe is not likely to be directly affected by the Project but cumulative impacts in relation to B2G are possible.

Land use in the Kingsthorpe township is primarily residential and rural residential; offering village and rural living, with easy access to the Warrego Highway. Two wineries and a number of scenic outlook sites are located around Kingsthorpe. Extensive cropping areas are also located around Kingsthorpe, including the Leslie Research Facility Kingsthorpe Field Station.

Refer to Appendix Q: Social Impact Assessment, for further details on Kingsthorpe.

16.6.2.2 Charlton

The Project commences in the rural locality of Charlton, which is located 13 km west of the Toowoomba city centre and is bounded by Dry Creek to the south and the QR West Moreton System rail corridor to the north. Charlton is dissected by the Warrego Highway and the Toowoomba Bypass. The land uses include cropping, irrigated cropping, grazing native vegetation, rural residential, industrial and services.

Refer to Appendix Q: Social Impact Assessment, for further details on Charlton.

16.6.2.3 Gowrie Junction

The Project traverses Gowrie Junction (incorporating Gowrie), south of the main urban area. Gowrie Junction is located approximately 2.5 km north of Toowoomba's urban fringe, separated from the urban area by Gowrie Creek and the QR West Moreton system corridor, and is approximately 6 km from the city centre.

Land use in this area is largely low-density residential, in a semi-rural setting of dryland production and native vegetation grazing. The Gowrie area includes Residential, Rural and Community Facilities zones. Areas to the north of Gowrie Birnam Road are zoned 'Township' and earmarked for future urban residential land supply in the next 10+ years.

Refer to Appendix Q: Social Impact Assessment, for further details on Gowrie Junction.

16.6.2.4 Cranley

The Project would be in tunnel through the rural locality of Cranley, located approximately 6 km north-west of the Toowoomba town centre. Cranley is bounded by Gowrie Creek to the north, Ganzer Road to the south and Boundary Street to the west, and dissected by the QR West Moreton System rail corridor and the Toowoomba Bypass.

The suburb of Cranley accommodates a diverse range of land uses, including very low-density rural residential, small farms, grazing and waste treatment, and disposal and conservation zones. The *Toowoomba Regional Council Planning Scheme* (TRC, 2012) identifies these areas as Rural and Community Facilities zones with limited Rural Residential and High Impact Industry zones, Areas to the south of Hermitage Road are zoned Township, and earmarked for urban residential land supply in 5 to 10 years, with an area near Sanctuary Drive in 1 to 2 years.

Refer to Appendix Q: Social Impact Assessment for further details on Cranley.

16.6.2.5 Cotswold Hills

The Project would enter the Toowoomba Range Tunnel at approximately 1 km north of the locality of Cotswold Hills, at Chainage (Ch) 4.1 km, and would continue in tunnel in an easterly direction from there. Cotswold Hills is a rural residential community located on the urban fringe of Toowoomba City, approximately 6.6 km north-west of the Toowoomba town centre. It is bounded by Gowrie Junction Road to the west, Hermitage Road to the north, Boundary Street to the east and the Warrego Highway to the south.

Cotswold Hills joins Wilsonton to the east and Cranley to the west. Cotswold Hills is largely residential and forms part of the Toowoomba metropolitan area. Cotswold Hills is designated as a Rural Residential zone in the *Toowoomba Regional Council Planning Scheme* (TRC, 2012).

Refer to Appendix Q: Social Impact Assessment for further details on Cotswold Hills.

16.6.2.6 Wilsonton Heights

The Project passes in tunnel north of Wilsonton Heights, with the intermediate ventilation shaft located approximately 1.7 km north of the suburb at Ch 6.6 km. Wilsonton Heights is situated about 3.8 km north-west of the Toowoomba town centre and is an urban suburb in Toowoomba city, bounded by Greenwattle Street to the west, Hogg Street to the north, Tor Street to the East and North Street to the south.

Under the *Toowoomba Regional Council Planning Scheme* (TRC, 2012), Wilsonton Heights' main zoning designation is 'Low Density Residential'; however, it also includes 'Community Facilities' and 'Specialised Centre' (Government Research Facility) zones.

Refer to Appendix Q: Social Impact Assessment for further details on Wilsonton Heights.

16.6.2.7 Rockville

The Project passes in tunnel approximately 1.5 km north of the urban suburb of Rockville. Rockville lies to the east of Wilsonton Heights and is located approximately 2.7 km north-west of the Toowoomba town centre. Under the *Toowoomba Regional Council Planning Scheme* (TRC, 2012), Rockville is primarily designated as a Low–Medium Density Residential zone.

Refer to Appendix Q: Social Impact Assessment for further details on Rockville.

16.6.2.8 Harlaxton

The Project passes in tunnel through the eastern slopes of the Great Dividing Range, approximately 600 m north of the nearest homes in Harlaxton. Harlaxton is an urban suburb located 3 km north of the Toowoomba town centre and is bounded by Mort Street, Gowrie Creek and the Willowburn Rail Yard to the west, the Toowoomba Bypass to the north, Stuart Street to the east and North Street to the south. It is dissected by the QR West Moreton System rail corridor and the New England Highway—a major north–south highway connecting NSW and Central Queensland. Under the *Toowoomba Regional Council Planning Scheme* (TRC, 2012), Harlaxton is primarily designated as a Low–Medium Density Residential zone. Predominant land uses include residential areas, grazing land, and conservation and natural environments.

Refer to Appendix Q: Social Impact Assessment for further details on Harlaxton.

16.6.2.9 Mount Kynoch

The Project would be in tunnel through the rural locality of Mount Kynoch, which is located approximately 10 km north of the Toowoomba city centre, to the north of the suburb of Harlaxton, and east of Goombungee Road. Mount Kynoch is dissected by the New England Highway and bounded to the south by the Toowoomba Bypass. Mount Kynoch lies east of the boundary between Toowoomba and Lockyer Valley LGAs.

Under the *Toowoomba Regional Council Planning Scheme* (TRC, 2012), Mount Kynoch includes Rural Residential, Rural (Grazing) and Emerging Community Areas, Community Facilities and Limited Development zones (constrained land). Areas to the west of the New England Highway are earmarked for urban residential land supply in 1 to 10 years, including an area nominated for 1 to 2 years north of Ch 8.0 km.

Refer to Appendix Q: Social Impact Assessment for further details on Mount Kynoch.

16.6.2.10 Ballard

The Project is within tunnel through the locality of Ballard, emerging in a heavily vegetated area west of Mt Lofty. Ballard is a rural locality with no population centre and lies west of the boundary (e.g. West Moreton System) between the Toowoomba LGA and Lockyer Valley LGA, 11 km east of the Toowoomba city centre.

Predominant land uses include grazing and natural environments with limited quarry, cropping and residential areas.

Refer to Appendix Q: Social Impact Assessment for further details on Ballard.

16.6.2.11 Blue Mountains Heights

Blue Mountain Heights is located on the eastern boundary of the Toowoomba LGA, on the New England Highway, approximately 7 km north of the city centre and is approximately 1 km north-east of the Project. Land use in Blue Mountains Heights is predominantly Low Density Residential and Community Purposes, with grazing areas surrounding the urban area. The *Toowoomba Regional Council Planning Scheme* (TRC, 2012) designates the locality as Rural Residential, Rural and Low Density Residential Zones, with some community facilities.

Refer to Appendix Q: Social Impact Assessment for further details on Blue Mountains Heights.

16.6.2.12 Mount Lofty

The Project passes in tunnel to the north of the suburb of Mount Lofty, a locality on the edge of the suburban area of Toowoomba, sitting at the top of the Toowoomba Range. The suburb is bounded by Stuart Street to the west, Jones Road to the north, Jubilee Park to the east and Bridge Street to the south, and is located approximately 2.3 km north-east of the Toowoomba town centre. The *Toowoomba Regional Council Planning Scheme* (TRC, 2012) designates the locality predominantly as Low Density Residential, Community Purposes and Open Space zones.

The former Mount Lofty Rifle Range, which is located in Mount Lofty, is traversed by the Project in an undeveloped section of the property.

Refer to Appendix Q: Social Impact Assessment for further details on Mount Lofty.

16.6.2.13 Withcott

The Project traverses Withcott, approximately 3 km north of the rural residential area, with the township approximately 2 km south of the Project (Ch 15.0 km). Withcott township is located on the Warrego Highway, 10 km east of Toowoomba, at the bottom of the Toowoomba Range. The surrounding area is dissected by the Six Mile Creek and Rocky Creek tributaries of Lockyer Creek.

Predominant land uses include Rural Residential, Community Purposes and Recreation, Cropping, Grazing and Natural Environments, with limited quarry and industrial areas. Land in this locality, designated under the *Gatton Planning Scheme* (LVRC, 2007), includes Urban and Rural Residential, a Rural Agricultural Zone adjoining Rocky Creek, Emerging Communities, Industrial Uses, Open Space and Recreation zones. Areas to the north of the Warrego Highway are earmarked for Rural Residential land supply in 5 to 10 years.

Refer to Appendix Q: Social Impact Assessment for further details on Withcott.

16.6.2.14 Postmans Ridge

Postmans Ridge is a locality in the Lockyer Valley LGA, approximately 12 km east of the Toowoomba city centre, and is generally bounded by Six Mile Creek and the Toowoomba Bypass to the north and the Warrego Highway to the south. The predominant land uses include rural residential, grazing and natural environments with small areas of irrigated and dryland cropping and limited industrial areas. The *Gatton Planning Scheme* (LVRC, 2007) designates the area as Rural Uplands, Rural Agricultural zone adjoining Rocky Creek and Six Mile Creek, Rural General, Rural Residential, and Emerging Communities zones.

Refer to Appendix Q: Social Impact Assessment for further details on Postmans Ridge.

16.6.2.15 Lockyer

The Project traverses rural and rural residential land in Lockyer, which is approximately 10 km east of Toowoomba city centre and is bounded by Lockyer Creek to its west. The Toowoomba Bypass intersects the south-east corner of the locality, with the Project paralleling the Toowoomba Bypass (to the north) at this location. Land use in Lockyer is predominantly grazing and natural areas, with isolated rural residential settlement. The *Gatton Planning Scheme* (LVRC, 2007) designates the area as Rural Uplands, Rural Agricultural, Rural General, and Rural Residential. A small residential neighbourhood (Rossiters Road/Squires Road) is located approximately 250-m north of the proposed rail alignment near Ch 22.0 km. Lockyer Creek and the QR West Moreton System rail corridor intersect this locality in a north–south direction.

Refer to Appendix Q: Social Impact Assessment for further details on Lockyer.

16.6.2.16 Helidon Spa

The Project traverses rural land in Helidon Spa, within 100 m of homes to the south. Helidon Spa is a locality adjacent to the township of Helidon bounded by Lockyer Creek and Monkey Water Holes Creek and dissected by the Warrego Highway. The Toowoomba Bypass also commences in this locality. Predominant land uses include residential and natural environments, grazing, and limited irrigated cropping, and land in transition and limited industrial areas. The *Gatton Planning Scheme* (LVRC, 2007) designates the area in and surrounding the Project as Rural Agricultural (adjoining creek lines), Rural General and Rural Residential zones.

Refer to Appendix Q: Social Impact Assessment for further details on Helidon Spa.

16.6.2.17 Helidon

Helidon township is located 18 km east of Toowoomba and is bounded by Lockyer Creek to the south and west and Lockyer National Park and State Forest to the north. The locality is dissected by the Warrego Highway. The Project end point is approximately 2.4 km to the north-west of Helidon.

Predominant land uses include residential, grazing and natural environments with limited industrial areas, including transport businesses. The *Gatton Planning Scheme* (LVRC, 2007) designates the area within and surrounding the Project as Rural Agricultural (adjoining creek lines) Rural General, Industrial and Community Facilities, Rural and Urban Residential zones, with a defined Commercial zone. Areas to the south of the Project (in Helidon Spa south of Lockyer Creek) are earmarked for urban residential land supply in 2 to 10 years.

Refer to Appendix Q: Social Impact Assessment for further details on Helidon.

16.6.3 Project region

From the start of the Project in Charlton, 3.7 km west of Gowrie, to Mount Kynoch and north of Harlaxton, the Project is in the Toowoomba LGA; from Ballard east, the Project is in the Lockyer Valley LGA. The former Mount Lofty Rifle Range, which the Project traverses east of the Toowoomba Range, is also located in the Toowoomba LGA.

These LGAs form the Project region and are shown in Figure 16.2, within which impacts and benefits, such as changes to the labour market, the road network, business supply opportunities, housing access and social infrastructure impacts, may be experienced.

Labour force data has also been provided for the Toowoomba statistical area 4 (SA4) to support analysis of broader labour force availability.

Potential impacts and benefits for other regional communities and/or the State of Queensland relate primarily to the Project's potential to catalyse regional development and economic benefits. Appendix R: Economic Impact Assessment has defined the Toowoomba and Lockyer Valley LGAs as the 'local study area' for assessment of employment and other economic benefits. Appendix R: Economic Impact Assessment has also provided data and analysis for the Toowoomba SA4 as the 'regional economic catchment area', recognising that economic benefits would extend beyond the economic impact assessment local study area.

Figure 16.2 shows the Project region and the Toowoomba SA4.

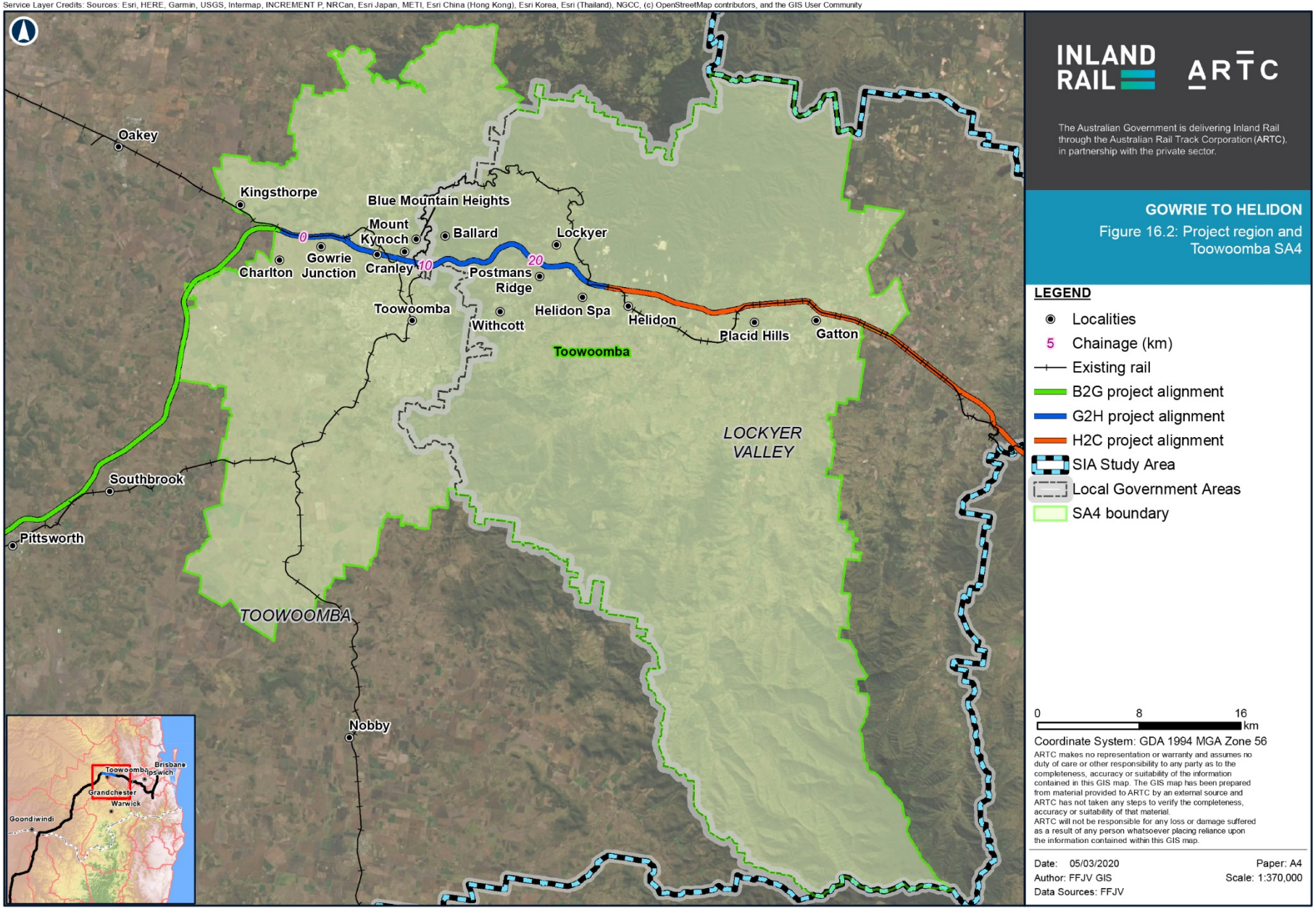
16.6.3.1 Toowoomba local government area

Toowoomba LGA is the gateway to the productive Darling Downs region. Located on the Great Dividing Range, it is surrounded by Lockyer Valley and Somerset LGAs to the east; Southern Downs (south) and South Burnett LGAs to the north; Western Downs LGA to the north and west; and Goondiwindi LGA to the south. As the main administrative and regional centre for the northern and eastern Darling Downs, Toowoomba is an emerging logistics hub and inland port. Refer to Appendix Q: Social Impact Assessment for further details of Toowoomba LGA.

16.6.3.2 Lockyer Valley local government area

The Lockyer Valley LGA covers an area of approximately 2,200 square kilometres (km^2) and was formed through the amalgamation of the Gatton and Laidley LGAs in 2008. The LGA is located around the Warrego Highway—1 hour west of Brisbane and 20 minutes east of Toowoomba. The Lockyer Valley LGA is surrounded by Southern Downs to the south, Somerset to the north, Toowoomba to the west and Ipswich and Scenic Rim to the east. Refer to Appendix Q: Social Impact Assessment for further details of the Lockyer Valley LGA.

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



INLAND RAIL

ARTC

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.

GOWRIE TO HELIDON

Figure 16.2: Project region and Toowoomba SA4

LEGEND

- Localities
- 5 Chainage (km)
- Existing rail
- B2G project alignment
- G2H project alignment
- H2C project alignment
- SIA Study Area
- Local Government Areas
- SA4 boundary

0 8 16 km

Coordinate System: GDA 1994 MGA Zone 56

Date: 05/03/2020
Author: FFJV GIS
Data Sources: FFJV

Paper: A4
Scale: 1:370,000

Map by: LCT Z:\GIS\GIS_3200_G2H\Tasks\320-EAP-202002130931 _Social_Impact_Assessment\320-EAP-202002130931_ARTC_Fig16.2_Project_region_Toowoomba_v3.mxd Date: 5/03/2020 11:44

16.6.4 Statistical geography

The statistical geography used in the SIA is based on the Australian Statistical Geography Standard (ASGS), as defined by the ABS. SSCs as defined by the ABS have been used to delineate potentially impacted communities (towns and localities) in the SIA study area.

The potential for social impacts and benefits has been considered for areas and communities identified in Table 16.5. Detailed demographic data is provided in Appendix Q: Social Impact Assessment for State Suburbs with a resident population of more than 200 people. Where specific data is not available for SSCs, they have been provided for the relevant Statistical Area 2 (SA2s), which represent collections of suburbs. Detailed demographic data is not provided for rural localities with less than 200 people (including Ballard, Lockyer and Charlton), as the consistency of data and its availability are constrained by their small populations and ABS confidentiality protocols; however, their demographic characteristics are reflected by the SA1 level data provided in Appendix Q: Social Impact Assessment.

Detailed data is also provided for the Toowoomba and Lockyer Valley LGAs, which represent the Project region, and labour force data has also been provided for the Toowoomba SA4.Where specific data is not available for SSCs, they have been provided for the relevant SA2s. Labour force data has also been provided for the Toowoomba SA4. Figure 16.2 shows the Project region and the Toowoomba SA4.

TABLE 16.5: STATISTICAL GEOGRAPHY

Area	Study area	Name (LGA)	Land area (km²)	Population (2016)
Statistical Area 1 (SA1)	EIS investigation corridor	SA1s within approximately 1 km of the Project disturbance footprint (refer to Appendix Q: Social Impact Assessment, Section 5.1)		
State Suburb Codes (SSC)	Potentially impacted communities	Ballard (Lockyer Valley LGA)	16.8	151
		Blue Mountain Heights (Toowoomba LGA)	3.8	925
		Charlton (Toowoomba LGA)	14.1	120
		Cotswold Hills (Toowoomba LGA)	6.6	1,282
		Cranley (Toowoomba LGA)	10.4	1,452
		Gowrie Junction (Toowoomba LGA)	25.6	2,120
		Harlaxton (Toowoomba LGA)	5.0	2,548
		Helidon (Lockyer Valley LGA)	48.8	1,061
		Helidon Spa (Lockyer Valley LGA)	137	541
		Kingsthorpe (Toowoomba LGA)	53.7	1,872
		Lockyer (Lockyer Valley LGA)	17.9	95
		Mount Kynoch (Toowoomba LGA)	3.4	242
		Mount Lofty (Toowoomba LGA)	9.8	3,770
		Postmans Ridge (Lockyer Valley LGA)	16.8	392
		Rockville (Toowoomba LGA)	1.9	3,238
		Wilsonton Heights (Toowoomba LGA)	1.4	2,668
Statistical Area 2 (SA2)	Project region	Gowrie	81.0	6,411
		Highfields	149.3	13,180
		Wilsonton	18.9	13,180
		North Toowoomba—Harlaxton	10.3	5,734
		Toowoomba West	161.3	13,005
		Lockyer Valley—West	1,480.2	11,362
LGA	Project region	Toowoomba LGA	12,957.2	160,779
		Lockyer Valley LGA	2,269	38,609
Statistical Area 4 (SA4)	Broader labour force region	Toowoomba SA4	2,258.8	149,512
Queensland (State)	Comparator for SIA study area	Queensland	1,730,172.1	4,702,193

Source: ABS 2016a

16.7 The Project

The Project is a combination 'greenfield' and 'brownfield' Project and is one of the 'missing links' in the Inland Rail Program. The Project has been intentionally aligned to use the existing QR West Moreton System rail corridor, existing road corridor and the Gowrie to Grandchester future state transport corridor, under the Public Passenger Transport Guideline (No. 1) 2019 made under the TPC Act.

16.7.1 Key Project components

The Project commences approximately 3.7 km west of Gowrie, at Charlton, where it connects with the eastern end of the B2G project. It then runs east, parallel to the existing QR West Moreton System rail corridor (southern side), for approximately 4.8 km, before diverging from the QR West Moreton System rail corridor and passing into the proposed western tunnel portal in the vicinity of Boundary Street and the Toowoomba Bypass interchange at Gowrie Junction.

The alignment then continues through the Toowoomba Range via an approximately 6.24 km long tunnel with an intermediate ventilation shaft (and associated infrastructure) at Cranley. On the eastern side of the tunnel, the alignment exits the range through the eastern portal and continues down the Toowoomba Range via a series of viaducts, embankments and cuttings, past Postmans Ridge, after which it again runs parallel for 800 metres (m) to the existing QR West Moreton System rail corridor to connect with the H2C Inland Rail project, to the north-west of Helidon.

The corridor will initially be constructed to accommodate 1,800-metre (m) long double-stacked container freight trains, based on business needs, but includes future provision for trains up to 3,600 m. Key components of the Project are summarised in Table 16.6, with a detailed description provided in Chapter 6: Project Description.

TABLE 16.6: KEY COMPONENTS OF THE PROJECT

Key component	
Start and finish point	Gowrie to Helidon
Local government areas	Toowoomba Lockyer Valley
Length of alignment	28 km (new single-track dual-gauge railway)
Rail corridor	▸ The land required for the Project comprises a corridor with a minimum width of 62.5 m through the greenfield sections (22.5 km) ▸ A reduced corridor is required where the Project is co-located with the existing rail corridor (5.8 km) ▸ The rail corridor will be of sufficient width to allow future crossing loop extensions to accommodate trains of up to 3,600 m in length ▸ Land acquisition (volumetric) for the tunnel will include a provisional area around the tunnel to protect the asset from future development (total of 50 m) ▸ The rail corridor will include land associated with the intermediate tunnel ventilation shaft and supporting infrastructure, access roads and other supporting infrastructure (e.g. water pipelines)
Train lengths	Initially up to 1,800 m with the potential to accommodate 3,600 m trains in future
Expected completion	2027

16.7.2 Project elements and operations

Project elements with potential for social impacts and benefits are summarised in Table 16.7, with further detail provided in Chapter 6: Project Description.

TABLE 16.7: PROJECT ELEMENTS OF RELEVANCE TO THE SOCIAL ENVIRONMENT

Key elements	Detail	Potential impact areas
Construction		
Corridor and associated works	▸ Construction of a 28 km dual-gauge rail line, including a tunnel through the Toowoomba Range (refer below) ▸ Construction of rail infrastructure, culverts, bridges and viaducts, crossing loops, sidings and signalling infrastructure ▸ Connections to the existing QR West Moreton System rail corridor (western and eastern extent, along with a spur line allowing access to and from Toowoomba) ▸ Ancillary works, including road and public utility crossings and realignments.	▸ Residential amenity ▸ Connectivity ▸ Community cohesion ▸ Agricultural operations ▸ Sense of place ▸ Health ▸ Concerns about security and privacy ▸ Potential to impact on access to water
Tunnel construction	▸ Construction of an approximately 6.2 km tunnel through the Toowoomba Range ▸ Construction of tunnel portals near Ch 4.0 km (western tunnel portal) and Ch 10.0 km (eastern tunnel portal) ▸ Construction of an intermediate ventilation shaft and associated infrastructure at Cranley (Ch 6.8 km).	▸ Residential amenity (noise and vibration) ▸ Concern about air quality ▸ Scenic amenity (portals and intermediate ventilation shaft building)
Bridge and viaduct construction	The Project includes 13 viaducts and bridges totalling approximately 6.7 km in length, including: ▸ Gowrie Junction Road Bridge ▸ Gowrie Creek Rail Bridge ▸ Oaky Creek Viaduct ▸ Withcott Viaduct 1 ▸ Withcott Viaduct 2 ▸ Withcott Viaduct 3 ▸ McNamaras Road Bridge ▸ Withcott Viaduct 4 ▸ TSRC and Six Mile Creek Viaduct ▸ Postmans Ridge Viaduct ▸ Murphys Creek Road Viaduct ▸ Withcott Seedlings Viaduct ▸ Lockyer Creek Viaduct. Thirteen cuts with an approximate total length of 6.65 km length and a maximum cut depth of 45.7 m are required along the Project disturbance footprint to maintain the required track elevations for the proposed rail line. The total length of embankments required for the Project will be approximately 15.4 km with a maximum embankment height of 33.3 m. Further details on the location of bridges and viaducts is provided in Chapter 6: Project Description.	▸ Road network access ▸ Connectivity ▸ Rural character and visual amenity ▸ Amenity
Construction employment	Pre-construction works would require a workforce of up to an estimated 50 personnel. The construction phase would require a peak of 596 personnel (in Year 2) and an average of approximately 264 personnel over the full construction period (refer Appendix Q: Social Impact Assessment for more detail).	▸ Employment and training opportunities ▸ Other industries or communities' access to skilled labour

Key elements	Detail	Potential impact areas
Road interfaces	The Project would interface with public roads, including: ▸ Toowoomba Bypass ▸ Murphys Creek Road ▸ Draper Road ▸ Gowrie Junction Road ▸ Morris Road (two interfaces) ▸ Paulsens Road ▸ Ganzer Road ▸ Wallens Road (two interfaces) ▸ Jones Road ▸ McNamaras Road ▸ Gittins Road ▸ Howmans Road ▸ Cattos Road (two interfaces) An unnamed road in the Lockyer Valley LGA. There are no level crossings proposed in the Project, which is also proposing to eliminate an existing level crossing (Gowrie Junction Road) on the QR West Moreton System rail corridor. There are also 36 private crossings interfaces, with the majority grade separated, and no new occupational crossings proposed.	▸ Road network access ▸ Property access ▸ Connectivity ▸ Traffic safety
Road works	Road works, including some road realignments and consolidations, are required where the Project disturbance footprint interfaces with public roads. The majority of the road network changes are to occur within existing road reserves; however, some works will extend onto private lands.	▸ Road network access ▸ Property access ▸ Connectivity ▸ Traffic safety
Tunnel spoil transport	Excess spoil from the construction of the tunnel and intermediate ventilation shaft will be stockpiled at the western tunnel portal. Excess spoil from the eastern tunnel portal will be reused in the corridor or disposed of in accordance with the spoil management strategy (Refer Appendix T: Spoil Management Strategy). The desired outcome will be to truck directly from the tunnel to adjacent embankment areas, via the corridor, in line with tunnel construction (i.e. seven days/week). Spoil from cuts will generally be used as part of filling, e.g. in the construction of embankments.	▸ Road safety ▸ Visual amenity
Laydown areas	A total of 24 laydown areas are required to act as centralised points for all material storage. Some laydown areas will also contain fuel storage areas and site offices.	▸ Amenity ▸ Increased traffic ▸ Privacy ▸ Change in local community character
Quarries	Ballast material will be sourced from local quarries. Six licensed operational quarries have been identified by ARTC as potentially suitable for use as material source locations during construction. The viability and feasibility of accessing material from these locations will be confirmed during the detailed design phase of the Project (post-EIS). There are no borrow pits proposed.	▸ Traffic safety ▸ Amenity of neighbouring properties
Construction supplies	The Project will require construction supplies, including borrow material, ballast material, pre-cast concrete, concrete sleepers and turnout panels, steel, fencing, electrical components, fuel and consumables. A range of services will also be required during construction and operations, many of which may be sourced locally (refer Appendix Q: Social Impact Assessment).	▸ Local and regional supply opportunities ▸ Road network ▸ Potential to impact on access to water

Key elements	Detail	Potential impact areas
Operations		
Rail operation	Operation of the rail line, to accommodate double-stacked container freight trains of up to 1,800 m, with potential for future accommodation of freight trains of 3,600 m. The rail line will also be used by coal trains and by the existing passenger service (Westlander). The hours of operation are anticipated to be 24 hours a day, 7 days a week, on a variable schedule.	▸ Residential amenity—noise, air quality and visual ▸ Rural character ▸ Tourism values ▸ Community safety ▸ Regional development ▸ Health (stress and enjoyment of home)
Tunnel operation	Trains would enter the eastern or western tunnel portal and travel through the tunnel for approximately 6.2 km. Tunnel control centres would be required at each portal. An intermediate ventilation shaft located approximately halfway between the western and eastern tunnel portals at Cranley (Ch 6.8 km) would allow draw down of air to help cool the locomotives while in tunnel. Locomotive emissions would be vented from each portal.	▸ Concern about air quality ▸ Scenic amenity (portals and ventilation shaft) ▸ Noise at portals
Operational employment	Up to 15 to 20 personnel are expected to be employed in Project operations.	▸ Employment and training opportunities
Corridor security	Standard rural fencing (post and wire) to the extent of the rail corridor. Fencing is not generally required between the corridor and an adjacent railway or road corridor. Where superior fencing is required (near roads or to prevent trespass), a 1.8-m chain wire fence may be provided with gates at suitable corridor entry/exit locations, including at private stock crossings.	▸ Connectivity ▸ Stock and agricultural equipment movements ▸ Pedestrian and cycle movements
Bridge operation	Rail-over-road, road-over-rail, rail over rail and rail-over-waterway bridges	▸ Residential amenity—noise characteristics, visual amenity and air quality
Crossing loops	The Project would include three crossing loops with a minimum length of 2.2 km, at: Western tunnel portal (Gowrie Junction) Eastern tunnel portal (Ballard) Postmans Ridge, in the vicinity of Murphys Creek Road, east of the eastern tunnel portal	▸ Residential amenity—noise characteristics and air quality ▸ Connectivity
Track maintenance	Regular track maintenance would be performed. Large-scale maintenance activities will also be required as the design life of key components is 10 to 25 years (e.g. rail segments). Large-scale maintenance activities will be infrequent across the life of the Project	▸ Noise ▸ Employment
Decommissioning		
The Project design life is 100 years and, as such, decommissioning impact cannot be confirmed at this stage; noting that the existing rail line has been in operation since the 1860s. As such, decommissioning is not considered further, though there is the potential that if the rail alignment is decommissioned, the rail corridor will be rehabilitated; with due consideration to the reuse/recycling of material, contaminated land, stabilisation of landform and soils, revegetation and relevant land uses adjacent the corridor.		▸ Employment and training opportunities ▸ Future use opportunities ▸ Residential amenity—noise characteristics and air quality

16.7.3 Skills, services and materials required by the Project

Pre-construction activities are anticipated to require a small number of personnel (approximately 20 to 50 people) over a 6–12 month period.

The construction workforce for the Project is expected to build during 2022 and peak in Year 2 of construction, at approximately 596 personnel. The average workforce across the construction period would be approximately 264 personnel.

The core construction workforce will consist of professional staff, supervisors, trades workers and plant operators; with earthworks crews, bridge structure teams and capping and track-works crews working at different periods though the construction phase.

The construction workforce is expected to be drawn from communities in the Lockyer Valley and Toowoomba LGAs, and surrounding LGAs such as Ipswich, Brisbane, Beaudesert, Logan and Scenic Rim. It is likely that the majority of the construction workforce will be sourced from nearby communities within a safe daily driving distance (to be defined by the construction contractor in accordance with their fatigue management principles). On this basis, a workforce accommodation facility is not proposed. It is noted, however, that some specialist skills may need to be sourced nationally or internationally (e.g. tunnel boring machine provisioning, operation and decommissioning).

Once operational, a workforce of approximately 15 to 20 personnel is expected for the Project's operation, to undertake monitoring and maintenance of the track and infrastructure, signalling, environmental monitoring and management of land and infrastructure in the railway corridor. This is likely to include a mix of personnel from the Project region and mobile crews moving between sections of Inland Rail, with little potential for change to population or housing demand.

The Project will require construction supplies, including borrow material, ballast material, pre-cast concrete, concrete sleepers and turnout panels, steel, fencing, electrical components, fuel and consumables. A range of services will also be required during construction and operations, many of which may be sourced locally. Ballast material will be sourced from local quarries.

Operational supplies may include ballast material and services and materials for maintenance of the rail corridor, bridges, fences, crossings, and rehabilitation services.

16.8 Social environment

This section describes the social environment in the SIA study area, including local and regional communities, community values, demographic characteristic, housing, social infrastructure, employment and businesses. Additional data supporting this section is provided in Appendix Q: Social Impact Assessment.

16.8.1 Community profile

This section describes the key demographic features of the ASGS Statistical Area 1 (SA1s) that interface with the EIS investigation corridor, potentially impacted communities and the Project region.

16.8.1.1 EIS investigation corridor

Figure 16.3 shows the ASGS SA1s that interface with the Project.

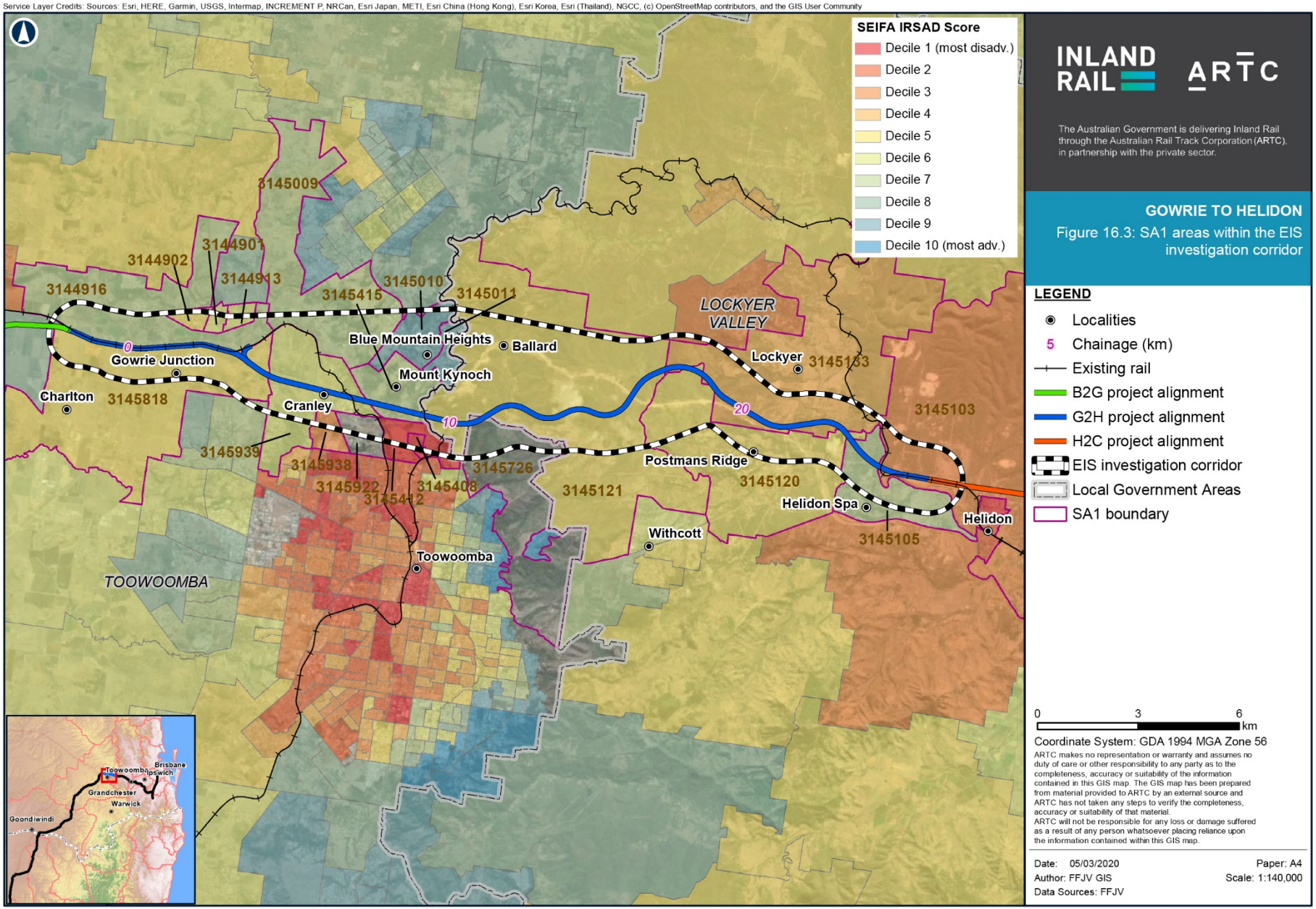
The SA1s represented cover a total area of 216.75 km^2, with most located in the Toowoomba LGA and the balance in the Lockyer Valley LGA. At the 2016 Census (ABS, 2016a), there were approximately 2,605 dwellings and 6,701 people in the SA1s. Since Census 2011, the combined population of the SA1s had increased by 1,612 people (approximately 23 per cent), principally in the regional centre of Toowoomba. Six of the SA1s that interface with the Project had a population density less than 20 people per km^2, including three with a density less than 10 people per km^2. In the balance of SA1s, while the population size varies, densities were typically more that of urban areas.

Key characteristics of the SA1s are detailed in Appendix Q: Social Impact Assessment.

The Socio-Economic Index for Areas (SEIFA) is an area-based index that gauges relative advantage and disadvantage between communities, using data generated by the ABS Census of Population and Housing. The SIA has referred to two of the SEIFA indices: The Index for Relative Socio-economic Advantage and Disadvantage (IRSAD) and the Index of Education and Occupation (IEO). Analysis of IRSAD scores for the 20 SA1s indicates that five communities fall within the 40 per cent most disadvantaged SA1s in Queensland. Seven communities are neither particularly advantaged nor disadvantaged, while six communities enjoy relative advantage, falling within the 40 per cent most advantaged communities.

Considering the IEO, only three SA1s are constrained in terms of educational attainment or ability to access skilled work, falling within the 40 per cent most disadvantaged SA1s in Queensland. Two are neither particularly advantaged nor disadvantaged and 13 enjoy relative advantage in the IEO, falling in the 40 per cent most advantaged communities.

Further analysis is provided in Appendix Q: Social Impact Assessment.


Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
SEIFA IRSAD Score
Decile 1 (most disadv.)
Decile 2
Decile 3
Decile 4
Decile 5
Decile 6
Decile 7
Decile 8
Decile 9
Decile 10 (most adv.)
3145009
3144901
3144902
3144913
3144916
3145415
3145010
3145011
LOCKYER VALLEY
Blue Mountain Heights
Ballard
Gowrie Junction
Mount Kynoch
Lockyer
3145133
Charlton
3145818
Cranley
3145103
3145939
3145938
3145726
Postmans Ridge
3145120
3145922
3145408
3145412
3145121
Helidon Spa
Helidon
Withcott
3145105
Toowoomba
TOOWOOMBA
Brisbane
Ipswich
Grandchester
Warwick
Goondiwindi
INLAND RAIL
ARTC
The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.
GOWRIE TO HELIDON
Figure 16.3: SA1 areas within the EIS investigation corridor
LEGEND
Localities
Chainage (km)
Existing rail
B2G project alignment
G2H project alignment
H2C project alignment
EIS investigation corridor
Local Government Areas
SA1 boundary
0
3
6
km
Coordinate System: GDA 1994 MGA Zone 56
ARTC makes no representation or warranty and assumes no duty of care or other responsibility to any party as to the completeness, accuracy or suitability of the information contained in this GIS map. The GIS map has been prepared from material provided to ARTC by an external source and ARTC has not taken any steps to verify the completeness, accuracy or suitability of that material.
ARTC will not be responsible for any loss or damage suffered as a result of any person whatsoever placing reliance upon the information contained within this GIS map.
Date: 05/03/2020
Paper: A4
Author: FFJV GIS
Scale: 1:140,000
Data Sources: FFJV
Map by: LCT Z:\GIS\GIS_3200_G2H\Tasks\320-EAP-202002130931 _Social_Impact_Assessment\320-EAP-202002130931_Figure_16.3_SA1_areas_within_EIS_investigation_CorridorStatisticalArea_ARTC_v3.mxd Date: 5/03/2020 15:57

16.8.1.2 Local and regional populations

In 2016, Toowoomba LGA had a population of 160,779 people, representing an increase of 9,590 people, or 6.3 per cent, since 2011. Comparatively, the Lockyer Valley LGA's population (at 38,609 people) had notably higher growth, increasing by 3,647 people, or 10.4 per cent, over the five years to 2016.

The potentially impacted communities had a total population of 23,953 people in 2016. The most populous suburbs were Mount Lofty (3,770 people), Rockville (3,238 people), Harlaxton (2,548 people) and Wilsonton Heights (2,668 people).

The strongest population growth from 2011 to 2016 was experienced in Cranley (although on a small base, an additional 600 people, up by 70 per cent), which is likely to be due to the Palm Lake Resort Retirement Park, established after the 2011 Census (TRC, 2019a). Mount Kynoch grew by 82 people, (up 51.3 per cent), with this growth likely due to the construction of new dwellings in the Weale Street subdivision. The most notable population decline was seen in Helidon Spa, where there was a decrease of 82 people, or 13.2 per cent of the population, since 2011; with small declines also seen in Wilsonton Heights and Harlaxton (falls of 5.4 per cent and 5.2 per cent, respectively) and, to a lesser extent, in Mount Lofty and Rockville (falls of 2.0 per cent and 0.8 per cent, respectively).

Refer to Appendix Q: Social Impact Assessment for further details of local and regional populations.

16.8.1.3 Population growth

ABS data shows population growth in the Lockyer Valley LGA has consistently exceeded growth rates for Toowoomba LGA from 2011 to 2017, with an annual growth rate of between 1.8 per cent and 3.1 per cent per annum, compared with between 0.8 per cent and 4.5 per cent per annum in Toowoomba LGA. Notwithstanding, Toowoomba LGA had a greater increase in numbers over this period, growing by 10,936 people (reaching 166,409 people by 2017), compared to an increase of 4,309 people in the Lockyer Valley LGA (reaching 40,189 people by 2017).

In the four years from 2017–2021, the Lockyer Valley LGA's population is forecast to grow by 9.1 per cent, with a further 10.0 per cent increase forecast between 2021 and 2026 (increasing by 8,029 people to reach 48,218 people). Toowoomba LGA's population is forecast to grow by 4.5 per cent from 2017 to 2021, with a further increase of 5.9 per cent from 2021 to 2026 (increasing by 17,902 people to 184,311 people by 2026).

Population forecast data is available at SA2 level but not at State Suburb level. At the SA2 level, the greatest rate of population growth for the 2021–2026 period is forecast to occur in the Toowoomba–West SA2 (increasing by 18.9 per cent to 18,183 people) and Highfields (increasing by 14.2 per cent to 16,290 people), Lockyer Valley–West (8.5 per cent to 13,392 people) and North Toowoomba–Harlaxton (8.1 per cent to 7,336 people). Wilsonton is the only SA2 where no growth is expected during this period.

This information is based on 2017 ABS data. For details, refer to Appendix Q: Social Impact Assessment.

16.8.1.4 Indigenous population

The Yuggera Ugarapul People and the Western Wakka Wakka People are connected to land on which the Project would be constructed and operated.

The Yuggera Ugarapul People have a registered native title claim (National Native Title Tribunal file number QC2017/005) over the eastern part of the Project, from approximately Ch 17.0 km to Ch 26.0 km, which includes the localities of Lockyer, Postmans Ridge, Withcott, Helidon and Helidon Spa. The Yuggera Ugarapul People have an active Native Title claim QC2017/005, which has been accepted for registration but, as of January 2021, the claim has not yet been determined by the courts.

The Western Wakka Wakka people have previously had a native title claim over areas in the western part of the Project; however, this claim is no longer registered.

In 2016, the Toowoomba LGA had an Indigenous population consistent with Queensland (4.0 per cent), with a similar proportion in the Lockyer Valley LGA (3.9 per cent).

In 2016, Aboriginal and Torres Strait Islander people were most highly represented in the suburbs of Wilsonton Heights (9.0 per cent of the population), Rockville (8.0 per cent) and Harlaxton (7.1 per cent), with relatively high representation also evident in Helidon (5.9 per cent) and Kingsthorpe (5.8 per cent). This compares with the much lower overall representation in other potentially impacted communities and Queensland (at 4.9 per cent and 4.0 per cent, respectively). Rockville recorded the highest number of Indigenous people (259 people) followed by Wilsonton Heights (240 people).

Refer to Appendix Q: Social Impact Assessment for further details.

16.8.1.5 Demographic characteristics

Age and gender

The Lockyer Valley and Toowoomba LGAs have a slightly older community than Queensland (39 years and 38 years, compared with 37 years). Between 2011 and 2016, the median age of residents of the Lockyer Valley LGA increased by two years (37 to 39 years) compared to Queensland's median age change of 36 years to 37 years. Toowoomba LGA also experienced an increase in median age by 1 year (37 years to 38 years).

The Lockyer Valley LGA population had an even balance of males and females (50.0 per cent each), while Toowoomba LGA had a higher percentage of females (51.4 per cent females and 48.6 per cent males). Both LGAs were similar to Queensland (49.4 per cent males and 50.6 per cent females).

In 2016, among the SSCs, the highest median age was in Cranley (48 years) followed by Blue Mountain Heights (47 years). Cotswold Hills, Mount Lofty and Postmans Ridge also had higher median ages (45, 43 and 43 years, respectively). Mount Kynoch had the lowest median age at 27 years, while Harlaxton had the next lowest median age at 34 years.

Changes in median ages between 2011 and 2016 were observed to increase most notably in the suburbs of Wilsonton Heights (increasing by 5 to 36 years) and Harlaxton (increasing by 4 to 34 years). The median age decreased in Mount Kynoch over this same period (reducing by 5 years to 27), most likely due to the 51.3 per cent population growth that occurred between 2011 and 2016 and to the high percentage of couple with children families.

The gender balance in the SSCs was similar to those recorded for each of the LGAs, with a slightly higher representation of males in Helidon Spa and Postmans Ridge (both at 51.5 per cent of the population), while females were more highly represented in Mount Kynoch (54.6 per cent), Cranley (53.0 per cent), Wilsonton Heights (52.6 per cent) and Mount Lofty (52.4 per cent).

Both the Toowoomba and Lockyer Valley LGAs recorded a slightly higher percentage of seniors than Queensland (17.8 per cent and 16.2 per cent of people aged over 65 years, compared with 15.3 per cent). The proportion of children less than 16 years old in both LGAs was similar to levels in Queensland (19.5 per cent in the Lockyer Valley and 20.3 per cent in Toowoomba, compared with 19.4 per cent in Queensland).

Among the SSCs, Cranley had a considerably higher representation of seniors (32.3 per cent) than in either of the LGAs or Queensland, possibly due to the retirement facility located in this suburb. Seniors were also more highly represented in Mount Lofty (19.6 per cent) and Rockville (18.3 per cent). By contrast, Mount Kynoch had a very low representation of seniors (3.3 per cent).

Children under 15 years old were most highly represented in Mount Kynoch and Gowrie Junction (25.6 and 25.3 per cent, respectively), which, together with the reducing median age and population growth noted above, suggests these suburbs are growth areas for young families. Refer to Appendix Q: Social Impact Assessment for further details on age and gender demographic data.

Disability

The Core Activity Need for Assistance variable has been developed by the ABS to measure the number of people with a profound or severe disability. Both the Toowoomba LGA (at 5.9 per cent of the total population) and the Lockyer Valley LGA (at 6.4 per cent) had a somewhat higher percentage of residents requiring assistance with core activities compared with Queensland (at 5.2 per cent).

The highest representation of disability among the SSCs was in Cranley at 9.6 per cent, potentially due to the presence of the Palm Lakes Resort, followed by Rockville with 8.9 per cent.

The largest numbers of people with a disability were in Rockville (287 people), Wilsonton Heights (211 people) and Mount Lofty (199 people), potentially relating to the presence of aged care homes in these suburbs. Disability was least prevalent in Mount Kynoch (10 people). Further details are provided in Appendix Q: Social Impact Assessment.

Families and households

Both the Lockyer Valley and Toowoomba LGAs have a higher representation of families identified as couple only (42.6 per cent and 42.0 per cent, respectively) than for Queensland (39.4 per cent). Consequently, both LGAs had a lower representation of couple with children households (39.8 per cent and 40.8 per cent, respectively) when compared with Queensland (42.5 per cent). Sole parent families represented slightly smaller percentages in both LGAs compared to Queensland (1.4 per cent compared with 1.6 per cent).

Among the potentially impacted communities, Cranley and Blue Mountain Heights had the highest percentages of couple-only families (58.9 per cent and 50.7 per cent, respectively), consistent with their older median ages. In contrast, in Mount Kynoch and Gowrie Junction there were higher percentages of couple with children families (55.8 per cent and 54.6 per cent, respectively). The representation of sole parent families was notably higher in Wilsonton Heights, Harlaxton and Rockville (28.0, 26.4 and 24.4 per cent, respectively), but also high in Mount Kynoch and Helidon (21.2 per cent and 21.0 per cent, respectively). This was higher than either of the LGAs (16.1 per cent in Lockyer Valley LGA and 15.8 per cent in Toowoomba LGA) or Queensland (16.5 per cent). The higher concentration of sole parent households indicates the potential for an increased need for support to address associated risks of disadvantage (ABS, 2007).

The Lockyer Valley LGA had a higher percentage of family households (68.6 per cent) than Toowoomba LGA and Queensland (at 66.1 per cent and 66.4 per cent, respectively). The Toowoomba LGA (24.7 per cent) had a notably higher representation of lone-person households than both Lockyer Valley LGA (19.2 per cent) and Queensland (21.7 per cent).

At the State Suburb level, the highest representation of family households was in Blue Mountains Heights, (85.5 per cent of households), Cotswold Hills and Gowrie Junction (both with 84.4 per cent) and Withcott (82.5 per cent). These SSCs had a much higher representation of family households than either of the LGAs or Queensland.

Lone-person households were most highly represented in Harlaxton (30.9 per cent), Rockville (27.6 per cent), Cranley (27.5 per cent), Wilsonton Heights (26.5 per cent) and Mount Lofty (25.3 per cent).

Representation of other family households was high in Helidon Spa (13.3 per cent) and Mount Kynoch (12.7per cent). This information is based on 2016 ABS data. For details, refer to Appendix Q: Social Impact Assessment.

Level of education

ABS data from 2016 shows school completions at 2016 (Year 11 or 12 equivalent) were lower in both LGAs than is typical for Queensland, with only 44.4 per cent of school leavers completing Years 11 or 12 in Lockyer Valley LGA and 52.4 per cent in Toowoomba LGA, compared with 58.9 per cent in Queensland. Both the Lockyer Valley and Toowoomba LGAs recorded notably higher percentages of people who did not go to school or attended to Year 8 or below (9.2 per cent and 7.4 per cent, respectively), compared to Queensland (5.4 per cent). A lower proportion of educational attainment in the Lockyer Valley LGA may be attributed to the higher proportion of employment in agriculture and trades (refer Appendix Q: Social Impact Assessment).

Income

Median household income in the Lockyer Valley LGA ($1,198/week) was approximately $70 less than the Toowoomba LGA ($1,269/week), while both LGAs recorded median weekly household incomes much lower than Queensland ($1,402/week).

State Suburbs with notably higher median weekly household incomes than Queensland (at $1,402 per week) were Blue Mountains Heights ($2,237 per week), Cotswold Hills ($1,938 per week), Gowrie Junction ($1,879), Mount Kynoch ($1,854) and Withcott ($1,776). Five suburbs had median incomes that were well below the Queensland median, including Harlaxton (at $925 per week), Wilsonton Heights ($1,021), Rockville ($1,047), and Cranley and Helidon (both $1,097).

The average household size in both the Lockyer Valley (2.7 people) and Toowoomba (2.5 people) LGAs are typical of that for Queensland (2.6 people). At the suburb level, Mount Kynoch (3.2 people) and Gowrie Junction (3.1 people) recorded the highest median household sizes, consistent with the higher representation of couple with children families in these suburbs noted previously). Cranley had both the smallest household size and one of the lowest median household incomes, possibly reflecting the presence of retirement accommodation there.

Refer to Appendix Q: Social Impact Assessment for further details.

Socio-economic advantage and disadvantage

Research into the social determinants of health consistently establishes that the most disadvantaged people carry the greatest burden of poor health. The IRSAD is an area-based index that measures both socio-economic advantage and disadvantage in terms of peoples' access to material and social resources, and their ability to participate in society. The IEO is an area-based index that measures and ranks relative advantage or disadvantage for educational attainment or accessing skilled work. Refer to Section 5.2.7 of Appendix Q: Social Impact Assessment for the IRSAD and IEO results at the SA2 and LGA level, providing a score, a decile and a ranking. The following is a summary of these results.

The Indices for IRSAD indicate that the Lockyer Valley LGA is neither advantaged nor disadvantaged compared to other LGAs in Queensland, while the Toowoomba LGA is relatively advantaged, ranking among the most advantaged LGAs in Queensland; however, patterns of disadvantage are evident at the more detailed SA2 and SA1 levels:

- IRSAD scores for SA2s varied, with the North Toowoomba–Harlaxton and Wilsonton SA2s within the 20 per cent most disadvantaged in the State. The Gowrie and Lockyer Valley West and Toowoomba West SA2s were neither especially advantaged nor disadvantaged. By contrast, the Highfields SA2 had a strong relative advantage, scoring among the 20 per cent most advantaged SA2s in the State.
- Pockets of disadvantage were evident in SA1 3145408 in Harlaxton and SA1 3145412 in North Toowoomba–Harlaxton, both of which were among the 10 per cent most disadvantaged SA1s in Queensland, while SA1 3145938 in Cranley was among the 30 per cent most disadvantaged SA1s in Queensland.
- Elsewhere, the SA1s were among the most advantaged (such as Blue Mountain Heights and Withcott) or neither particularly advantaged nor disadvantaged (such as Gowrie Junction and Postmans Ridge).

Similar to the IRSAD indices, the IEO shows that:

- At the LGA level, Toowoomba LGA had a notable advantage in terms of education and skilled employment; however, the Lockyer Valley LGA falls into relative disadvantage in this index, being among the 40 per cent most disadvantaged LGAs in Queensland and ranking 26th among 80 LGAs.
- Wilsonton SA2 has the greatest disadvantage, being among the 10 per cent most disadvantaged SA2s and ranking 39th among 526 SA2s. Highfields was the only SA2 with notable advantage, being among the top 20 per cent of the most advantaged SA2s in Queensland.
- Results at the SA1 level reflect those of the IRSAD, with SA1 3145408 in Harlaxton and SA1 3145412 in North Toowoomba–Harlaxton among the 10 per cent most disadvantaged SA1s in the State, and SA1 3145938 in Cranley among the 30 per cent most disadvantaged.

Internet access

Inability to access the internet is an indicator of disadvantage, as information and services which support wellbeing are increasingly designed to be accessed online. Lower levels of internet access are evident in the Project region than is typical for Queensland. In 2016, 16.1 per cent residents in the Toowoomba LGA did not access the internet from their dwelling, compared to 17.5 per cent in the Lockyer Valley LGA. Both were notably lower than Queensland's 13.0 per cent, reflecting generally poorer access to internet services in rural locations.

Access to the internet from dwellings varied greatly at the suburb level; however, with half of the suburbs having higher levels of access than that typical for Queensland (at 78.9 per cent), including Blue Mountain Heights (93.8 per cent of dwellings), Cotswold Hills (89.0 per cent), Gowrie Junction (87.1 per cent), Withcott (86.0 per cent), Mount Lofty (84.8 per cent), Kingsthorpe (83.5 per cent) and Postmans Ridge (81.6 per cent). The most socio-economically disadvantaged suburbs had the lowest level of internet access, namely Rockville (22.1 per cent), Helidon (21.7 per cent), Wilsonton Heights (19.6 per cent) and Harlaxton (19.2 per cent).

Refer to Appendix Q: Social Impact Assessment for further details.

16.8.1.6 Travel behaviour

Transport networks

The Warrego Highway is a vital east–west freight artery, transporting people and freight from Toowoomba to Brisbane and southern Queensland.

The Warrego Highway (incorporating the Toowoomba Bypass) is the main arterial road through the Lockyer Valley and Toowoomba LGAs, connecting with Ipswich and Brisbane to the east (via the Ipswich and Centenary Motorways) and with Toowoomba, Dalby, Chinchilla, Miles, Roma and Charleville to the west.

The Lockyer Valley LGA's main road network also includes Rosewood–Laidley Road, Gatton–Laidley Road and Gatton–Helidon Road, which provides an alternative network south of the Warrego Highway connecting Rosewood to Helidon (LVRC, 2007).

The Toowoomba LGA's road network includes the Warrego Highway, New England Highway and Gore Highway. The Warrego Highway links Toowoomba LGA east–west, connecting Brisbane in the east to Dalby, Miles and Roma in the west. The New England Highway passes through Toowoomba, providing access to Yarraman in the north and many major inland regional centres to the south through to central New South Wales.

There are two airports that service the Toowoomba and Lockyer Valley LGAs. The Toowoomba Wellcamp Airport near Toowoomba (approximately 30-minute drive) provides passenger services and also operates as an international cargo hub for primary producers. The Brisbane Domestic and International Airport is approximately 75 minutes' drive to the east and provides domestic and international passenger travel for residents in the Project region.

The Toowoomba aerodrome, located approximately 2.5 km south of the Project, in Wilsonton, supports a number of business operators, including flying schools, charter operators and maintenance providers, as well as being home to one of the finest collection of warbirds in Australia (TRC, 2018a).

Vehicle ownership

In 2016, the Lockyer Valley LGA had a higher average number of motor vehicles per dwelling compared to the Toowoomba LGA and Queensland (2.2 compared to 1.9 and 1.8, respectively). This higher rate of ownership reflects the rural nature of the LGAs, offering limited access to a public transport network, with a greater reliance on private transport by residents living in more isolated communities.

At the State Suburb level, vehicle ownership was highest in Cotswold Hills and Withcott (with 2.7 vehicles and 2.5 vehicles per dwelling, respectively), followed by Blue Mountain Heights, Gowrie Junction, Helidon Spa and Postmans Ridge (each with 2.3 vehicles per dwelling). Wilsonton Heights, Rockville and Cranley recorded the lowest level of car ownership (at 1.6, 1.7 and 1.7 vehicles per household, respectively) reflecting both age factors (in the case of Cranley) and low-income status (in the case of Wilsonton Heights and Rockville).

Public transport

Greyhound Australia provides a daily bus service between Brisbane and Toowoomba, stopping at Withcott, Helidon and Helidon Spa on request (Lockyer Valley Information Centre, 2019).

QR operates the Westlander train service, providing a twice-weekly passenger rail service between Brisbane and Charleville, stopping at Helidon and Toowoomba. Lockyer Valley residents have access to SEQ passenger rail network services via Helidon including a rail–bus replacement service.

Translink operates bus services in Toowoomba, servicing the central business district and outer suburbs. School bus services are also provided. The main bus hub is in Neil Street in the central business district. The Traffic impact assessment identified 17 public transport routes that share routes with potential construction traffic and/or proposed and existing road–rail interface locations that may be impacted by the Project (Appendix U: Traffic Impact Assessment).

There are no current interfaces between school bus routes and the proposed alignment, with the exception of Morris Road, which would be closed; however, the Traffic Impact Assessment identified 21 routes that may share routes with potential construction traffic (refer Appendix U: Traffic Impact Assessment).

Journey to work

In 2016, a high percentage of employed people in the Project region travelled to work via car as a driver (73.6 per cent), when compared with Queensland (64.6 per cent), reflecting the limited public transport available.

All suburbs had higher levels of journey to work by car as driver than the LGA averages, with this travel mode particularly high in Mount Kynoch (80.5 per cent). This suburb also recorded the highest rate of travel by car as passenger (11.5 per cent). There were higher representations of people working from home in Postmans Ridge (9.6 per cent), Blue Mountain Heights (7.5 per cent) and Cotswold Hills (6.3 per cent), with low levels in Wilsonton Heights and Rockville (1.3 per cent and 2.5 per cent). Elsewhere, levels of working from home were similar to, or somewhat lower than, the LGAs and Queensland (1.3 per cent in the Lockyer Valley LGA and 0.9 per cent in Toowoomba LGA and Queensland).

Walking to work as a mode of transportation was lower in the Lockyer Valley LGA (2.5 per cent) compared with Toowoomba LGA and Queensland (3.4 per cent and 3.3 per cent, respectively), and generally lower in most suburbs. The exceptions to this were Rockville and Harlaxton (3.4 per cent and 3.0 per cent, respectively).

The *Toowoomba Region Sustainable Transport Strategy* (TRC, 2014a) aims to increase the use of active transport (walking and cycling), to improve the health and wellbeing of its residents, with the likely effect of changing travel behaviours in the region over time. The Project interfaces with the Principal Cycle Network at Gowrie Junction (e.g. Gowrie Junction Road), while the proposed construction traffic routes also coincide with the Principal Cycle Network.

Refer to Appendix Q: Social Impact Assessment for further details.

16.8.2 Community values

Each of the LGAs in the Project region has a community plan that was developed with extensive community input. The plans reflect shared community values, including:

- Development of healthy, inclusive and caring communities
- Environmentally responsible and sustainable management of resources
- Economic diversification and growth
- Avoidance of land use conflicts
- Maintaining the character and vibrancy of town centres
- Management of flood risks
- Protection of places with cultural heritage significance
- Protection, conservation and enhancement of natural assets.

The following sections discuss specific values in potentially impacted communities. Further information is presented in Appendix Q: Social Impact Assessment.

16.8.2.1 Amenity and quality of life

Amenity refers to the use and enjoyment of private and public properties, and contributes strongly to quality of life. Assessment of amenity in areas close to the Project draws on findings from community engagement as well as field observations, which indicate that key factors contributing to local amenity include:

- A semi-rural lifestyle, in a clean and serene environment
- Appreciation of flora and fauna, particularly native wildlife
- The scenic value of rural-residential and semi-rural land uses, including small farms, grazing and cropping areas, and views across the landscape
- The character and 'small town' amenity of Gowrie Junction, Withcott and Helidon
- The landscape as characterised by the Toowoomba Range, the Lockyer Valley and the heavily vegetated escarpment west of Mount Lofty
- Access to business service hubs
- Access to local services and events
- The culturally diverse, yet close-knit community, with strong social networks and mutual reliance between neighbours.

Many landholders in and near the Project enjoy a semi-rural lifestyle. Aspects that support local quality of life include a clean and healthy environment, affordable housing, community connections, access to local services and community events, and strong community networks. Local residents emphasised that the Project region's rural environment in close proximity to service centres (Toowoomba, Gatton and Ipswich) plays a strong part in the amenity, lifestyle and quality of life of its residents. Residents in and near the EIS investigation corridor have access to semi-rural and scenic views primarily made up of rural and rural-residential settlement, vegetated watercourses, croplands and pastures, and forested areas uplands. Residents of Toowoomba, on the eastern edge of the Great Dividing Range, enjoy views across forested uplands across the plains to the east.

Toowoomba's emerging role as a major regional logistics hub and its position on major transport routes, means that the landscape is also characterised by major highways (the Warrego Highway and Toowoomba Bypass) and the QR West Moreton System rail corridor (used primarily for coal haulage). A number of communities in the Toowoomba and Lockyer Valley LGAs have links with historic and current rail operations forming part of the local landscape.

A baseline assessment of the Inland Rail corridor, affirmed by community engagement for this SIA, revealed the cumulative impacts on many of the communities along the proposed alignment due to the delivery of other major infrastructure, or mining and extractive projects (including the Toowoomba Bypass and the Roma Brisbane gas pipeline). Consultation indicates that severe construction fatigue is evident, particularly in the communities of Gowrie Junction/Gowrie/Kingsthorpe and in the Postmans Ridge/Murphys Creek community, which is also still coping with legacy issues associated with the 2011 flood. Some residents are reported to be selling up and leaving the area as they do not feel able to cope with the construction impacts of another major project.

16.8.2.2 Cultural heritage

Indigenous cultural heritage

The Project is located within Country to which the Western Wakka Wakka People and Yuggera Ugarapul People are connected.

Aboriginal cultural heritage studies and surveys were undertaken in corollary with the EIS process, as the basis for development of Cultural Heritage Management Plans (CHMP) with the Western Wakka Wakka people and Yuggera Ugarapul People. ARTC have held preliminary consultations with the statutory Aboriginal parties with an interest in the Project region to provide an overview of the Project and discuss cultural heritage sensitivities and processes.

SIA consultation has also been held with Indigenous representatives. Discussions with the Western Wakka Wakka People identified that:

- Gowrie Creek and Gowrie Mountain are culturally important areas for Western Wakka Wakka People
- The Project intersects Gowrie Creek (i.e. realigned Gowrie Junction Road)
- There is concern about the ongoing disruptive effect that infrastructure projects, including the Warrego Highway, Toowoomba Bypass and the Project, may have on the integrity of the cultural landscape
- There may be potential for the Project to affect massacre sites, which have specific importance (this was not identified as part of the cultural heritage assessment undertaken for the Project (refer Chapter 18: Cultural Heritage)).

In SIA consultation, Yuggera Ugarapul Elders emphasised the importance of the cultural landscape and how strongly their sense of community is connected to natural elements of place, with potential for the Project to affect their emotional attachments to Country.

Aboriginal cultural heritage will be managed under the approved CHMP.

Non-Indigenous cultural heritage

Assessment of non-Indigenous cultural heritage (refer Appendix S: Non-Indigenous Cultural Heritage) identified places in the Register of the National Estate, the State Heritage Register, the *Toowoomba Regional Council Planning Scheme* (TRC, 2012) and the *Gatton Planning Scheme* (LVRC, 2007) relevant to the Project.

The Project traverses under the QR West Moreton System rail corridor at Ballard, which is of State significance, but at a depth of 175 m with no potential for impacts. The Project traverses over the Bicentennial National Trail (i.e. Gittins Road at Withcott) and the Mount Lofty Rifle Range, which are places of local heritage significance. In addition, the cultural heritage assessment identified a number of areas of interest relevant to the Project, including the structures and buildings associated with current and former railway at Gowrie, along with homesteads and dairies.

The potential for impacts on cultural heritage places is discussed in detail in Appendix S: Non-Indigenous Cultural Heritage and is summarised in Appendix Q: Social Impact Assessment.

16.8.2.3 Cultural diversity

Cultural diversity in the Project region is represented at a broad level by the percentages of people born in Australia, percentages of people who were not proficient in the English language, and the most common other languages spoken.

In 2016, both the Toowoomba and Lockyer Valley LGAs had a higher percentage of people born in Australia than the State average (81.0 per cent and 78.2 per cent, respectively, compared with Queensland at 71.1 per cent). Most of the SSCs had an even stronger representation of Australian-born residents (more than 84 per cent of the population). In the smaller communities of Mount Kynoch and Helidon, the representation of Australian-born residents was lower than in other local communities (at 73.4 per cent and 78.9 per cent, respectively).

The larger proportions of residents born overseas were from North America (Mount Kynoch at 6.0 per cent of a total of 237 people) or from New Zealand or England (in Helidon at 1.7 per cent and 1.2 per cent, respectively, from a total of 884 people) (ABS Quickstats, 2016, cited in Appendix Q: Social Impact Assessment).

Refer to Appendix Q: Social Impact Assessment for further details.

16.8.2.4 Community identity

Community identity is derived from elements including community history, land uses, special features and community characteristics, and varies between and within the Toowoomba and Lockyer Valley LGAs.

The SIA community survey invited feedback from respondents about what they valued about their community. There was a total of 102 responses for this question, including 29 from residents in the Toowoomba LGA and 73 from the Lockyer Valley LGA.

The Toowoomba LGA is home to metropolitan, semi-rural and rural communities, and occupies a large region west of the Toowoomba Range. Toowoomba city is the main regional centre for the northern and western Darling Downs. The LGA's communities have a strong sense of place, based in their individual heritage and landscape, with the rural qualities of the townships, semi-rural and rural landscapes forming an intrinsic part of this area's character. Representative comments from Toowoomba residents who participated in the SIA community survey include:

- 'A clean unpolluted environment, fresh air and the unique qualities of rural living'
- 'We experience the attributes of nature as well as having a wonderful community support network, close proximity to health, education, transport and job opportunities.'

Communities identify with the region's rural qualities, its relaxed country lifestyle, and the safe and family-friendly environment (TRC, 2014b). Natural assets such as parks, rural spaces and bushland are a valued feature of the Project region.

The Lockyer Valley LGA's identity has been forged on its rich farmland, with enduring industry strengths in horticulture and agriculture, while, historically, its small population settlements were aided by the development of the railway (1860s) from Ipswich to Toowoomba. Lockyer Valley is home to rural, low-density community settlements, with an attractive country lifestyle supported by the regional centre in Gatton, residential growth in Plainland and the future development of a service centre in Laidley. Representative comments from the SIA community survey respondents included:

- 'Although the Lockyer Valley has grown and diversified in business and in people, we all still have small town/rural values where we all help each other in times of need ... it is a safe environment to raise a family. We would not want our towns threatened by major changes to our environment and landscapes.'
- 'It is a tight knit community that helps each other. Especially in times of duress like the floods in 2011 and 2013... It is a nice place to live. Not too far to major centres (Ipswich and Toowoomba) if you need more entertainment and services.'

Many of the rural communities and townships in the Project region enjoy strong community connections and cohesion.

Common to both LGAs was how respondents value their communities as family oriented and, generally, with a strong sense of identity, the strength of their communities and 'sticking together' in difficult times. Survey respondents were less confident that their communities had the ability to adapt to change.

Refer to Appendix Q: Social Impact Assessment for further details on these survey results.

16.8.2.5 Sense of place

Sense of place refers to an appreciation of, and attachment to, aspects of a place and its identity, and describes 'the human experience of place... the beliefs, perceptions and attitudes held toward a place... conscious and unconscious attachments to place [which] can also be a strong component of personal, as well as group or community identity' (De Wit, 2012).

Aboriginal people have a particular relationship to land and their sense of community is strongly connected to natural elements of place. Aboriginal people are strongly attached to the Project region's cultural landscapes.

Sense of place in the potentially affected communities has a strong relationship to the land (through farming and attachment to the landscape), environmental values and the pattern of rural localities and villages, as well as social elements such as relationships between community members and places. Comments from Toowoomba survey respondents about what makes their community a special place to live describe a rural way of life, picturesque landscapes and appreciation of local wildlife, away from the pressure of towns but within close proximity of Toowoomba city.

Comments from the Lockyer Valley LGA sample described specific places and emphasised the value of unique town characters, the natural environment and strong community identities.

16.8.3 Employment, business and industry

This section provides an overview of labour force characteristics, tourism in the Project region, business capacity to supply the Project and existing skills shortages.

16.8.3.1 Employment and labour

Labour force

Labour force data is provided at State Suburb, LGA and SA4 level. SA4 areas are specifically designed to capture labour force survey data and consider a larger geographic footprint.

In 2016, the Project region had a total workforce of 86,950 people, of whom 15,762 people (18.1 per cent) lived in the Lockyer Valley LGA and 71,188 people (81.9 per cent) lived in the Toowoomba LGA.

In the Lockyer Valley LGA in 2016, the labour force participation rate was 71.6 per cent for non-Indigenous people and was 49.5 per cent for Indigenous people. In the Toowoomba LGA, the labour force participation rate was 78.0 per cent for non-Indigenous people and was 61.1 per cent for Indigenous people (Department of Aboriginal and Torres Strait Islander Partnerships (DATSIP), 2020, cited in Appendix Q: Social Impact Assessment).

The largest industry of employment by number of workers in the Locker Valley LGA was agriculture, forestry and fishing (2,177 people) followed by health care and social assistance (1,542 people), education and training (1,441 people), retail trade (1,428 people) and construction (1,307 people).

In the Toowoomba LGA, the largest industries by number of workers were health care and social assistance (10,501 people), education and training (7,806 people), retail trade (6,756 people), construction (6,056 people) and manufacturing (4,840 people).

On a percentage basis, the key industries of employment in 2016 in the Lockyer Valley LGA were agriculture, forestry and fishing (13.8 per cent of the employed labour force), health care and social assistance (9.8 per cent), education and training (9.1 per cent), retail trade (9.1 per cent), and construction (8.3 per cent).

Key industries in the Toowoomba LGA included health care and social assistance (14.8 per cent of the employed labour force), education and training (11.0 per cent), retail trade (9.5 per cent) construction (8.5 per cent) and manufacturing (6.8 per cent).

16.8.3.2 Occupation

The occupation profile of the Toowoomba LGA is largely comparable to that for Queensland, with greater divergence to the Lockyer Valley LGA.

Labourers were the mostly highly represented group in the Lockyer Valley LGA (18.1 per cent), compared with Toowoomba LGA (12.2 per cent) and Queensland (10.5 per cent), consistent with its agricultural industry profile and lower level of educational attainment (i.e. certificate not degree) noted previously. Toowoomba also has a higher representation of labourers than Queensland (12.2 per cent). Machinery operators and drivers were also more highly represented in the Lockyer Valley LGA (10.2 per cent of the workforce) compared to the Toowoomba LGA and Queensland (both at 6.9 per cent). Percentages of technical and trade workers were also slightly higher in the Toowoomba LGA (15.1 per cent) and in Lockyer Valley LGA (15.0 per cent), when compared with Queensland (14.3 per cent).

There was a notably lower percentage of people employed as professionals in the Lockyer Valley LGA (11.8 per cent) compared with both Toowoomba LGA (18.6 per cent) and Queensland (19.8 per cent).

Data on occupational groups is detailed further in Appendix Q: Social Impact Assessment.

16.8.3.3 Unemployment

At the LGA level, Lockyer Valley LGA's unemployment rate increased from 6.5 per cent in 2011 to 8.1 per cent in 2016—an increase of 1.6 per cent. In the Toowoomba LGA, the unemployment rate increased by 2.0 per cent—from 4.7 per cent in 2011 to 6.7 per cent—in 2016.

Unemployment rates in 2016 were highest in Mount Kynoch (12.2 per cent), Harlaxton (11.8 per cent), Wilsonton Heights (11.5 per cent), Helidon (10.3 per cent) and Rockville (10.1 per cent), and at much higher levels than that in the LGAs. The largest concentrations of unemployed people were in Mount Lofty (1,840 people), Rockville (1,251 people) and Gowrie Junction (1,074 people), reflecting their larger populations.

Mount Kynoch and Postmans Ridge saw large increases in unemployment between 2011 and 2016 (rising by 8.5 per cent and 5.3 per cent, respectively); however, this data is based on very small workforce numbers and may not be statistically significant. With 411 people employed in 2016, Helidon had the largest increase in unemployment of the other suburbs between the Census periods, rising by 4.9 per cent from 5.4 per cent in 2011, to 10.3 per cent in 2016. In combination with other socio-economic indicators (e.g. SEIFA scores, median incomes and household types) this data reflects earlier analysis of Harlaxton, Rockville, Wilsonton Heights and Helidon as being disadvantaged communities.

The unemployment rate in the Lockyer Valley LGA increased during 2016 and decreased during 2018, followed by a small increase in unemployment during 2019 to reach a rate of 6.4 per cent in March 2020. This was a decrease of 0.5 per cent since March 2016. In the Toowoomba LGA, unemployment rates trended upwards during 2016–2018, but declined during 2019 to reach 4.6 per cent in March 2020, which was an increase of 0.2 percentage points since March 2016.

At March 2020, there were 3,393 unemployed people in the Toowoomba LGA and 1,178 unemployed people in the Lockyer Valley LGA, for a collective unemployed workforce of 4,571 people.

The COVID-19 pandemic resulted in job losses across Australia from March 2020. The number of Toowoomba LGA residents receiving Jobseeker or Youth Allowance benefits (a proxy indicator for unemployment numbers, noting that not all Youth Allowance recipients are available for work) increased from 7,175 people to 10,995 people between March 2020 and July 2020 (an increase of 53.2 per cent). The number of Lockyer Valley residents receiving these benefits increased from 1,903 in March 2020 to 2,955 people in July 2020 (an increase of 55.2 per cent). Increases in the number of Jobseeker and Youth Allowance recipients was largely due to decreased economic activity resulting from COVID-19 and indicates that unemployment is likely to have risen since March 2020. The effect of COVID-19 on labour availability is yet to be established. Increased unemployment and business closures may result in increased availability of labour and skills to the Project, but labour mobility may be constrained while travel restrictions are in place, with mobility potentially increasing as specific industries and regions recover from changes to economic conditions. Overall, a decrease in the labour and skills available in the Project region is not anticipated.

Data on the labour force, including the number of people who were unemployed and the unemployment rate in potentially impacted communities, is detailed further in Appendix Q: Social Impact Assessment.

16.8.4 Tourism

Tourism in the Toowoomba and Lockyer Valley LGAs is largely generated by the scenic amenity, environmental values and rural character of the region. Self-drive tours are popular throughout the LGAs and walking tracks, flora and fauna, extensive wooded and mountainous vistas attract day-trippers and overnight stayers, with a diverse range of accommodation, bed and breakfast, and farm stays.

The landscape and visual impact assessment (refer Appendix H: Landscape and Visual Impact Assessment) identified a number of recognised self-guided tourist drives in the Lockyer Valley region, including:

- The 'Warrego Way', 'Adventure Way' and 'Australia's Country Way', each nationally marketed as 'Great Queensland Drives' (Outback Queensland Tourist)
- The 'Cobb and Co Tourist Drive'
- The 'Open Plains Country Drive'
- The 'Spring Bluff Tourist Drive'.

Referred to fondly as the 'salad bowl', the Lockyer Valley is known for its production of high-quality produce and stock as well as scenic landscapes (Lockyer Valley Visitor Information Centre, 2019).

The LVIA identified a number of national parks and nature refuge areas with scenic amenity and tourist appeal, including:

- Lockyer National Park (including Alice Creek Nature Reserve)
- Picnic Point Parklands, one of Toowoomba's top tourist destinations
- The Bicentennial National Trail network, a multi-use trail
- Mount Tabletop Bushland Reserve
- A number of parks along the escarpment, including Redwood Park and Jubilee Park.

The Murphys Creek Fossil Downs Bush Rodeo is a popular event in the Lockyer Valley Region, along with several festive events such as the Christmas in the Country Art and Craft Show and the Laidley Spring Festival. The Lockyer Valley Visitor Information Centre (2019) advertises food trails in the area, and promotes local hospitality businesses and food producers to visitors. Another key attraction is the Helidon Natural Springs in Helidon, also offering visitor accommodation at the Helidon Natural Springs Spa Resort.

Toowoomba has a number of events, including the well-known Carnival of Flowers, which is held annually and attracts thousands of visitors to the region (TRC, 2019b). Parks are also significant generators of day-trip tourism. There are several attractions in the region including Highfields Falls, Mount Lofty Lookout and the Heritage Centre in Toowoomba. Cranley Escarpment is a bushland reserve that is used for bushwalking and general recreational purposes. Toowoomba is also a popular cycling destination offering mountain bike trails and network of roads (TRC, 2019a). A master plan has been developed by TRC, LVRC and the Queensland Government to guide the future of mountain biking along the Range escarpment. Farm stays are also popular among visitors.

Each of the small townships have their own unique landscape and architecture that entices tourists. Several other attractions in the area include the Cobb and Co Museum and the Jondaryan Woolshed. There are several historical walks in the Toowoomba Region that highlight the rich farming and Indigenous culture in the area. The Toowoomba Region has many food and beverage options for tourists visiting the area. The SEQ website (SEQ Food Trails, 2019) provides information on local businesses in the area to visit—from wineries to restaurants and cafes.

16.8.5 Businesses capacity to supply the Project

The Toowoomba LGA recorded significantly more businesses (15,619 businesses) compared to the Lockyer Valley LGA at 3,053, reflecting its larger population and its role as a regional centre. The Toowoomba LGA's largest industry by number of businesses in 2017 was agriculture, forestry and fishing (3,330 businesses) followed by construction (2,539 businesses) and rental, hiring and real estate services (1,592 businesses). In 2016–2017 the total output value of agriculture in the Toowoomba LGA was $1,785 million (M).

The largest industry in the Lockyer Valley LGA (as indicated by number of businesses) was agriculture, forestry and fishing (847 businesses) followed by construction (538 businesses) and transport, postal and warehousing (276 businesses).

The construction industry is the second largest industry in both LGAs, indicating capacity in this industry as a potential labour pool during the Project's construction phase. Recent major projects, including the construction of the Toowoomba Bypass and urban growth, are likely to have contributed to the strength of the construction industry in both the Toowoomba and Lockyer Valley LGAs.

The majority of businesses in both LGAs were either non-employing or were small businesses with less than 20 employees. In the Toowoomba LGA, 63.9 per cent of businesses were non-employing (sole operators, including farmers) and 33.8 per cent employed 1 to 19 employees. In the Lockyer Valley LGA, the percentage of non-employing businesses was slightly higher, at 65.2 per cent (reflecting the agricultural industry commonly operated as family businesses), while 32.6 per cent of businesses employed 1–19 employees. While similar to the Queensland business profile, it is likely that many businesses will need capacity building in order to participate in supply to the Project.

Further detail is included in Appendix Q: Social Impact Assessment.

16.8.6 Skills shortages

The AIGroup *Construction Outlook* survey (Australian Industry Group, 2018a) found that the construction industry was experiencing widespread and increasing difficulties in sourcing skilled labour and materials. A total of 69.2 per cent of respondents reported either 'major' or 'moderate' difficulty in recruiting skilled labour in the six months to March 2018, up from 66.7 per cent in the previous six months. 'Major' or 'moderate' difficulties sourcing sub-contractors was reported by 57.8 per cent of respondents, down from 66.7 per cent in the previous six months. More than two thirds (69.2 per cent) of respondents expected 'very busy' or 'busy' levels of activity to June 2019. Respondents to AIGroup's *2018 Workforce Development Needs Survey* (2018b) listed construction trades workers, electricians and mechatronics/automation trades workers as the top three job roles experiencing skill shortages (Australian Industry Group, 2018b). Respondents were not expecting this situation to ease, with continued growth in the construction sector forecast into 2019/20, based on a range of large-scale projects, and strong growth prospects in transport infrastructure and civil works projects, which were expected to continue to draw heavily on labour and materials.

The 2018 National Skills Needs List (showing shortages in trade workers) indicates that a very wide range of trades were experiencing skills shortages at the national level (Australian Apprenticeships, 2019). Those of potential interest to the Project that are experiencing shortages include electrical equipment trades workers, metal fabricators and pressure welders.

The Australian Government Department of Jobs and Small Business also produces data on selected occupations for which shortages or some recruitment difficulty is evident, (which were previously produced by the Department of Jobs and Small Business). This information is Queensland-wide rather than region-specific but can provide valuable insights into the likely ease of accessing particular skills. The latest available list of trades produced for Queensland, which may be relevant to the Project's construction phase, was for the year 2016–17. Occupational reports for skill categories relevant to the construction sectors indicate that companies and projects were expecting some difficulties in recruitment, in plumbing- and gas-fitting trades. A 'shortage' exists when employees are unable to fill or have considerable difficulty filling vacancies (Department of Employment, Skills, Small and Family Business, 2019).

At the national level, the most recently available data for specific occupations is for 2019 and indicates that: the labour market for engineering professionals has tightened since 2018; a shortage of civil engineering professionals remained in Queensland; and a national shortage of electrical engineers had emerged; while engineering trades such as fitters, metal machinists and sheet metal trades also had shortages at the national level (with no Queensland-specific data provided) (Department of Jobs and Small Business (DJSB), 2018).

Queensland labour market research conducted in 2017 (DJSB, 2018) also identified shortages for occupations in the construction cluster (with the exception of carpenters, joiners and fibrous plasters), but noted that regional employers had more success filling vacancies than metropolitan-based employers. In contrast to national findings, it found no shortages for structural steel and welding trades (DJSB, 2018).

In the Project region in 2017, there were approximately 2,539 construction industry businesses in the Toowoomba LGA (up from 2,444 businesses in 2015) and 538 construction industry businesses in the Lockyer Valley LGA (up from 487 businesses in 2015), for a total of 3,077 businesses.

Locally, consultation participants noted that the number and capacity of construction and manufacturing industry businesses had increased as a result of major project construction, including the Toowoomba Wellcamp Airport and the Toowoomba Bypass. This indicates the likely availability of construction workers from within the Project region for the Project's construction.

16.8.7 Training and employment policies

Government strategies and programs are summarised below. A number of the training programs offered as part of these programs are market driven, with needs identified and addressed as they emerge. ARTC will consult with Department of Employment, Small Business and Training (DESBT) to identify opportunities to align Inland Rail's workforce training and development initiatives with the Queensland Government's jobs, skills and workforce diversity programs.

16.8.7.1 Regional Skills Investment Strategy

The Regional Skills Investment Strategy (RSIS) is a DESBT initiative funded over four years. RSIS will support regional communities to identify current and emerging jobs in key industries, and ensure local people are supported to develop the skills to meet this demand (Queensland Government, 2019d).

Both TRC and LVRC are participating in the RSIS. In the Toowoomba LGA, the identified priorities for skills development have been identified in advanced manufacturing, health care and social assistance, and transport and logistics. In the Lockyer Valley LGA, the identified priorities are the agriculture, construction and hospitality industries.

ARTC has commenced consultation with the RSIS coordinators in each Council, towards alignment of Inland Rail training initiatives with RSIS strategies.

16.8.7.2 Jobs Queensland

Jobs Queensland is an independent statutory entity, established by the Queensland Government, to provide strategic advice to the Government on future skills requirements, workforce planning and development issues, and the apprenticeship and traineeship system.

Jobs Queensland's '*Positive Futures: Apprenticeships and Traineeships in Queensland*' Discussion Paper notes that after trending upwards for over a decade during the mining boom, apprenticeship commencements in Queensland began to fall in 2007, but were recovering by 2016 (Jobs Queensland, 2019). Queensland Government programs that support apprentices and trainees include:

- Registered Trades Skill Pathway, and Trade Skills Assessment and Gap Training, which help existing workers to gain trade qualifications
- User Choice, which funds the training of eligible apprentices and trainees
- Industry Pre-Apprenticeship Programs, which work in partnership with industry to develop tradespeople in priority trade occupations
- Work Start, which provides a one-off payment of $10,000 to private sector employers who employ a recent participant of particular Skilling Queenslanders for Work programs into a traineeship or apprenticeship.

16.8.7.3 Skilling Queenslanders for Work

Skilling Queenslanders for Work (Queensland Government, 2016a) is an initiative providing training to people who are under-used or under-employed in the labour market, and building the skills of young people, Aboriginal and Torres Strait Islander people, people with a disability, mature-age job seekers and people from culturally and linguistically diverse backgrounds. Local community ownership of projects is a cornerstone of the initiative.

ARTC has engaged with TRC and LVRC regarding the potential for joint applications for Skilling Queenslanders for Work projects.

16.8.7.4 Back to Work Regional Employment Package

The Back to Work package is aimed at increasing business confidence and employment prospects for regional jobseekers (Queensland Government, 2016b). Employers, jobseekers, and the Back to Work teams will work together to build regional networks, regional capacity and create local opportunities. This initiative includes:

- Support payments of $10,000 to $20,000 for employers to take on jobseekers in regional Queensland
- Training for eligible jobseekers to gain skills, including Certificate 3 qualifications
- Back to Work teams working with local employers and jobseekers.

The Project's construction contractor will determine the applicability and utilisation of Back to Work package programs as part of its workforce development and training plans.

16.8.7.5 Workforce diversity

The *Queensland Women's Strategy 2016–21* (Department of Communities, Child Safety and Disability Services, 2016) provides a framework for government, the private sector and the wider Queensland community to take significant action to achieve gender equality in Queensland. The Strategy's four priority areas include participation and leadership; economic security; safety; and health and wellbeing. The Strategy also provides a list of initiatives that government, business and the community have committed to delivering—working together to achieve gender equality in Queensland.

ARTC will require its construction contractor to set goals for female employment and report on progress towards those goals.

16.8.7.6 Advancing Aboriginal and Torres Strait Islander education and training

The Department of Education and Training (DET) has released a draft action plan for Advancing Aboriginal and Torres Strait Islander education aimed at driving higher expectations and achieving better outcomes for Queensland's Aboriginal and Torres Strait Islander communities across early childhood education, school education, vocational education and training, and higher education (DET, 2016).

Highlights from the draft action plan with relevance to the SIA include:

- Prioritising participation of Aboriginal and Torres Strait Islander people under the Annual Vocational Education and Training Investment Plan to engage in training that offers social and economic benefits
- Funding for Aboriginal and Torres Strait Islander-specific projects under Skilling Queenslanders for Work, to provide skills development, nationally recognised training and job opportunities.

16.8.8 Housing and accommodation

This section describes the type, cost and availability of housing in the SIA study area.

16.8.8.1 Housing access

Occupied and unoccupied dwellings

At Census 2016, there was a total of 83,217 private dwellings in the Project region. With most of these dwellings being occupied (91.2 per cent of all private dwellings), there is little surplus housing supply available in the region. The greatest supply of private dwellings was in the urban suburbs of Mount Lofty (1,607 dwellings), Rockville (1,393 dwellings), Wilsonton Heights (1,184 dwellings) and Harlaxton (1,161 dwellings). The largest number of dwellings in the rural suburbs were in Kingsthorpe (730 dwellings), Gowrie Junction (714 dwellings), Cranley (681 dwellings) and Withcott (651 dwellings), while Mount Kynoch and Postmans Ridge had the smallest number of dwellings (87 and 145 dwellings, respectively).

Occupancy levels were highest in the Lockyer Valley LGA (93.6 per cent), followed by Toowoomba LGA (90.7 per cent), with both slightly higher than Queensland (89.4 per cent).

There were 806 unoccupied dwellings in the potentially impacted communities, with the greatest number located in Mount Lofty (157 dwellings), Harlaxton (119 dwellings) and Rockville (101 dwellings) reflecting their larger supplies of housing. Cranley had the highest rate of unoccupied dwellings at 13.5 per cent, followed by Mount Kynoch at 11.5 per cent, potentially reflecting a lag in housing demand for newly built dwellings or the existence of vacant homes on larger rural properties. Refer to Appendix Q: Social Impact Assessment for further information.

Housing type

The Project region has a higher proportion of dwellings as separate houses when compared to Queensland. ABS 2016 data show most dwellings in the Lockyer Valley LGA were separate houses (91.4 per cent), more so than in Toowoomba LGA (81.4 per cent), while both LGAs had a higher representation than Queensland (76.6 per cent).

The Toowoomba LGA offers greater housing choice than elsewhere in the Project region, with a higher percentage of medium density housing, consisting of semi-detached, row or terrace housing (11.9 per cent of dwellings) and flat or apartments (5.1 per cent of dwellings). This compares with the Lockyer Valley LGA's lower representation of semi-detached housing (2.6 per cent) and flats/apartments (1.8 per cent). While Toowoomba LGA has a similar level of semi-detached, row or terrace housing as Queensland (11.9 per cent compared with 10.6 per cent) it has a much lower representation of flats or apartments (at 5.1 per cent compared with 11.3 per cent).

The housing profile indicates a generally low density of housing with limited diversity in supply. In the suburbs of Cotswold Hills, Gowrie Junction, Kingsthorpe and Postmans Ridge all housing stock was separate housing in 2016. The most significant representation of semi-detached housing was in Cranley (47.1 per cent of stock and reflecting the location of the Palm Lakes Resort), Harlaxton (15.9 per cent semi-detached and 5.4 per cent flat or apartment), and Mount Kynoch (15.0 per cent as semi-detached).

Refer to Appendix Q: Social Impact Assessment for further information.

Housing tenure

Households in rental dwellings can be more vulnerable to rental price changes, particularly if on low incomes, and may have difficulties accessing the home purchase market. ABS 2016 data show the Toowoomba LGA recorded a higher percentage of dwellings that were rented (30.0 per cent) compared to the Lockyer Valley LGA (23.1 per cent) but lower than Queensland (34.2 per cent); however, the higher proportion of rental households in Toowoomba does not appear to reflect a more transient population, with both LGAs recording similar percentages of people living at the same address 1 year ago (70 per cent of households each) and 5 years ago (51 per cent of households in Toowoomba LGA and 49 per cent in Lockyer LGA).

The Lockyer Valley LGA recorded a higher percentage of dwellings owned with a mortgage (35.5 per cent) compared to the Toowoomba LGA (30.6 per cent) and Queensland (33.7 per cent).

Home ownership with dwellings owned outright was highest in the suburbs of Blue Mountain Heights (49.1 per cent), Cotswold Hills (46.9 per cent) and Cranley (46.4 per cent). Outright home ownership levels were the lowest in Helidon Spa (14.8 per cent) and Mount Kynoch (18.2 per cent). Rental tenure was highly represented in the suburbs of Wilsonton Heights (45.7 per cent), Harlaxton (42.1 per cent) and Rockville (35.4 per cent), identified earlier as being disadvantaged, as well as in Mount Kynoch (40.3 per cent). Home purchasing is most highly represented in Gowrie Junction (60.2 per cent of dwellings owned with a mortgage), Withcott (51.0 per cent) and Kingsthorpe (50.8 per cent).

Refer to Appendix Q: Social Impact Assessment for further information.

Social housing and homelessness

Housing stress is said to occur when low income households (those in the bottom 40 per cent of income distribution) pay more than 30 per cent of their gross household income on housing costs such as mortgage or rent (Torrens University, 2018).

The Rental Affordability Index is a marker for housing stress, where a score of 100 or less indicates households in housing stress (i.e. where households pay more than 30 per cent of gross household weekly income on rent) (SGS Economics and Planning, 2019). Scores are only available for Postcode 4350 and Postcode 4352 due to data availability and are detailed in Appendix Q: Social Impact Assessment.

In summary, the scores for Postcodes 4350 and 4352 indicate that rental housing is affordable for a couple on an average income of $75,000; however, they also show that affordability has been declining in both postcode areas since 2011 (falling from 154 to 129 in Postcode 4350, and from 140 to 134 in Postcode 4352).

ABS 2016 data show there is a limited supply of social housing in the Project region. In the Toowoomba LGA in 2016, 2.6 per cent of housing (or 1,591 dwellings) was social housing, while in the Lockyer Valley LGA 1.2 per cent of housing (or 174 dwellings) was social housing.

Of Toowoomba's social housing stock, 250 dwellings (15.7 per cent) are located in the potentially affected communities, predominantly in Wilsonton Heights (96 dwellings), Rockville (74 dwellings) and Harlaxton (69 dwellings), these being some of the most disadvantaged suburbs in the Project region.

Due to the nature of homelessness, the number of homeless people is hard to estimate accurately. Data on homelessness is presented at the SA2 and LGA level in Appendix Q: Social Impact Assessment and summarised as follows:

- There was an estimated 660 people experiencing homelessness in the Project region at the 2016 Census
- Most were identified in the Toowoomba LGA (493 people, an increase of four people from 2011 to 2016), consistent with the larger population and greater availability of service level here
- An estimated 167 people in the Lockyer Valley LGA were homeless in 2016—an increase of 37 people since 2011
- At the SA2 level, the largest number of people who were recorded as being homeless was in the Wilsonton SA2 (46 people in 2016) and Toowoomba West SA2 (40 people), followed by North Toowoomba-Harlaxton SA2 (32 people) and in the Lockyer Valley-West SA2 (31 people)
- The greatest change at the SA2 level was seen in Wilsonton, increasing by approximately 27 homeless persons between 2011 and 2016, while numbers generally reduced elsewhere. This may indicate the transient nature of homelessness and/or the difficulties of accurately reporting homelessness.

16.8.8.2 Housing trends

Purchase availability and prices

Real Estate Institute of Queensland (REIQ) reported on median sale prices indicates that the Toowoomba LGA housing market has been steady in recent years, with a small reduction in median house prices of 1.0 percentage points over the year to March 2020. Five-year purchase price trend data to March 2019 showed modest growth of 12.2 per cent in the Toowoomba LGA (REIQ, 2019). The unit sales market saw an average decrease of 8.2 per cent in the year to March 2020 compared to the previous year.

There was no change to the median value of housing asking prices in the Lockyer Valley LGA in the year to March 2020. Five-year trend data to March 2019 indicated that housing asking prices had remained steady, with growth of 1.9 per cent (an annualised growth of 0.38 per cent).

At the end of March 2020, the median asking price for all houses in Postcode 4352 (Gowrie Junction, Postmans Ridge and Withcott) was $489,900, which was the highest median cost among the four postcodes, and had decreased by 1.5 per cent compared with the previous year and by 1.3 per cent over the previous three years (SQM Research, 2020).

The other postcodes had median prices ranging from $374,200 in Postcode 4344 (Helidon and Helidon Spa) to $377,500 in Postcode 4350 (Toowoomba suburbs) to $377,800 in Postcode 4400 (Kingsthorpe). Postcode 4350 saw a one-year increase of 1.9 per cent in median asking price for all houses, and a small decrease (1.5 per cent) over the preceding three years. In Postcode 4344 (Helidon and Helidon Spa), there was a one -year decrease of 5.6 per cent and a three-year decrease of 2.4 per cent; while in Postcode 4400 (Kingsthorpe) there were also small decreases at 1.0 per cent over the one-year period and 0.2 per cent over the three-year period. Overall, this indicates a stable market with no remarkable surges in demand or changes in housing cost.

Volatile house prices in Postcode areas 4344 and 4400 reflect small housing markets (611 and 666 dwellings, respectively in 2016) and are not reliable market indicators. Unit prices also tended to show greater volatility, likely due to the small market size, and should be treated with caution.

Appendix Q: Social Impact Assessment contains further detail.

Rental cost

The highest median asking rent for houses was in Postcode 4352 (Gowrie Junction, Postmans Ridge and Withcott) at $415/week with rents in all other postcodes ranging from $332 to $344 per week.

Postcode 4350 (Toowoomba suburbs including Blue Mountain Heights, Cranley and Mount Kynoch) had the next highest rent, at $344/week, which had decreased by 2.1 per cent over the preceding 12 months but increased by 7.1 per cent over the preceding three years. In Postcode 4344 (Helidon and Helidon Spa) the median weekly asking rent was $332/week, which was similar to Postcode 4400 (Kingsthorpe) at $333/week. Rents had decreased by 3.6 per cent in Postcode 4344 and by 15.9 per cent in Postcode 4400 over the preceding 12 months but had increased (by 10.4 per cent and 3.4 per cent, respectively) over the preceding three years.

Modest increases to rental asking price for units are evident over the three-year period to March 2020, with median asking rents rising by 8.6 per cent in Postcode 4350 (annualised at approximately 2.9 per cent per year) and by 7.2 per cent in Postcode 4352 (annualised at approximately 1.4 per cent per year).

During 2020, the average weekly rent for houses in Toowoomba suburbs saw a modest rise of 4.0 per cent over the 12 months to December (SQMResearch, 2021), while average weekly rents for houses rose by 11.0 per cent in the Gowrie Junction/Postmans Ridge/Withcott postcode and by 10.5 per cent in the Kingsthorpe postcode (SQMResearch, 2020). This is consistent with increased demand for rental housing in these communities. Helidon saw a decrease of 17.7 per cent in average weekly rental costs over the 12 months but from a low rate of turnover in this small rental market.

Appendix Q: Social Impact Assessment contains further detail.

Rental housing availability

The REIQ considers that a healthy rental market exists when vacancy rates are between 2.5 per cent and 3.5 per cent of rental stock; a weak market when rates are at or above 3.6 per cent and a tight market when vacancy rates are less than 2.5 per cent. According to the REIQ, vacancy rates in Toowoomba LGA have remained consistently low in recent years, with substantial rental demand due to the large number of students attending the University of Southern Queensland in Toowoomba.

Data on rental vacancy rates by postcode is detailed in Appendix Q: Social Impact Assessment and is summarised as follows:

- In Toowoomba suburbs, where most of the local rental stock is located, the already low rental vacancy rate more than halved, from 1.7 per cent in June 2019 to 0.7 per cent in June 2020, and remained very low, at 0.9 per cent, in December 2020. Rental vacancy rates were also very low in other local communities during 2020, at 0.0 to 1.6 per cent in Kingsthorpe, 0.3 to 0.7 per cent in the Gowrie Junction/Postmans Ridge/Withcott postcode and 0.6 to 1.0 per cent in Helidon and Helidon Spa. Low rental vacancy rates were being experienced across Queensland regions during the second half of 2020, e.g. rates of 1.5 per cent in the nearby regional centres of Goondiwindi, 0.5 per cent in Dalby, and 0.9 per cent in central Ipswich.
- At June 2020, a total of 135 rental dwellings were advertised as vacant in the four postcode areas of interest, which was a decrease of 173 dwellings or more than 56 per cent since June 2019.
- Building approvals

As a major regional centre, the supply of housing increased most notably in the Toowoomba LGA, with 928 building approvals for new dwellings issued in 2017–18, compared with 266 approvals in the Lockyer Valley LGA. New dwelling approvals were concentrated in Toowoomba–West SA2 (209 approvals), Highfields SA2 (130 approvals) and Wilsonton SA2 (121 approvals). Elsewhere, new dwelling approvals were relatively low (75 in Lockyer Valley–West SA2, 44 in Gowrie SA2 and five in North Toowoomba–Harlaxton SA2).

Appendix Q: Social Impact Assessment contains further detail.

16.8.8.4 Short-term accommodation

Communities in the SIA study area have access to a range of short-term accommodation options, predominantly in the urban centre of Toowoomba, which offers a range of hotel, motel and serviced apartment visitor accommodation options.

There are few short-term accommodation establishments in the potentially impacted communities in the Lockyer Valley LGA. Helidon hosts the Lockyer Motel (15 rooms) and Helidon Spa hosts the Helidon Natural Springs Spa Resort Motel/Caravan Park, which has a total of 80 cabins and provides affordable accommodation for low income households. Accommodation is not available in Ballard, Lockyer, Postmans Ridge or Withcott.

Catering to a mix of visitors, students, tourists and seasonal workers, nearby Gatton has three hotel/motel options (Gatton Motel, Royal Hotel Gatton and Room Motels Gatton) and a caravan park (understood to be continually occupied by seasonal workers). There are seasonal demands on low-cost accommodation in relation to fruit picking and crop harvesting, with the Lockyer Valley generally requiring pickers in most months, with the general exception of June and July.

Within potentially affected communities in the Toowoomba LGA, accommodation establishments include:

- Gowrie Motor Inn at Kingsthorpe, which has nine rooms
- Cotswold Motor Inn in Cotswold Hills, which has 21 rooms
- Northpoint Motel in Harlaxton, which has 24 rooms.

The latest data on provision and availability of tourism accommodation provided by the ABS were produced for 2015–2016 (ABS, 2016c) for tourism establishments with at least 15 rooms. A supplementary scan of accommodation available locally has also been undertaken.

A total of 36 tourism establishments with at least 15 rooms were identified in the SIA study area and within a half hour drive of the Project, including:

- In the Lockyer Valley LGA:
  - Lockyer Motel in Helidon
  - Gatton Motel in Gatton
  - Rooms Motel in Gatton (approximately 39 rooms)
  - Porters Plainland Hotel (approximately 26 rooms)
  - Royal Hotel (approximately 20 rooms)
  - Commercial Hotel (approximately 10 rooms)
- In the Toowoomba LGA, 36 hotels, motels and serviced apartments, including
  - One each in the Toowoomba East, Wilsonton, and Highfields SA2s
  - Two each in in the Newton and North Toowoomba-Harlaxton SA2s
  - Three in the Drayton/Harristown SA2
  - Eight in the Toowoomba East SA2
  - Sixteen (16) establishments in Toowoomba–Central SA2
  - A new 55-room hotel opened in Toowoomba Central in 2017
  - An additional establishment with 102 suites is planned to open in Toowoomba Central in 2020.

The occupancy rate for Toowoomba–Central SA2 establishments was 58.4 per cent in the June 2016 quarter and, applying this rate to the total number of rooms identified above, approximately 495 vacant rooms may be available on average in the Toowoomba LGA during 2021.

No occupancy data were available for the Lockyer Valley LGA; however, a scan of accommodation availability in the Lockyer Valley on 3 March 2020 (during the Lockyer Valley Country Music Festival, which is a major tourist drawcard) found that of the five hotels and motels for which information was available:

- Rooms Motel in Gatton had 10 rooms available (of 39 rooms)
- Royal Hotel in Gatton had nine rooms available (of approximately 20 rooms)
- Gatton Motel had eight rooms available (of approximately 20 rooms)
- Locker Motel in Helidon had seven rooms available (of approximately 15 rooms)
- Porters Plainland Hotel had 14 rooms were available (of 26 rooms).

This availability equated to an average occupancy rate for the five establishments of 60.0 per cent and indicates that the local short-term accommodation market would generally have capacity to service additional demand.

Accommodation demand fluctuates, with tourism accommodation demands increasing around major events such as Toowoomba's Carnival of Flowers (held in September), Lockyer Valley's Country Music Week (March), CTM FarmFest (June, in Kingsthorpe) and Queensland-wide events held occasionally in the region (e.g. the Queensland PGA Championship, which was held in in Toowoomba, in February 2020).

Appendix Q: Social Impact Assessment contains further detail.

16.8.9 Social infrastructure

This section describes social infrastructure with respect to education facilities, health facilities, emergency services, community facilities and services located in the potentially impacted communities. Appendix Q: Social Impact Assessment contains further details on the provision of social infrastructure as relevant to the Project and nearby communities.

Local communities are also serviced by the Toowoomba urban centre, from which regional services (such as major hospitals and tertiary education) are delivered throughout the region, with district-level services (such as family support and high schools) also delivered from Gatton, and local-level services (such as childcare and primary schools) available in most communities.

16.8.9.1 Primary and secondary education

The nearest schools to the Project are:

- Gowrie State School (with the existing Western Line approximately 700 m to the south), Downlands College and Good Samaritan College (Youth and Community Learning Centre) in Harlaxton, approximately 1.6 km to the south of the project where the Project in tunnel
- Rockville State School in Rockville, approximately 1.9 km to the south of the Project where the Project is in tunnel
- Helidon State School, approximately 1.7 km to the south-east of the eastern extent of the Project).

There are no secondary schools within 4 km of the Project in the Lockyer Valley LGA, with two State secondary schools and several private schools located within 4 km in Toowoomba. In 2018, Toowoomba State High School had the largest student enrolment, at 832, students followed by the Toowoomba Christian College (717 students) and Wilsonton State High School with 702 students. Fairview Heights State School was the largest state primary school at 567 students.

16.8.9.2 Further education and training

Technical and Further Education (TAFE) Queensland has a campus located in Toowoomba, located approximately 3.5 km to the south of the Project. The campus offers courses in hospitality, business, early education, horticulture and beauty.

University of Southern Queensland's main campus is in Toowoomba, approximately 4.5 km to the south of Toowoomba's city centre. There are onsite residential colleges, a range of student and staff support services and a wide range of facilities and recreational areas.

TAFE Queensland services are also delivered in Gatton, based at the Lockyer Valley Conference and Function Centre. Courses delivered include certificates in rural operations, agricultural skills (e.g. chemical application), fatigue management, off-farm employment and life skills such as first aid.

University of Queensland operates a large campus in Gatton, in the Lockyer Valley LGA. There is onsite accommodation, a bioscience research precinct, sporting facilities, veterinary services, farms and various food services. In 2017 there were 1,735 enrolled students. The Warrego Highway provides an important link for the Gatton campus, from Toowoomba to the west and Brisbane/Ipswich to the east. There are several different on-campus housing options for both students and staff, some of these houses and buildings are located along the southern boundary of the campus, which falls within, or directly adjoins, the EIS Investigation Corridor.

A wider range of community-based and commercial training organisations are also available in the Project region, with capacity to offer readiness for work programs, trades training and skills in areas including business management, rural management and technologies, hospitality management, building and construction, traffic management, and safety and first aid.

16.8.9.3 Hospital and health services

The Project falls across two Queensland Health and Hospital Service (HHS) Districts:

- The Darling Downs HHS (DDHHS) is the major provider of public hospital and healthcare services in the Toowoomba LGA, including the Toowoomba Hospital, which is a major regional hospital providing a full range of medical services, including acute, specialist and palliative care. Toowoomba also hosts two private hospitals and a range of primary and allied health services.
- The West Moreton HHS (WMHHS) provides services to the potentially impacted communities in the Helidon area, including a rural public hospital and a range of allied health and community health services in Gatton, and with access to major hospitals In Toowoomba and major hospitals in Ipswich, providing a full range of medical services including acute, specialist and palliative care.

The majority of the potentially affected communities are in the DDHHS, while the Helidon area is in the WMHHS.

Ballie Henderson Hospital is located approximately 1 km south of the Project. Baillie Henderson Hospital specialises in psychiatric care, community mental health services, and a range of community health services and residential aged care facilities. In September 2018, the Queensland Government announced that the Bailie Henderson Hospital campus (a site of 75 hectares (ha)) was the preferred location for a new Toowoomba Hospital, and a detailed business case is currently being undertaken to develop a master plan for the whole Baillie Henderson Hospital campus (Darling Downs Health, 2019).

Public mental health services are provided in the Project region by the DDHHS, delivering specialised assessment, clinical treatment and rehabilitation services. They focus on people with the most severe forms of mental illness and behavioural disturbances. Child and Youth Mental Health Service are also located in Toowoomba, supporting children and young people aged 0 to 17 years who have, or are at risk of developing, severe and complex mental health issues.

Services work in collaboration with primary health professionals (including general practitioners, community health workers, nurses, allied health professionals, school health nurses, counsellors and community support groups). Consultation with Queensland Health indicated that any Project personnel requiring treatment for injuries or sudden illness would be transported to the nearest major hospital (Toowoomba), with the level of demand generated by the Project to be within the hospital services' capacity.

General practitioner clinics in potentially impacted communities are presented in Appendix Q: Social Impact Assessment. There are no general practitioner clinics within approximately 2 km of the Project disturbance footprint.

16.8.9.4 Police, emergency services and justice

The nearest police stations to the Project include:

- Toowoomba Police Station—Hume Street, Toowoomba
- Highfields Neighbourhood Police Beat—Meritt Street, Highfields
- Helidon Police Station—Turner Street, Helidon
- Gatton Police Station—William St, Gatton.

The nearest fire stations to the Project include:

- QFES, South Western Region Headquarters—Warrego Highway, Charlton
- Gowrie Little Plain Fire Brigade—Yalangur Lilyvale Road, Gowrie Junction
- Toowoomba Fire Station—Kitchener Street, East Toowoomba
- Helidon Fire Station—Railway Street, Helidon

- Gatton Fire Station—58 North Street, Gatton
- Rural fire brigades are located at Gowrie Little Plains.

The following ambulance stations in proximity to the Project include:

- Fairview Ambulance Station—Bridge Street, Torrington
- Highfields Ambulance Service—Kratzke Road, Highfields
- Toowoomba Ambulance Station—Herries Street, Toowoomba
- Gatton Ambulance Station—Spencer St, Gatton.

There are also two courthouses located at Gatton (Gatton Courthouse) and Toowoomba (Toowoomba Courthouse).

16.8.9.5 Community facilities and services

Community halls and centres host a wide range of family support, child and family health, cultural and recreational services.

Facilities closest to the Project include:

- Gowrie Junction Community Hall on Old Homebush Road, which is approximately 500 m north of the Project alignment and within approximately 250 m of works to Old Homebush Road near Ch 2.0 km
- Teen Challenge Care Queensland (a not for profit addiction treatment service) on Bedford Road, Cranley, near Ch 5.5 km, where volumetric tenure of the property's northern border would be required for construction of the Toowoomba Range Tunnel
- Heights Community Centre on Wine Street, Wilsonton, which is approximately 2 km south of the Project disturbance footprint, where it is in tunnel at approximately Ch 7.0 km
- Harlaxton Community Hall on Gleeson Crescent Harlaxton, which is approximately 700 m south of the Project, where it is in tunnel at approximately Ch 9.5 km
- Harlaxton Neighbourhood Centre on Coonan Street Harlaxton, which is approximately 900 m south of the Project, where it is in tunnel at approximately Ch 9.0 km
- Gateway Church Toowoomba on Gleeson Crescent in Harlaxton, approximately 800 m south of the Project near Ch 8.5 km, where the Project is in tunnel
- Wilsonton Congregation of Jehovah's Witnesses on Hogg Street in Wilsonton, approximately 1.7 km south near Ch 6.0 km
- Toowoomba Christian Fellowship on Goombungee Road in Birnam, approximately 1.5 km north near Ch 6.6 km
- Toowoomba North Church of Christ in Progress Court in Harlaxton, which is located approximately 1.7 km south of the Project near Ch 9.0 km, where the Project is in tunnel
- Postmans Ridge Pioneer Memorial Hall on Murphys Creek Road, which is approximately 1.3 km south of the Project at Ch 20.0 km
- Helidon and District Community Centre, which is approximately 1.2 km south of the Project near Ch 28 km
- Saint Joseph's Church on Gunn St in Helidon approximately 1.8 km south-east of the Project.

A wide range of community, church, and government agencies provide services throughout the SIA study area. Key community service providers in the Lockyer Valley LGA include:

- Laidley Crisis Care and Accommodation, providing emergency housing support and services to people who are homeless
- ALARA Queensland Limited—Laidley, which provides support and respite services for people with disabilities in the Lockyer and surrounding areas
- Anuha, which provides supported accommodation and community access services for people with disability
- Blue Care Lockyer, which provides care for seniors and people with disability assistance, transport, and Community Aged Care Packaged Care
- Gatton and Laidley Meals on Wheels Inc, delivering meals to those in need
- Kambu Aboriginal and Torres Strait Islander Corporation, which promotes Indigenous community wellbeing

- Laidley Community Centre, which provides a wide range of services, including information, referral and support activities and events
- Uniting Care Employment Service
- Lockyer Valley Community Disability Association Inc—a support and referral service
- Lives Lived Well New Access Program, which provides easily accessible, free services for people experiencing depression and/or anxiety
- Rural Financial Counselling Service Southern Queensland, which provides free and confidential financial assessments for rural small business.

Toowoomba's key service providers (which also extend outreach services to surrounding communities) include:

- Lives Lived Well, which offers a range of community and residential programs and services, including drug and alcohol support services and rehabilitation, counselling youth and family support
- Relationships Australia, which is a community-based organisation offering individual, couple and family relationship counselling and education, and family support
- Lifeline Darling Downs, which provides counselling, family and community support, and services for people with disability
- Uniting Care, which provides services including child protection, supported accommodation, intervention services, domestic violence programs, disability services, services for children and young people and emergency support
- Mercy Family Services, which offers support services for vulnerable and disadvantaged children, young people and their families, including foster care, counselling, family intervention, and supported independent living, and a Multi-cultural Worker Program
- CatholicCare, which provides counselling, family dispute resolution and mediation, support and participation services for Aboriginal young people, refuges and migrant support, and child protection services
- Richmond Fellowship of Queensland, which provides mental health support, suicide prevention and recovery support services for people with insecure housing
- Creating Options Program, which offers alcohol and other drug support including counselling and care coordination
- A range of National Disability Insurance Scheme service providers and aged care providers.

There is no published information regarding the current adequacy of various service types to meet community needs, current and future, in the SIA study area. The adequacy of community services to community needs differs across service types, and community needs change over time in line with demographic characteristics (e.g. unemployment levels and increasing percentages of seniors), emerging community needs (e.g. support needs related to drought conditions and the COVID-19 pandemic response) and Australian and State Government funding decisions.

Consultation participants identified increasing demand on mental health and financial support services as the result of flooding events and drought, which is likely to be exacerbated by the COVID-19 pandemic. Consultation with the Darling Downs and West Moreton Primary Health Network (PHN) and the Brisbane South PHN indicated that local support services have capacity to assist local residents experiencing stress or mental health issues. ARTC's approach to supporting residents who are vulnerable to mental health issues is, therefore, based on providing financial support for the supplementation of local services and ongoing engagement with key stakeholders to monitor any changes to service capacity related to the Project.

16.8.10 Health and wellbeing

16.8.10.1 Indigenous health and wellbeing

At the 2016 Census, 1,166 people identified as Indigenous in the Project region's affected suburbs. The largest Indigenous population were in Wilsonton Heights (254 people) and Rockville (252 people), followed by Harlaxton (182 people) and Kingsthorpe (108 people), with smaller populations in the remainder of affected suburbs.

Unemployment is associated with poor health and wellbeing. Like many areas in Queensland, unemployment in the Project region among Indigenous residents is high, at 18.9 per cent, but lower than the State-wide unemployment rate of 20.1 per cent for Indigenous people. This compares with the general unemployment rate of 7.6 per cent in Queensland.

Aboriginal and Torres Strait Islander residents in the Darling Downs Hospital and Health Service Region experienced 2.1 times the expected burden of disease and injury than that of the State's non-Indigenous population and have an 11.8 years shorter average life expectancy. Cardiovascular disease, mental disorders and diabetes were the largest contributors to the gap in disease and injury burden between Indigenous and non-Indigenous residents.

16.8.10.2 Population health and wellbeing

The following subsections provide an overview of the health and wellbeing of the Project region's population. Refer to Appendix Q: Social Impact Assessment for further details.

Physical activity

The DDHHS has one of Australia's highest rates of physical inactivity, a key risk factor for disease or poor health condition and premature mortality (Commonwealth of Australia, 2018).

Self-assessed health

Self-assessed health status provides a proxy measure of health status and relates to how strongly respondents experience illness and disability. The rate of people who assessed their health as being fair or poor in North Toowoomba–Harlaxton/Wilsonton Population Health Area (PHA) was significantly higher than that for Queensland (21 people/100 compared with 15.5 people/100). All other areas showed better self-assessed health than typical for Queensland (Torrens University, 2018).

Community strength

Strong communities exhibit resilience and have well-developed social connections and supports, contributing to community health and wellbeing. The level of volunteering by residents is a measure of community strength. The level of volunteering in the Project region is high, with 21.2 per cent of the population volunteering, compared with 18.8 per cent in Queensland (ABS, 2016b); however, community strength as indicated by volunteering is not evenly spread, with low levels of volunteering in Rockville (14.3 per cent) and Kingsthorpe (15.6 per cent), contrasting with the much higher levels in Blue Mountain Heights (33.9 per cent), Mount Lofty (26.1 per cent) and Withcott (24.6 per cent).

The ability to access support in times of crisis is a further indicator of the strength of social connections in a community. The estimated levels of people who are able to access support when needed across the suburbs in the Project region's PHAs is similar to levels typical in Queensland (ranging from 92.3 people/100 in North Toowoomba–Harlaxton/Wilsonton to 93.3 people/100 in Gowrie/Toowoomba–West, compared with 93.0 people/100 in Queensland). The data indicates that residents in most suburbs in the Project region's PHAs are able to raise financial help at short notice ($2,000 in a week) at or above levels typical for Queensland, as follows: 89.9 people/100 in the Highfields, 86.2 people/100 in Gowrie/Toowoomba–West and 81.0 people/100 in the Lockyer Valley–West, compared with 81.9 people/100 in Queensland. The rate is much lower at 72.6 people/100 in North Toowoomba–Harlaxton/Wilsonton (Torrens University, 2018).

Developmental vulnerabilities

Developmental vulnerabilities in childhood provide a useful indicator of potential long-term effects on a child's later health, wellbeing and academic success. Lockyer Valley–West and North Toowoomba–Harlaxton/Wilsonton PHAs have slightly higher proportions of school age children who are developmentally delayed than is typical for Queensland (28.6 per cent and 30.0 per cent compared with 26.1 per cent). For other SA2s in the Project region the proportion of school age children who are developmentally delayed is lower (Torrens University, 2018).

Self-harm and suicide

Death from suicide and self-inflicted injury is an indicator of mental wellbeing, particularly among people between 15 and 24 years of age, and 25 and 34 years of age, for whom suicide is a major cause of death. The rate of suicide in North Toowoomba—Harlaxton/Wilsonton PHA is the highest in the Project region, at 15.0 people/100,000, and also high compared to Queensland's rate of 14.1 people/100,000 (Torrens University, 2018). The rate is lower, at 13.1 people/100,000, in the Lockyer Valley–West PHA (data is not reported for Highfields PHA).

Circulatory and respiratory diseases

Community members have raised concerns about the potential for polluting emissions from the rail operation, including coal dust, to affect their health.

Diesel emissions contain concentrations of particulate matter, generally measured and reported as $PM_{2.5}$ and PM_{10}. $PM_{2.5}$ are fine particles and are associated with harmful health effects, including cardiopulmonary and respiratory disease, and some substances found as $PM_{2.5}$ have been declared carcinogens by the World Health Organisation (New South Wales Environmental Protection Authority, 2019).

Health indicators relevant to the population at risk of air pollution include:

- The level of current respiratory system disease (asthma, chronic obstructive pulmonary disease, bronchitis and other conditions) as an indicator of the population potentially at risk of air pollution from PM_{10}
- Coronary heart disease as an indicator of the potential impact of $PM_{2.5}$ (noting, however, that data is currently only reported for all circulatory diseases).

Available information shows that the North Toowoomba–Harlaxton/Wilsonton PHA has a predisposition to a number of these illnesses, with higher rates of hospital admissions for circulatory and respiratory system diseases than the Queensland rate (refer Appendix Q: Social Impact Assessment for further details). The incidence of lung cancer was the same in the Lockyer Valley–West PHA as that for Queensland (at 54.1 people 100,000 compared with 51.4 for Queensland), and significantly lower elsewhere in the Project region (Torrens University, 2018).

Hospital admissions for diseases of the circulatory and respiratory systems occurred at a much higher rate in North Toowoomba–Harlaxton Wilsonton PHA than elsewhere in the Project region, and when compared with Queensland.

Inhaling black carbon, present in diesel emissions, can cause damage to lung cells potentially leading to cancer (Rail Safety and Standards Board, 2016). Chapter 20: Hazard and Risk includes health considerations, and diesel emissions are considered in Chapter 12: Air Quality, and Appendix K: Air Quality Technical Report.

16.8.10.3 Community safety

Feeling unsafe can influence levels of anxiety and can be a barrier to community participation and accessing services. The Highfields PHA perceive their personal safety to be high, with 69.4 people per 100 feeling safe to walk alone after dark in the local area, well above Queensland's rate of 50.9 people per 100. In contrast, residents in North Toowoomba–Harlaxton/Wilsonton PHA have lower levels of perceived personal safety, at 37.1 people per 100 (Torrens University, 2018).

Crime rates are significantly higher than that typical for Queensland in the more disadvantaged areas, in North Toowoomba–Harlaxton, and Wilsonton SA2s, and somewhat high in Lockyer Valley–West SA2 (refer Appendix Q: Social Impact Assessment for further details). Both Gowrie and Highfields report rates of crime well below that typical for Queensland.

16.9 Social impact assessment stakeholder engagement

This section outlines the stakeholder engagement undertaken by ARTC and the SIA team, the results of engagement, and where stakeholder issues are addressed in the SIA. Appendix D: Community Consultation provides a detailed record of engagement processes and outcomes. Further details on SIA stakeholder engagement are provided in Appendix Q: Social Impact Assessment.

16.9.1 Environmental Impact Statement engagement process

ARTC's consultation approach is critical to the successful delivery of the Inland Rail Program. Between June 2017 and June 2020, consultation activities with Project stakeholders included face-to-face meetings, community information sessions, quarterly CCC meetings, and local, State and federal government briefings.

SIA engagement was integrated with ARTC's engagement for the Project through SIA team participation in community information sessions and attendance at Inner Darling Downs CCC and Lockyer Valley CCC meetings. The SIA has also considered the results of ARTC's consultation with landholders, businesses, community groups, environmental groups, councils and government agencies.

ARTC consultation is detailed in Appendix D: Community Consultation. Key themes raised throughout the EIS consultation process included:

- Project description
- Traffic, transport and access
- Land use and tenure
- Social impact
- Noise
- Surface water and hydrology
- Flora and fauna
- Vibration
- Environmental management plan.

SIA engagement was integrated with ARTC engagement processes for the Project. The SIA-specific engagement process included:

- A community survey of residents
- SIA team participation in Community Information Sessions in May, July and August 2018, and October 2019 to outline the SIA scope and process, and speak with community members about potential social impacts
- Participation of SIA team members in Lockyer Valley and Inner Downs CCC meetings to discuss the SIA process and scope, and hear members' concerns regarding potential impacts and the need to maximise benefits resulting from Inland Rail projects for local people
- Meetings with LVRC and TRC officers to discuss community concerns, potential social impacts and benefits, and potential mitigation measures
- Workshops with social infrastructure providers in Toowoomba, Gatton and Helidon to discuss social infrastructure access, community concerns, potential impacts and benefits, and mitigation measures
- A meeting with Yuggera Ugarapul People and an interview with a Western Wakka Wakka leader to discuss the Project, the potential for impacts on Indigenous values and involvement of Indigenous people in Project employment
- Participation in a meeting with the Lockyer Valley Tourism Association to discuss their concerns about Inland Rail's impacts on local businesses and scenic amenity
- A meeting with the Toowoomba Chamber of Commerce to discuss businesses views and opportunities
- A meeting with Gowrie Junction Progress Association representatives to discuss potential impacts in the Gowrie Junction area.

ARTC's social performance team also attended Lockyer Valley CCC meetings (where the Project is a key focus along with the H2C project) in March 2019, August 2019 and October 2019, to provide a briefing on the SIA progress and key focus areas for the social performance program, and seek feedback.

Additional meetings with the Lockyer Valley and Inner Downs CCCs were planned for 2020 to discuss the draft SIA findings; however, this has not been possible to date due to COVID-19 restrictions.

Table 16.8 details the objectives, mechanisms and timing for SIA stakeholder engagement.

TABLE 16.8: SOCIAL IMPACT ASSESSMENT ENGAGEMENT

Stakeholder groups	Objective	Mechanism	Timing
Office of the Coordinator-General (OCG)	Discuss the proposed SIA scope and assessment requirements for Inland Rail projects	Meeting with representatives of the OCG	June 2018
	Discuss the draft SIA	Meeting with representatives of the OCG	June 2020

Stakeholder groups	Objective	Mechanism	Timing
Landholders and community members	Provide information about the Project alignment and EIS study process Enable community members to contribute their views on the scope of potential social impacts and benefits	Participation in ARTC information sessions (refer Appendix D: Community Consultation for detailed information)	May 2018
Landholders and community members [continued]	Collect information on social baseline values	Community survey	June–July 2018
		Meeting with Lockyer Valley Tourism Association	May 2018
		Briefings to and discussions with Lockyer Valley CCC	October 2018
	Obtain community inputs on potential impacts, benefits and mitigation	Participation in ARTC community information sessions to undertake discussions with landholders and community members	June–July 2018
		Briefings to and discussion with Lockyer Valley CCC	September 2018
		Briefings to and discussion with Inner Downs CCC (focused on B2G project)	February 2019
		ARTC briefing on SIA to Lockyer Valley CCC and requests for feedback	March 2019, August 2019, October 2019
		ARTC SIA and social performance update to Inner Downs CCC	June 2019
		Community information session in Gowrie Junction	October 2019
Traditional Owners	Identify Indigenous community values to be considered in the SIA Seek inputs on opportunities for Indigenous economic and community development	Interview with Yuggera Ugarapul Elders	August 2018
		Interview with Western Wakka Wakka representative	November 2018
		Meeting with Yuggera Ugarapul People	November 2019
Local Government—TRC and LVRC	Brief council managers on the draft SIA scope and seek their inputs on local issues and the focus of assessment	Meetings with planning and community development officers	October–November 2018
	Discuss the results of stakeholder engagement and preliminary assessment findings, and seek input on draft mitigation measures	Meetings with planning, community development and economic development officers	November 2019
Community and government organisations	Identify social infrastructure capacity and gaps. Seek input on social impacts and opportunities for social infrastructure providers and vulnerable groups, and potential mitigation measures	Workshops in Toowoomba and Gatton with social infrastructure providers (H2C, G2H and B2G focus)	November 2018
		Workshop in Helidon (focus on G2H)	November 2019
		Meeting with Gowrie Junction Progress Association representatives	October 2019

Stakeholder groups	Objective	Mechanism	Timing
Businesses and business organisations	Identify businesses' views on potential impacts and opportunities, and identify strategies to support local suppliers to participate	ARTC Meeting with Lockyer Valley Chamber of Business and Industry	June 2019
		Meeting with Toowoomba and Surat Basin Enterprise	May 2019
		Meeting with Toowoomba Chamber of Commerce	November 2019

16.9.2 Engagement outcomes

16.9.2.1 Community survey

Of the 315 SIA survey respondents who identified their residential location (there were 403 respondents total), 102 respondents were from the Project region, including 29 residents in the Toowoomba LGA and 73 residents in the Lockyer Valley LGA.

The survey respondents' views on what they valued about their community are detailed in Appendix Q: Social Impact Assessment. Common to both LGAs is how respondents value their communities as family-oriented and safe, the strong sense of identity, the strength of their community ties and how they help each other out in difficult times. Respondents were less confident as to whether they felt their community had the ability to adapt to change. Respondents from the Lockyer Valley LGA described strong values attached to the unique character of local towns and community identities, and to local environmental qualities. Similarly, respondents from the Toowoomba LGA were attached to local environmental qualities, including landscapes and biodiversity, and a strong appreciation of their quiet, rural way of life.

Respondents were asked to comment on how they expected the Project would affect local people, businesses and communities. A range of positive and negative views were expressed.

Potential impacts identified by community members included:

- Impacts on local property values
- Severance of farming land and impacts to agricultural productivity and local business operations
- Damage to the scenic amenity and character, also impacting visitor appeal
- Disturbance to wildlife
- Disruption of residents' quiet way of life and enjoyment of public spaces and townships
- Impacts on community wellbeing, including:
  - Fear of community fragmentation, harming cohesion
  - Potential for increased stress, anxiety and depression among affected property owners and also nearby residents who fear or oppose the Project
  - Noise and vibration impacts causing nuisance, affecting sleep and general health and wellbeing
  - Concerns about air quality, including from the potential transportation of coal
  - The perception that while there were national benefits, the Project offered no benefits for local communities.

Positive benefits identified included:

- Advantages of faster access to markets for the agricultural industry
- Facilitating business development and jobs growth
- The potential for the Project to facilitate passenger rail services to the region.

While a general theme from respondents was opposition to the Project's impacts, many suggested actions that could be considered to mitigate adverse impacts and maximise benefits. These are addressed in Section 16.8.2.3.

16.9.2.2 Community Consultative Committees

ARTC established the Lockyer Valley CCC in December 2017, with the G2H and H2C projects as the focus for consultation. The Inner Darling Downs CCC is primarily focused on the B2G project but has also been provided with opportunities to discuss the G2H project. The two CCCs have met quarterly since December 2017.

Members of the CCC were appointed following a publicly advertised nomination period and independent assessment of nominees, with members representing either individual or group interests, and are chaired independently. The role of the CCC is to act as a conduit between the community and ARTC, to provide input and feedback on community issues, concerns and discuss opportunities or benefits about the Project.

Lockyer Valley CCC members have raised the following issues of relevance to social impacts:

- Opposition to the Project's interaction with farming land and the scenic beauty of the Lockyer Valley
- Frustration with the process for determining the Project's alignment, and opposition to the Project's alignment
- Concerns about the location of crossing loops, regarding potential for noise impacts
- Impacts of property acquisition (stress and disruption) and the methodology for compensation for land acquisitions
- Stress and distress in the community regarding potential or perceived impacts
- Impacts on property values
- Potential for traffic congestion and traffic safety impacts at level crossings
- Impacts of land severance, displacement and reduced amenity for people whose land would be acquired for the Project or who would be living near the rail corridor
- The potential for a freight rail corridor, including viaducts and raised structures through Lockyer Valley's areas of natural beauty to affect visual amenity and deter tourists from the region's growing tourism and event offerings
- Noise and vibration impacts on residents, businesses and properties near the rail line, affecting their amenity or property values
- Potential for the rail line (embankments, structures and culverts) to change flooding patterns and/or exacerbate flooding
- How the agistment of livestock and impacts on property management will be addressed
- Project links to the InterLinkSQ facility at Gowrie Junction
- Impacts of Project construction and rail infrastructure on tourism and visual amenity
- Impacts on native title interests or cultural heritage
- Potential for passenger rail inclusion as part of Project planning.

The Inner Darling Downs CCC members raised the following concerns about social impacts in relation to Inland Rail as a whole:

- Opposition to the Project's location
- Impacts of property acquisition (stress and disruption of families) including uncertainty about the effects of the Project alignment on individual properties, and the methodology for compensation for land acquisitions
- Impacts on property values
- Potential to exacerbate flooding and affect homes, farms, roads or infrastructure
- Noise impacts from construction or operation
- The potential for blasting/vibration during construction to damage on properties
- Impacts on farming properties, including livestock management, during construction, and impediments to crossings between properties and effects on water bores
- Biosecurity/weed management concerns
- Lack of perceived local benefit
- Frustration about community access to Project design and information about impacts
- Concerns about the transport of coal with potential for coal dust to affect people, houses or tank water
- Stress and distress in the community regarding potential or perceived impacts
- Interest in the Project's procurement model and how it will engage local businesses
- Difficulties faced by small businesses in accessing major Project opportunities
- The need for consideration of the Project's impact on small businesses

- Concerns over tunnel ventilation, speed of locomotives, tunnel capacity for dangerous goods and coal dust
- The potential for increased noise as a result of increased train traffic and the air quality impacts related to the location of tunnel portals or ventilation shaft
- The potential for noise and amenity impacts for neighbours to Project works for the grade separation of Gowrie Junction Road
- Effects on the connectivity of Morris Road
- Use of a tunnel-boring machine 24 hours a day, 7 days a week (24/7), which could create noise and dust.

16.9.2.3 Community information sessions

ARTC has held four rounds of community information sessions to provide landholders, community members businesses and community organisations with an opportunity to learn about the Inland Rail projects in their area and provide their feedback on Project design, impacts and benefits.

During May–June 2017, ARTC held 12 community information sessions (one in Ipswich, two in Toowoomba, seven in Gatton and two in Laidley) to provide information about the Project and the EIS process. A second round of community information sessions was held in May 2018 (in Gowrie Junction, Withcott, Helidon and Toowoomba) to gather community input and local insights to inform technical studies including the SIA.

A third round of 10 community information sessions was held in April–May 2019 in Gatton (seven sessions), Helidon (three sessions), and focused on the proposed engineering design, the tunnel, property impacts, road access and haulage routes, and noise and vibration. Discussion on these issues continued with a further six community information sessions held during July–August 2019 (two in Helidon, one on Gatton, one in Gowrie Junction, one in Withcott and one in Toowoomba).

During October to November 2019, a fourth round of four community information sessions was held in Gowrie Junction, Withcott, Helidon and Toowoomba, to present to the community the progress made in environmental studies (e.g. noise, flooding, traffic, visual amenity, social impacts and air quality). Key issues of discussion included operational noise and vibration, air quality, geotechnical investigations and land acquisition.

Issues of relevance to social impacts and benefits identified by participants in community information sessions during 2018–2019 included:

- The potential to increase the level and frequency of rail noise in Gowrie Junction
- Noise, vibration, visual amenity and connectivity impacts on residential amenity, rural character and outdoor living
- The potential for the tunnel portals to affect air quality
- The potential for vibration from the tunnel for housing above
- Impacts on road connectivity as a result of road realignments or level crossings
- Severance of agricultural uses and farms, and potential for impacts on stock movements
- Disruption of access to properties
- Potential for rail-related dust (including coal dust if coal is hauled) on residential amenity
- Impacts on the amenity and trading levels of businesses
- Potential to exacerbate flooding risks
- Potential benefit to the community if the Project facilitates the provision of a passenger train service to Brisbane (dual-gauge rather than single-gauge rail suggested)
- Potential benefit if coal trains are diverted to the tunnel instead of passing through Toowoomba
- Concern about impacts on property values
- Where water would be sourced for construction purposes and any impact on other water users' access.

16.9.2.4 Local government engagement

Toowoomba Regional Council

The SIA team met with TRC officers in March 2019 and May 2019. The primary focus of these meetings was the B2G project; however, a number of the issues raised also apply to the Project, including:

- The question of whether buffers would be required between the rail line and residential development to protect amenity with respect to noise; noting there are no buffers around existing rail lines
- The potential for noise from crossing loops to affect nearby residents
- Concerns about road closures during construction in the event of a flood event, leading to isolation of some communities
- Concern that, as for the Toowoomba Bypass, additional lighting may affect visual amenity
- Potential severance by alignment of stormwater drainage and overland flow
- Potential for visual impact, e.g. during construction due to laydown areas and during operation due to bridge structures, with concern regarding the rehabilitation of laydown areas to reduce visual amenity impacts
- Community opposition to the Project alignment could constrain business participation
- Potential for investment in community facilities in local towns to address existing issues and/or Project impacts on community cohesion
- The need for ongoing consultation with TRC regarding infrastructure investments, place-making outcomes, community facility investments and driving economic development.

Potential opportunities were also identified, and included:

- School based opportunities for students
- Potential for a short-term increase in economic activity during construction
- Support for the development of Toowoomba as a freight and logistics hub
- Legacy benefits in the form of community facilities.

Council officers noted that TRC has a Regional Skills Investment Strategy project funded by the Queensland Government to engage with industry to identify vocational training requirements, with freight and logistics a current focus.

The SIA team met with senior TRC officers in November 2019 to discuss the Project's social impacts and opportunities. Council feedback included:

- TRC has concerns about the current alignment which is being discussed though technical working group meetings with ARTC, with the connectivity of Morris Road a key issue
- The potential for noise, lighting and dust impacts to affect residential amenity is a key point of interest for Council
- Potential for noise or other impacts on the Palm Lakes Resort will be a concern for residents there
- The potential for any noise or vibration impacts on Baillie Henderson Hospital needs to be assessed
- The likelihood of community concern regarding changes to air quality as a result of venting of emissions from the tunnel
- Effects on aquifers, which could affect landholders' access to water are of concern to Council and landholders
- Residents have consultation/project fatigue following the Toowoomba Bypass construction
- The potential for significant changes to the Project's design is possible, as occurred for the Toowoomba Bypass.

Lockyer Valley Regional Council

The SIA team met with LVRC officers in October 2018 and as part of a July 2019 workshop. Although the primary focus was on the H2C section of the Inland Rail Program, a number of the issues raised also apply to the Project, including:

- Impacts to the Lockyer Valley's visual amenity, and the lifestyle and tourism values attached to the landscape and heritage of local towns
- The centrality of Lockyer Valley farms to the Lockyer Valley LGA's communities and economy, and to food production from the region
- Potential for properties close to the Project to lose value, with existing uncertainty around property values and banks' risk assessments already an issue in the area, following flooding
- Concerns regarding the potential for property severance and reduced connectivity affect the productivity of farms and their contributions to the region's farming sector
- The likelihood that increased noise from the freight rail line would affect residents' amenity
- Existing community anxiety about flooding, which is exacerbated by fears that the Project will change flooding patterns or that debris caught against rail lines will result in local flooding increases
- Concern regarding the potential for construction vehicles and activities to exacerbate the current fire ant problem in the Lockyer Valley, with consequent impacts on use of public areas such as parks
- Decreased property values with potential to affect financial security
- Need for ongoing engagement with Council.

LVRC officers also participated in a technical workshop for councils and government agencies, which reviewed the draft findings of the H2C and C2K SIAs. Key issues raised that are relevant to the Project included:

- The need to consider the effects of roadworks, construction noise and other impacts on the amenity of tourism facilities
- Concern regarding the potential impacts of road works on tourists' experience of the Lockyer Valley as a scenic and natural place to visit, and the potential to deter daytrip tourists
- Impacts of severance on agricultural lots, and the potential to affect their viability
- The potential for increased housing demands from major project workforces, which could displace low income households
- Perceptions of a decrease in property values near the Project's proposed alignment
- Observations of significant stress being caused by uncertainty and fears about Project impacts
- The need for awareness of existing challenges to mental health, including the effects of drought on farmers and business owners
- Concerns regarding the Project's use of water, particularly in drought, which could affect farms and other businesses' access to water.

The SIA team presented a summary of draft SIA findings and proposed mitigation measures to senior council officers in October 2019. Council feedback included:

- Viaducts would make a substantial change to the Locker Valley's visual character
- The visual impacts of cuts need to be reduced
- Areas north of Withcott are designated as urban footprint and could be affected
- Need for further engagement with council during detailed design, regarding mitigation of impacts on local character and liveability
- Local businesses benefitted from workforce expenditure during Toowoomba Bypass but have experienced a drop in trade since it was completed
- Local businesses require certainty regarding Project timing before capacity building will commence
- Community concern regarding noise, about the potential for rail noise from viaducts to carry a long way and be audible even where exceedances of criteria are not modelled

- Potential to provide training for community members in recognising and responding to mental health issues e.g. through men's sheds and community support groups
- Community cohesion could be supported by supporting existing community events that bring people together
- Community character and identity could be strengthened by supporting hamlets and towns to upgrade their entrance statements
- Spoil haulage routes are a concern with respect to traffic safety and road conditions
- Assurance regarding maintenance of property accesses
- Potential for need for consideration of use of land not needed after construction (i.e. within temporary footprint) with potential to connect these parcels to existing trails and public spaces or fire access trails (for consideration by the constructing authority)
- Potential to offer training that is also relevant to the agricultural industry
- Need for Inland Rail Skills Academy to include all local high schools.

LVRC is also interested in the potential for a rail maintenance hub to be located in the Lockyer Valley. Decisions regarding the location of maintenance hubs would be made as part of the detailed design phase.

16.9.2.5 Traditional Owner engagement

Traditional Owners have been consulted through the Cultural Heritage process (refer Chapter 18: Cultural Heritage) and by ARTC with respect to Indigenous employment and training opportunities.

An interview with a Western Wakka Wakka community leader identified the following issues of relevance:

- Concern about the cumulative impact of infrastructure projects on cultural landscapes and the stories bound to them
- Concern that local jobs should mean local, and include employment targets for local Indigenous people
- The risk of the Project reducing housing availability and affordability, with the likelihood that Indigenous people would be particularly vulnerable to housing shortages
- The need for early engagement with the Indigenous community regarding job and supply opportunities so they have time to build capacity.

Potential opportunities identified included:

- Indigenous people are ready to seize opportunities, but need timely engagement to be able to participate effectively
- Engagement with Indigenous businesses with existing capacity, formed through joint ventures
- Adopting the historical precedent for naming rail sidings after Indigenous people
- Creating a legacy by addressing the need for an effective Indigenous keeping place for history, art and culture.

A meeting with the Yuggera Ugarapul People was held in November 2019. Key matters raised included:

- Effects of Project construction on wildlife corridors
- The need for ongoing consultation as the detailed design progresses
- Changes to the landscape and environmental impacts cause distress to Aboriginal people
- The need for cultural awareness training for contractors
- Need for cultural heritage assessment of the locations of any new quarries
- Interest in an opportunity to talk with Indigenous agencies that will be involved in Inland Rail projects
- Keen interest in employment and training opportunities, which could include early training, skills and work readiness programs
- Employment and business opportunities
- Desire for Indigenous business participation in the Project and the need for advice to Yuggera Ugarapul People regarding business opportunities and skills that construction contractors require.

16.9.2.6 Government and community organisations

A series of social impact workshops was held with government and non-government agencies to discuss the potential social impacts and benefits of the Inland Rail projects, with a focus on social infrastructure, community safety and the wellbeing of local residents. As three Inland Rail projects overlap the Project region, issues raised in regard to each project are generally relevant to the others, with the exception that:

- The Project does not propose level crossings that are a key concern for community and government organisations with respect to the safety of young people, people with disability and seniors, in particular
- The Project involves the Toowoomba Range Tunnel.

The following workshops were held:

- November 2018 at Gatton and Toowoomba, with a focus on the Project, H2C and C2K
- February 2019 at Toowoomba, with a primary focus on B2G but including a focus on Gowrie and issues in the Toowoomba LGA
- Helidon in November 2019, with a focus on the Project.

A wide range of organisations including community housing services, community services, community centres childcare providers, service groups, schools, and training and employment agencies were invited to participate. The organisations that participated in the Gatton and Toowoomba workshops included:

- Queensland Ambulance Service (QAS)
- Queensland Fire and Emergency Services (QFES)
- Queensland Police Service (QPS)
- TRC
- DTMR
- LVRC
- State Emergency Service (SES)
- Queensland Health
- Department of Education
- Department of Infrastructure Transport Regional Development and Communications (DITRDC)
- DSDMIP, now known as Department of State Development Infrastructure Local Government and Planning (DSDILGP)
- TAFE Queensland
- DESBT
- Gowrie Junction Progress Association
- Kingsthorpe and District Progress Association
- Lions Club of Gatton
- SW Training
- Best Employment
- NEATO Employment
- Lockyer Valley Ministers Association
- Darling Downs and West Moreton PHN.

The majority of organisations who participated in these workshops service the Toowoomba and Lockyer Valley LGAs, so issues discussed were largely applicable to the Project and have been considered where relevant.

A workshop was held in Helidon in November 2019 to discuss the Project in more detail. Participants in this workshop included DESBT, TRC, LVRC, Department of Education, Construction Skills Queensland (CSQ), DITRDC, TAFE Queensland, and Darling Downs and West Moreton PHN.

Key themes that are relevant to all Inland Rail projects, which were identified in the October 2018–February 2019 workshops, included:

- Stress is evident in local communities reflecting fear and anxiety about the impacts of Inland Rail
- Importance of maintaining honest communication and responsiveness to community concerns
- Concern that the Project would not benefit local towns and businesses and a need for lasting legacy benefits for local communities
- Anecdotal feedback that land values are dropping
- Region is seeing increased trends in drug addiction, increased mental health presentations and increased rate of suicide as a result of the drought
- There is a good mature skills base locally within businesses, strengthened by the Toowoomba Bypass and gasfields developments
- CSQ, local high schools and Toowoomba TAFE have capacity to work with ARTC to provide skills training and qualifications
- Need for definition of local employment and targets to ensure that contractors employ people who live locally
- Hope for improvement in local unemployment rate
- DDHHS advised that there is sufficient service capacity at the Toowoomba Hospital to meet increased demand
- Region has developed sound disaster management response capability post the 2011 flood
- Road closures can alter response times but most issues can be overcome with alternative routes
- Ensure connectivity is maintained by providing alternative road routes during construction and clear communication with residents (for QAS, response times are critical)
- Decrease in road trauma due to decreased trucks on roads perceived as an important benefit.

Key themes identified in the workshop held in Helidon in November 2019 included:

- Potential for amenity impacts in relation to construction noise and laydown areas
- Location of crossing loops in relation to potential noise impacts
- Spoil management with respect to haulage routes and potential cumulative impacts
- Need for information about dangerous good transport (e.g. in the rail tunnel)
- Increase in large vehicle haulage and potential for damage to local roads
- Potential for public transport/passenger line
- Effects of noise from rail operation on residential amenity
- Potential for workforce accommodation to be required if workers are drawn from outside a daily driving distance
- Definition of 'local' for employment and business involvement
- Community scepticism about the availability of local jobs
- Uptake of training opportunities in the Project region is likely to be low until there is certainty about the Project's construction timeframe and construction contractors' needs
- TAFE is working with LVRC with respect to training needs and initiatives
- Potential for businesses to benefit from development of freight terminals
- Businesses are unlikely to invest in training until a likely tangible benefit is identified, noting that for many businesses, skills training is on the job and not through institutions
- Tier 1 companies have commenced preparation for Inland Rail projects; however, smaller businesses will not invest in preparation until there is certainty about project timing and supply chain requirements
- Likely benefits for local business from workers' passing trade
- Need to ensure that qualifications offered as part of training initiatives are recognised by local employers.

During July 2020, ARTC met twice with DSDILGP (then known as the Department of State Development, Tourism and Innovation) regarding their existing programs focused on working with major projects, and opportunities for DSDILGP and Inland Rail to collaborate on elements of business capability development. DSDILGP provides online business capability training programs, which Inland Rail will promote to businesses interested in supplying the Project. The potential for a joint forum with other major projects in the Project region to provide information about a range of projects and their supply requirements was also identified.

A meeting with Brisbane DESBT staff in October 2019, to discuss Inland Rail and existing DESBT programs that may support skills and business development, identified the RSIS program as a key opportunity for alignment with local priorities.

16.9.2.7 Businesses

ARTC has undertaken consultation with businesses who are adjacent to or near the Project and may experience impacts as a result. Key issues identified by these businesses included:

- The need for the width of Airforce Road to be maintained to allow access for transport businesses that include explosives transport and need a larger turning cycle to enter the driveways and properties along Airforce Road
- Access arrangements for the Gowrie One Stop Convenience Centre, and Gowrie Landscaping Supplies will need to be maintained during construction of the Gowrie Junction Road bridge
- Property access to horticultural, transport and grazing businesses will need to be maintained throughout construction
- Business owners need ongoing access to information about the Project and its impacts.

The SIA team held meetings with Toowoomba Surat Basin Enterprise and Toowoomba Chamber of Commerce in November 2019, which identified the following issues:

- Chamber of Commerce members have not raised the potential for negative impacts as a result of the Project or other Inland Rail projects
- Toowoomba businesses are very interested and well equipped for major projects and are looking for the next 'big thing' after the completion of the Toowoomba Bypass construction
- Businesses are very interested in potential long-term opportunities for better freight transport that would result from Inland Rail
- Local businesses would prefer that that Inland Rail terminates in Toowoomba to maximise local benefits
- There is uncertainty about whether/when the Project will proceed, so businesses are reluctant to invest in capacity building until they understand the time frame
- Businesses are considering capacity building for involvement in Inland Rail, but smaller construction businesses will need help to understand where they fit in the supply chain
- Chamber's stakeholder register can be used to promote opportunities
- Workshop on developing capacity statements could be offered in cooperation between ARTC and the Chamber
- Food and fencing businesses may benefit
- Project likely to provide access to development of skills that will be transferrable to other projects
- Tourism industry growth is a key focus for local businesses.

Gowrie Junction Progress Association

ARTC has met with the Gowrie Junction Progress Association regularly during the EIS process, and the SIA team met with the Progress Association in November 2019. Issues identified by the Progress Association included:

- Preference for the proposed alignment over the alignment presented in 2014
- Concern that the proposed alignment would require acquisition of private properties
- The effects of the road-over-rail bridge on the scenic amenity of Gowrie Junction
- Potential for impacts on access to businesses near the bridge construction site
- Concern about noise impacts on dwellings, businesses and facilities as a result of more frequent and longer trains
- Maintenance of connectivity for pedestrians and cyclists.

16.9.2.8 Summary of stakeholder inputs

Table 16.9 summarises key themes and issues raised by stakeholders and where they are addressed in the SIA. Further details of engagement outcomes are provided in Appendix Q: Social Impact Assessment.

Issues that are not addressed in the SIA include:

- Specific recommendations regarding air quality management (addressed in Appendix K: Air Quality Technical Report).
- Potential for passenger rail inclusion as part of the Project (not part of the Project scope).

TABLE 16.9: ISSUES RAISED BY STAKEHOLDERS ADDRESSED IN SOCIAL IMPACT ASSESSMENT

Impact area	Key issues for investigation	SIA Section (Appendix Q: Social Impact Assessment)
Indigenous community interests	Impacts on native title interests or cultural landscapes	7.1.1
	The potential for increased housing demands from major project workforces to displace low-income households	7.3.2
Residential and rural amenity	Potential for visual amenity to be adversely impacted by bridges or tunnel portals	7.1.4
	Potential for homes to be affected by rail noise, vibration, lighting or dust during construction or operation	7.1.3, 7.1.4
	Potential for noise from crossing loop near Gowrie Junction to affect amenity	7.1.4
	Potential for tunnel construction to result in noise or vibration for housing above or near the tunnel	7.1.3
	Concerns about subsidence above tunnel affecting properties	7.1.3
	Concerns about the potential for the western tunnel portal to increase noise or affect air quality	7.1.4, 7.4.7
	Potential for noise impacts on the Palm Lakes Resort at Cranley	7.1.3
Land acquisition	Impacts of land acquisition such as stress, uncertainty about the effects of the Project on individual properties, and compensation methodology	7.1.2
	Impacts of property severance on farms and landholders	7.5.1
Housing and accommodation	Potential for workforce use of rental housing or short-term accommodation	7.3.2, 7.3.4
	Potential for cumulative impacts on housing access	7.6.1
	Impacts on property values	7.3.3
Community values—cohesion, character, connectivity	Acquisition of properties resulting in displacement of households	7.1.2
	Impacts of Project and particularly structures on local character and identity	7.1.5
	Impacts on local access to the traffic network	7.1.8, 7.5.1, 7.5.3
	Project interface with Morris Road	7.1.8
	Impacts on vehicular connections which are important for local access to services, and to tourism assets	7.1.8, 7.5.1 and 7.5.3
Farms and agriculture	Impacts of land acquisition on property use and access	7.5.1
	Biosecurity concerns through the accidental transfer of pests and disease	7.5.1
	Potential for diversion of water flows to affect flooding patterns	7.1.9
	Potential for dams or bores to be disturbed	7.5.1
	Impacts on access to the road network and travel delays	7.5.1

Impact area	Key issues for investigation	SIA Section (Appendix Q: Social Impact Assessment)
Community health and safety	Potential for exacerbation of flooding to affect community safety	7.1.9
	Project-related stress and anxiety	7.1.2, 7.4.7
	Impact on quality of life due to noise	7.1.3, 7.1.4, 7.4.6
	Effects of changes to noise or air quality on health	7.1.3, 7.4.7
	Concerns about the transport of coal with potential for coal dust to affect people, houses or tank water	7.1.4, 7.4.7
	Impacts of tunnel operation including air quality	7.1.4, 7.4.7
	Project should leave lasting legacy benefits for local communities	7.2.3, 7.5.5
	Potential for spoil transport to affect local roads' service levels	7.4.10
Employment and training	Ensuring local communities benefit through employment and supply opportunities	7.2.1, 7.2.3
	Partnerships to provide skills training and qualifications	7.2.3
	Need for definition of local employment and targets	8.3
	Manage business expectations and support effective preparation by communicating clearly about Project elements, time frames and contracting requirements	7.5.4
	The need for collaboration with Traditional Owners to ensure their community members benefit from employment and training opportunities	7.2.4
Business benefits and impacts	Construction impacts on tourism due to traffic delays and impacts on visual amenity	7.5.3
	Need for the width of Airforce Road to be maintained to allow access for transport businesses	7.5.2
	Visual amenity impacts of rail line on scenic amenity and, therefore, tourism assets and experiences	7.1.5, 7.5.3
	Interest in the Project's procurement model and how it will engage local businesses	7.5.4
	Potential impacts on tourism values through effects on visual amenity or connectivity	7.5.3
	Potential for a short-term increase in economic activity during construction	7.2.1, 7.5.4
	Impacts on businesses	7.5.1, 7.5.2, 7.5.4
	Potential to support regional economic development through facilities freight and logistics hub development	7.5.5
	Potential local businesses to supply the Project, using capacity and capacity built on recent projects such as TRSC	7.5.4
Impacts on local and regional services	Delays to emergency service access	7.4.4
	Increased demands on local health and emergency services	7.4.3, 7.4.4
	Potential to increase demands for mental health services	7.4.8
	Cooperation with the emergency services providers including disaster management coordinators	7.4.4

16.10 Potential impacts

This section describes the potential for social impacts and benefits to occur as a result of the Project's construction and operation, including the potential for cumulative impacts. Section 16.10 provides an evaluation of the risk of Project impacts to social values.

16.10.1 Communities and stakeholders

The Project will have impacts for directly affected landholders (i.e. those whose land would be acquired for the Project), neighbouring landholders, local communities, councils, Traditional Owners, businesses and government agencies. The Project is located in Country to which the Western Wakka Wakka People and Yuggera Ugarapul People are connected. Assessment of land use and tenure undertaken for the Project identified no native title determinations over the EIS investigation corridor. There is one yet to be determined native title claim for the Yuggera Ugarapul People over the eastern part of the EIS investigation corridor (from approximate Project Ch 17.0 km to Ch 26.0 km).

The Project alignment follows the existing QR West Moreton System rail corridor for part of its length, minimising the need to acquire additional land. Where located outside of the existing rail corridor, the Project predominately follows the Gowrie to Grandchester future state transport corridor. As such, the Project traverses a number of properties held in ownership by QR (26 properties, with 20 associated within the West Moreton System), DTMR (35 properties, mainly associated with the Toowoomba Bypass) or TRC (three properties) and where possible, reduces potential impacts on property access, services or land use. The Project's interfaces with land owned by government agencies and TRC is further discussed in Chapter 8: Land Use and Tenure.

Surface land acquisition would affect approximately 85 freehold lots including 45 freehold lots within the Gowrie to Grandchester future state transport corridor and 40 freehold lots outside the Gowrie to Grandchester future state transport corridor. A further 12 freehold properties are only required for construction (i.e. only located in the Projects' temporary disturbance footprint), with two of the land parcels owned by DTMR.

The Project would also require acquisition of volumetric tenure (underground land) of approximately 26 freehold lots, two lands lease lot and two Reserve lots, excluding the six properties where surface land acquisition will also occur. Further, 28 of these properties' land parcels have previously been identified as potentially impacted properties through the *Gowrie to Grandchester Rail Corridor Study* (Queensland Rail and Queensland Transport, 2003). Twelve of which have been acquired, including where the western tunnel portal is located, seven land parcels associated with the Toowoomba Bypass and three land parcels where the intermediate ventilation shaft is located. The other eight properties (seven freehold and one reserve), which include residential housing along Westview Drive, Cassidy Terrace and McShane Driver at Mount Kynoch, are subject to volumetric acquisition as a result of the provisional area around the tunnel (i.e. the tunnel is not directly below these properties). Noting that there are no houses located above the tunnel.

Land required for the Project will be acquired either through negotiation with the landholder or through a compulsory land acquisition process, also known as land resumption. Land resumption processes in Queensland are undertaken by the relevant acquiring government agencies (described here as the constructing authority) in accordance with the *Acquisition of Land Act 1967* (Qld) (AL Act), which sets out the process for acquisition and the assessment of compensation. ARTC may also acquire land by negotiation in some cases and this may occur ahead of, or parallel to, the compulsory acquisition process. For State Land (including Lands Lease), 'acquisition' will occur under *the Land Act 1994* (Qld) (Land Act).

Land acquired for the Project will be designated as 'railway land' under the *Transport Infrastructure Act 1994* (Qld) or for the purposes of a road under the Land Act. Excess land acquired for the purposes of the Project may be returned to the landholder at market value. Land may also be acquired for the purposes of construction, including under the TPC Act, though the preference will be for a commercial arrangement with the relevant landholder.

Based on ARTC's consultation with landholders to date, two landholders would request full acquisition, resulting in the need for these households to relocate. With access to further information during the EIS display or land acquisition processes, or changes to their circumstances, other landholders may choose to seek full acquisition. There is also potential for a small number of acquisitions to be required to mitigate unacceptable noise impacts or accommodate changes to the Project's design. For the purpose of estimating impacts on housing, community cohesion or population size, the SIA has assumed that up to approximately 20 households may relocate as the result of land acquisition for the Project.

The land use and tenure assessment identified 21 freehold properties to be temporarily used for laydown areas, including one flashbutt welding site during the construction phase (refer Chapter 8: Land Use and Tenure). Where land is required only for the construction phase, land may be occupied temporarily in accordance with the AL Act or may be leased or licensed from landholders.

Changes to the environment near the Project have potential to affect community values during the construction and operational phases such as amenity, local character and identity, community cohesion and connectivity. Community members were also concerned about the potential for the Project to change flooding risks or affect property values. Flood modelling has been undertaken for the Project with the outcomes of the modelling provided in Chapter 13: Surface Water and Hydrology.

The Project's potential impacts to community and stakeholder values are summarised in Table 16.10 and further detail is provided in Appendix Q: Social Impact Assessment. The settlements, land use and selected social infrastructure relevant to the Project is shown on Figure 16.4.

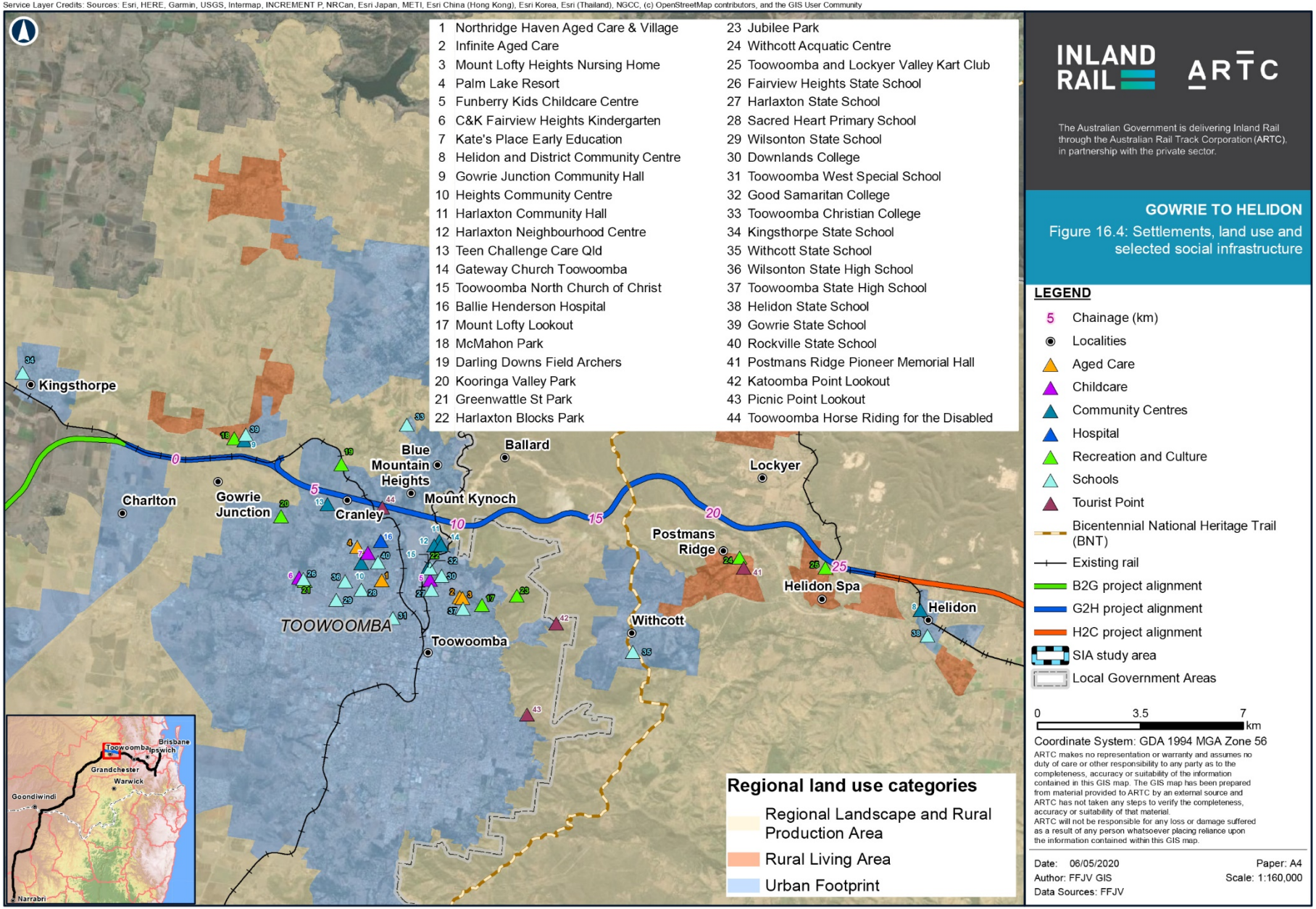

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
1 Northridge Haven Aged Care & Village
2 Infinite Aged Care
3 Mount Lofty Heights Nursing Home
4 Palm Lake Resort
5 Funberry Kids Childcare Centre
6 C&K Fairview Heights Kindergarten
7 Kate's Place Early Education
8 Helidon and District Community Centre
9 Gowrie Junction Community Hall
10 Heights Community Centre
11 Harlaxton Community Hall
12 Harlaxton Neighbourhood Centre
13 Teen Challenge Care Qld
14 Gateway Church Toowoomba
15 Toowoomba North Church of Christ
16 Ballie Henderson Hospital
17 Mount Lofty Lookout
18 McMahon Park
19 Darling Downs Field Archers
20 Kooringa Valley Park
21 Greenwattle St Park
22 Harlaxton Blocks Park
23 Jubilee Park
24 Withcott Acquatic Centre
25 Toowoomba and Lockyer Valley Kart Club
26 Fairview Heights State School
27 Harlaxton State School
28 Sacred Heart Primary School
29 Wilsonton State School
30 Downlands College
31 Toowoomba West Special School
32 Good Samaritan College
33 Toowoomba Christian College
34 Kingsthorpe
35 Withcott State School
36 Wilsonton State High School
37 Toowoomba State High School
38 Helidon State School
39 Gowrie State School
40 Rockville State School
41 Postmans Ridge Pioneer Memorial Hall
42 Katoomba Point Lookout
43 Picnic Point Lookout
44 Toowoomba Horse Riding for the Disabled
Kingsthorpe
Charlton
Gowrie Junction
Cranley
Blue Mountain Heights
Ballard
Mount Kynoch
Lockyer
Postmans Ridge
Helidon Spa
Helidon
Withcott
TOOWOOMBA
Toowoomba
0
5
10
15
20
25
Brisbane
Ipswich
Toowoomba
Grandchester
Warwick
Goondiwindi
Narrabri
Regional land use categories
Regional Landscape and Rural Production Area
Rural Living Area
Urban Footprint
INLAND RAIL
ARTC
The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.
GOWRIE TO HELIDON
Figure 16.4: Settlements, land use and selected social infrastructure
LEGEND
5 Chainage (km)
Localities
Aged Care
Childcare
Community Centres
Hospital
Recreation and Culture
Schools
Tourist Point
Bicentennial National Heritage Trail (BNT)
Existing rail
B2G project alignment
G2H project alignment
H2C project alignment
SIA study area
Local Government Areas
0 3.5 7 km
Coordinate System: GDA 1994 MGA Zone 56
ARTC makes no representation or warranty and assumes no duty of care or other responsibility to any party as to the completeness, accuracy or suitability of the information contained in this GIS map. The GIS map has been prepared from material provided to ARTC by an external source and ARTC has not taken any steps to verify the completeness, accuracy or suitability of that material.
ARTC will not be responsible for any loss or damage suffered as a result of any person whatsoever placing reliance upon the information contained within this GIS map.
Date: 06/05/2020
Paper: A4
Author: FFJV GIS
Scale: 1:160,000
Data Sources: FFJV
Map by: LCT/RB Z:\GIS\GIS_3200_G2H\Tasks\320-EAP-202002130931 _Social_Impact_Assessment\320-EAP-202002130931_ARTC_Figure16.4_Settlements, land use and social infrastructure_v4.mxd Date: 8/05/2020 11:45

TABLE 16.10: POTENTIAL IMPACTS TO COMMUNITIES AND STAKEHOLDERS

Impact area	Delivery phase	Potential impacts
Indigenous People's interests	Construction and operation	Assessment of land use and tenure undertaken for the Project identified no native title determinations over the EIS investigation corridor. There is one yet to be determined native title claim for the Yuggera Ugarapul People over the eastern part of the EIS investigation corridor (from approximate chainage Ch 17.0 km to Ch 26.0 km). Yuggera Ugarapul People consulted as part of the SIA noted that that the Lockyer Valley and other landforms that contribute to the Project region's landscape are important to cultural heritage and Aboriginal connections to Country. Consultation with Western Wakka Wakka People identified culturally important landscape features and sites around Gowrie Creek and Gowrie Mountain, and the potential to compound the current effects of infrastructure, such as the Warrego Highway, on the cultural landscape.
Land acquisition impacts	Construction and operation	Excluding untenured land (such as waterways and road reserves) the Project traverses 151 land parcels, including 94 in the TRC LGA and 57 in the LVRC LGA. The Project traverses 20 land parcels (~13 percent) associated with the existing West Moreton System rail corridor, including the Toowoomba Range Tunnel, passing under a property on the Western Line and the Main Line. Ten of these land parcels are also within the Gowrie to Grandchester future state transport corridor. 82 land parcels (~54 per cent) are within the Gowrie to Grandchester future state transport corridor. There are 59 land parcels (~39 per cent) located outside of both the West Moreton System rail corridor and the Gowrie to Grandchester future state transport corridor. There are 109 land parcels required for the rail and road infrastructure (i.e. the permanent disturbance footprint), with 21 land parcels entirely within the permanent disturbance footprint. This includes 15 land parcels associated with the existing QR West Moreton System rail corridor and six freehold land parcels (two owned by DTMR at the intermediate ventilation shaft). Surface land acquisition would affect approximately 85 freehold lots, including 45 freehold lots within the Gowrie to Grandchester future state transport corridor and 40 freehold lots outside the Gowrie to Grandchester future state transport corridor. A further 12 freehold properties are only required for construction (i.e. only located in the Projects' temporary disturbance footprint), with two of the land parcels owned by DTMR. The Project would also require acquisition of volumetric tenure (underground land) of approximately 26 freehold lots, two land lease lots and two Reserve lots, excluding the six properties where surface land acquisition will also occur. The land use and tenure assessment identified 21 freehold properties to be temporarily used for laydown areas, including one flashbutt welding site during the construction phase. Where land is required only for the construction phase, land may be occupied temporarily in accordance with the AL Act or may be leased or licenced from landholders.
Amenity	Construction	Residents and landholders living within and near the EIS investigation corridor are concerned about the potential for the Project's construction to result in noise, vibration, dust, lighting and/or visual impacts that could affect the amenity of homes, businesses and properties. Consultation with community members (particularly during community information sessions) indicated that the construction of the Toowoomba Bypass impacted on the amenity of residents closest to the Bypass construction sites, through noise and dust impacts, and caused disruptions to travel and traffic delays. Residents whose amenity and travel times were affected by the Toowoomba Bypass construction are fatigued by these impacts and concerned that the Project will result in a further extended period of impacts on amenity. Consultation with government agencies and councils also indicated that there is also a degree of 'consultation fatigue', with residents tired of participating in major projects' engagement processes.

Impact area	Delivery phase	Potential impacts
Amenity [continued]	Construction [continued]	Appendix O: Construction Noise and Vibration provides an assessment of vibration levels that are predicted to result from tunnel construction, which would be predominantly via Tunnel Boring Machine (TBM) in an easterly direction). There are no homes above the tunnel, but homes are located above the protective zone (50 m) around the tunnel. Vibration levels from tunnel construction are predicted to comply with the criteria used to protect human comfort and avoid damage to buildings, including heritage and sensitive buildings, so the risk of vibration affecting human comfort or causing damage to buildings was assessed as low. Vibration from tunnel construction (i.e. the operation of the TBM) would result in ground-borne noise for residents near the tunnel, while the TBM is operating near them. Assuming worst-case vibration propagation, the assessment documented in Appendix O: Construction Noise and Vibration predicted exceedances of the most stringent night-time criterion (35 dB(A) LAS_{Max}) at up to 72 residential receptors that are located within 390 m of the tunnel (using the diagonal distance from the tunnel to receptors). Impacts on amenity (such as increased traffic volumes, access restrictions and/or traffic noise) associated with construction-related traffic may be experienced by residents along various routes, including Gittins Road and Murphys Creek Road, both identified as a haulage route for mass haul materials from earthworks. The assessment provided in Appendix U: Traffic Impact Assessment found that traffic volumes during construction would increase by more than 10 per cent along certain sections, affecting 36 roads. The impacts are expected to be short term and only for the duration of the specific activities, and able to be mitigated through adequate traffic management measures. Assessment of the Project's construction noise and vibration impacts (Appendix O: Construction Noise and Vibration) considered the potential for noise impacts during daytime, evening and night-time hours. Earthworks and rail civil works are predicted to have the greatest impact; however, Appendix O: Construction Noise and Vibration notes that other construction stages may have a greater overall impact depending on the timing and duration of each construction stage. Further details are provided in Appendix O: Construction Noise and Vibration at Section 5.4. Should earthworks occur at night (which is not currently planned) and if construction noise was unmitigated, exceedances of the night-time limit of 45 dB(a) could occur at an estimated 2,131 sensitive receptors along the Project corridor. This assessment is representative of the worst case 15-minute period of construction activity, while the construction equipment is at the nearest location to each sensitive receptor and does not represent the ongoing day-to-day noise impact for an extended period. Particularly noisy activities, such as piling, are likely to persist for only a short duration. Blasting may be required to facilitate the construction of tunnel portals or in other locations that are yet to be confirmed. Appendix O: Construction Noise and Vibration provides maximum permissible charge weights for blasting, to meet the sensitive structure criteria outlined in the assessment. Blasting activities will be confined to Monday–Friday 9.00 am–5.00 pm and Saturday 9.00 am–1.00 pm, with no blasting on Sundays or public holidays. Construction traffic noise is predicted to exceed acceptable criteria for 10 road sections in the noise and vibration study area (refer Appendix P: Operational Railway Noise and Vibration). These roads are primarily in rural locations where existing road traffic noise levels are low before the addition of construction traffic. Mitigation measures to reduce the impacts of construction vehicle noise on these roads are outlined in Chapter 15: Noise and Vibration. Residents living near the Project are concerned that earthworks, track construction, construction traffic or activities at laydown areas will result in dust affecting air quality or settling on outdoor areas, roofs and in water tanks.

Impact area	Delivery phase	Potential impacts
Amenity [continued]	Construction [continued]	Dust sources during construction will be variable and impacts will differ according to the proximity of construction activities to homes, businesses and facilities. The results of the air quality impact assessment for the Project (Appendix O: Construction Noise and Vibration and Appendix K: Air Quality Technical Report) indicate that the most sensitive areas to construction dust impacts will be residential areas in the localities located near the alignment, including Helidon Spa, Postmans Ridge, Lockyer, Blue Mountain Heights, Mount Kynoch, Cranley and Gowrie Junction. The Report concluded that with effective mitigation of construction dust sources the residual impact on both dust deposition and human health will not be significant, with the exception of one sensitive receptor (which is within the Project disturbance footprint and would be acquired). The Project requires construction of 13 bridges and viaducts involving establishment of laydown areas, earthworks, piling, delivery of construction supplies, construction of foundations and the bridge deck, and roadworks to connect bridges to the road network. This is likely to cause noise and traffic disruptions in areas near bridge construction sites. Vibratory rollers and plant such as piling rigs and hydraulic hammers for bridge construction may also result in perceptible vibration impacts. Assessment of potential vibration impacts is detailed in Chapter 15: Noise and Vibration. The Project's construction will require a total of 24 laydown areas, used for storage, management and distribution of materials, with some laydown areas also including fuel storage and site office compounds, and a temporary flashbutt welding facility to be established in the Project disturbance footprint. The landscape visual impact assessment (refer Appendix H: Landscape and Visual Impact Assessment) includes a qualitative desktop assessment of the potential for lighting during construction or operation to affect the external environment. The assessment concludes that the proposed alignment and associated infrastructure are unlikely to create any significant obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting.
	Operation	Many landholders living near the Project are concerned about the potential for its operation to affect the amenity of their properties as a result of environmental changes. Buildings would be required at each tunnel portal to accommodate operational infrastructure (e.g. an electricity substation, tunnel drainage management infrastructure, ventilation building and tunnel control/emergency response activities). A substantial area will also be required at the western tunnel portal to accommodate the main tunnel services facilities, including the Tunnel Control Centre and water tanks as part of the fire safety systems. The majority of the western tunnel portal will be located in cut approximately 20 m deep. The western tunnel portal area will also be used to permanently stockpile unused spoil from tunnel excavation (within a flat-topped mound approximately 10 m high). Appendix H: Landscape and Visual Impact Assessment provides an assessment of potential visual impacts as a result of tunnel infrastructure. Residents (particularly in Gowrie Junction) with visibility to the western tunnel portal will experience changed visual amenity to the semi-rural character of this area. Residents with views to the eastern tunnel portal (from Blue Mountain Heights) may also experience a change to the visual amenity of the natural landscape in this area. Staff and patients at the Ballie Henderson Hospital would have views towards the intermediate shaft building; residents at the Palm Lakes Resort in Cranley may also have views to this area. The operation of the tunnel through the Toowoomba Range will require venting of heat, air and emissions from the tunnel, which will require the operation of three ventilation buildings, including one at each portal for the release of emissions (subject to the direction of the train moving) and a third at the intermediate ventilation shaft for the drawn down of air into the tunnel. Future stages of Project design may find that the intermediate ventilation shaft is not needed (refer Chapter 6: Project Description). If the intermediate ventilation shaft is required, it will have the capacity for emissions filtration to be installed in future.

Impact area	Delivery phase	Potential impacts
Amenity [continued]	Operation [continued]	Nearby residents are concerned that dust (including coal dust) or diesel emissions from the Project's operation may affect their amenity or health during operations. The results of air quality risk assessment (Appendix K: Air Quality Technical Report) for the Project indicate that compliance is predicted for all pollutants, for all scenarios, for peak operations, with the exception of one residence located in close proximity to the western tunnel portal and western tunnel portal crossing loop (refer Appendix K: Air Quality Technical Report, Section 7.1.2). This residence is within the Project disturbance footprint and would be removed. A noise and vibration assessment has been undertaken for the operation of the rail corridor (refer Appendix P: Operational Railway Noise and Vibration), along with the changes to the road networks and the operation of the tunnel (refer Appendix O: Construction Noise and Vibration). The assessment of air-borne noise was based on detailed noise prediction models and considered the main line tracks, crossing loops and the Toowoomba Range Tunnel, including an area covering 2 km either side of the alignment. The assessment predicted that noise levels for the proposed daytime and night-time railway operations at Project opening (2027) and the design year (2040) were predicted to achieve the airborne noise assessment criteria at the majority of the sensitive receptors. The predicted noise levels were above the noise assessment criteria at 31 sensitive receptors (assumed to be dwellings) for railway operations at Project opening (2027), with noise exceedances also predicted at Gowrie State School. At the design year (2040), one additional sensitive receptor is predicted to triggered, totalling 32 sensitive receptors. Predicted noise levels exceeded the criteria by less than 5 dB(A) at the majority of these sensitive receptors. The highest forecast result was 11 dB(A) above the relevant assessment criteria. The operation of the tunnel portals, tunnel, intermediate ventilation shaft and crossing loops were not predicted to result in noise exceedances. Assessment of lighting impacts (Appendix H: Landscape and Visual Impact Assessment) concluded that the Project is unlikely to create any significant obtrusive lighting into the external environment as a result of the likely construction activities. Limited permanent Project lighting is proposed, lighting impacts on viewpoints are anticipated to be low, or negligible, during operation.
Local character and identity	Construction and operation	Communities in the Project region have expressed a strong connection to the rural amenity, heritage, landscapes and natural beauty of their environment, and the importance of being part of small, friendly communities. There is strong community concern that railway infrastructure, including the tunnel portals and associated infrastructure, viaducts, bridges and double-stacked train carriages will have a negative impact on the Project region's scenic and natural qualities. Depending on location, the Project could impact some or all of the qualities that contribute to the local character and residents' sense of place, including: ▸ The alteration of familiar valued landscapes, including changes to vegetated natural areas ▸ The intrusion of noise and vibration in otherwise quiet locations during construction or operation ▸ The intrusion of cuttings, structures and double-stacked freight trains on views and rural vistas. ▸ Changes to local character and visual amenity will commence during pre-construction, with clearing of vegetation for laydown areas, the corridor and access tracks, and the construction of temporary buildings and hard-stand areas. During construction, residents near laydown areas would experience a change to local character due to land clearing, or increased noise and dust, while the appearance of laydown areas may be incongruent with the natural or rural surrounds, which may collectively impact on local character in some areas. During operations, the Project's embankments, bridges and viaducts are likely to change views and vistas, which may lead to distress about the change to its scenic character and may alter community members' feelings of connection to place.

Impact area	Delivery phase	Potential impacts
Community cohesion	Construction and operation	Property acquisitions are likely to lead to the relocation of up to approximately 20 households from the EIS investigation corridor, and potentially from local communities, if they are unable to find a suitable property or choose to move to another area, which may affect neighbourhood cohesion through the loss of people from local social networks but would have no appreciable effect at regional level. There is also potential for conflict about the Project to harm community cohesion.
Disadvantage	Construction and operation	The Project may affect the amenity and connectivity of properties in and near the disturbance footprint, and there is also potential for property acquisitions to displace households with limited socio-economic resources. In the Helidon Spa and Helidon area, there is potential for construction noise or dust to affect the amenity of properties in and near the Project alignment. Many farmers, businesses and community members have been affected by drought, floods and/or by the impact of road works for the Toowoomba Bypass, and local businesses have also been affected by COVID-19 restrictions. Residents who are already stressed by factors such as these may feel particularly vulnerable to impacts such as construction noise and traffic disruption. Some people are already experiencing stress or anxiety as a result of the Project's perceived or potential impacts. Efforts will be required to identify and assist these residents to avoid causing them future disadvantage. This will require a close focus on communicating with residents and community and working with them to mitigate the impacts at the local level.
Connectivity	Construction	Disruption to traffic can be expected during Project construction as equipment, materials and people are transported to and along the rail corridor, and as roads are closed or re-aligned. Access to private properties will be maintained during construction, unless an acceptable solution is agreed with the property owner. ARTC will ensure an appropriate level of access is maintained for landholders across existing crossings or through their property where affected by the rail corridor. Crossings of roads on private properties will be designed in consultation with the landholders and will include consideration of the need to move stock, large equipment and vehicles across the corridor. The State and National Rail Safety guidelines and policies are safety focused, and ARTC will work with each landholder to find solutions that provide optimal access on a case-by-case basis There is also potential for rail traffic that would otherwise have used the West Moreton Rail system through Toowoomba to divert to the Project and decrease traffic congestion due to delays at level crossings in Toowoomba. No level crossings are proposed for the Project. The Project proposes the construction of grade-separated crossings where the Project interfaces with: ▸ Toowoomba Bypass, Gittins Road, Jones Road, Murphys Creek Road, Wallens Road and Cattos Road (rail-over-road crossings) ▸ Gowrie Junction Road and McNamaras Road (road-over-rail crossings). The construction of grade-separated crossings will involve traffic detours and/or traffic delays. Pedestrian and cyclist access in Gowrie Junction may also be impeded during construction of the Gowrie Junction Road bridge. The Project also proposes the elimination of the existing Paulsens Road level crossing.
	Operation	The Project will have a total of 53 road–rail interfaces, 26 of which will be grade separated, with 27 road interfaces to be closed as they are either considered not to be required for network connectivity or property access, or are on DTMR- or State-government owned land and able to maintain legal access. In addition to the public road–rail interfaces, the Project would have 36 private road interfaces. ARTC will ensure an appropriate level of access is maintained for landholders across existing crossings or through their property where affected by the rail corridor. Crossings of roads on private properties will be designed in consultation with the landholders and will include consideration of the need to move stock, large equipment and vehicles across the corridor.

Impact area	Delivery phase	Potential impacts
Connectivity [continued]	Operation [continued]	The Project is likely to result in the movement of some freight that currently uses the QR West Moreton System rail corridor to Inland Rail network, which would decrease the number of freight trains travelling through Toowoomba and along the Great Dividing Range, and result in decreased traffic congestion related to level crossings in this area. This would be a substantial benefit to Toowoomba and Lockyer Valley LGAs residents and businesses.
	Construction and operation	The traffic impact assessment (refer Appendix U: Traffic Impact Assessment) includes a review of the Queensland Principal Cycle Network, which identified an existing road–rail interface at Paulsens Road/Gowrie Junction Road. A grade-separated crossing would replace the current crossing, which would improve the current arrangements. As there are no level crossings proposed, there would be no pedestrian, cycle or equine interfaces with the Project.
Flooding	Construction and operation	Local communities are highly sensitised to the impacts of flooding, as a result of the 2011 floods. Concern about the Project's potential to change or increase flood impacts is a considerable source of anxiety for many community members. The potential for the Project to change flood behaviour has been assessed in Chapter 13: Surface Water and Hydrology. The assessment confirmed that the proposed design would meet the nominated drainage and flooding performance requirements and achieve the required one (1) per cent Annual Exceedance Probability (AEP) event flood immunity for the rail formation and the 1 in 10,000 AEP for the tunnel portals.
Population changes	Construction	With a portion of the construction workforce to be sourced from nearby communities, and the remainder expected to commute daily from within the Project region or adjacent LGAs, the daytime population of the Project region would increase by an average of up to 264 people during the construction period.

16.10.2 Workforce

This section discusses the Project's likely employment and training benefits, workforce management and the potential for the Project's labour requirements to impact on other stakeholders.

Pre-construction activities are anticipated to require a small workforce (up to 50 personnel) over a period of approximately six months.

Construction is planned to commence in 2022 and be completed by 2027. During the core construction period, the workforce will consist of professional staff, supervisors, trades workers and plant operators, with earthworks crews, bridge structure teams, capping and track-works crews working at different periods though the construction phase. The size and composition of the workforce will vary depending on the construction activities being undertaken and the staging strategy adopted. The Project's workforce is expected to peak at 596 and average 466 personnel in Year 2 of construction, and to drop to a peak of 44 personnel and an average of 11 personnel in the final six months of construction.

The Project region's labour force included 7,363 people working in the construction industry in 2016 and at June 2019, the Project region's labour force also included 5,201 people who were unemployed (4,096 people in the Toowoomba LGA and 1,105 workers in the Lockyer Valley LGA). Further, regional level labour projections for the 2018–2023 period indicate that the Darling Downs region (which includes Toowoomba LGA) was projected to have an average annual average surplus of construction workers between 2018 and 2028, while the West Moreton region (which includes Lockyer Valley LGA) was projected to have an average annual average surplus in construction workers to 2022, with a shortage predicted for 2023–2028.

The economic impact assessment undertaken for the Project (refer Appendix R: Economic Impact Assessment) indicates that labour market conditions during the construction phase will be somewhere between those characterised by the 'slack' labour market (where there are sufficient unemployed and under-employed workers to accommodate the increase in demand for labour without increasing real wages) and a 'tight' labour market (where wages are bid up to attract currently employed workers to the businesses contracted to construct the Project). Noting that several concurrent and overlapping construction projects have the potential to contribute to cumulative economic impacts alongside those of the Project, the economic impact assessment (refer Appendix R: Economic Impact Assessment) assumes, based on the industry employment and occupation of the local workforce, that the local labour market has the capacity to supply a significant portion of the workforce requirements of the Project, without major disruption to other industries.

ARTC has established the Inland Rail Skills Academy, which is a collection of projects and partnerships with the aim to facilitate local employment and procurement opportunities regionally by 'priming the market' in each region in which Rail would be constructed—making it easy for Inland Rail contractors to employ and procure trained and competent people locally.

The Inland Rail Skills Academy will provide the framework for all training and development opportunities to be developed for the Inland Rail Program. The partnerships and projects that make up the Inland Rail Skills Academy are in progress, with some activities commencing in late 2019.

Training opportunities provided as part of the Inland Rail Skills Academy will strengthen workforce capacity for both Project construction and Project operation.

Potential impacts and benefits relating to Project employment are summarised in Table 16.11.

TABLE 16.11: POTENTIAL IMPACTS AND BENEFIT TO WORKFORCE

Impact area	Delivery phase	Potential impacts
Employment opportunities	Construction	Employment opportunities would extend to up to 596 workers across the Project region and nearby LGAs and would be available to both experienced construction industry workers and people who are currently unemployed. ARTC's procurement and construction contracts will contain desired outcomes relating to social performance, including local, Indigenous and female employment goals.
	Operations	Once operational, a workforce of approximately 15 to 20 personnel is expected for the Project's operation. This is likely to include a mix of local personnel; mobile crews moving between sections of Inland Rail (e.g. for major track and ballast maintenance), some of whom may be from the Project region; and personnel based in operations centres. The Project will also facilitate third-party employment of train drivers.
Skills availability	Construction	The Project will require labourers and skilled trade workers (such as mobile plant operators, crane operators, structural steel workers, earthmoving operators, bridge construction workers and tunnelling crews). The SIA study area's construction industry workers numbered approximately 7,363 people in 2016, of whom 1,307 people (17.8 per cent of the total) lived in the Lockyer Valley LGA and 6,056 people (79.3 per cent of the total) lived in the Toowoomba LGA. The economic impact assessment undertaken for the Project (Appendix R: Economic Impact Assessment) assumes, based on the industry employment and occupation of the local workforce, that the local labour market has the capacity to supply a significant portion of the workforce requirements of the Project, without major disruption to other industries. The Project region had a collective unemployed workforce of approximately 5,201 people in June 2019, including 4,096 unemployed people in the Toowoomba LGA and 1,105 unemployed people in the Lockyer Valley LGA. Collectively, the construction industry workforce and unemployed workers represent a significant regional pool of existing skilled labour and workers who could be trained (if required) for construction work on the Project. Given the availability of both skilled construction workers and unemployed people, difficulties accessing adequate local labour for construction are not expected.
Training and development opportunities	Construction	The Project's construction phase represents an important source of potential training and career pathway development for Project region residents, including young people, women and Indigenous people. ARTC's Inland Rail Skills Academy will help to ensure that young people and Indigenous people in the Project region have the opportunity for skills training that will equip them for the construction industry and will be transferrable to future major projects.
Impacts on employment in other industries	Construction and operations	The Project is likely to acquire or sever grazing and cropping properties, which may impact on the availability of agricultural employment Impacts on the amenity of tourism attractions may impact their visitation and trading levels, with potential for impacts on their capacity to offer employment.
Workforce management	Construction	Construction personnel will be working in close proximity to homes and businesses, on 12-hour daily shifts (10 hours working time, 2 hours for travel). Some residents may be concerned about family safety and privacy, given personnel may not be known to them and the fact that works will be in close proximity to homes in some areas.

16.10.3 Housing and accommodation

This section discusses the potential for impacts on the settlement pattern in the Project region, population change that could affect demand for housing, concerns regarding property values, and potential impacts on short-term accommodation.

The predominant land use within and near the Project disturbance footprint is grazing land. As the Gowrie to Grandchester future state transport corridor was protected as future railway land in 2005, the future intent to construct a rail corridor through the area is consistent with the intended land use planning expectations for the area (refer Chapter 8: Land Use and Tenure).

ShapingSEQ and/or the relevant LGA planning schemes identify land that has been designated for future residential and rural living purposes. For the purposes of this assessment, the settlement pattern is considered likely to be altered on land that is within 250 m of the alignment, as future development may be deterred due to noise or visual impacts. The alignment is not anticipated to impact the urban settlement pattern as it passes in tunnel through most of the urban footprint of Toowoomba (as designated in ShapingSEQ) and, elsewhere, is buffered from land designated for urban purposes.

The extent of property acquisition will be confirmed by the appointed constructing authority in consultation with landholders, during the detailed design phase. For the purpose of estimating changes to the population of communities and the Project region, the SIA has assumed that approximately 20 households or an estimated 50-60 people would relocate from rural residential and urban properties as a result of property acquisitions for the Project, and that many of these households are likely to seek new homes in the Project region.

During Year 1, Project construction would require an average of 202 personnel and a peak of 545 personnel. Year 2 would see an average workforce of 466 personnel and a peak of 596 personnel. As the majority of the construction workforce is expected to be drawn from the Project region, adjacent LGAs and the Greater Brisbane region, returning home at night, the number of personnel requiring accommodation is expected to be small; however, there is potential for cumulative demands for labour to result in a requirement for non-local personnel.

ARTC aims to maximise opportunities for workers in the Project region to access Project employment and will also have access to a large workforce with relevant skills and experience within the Greater Brisbane region. The Project expects that construction personnel will largely be drawn from communities in the Project region, and nearby LGAs, and will return home at night. On this basis, a significant demand for rental accommodation for Project construction personnel is not anticipated and a workforce accommodation facility is not proposed.

Rental vacancy rates were very low in local communities during 2020, with vacancy rates generally below 1.0 percent. A total of approximately 135 rental dwellings were identified in the four postcode areas relevant to the Project in June 2020 (representing Toowoomba suburbs, Helidon/Helidon Spa, Kingsthorpe and Gowrie Junction/Postmans Ridge/Withcott, which was a decrease of 173 dwellings, or more than 56 percent, since June 2019. By December 2020, this had increased to 180 dwellings, reflecting the end-of-year turn over in University of Southern Queensland students in Toowoomba.

Based on June 2020 availability of rental housing, if 30 personnel (approximately 5 per cent of the peak construction workforce) moved to the Project region and/or required housing while they were rostered on, and required one dwelling each (as opposed to sharing housing with other workers), this would equate to a demand for 22.2 per cent of the rental housing available in the four postcode areas at June 2020.

If a requirement for 60 dwellings (approximately 10 per cent of the peak workforce) eventuated, this would be equivalent to up to 44.4 per cent per cent of the available rental dwellings in the four postcodes of interest. This is considered a maximum or worst case, given the Project's intention to recruit from within a safe daily driving distance, the fact that non-resident construction workers typically share housing, and the likelihood that a portion of any demand from non-resident workers would be met in short-term accommodation. In particular, the use of rental housing by construction industry personnel typically involves 3–4 people sharing a rental dwelling, which would reduce this requirement considerably.

Any housing demand from Project personnel is likely to build over a two-year period (2022–2023) rather than occur as a surge in any one quarter; however, if the availability of local rental housing stock remains low, there is potential for Project personnel to compete with local residents for rental housing or increase rental costs, resulting in less housing choice and, potentially, displacement of low income households from rental housing.

There is also the potential for cumulative housing impacts due to the construction of multiple projects in the Project region. In the context of the currently tight rental housing market in local communities' cumulative demands could impact on the availability of affordable housing. Further discussion is provided in Appendix Q: Social Impact Assessment. ARTC will require the construction contractor to provide an Accommodation Management Plan (AMP) for the construction period to mitigate the potential for impacts on local availability of rental housing.

The Project may result in occasional demands for short-term accommodation (i.e. hotels, motels and short-stay units) during the construction phase, which would be experienced as a welcome increase in trade for accommodation providers.

Should a demand for short-term accommodation occur, it would most likely be experienced in Toowoomba, which has a range of accommodation options. The Project's AMP will include strategies to reduce any competition with tourists, while enabling local accommodation providers to benefit from any Project requirements for short-term accommodation.

With an estimated requirement for approximately 15 to 20 personnel during operations, some of whom may be drawn from surrounding communities, no significant population change, or housing demand is expected as a result of the Project's operational workforce.

Potential impacts relating to housing and accommodation are summarised in Table 16.12.

TABLE 16.12: POTENTIAL IMPACTS TO HOUSING AND ACCOMMODATION

Impact area	Delivery phase	Potential impacts
Settlement pattern	Construction and operation	The predominant land use within and near the Project disturbance footprint is grazing land. As the Gowrie to Grandchester future state transport corridor was protected as future railway land in 2005, the future intent to construct a rail corridor through the area is consistent with the intended land use planning expectations for the area (refer Chapter 8: Land Use and Tenure). For the purposes of the SIA, the settlement pattern is considered likely to be altered on land that is within 250 m of the alignment, as future development may be deterred due to noise or visual impacts. The alignment is not anticipated to impact the urban settlement pattern as it passes in tunnel through most of the urban footprint of Toowoomba (as designated in ShapingSEQ) and, elsewhere, is buffered from land designated for urban purposes. The Project may change the settlement pattern in the areas designated for rural living at Helidon Spa (between Ch 26.0 km and Ch 27.0 km) and Postmans Ridge Road (between Ch 23.0 km and Ch 24.0 km) where land is within 250 m of the alignment.
Housing	Construction and operation	Up to 20 households, equating to approximately 50–60 people, are expected to need to relocate from rural residential and urban properties within the EIS investigation corridor, as a result of property acquisitions for the Project, and many of these households are likely to seek new homes in the Project region. In the context of the Project region's housing stocks, property acquisition for the Project is not expected to have an impact on housing availability or asking prices. Consultation with DTMR has identified the potential for one tenant to be displaced as a result of the removal of DTMR-owned dwellings in the EIS investigation corridor, so significant impacts on the availability of affordable housing as a result of property acquisition are considered unlikely. Based on June 2020 availability of rental housing, if 30 personnel (approximately 5 per cent of the peak construction workforce) moved to the Project region and/or required housing while they were rostered on, and required one dwelling each (as opposed to sharing housing with other workers), this would equate to a demand for 22.2 per cent of the rental housing available in the four postcode areas at June 2020. A requirement for 60 dwellings would equate to 44.4 per cent per cent of the available rental dwellings. Cumulative impacts on housing and accommodation are possible.

Impact area	Delivery phase	Potential impacts
Property values	Construction and operation	Consultation participants in the Lockyer Valley and in Gowrie Junction identified concerns that property values were decreasing in local towns as a result of the Project's proposed location or fears about Project impacts on the amenity of properties. This was a source of considerable anxiety for landholders in relation to their future financial security. Research on the relationship between property values and infrastructure indicates that property prices are determined by a combination of the properties' actual utility (i.e. use and amenity) and buyers' perceptions about the environmental impacts of infrastructure, with responses to perceptions of risk varying. Studies that have examined the effects of noise resulting from transport infrastructure on property values are discussed in Appendix Q: Social Impact Assessment. Research on the effects of freight rail lines on property values in Australia was not able to be identified. Landholders' concerns about the Project's potential to change property values are acknowledged; however, assessment of the likelihood and magnitude of change is not possible given the individual circumstances of particular properties, other market drivers, the variability of Project impacts, and payment of compensation according to individual agreements with landholders. As such, the likelihood and quantum of the Project's impacts on property values cannot be conclusively assessed; however, stress and anxiety about the potential for negative impacts on property values will result for some residents near the Project disturbance footprint. Further discussion is provided in Appendix Q: Social Impact Assessment.
Short-term accommodation	Construction	If the Project results in a demand for short-term accommodation, it would most likely be experienced in Toowoomba. The Project's AMP will include strategies to reduce any competition with tourists, while enabling local accommodation providers to benefit from any Project requirements for short-term accommodation.

16.10.4 Health and wellbeing

A community's health and wellbeing are shaped by the complex interplay of personal, social, economic, and environmental influences.

The Project's EIS period has involved stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts or environmental change. This is likely to be ongoing for some community members and may impact on their mental health. ARTC has initiated mental health partnerships with the Darling Downs and West Moreton PHN and the Brisbane South PHN to support these residents, and others who may experience stress and anxiety in relation to the Project, and will regularly review the resources available and the adequacy of services in relation to Project-related demands on mental health services.

Potential exceedances of noise criteria could occur at the Gowrie State School during both construction and operation. ARTC has consulted with the Queensland Department of Education with respect to potential noise exceedances at Gowrie State School and will address the Department of Education's Learning Environment Guidelines with respect to mitigation of noise impacts on Gowrie State School.

There is potential for the cumulative impacts of road works for the Project's construction of a rail bridge over Cattos Road, and the tie-in to the Inland Rail H2C project, and the H2C project's works to Warrigal, Andersons and Seventeen Mile Roads, to result in cumulative impacts on road access to the Helidon State School.

The only school bus route that interfaces with the Project disturbance footprint is the route to Gowrie State School, where the current level crossing would be removed, and a grade-separated crossing constructed. This may result in the need for a suitable detour route during construction but is not expected to have a significant impact on travel times. For the operational phase, the grade-separated crossing would provide greater safety for the school bus route, with no impact on travel times.

As the majority of the Project's construction and operation workforce is expected to be drawn from the local labour pool, the Project is not expected to generate increased demands on existing education, childcare, community or recreational facilities. Exceedances of construction noise criteria are possible at the Postmans Ridge Pioneers Memorial Hall, which is approximately 1.3 km south of the Project alignment, at Ch 20.0 km, for the period during which construction activities would occur in this area. ARTC will work with the owners of this facility to identify any feasible changes that could be made to the construction methodology or timing, to reduce impacts on the facility's use and amenity.

Construction noise exceedances were not predicted for other facilities; however, there may be potential for construction noise to be audible while construction works are nearby, at:

- Gowrie Junction Community Hall on Old Homebush Road, which is approximately 500 m north of the Project alignment, near Ch 2.0 km
- Harlaxton Community Hall on Gleeson Crescent Harlaxton, which is approximately 700 m south of the Project where it is in tunnel at approximately Ch 9.5 km
- Harlaxton Neighbourhood Centre on Coonan Street Harlaxton, which is approximately 900 m south of the Project where it is in tunnel at approximately Ch 9.0 km
- Gateway Church Toowoomba on Gleeson Crescent in Harlaxton, approximately 800 m south of the Project where it is in tunnel near Ch 8.5 km.

Community and family support services may experience increased demands prior to and during construction, to assist people to cope with Project-related stress and/or disruptions to households' circumstances for those who would need to relocate. Community members are also likely to seek social support through community networks such as those supported by local halls and community centres.

The Project has 184 known utility interactions, including the Roma Brisbane Gas Pipeline TRC rising sewer main, Wetalla water pipeline, and a range of power and telecommunications utilities. ARTC will obtain the relevant agreements with the utility providers to access and work in their easements including, where required, relocation of utilities that may be done by the utility provider under relevant legislation.

The workforce of up to 596 personnel may generate an increase in demand for hospital and health services. It is likely that, for the most part, this would involve minor injuries and illnesses typically treated by construction team paramedics, local general practitioners and health services. Consultation with the Darling Downs HHS has indicated that patients requiring significant medical care would be treated in the Toowoomba Hospital, which has capacity for the anticipated increase in demand. The District's smaller hospitals have limited ability to deal with additional trauma cases but are unlikely to be affected.

The Project may increase demands for police and emergency services during construction as the result of increased traffic increasing the risk of road accidents and, for police, the need for traffic control assistance and oversize vehicle escorts. Construction activities, including roadworks, also have potential to delay emergency response vehicles. Firefighting access around the disturbance footprint will also require ongoing consultation with the QFES and Rural Fire Brigades in potentially impacted communities.

Effects on stakeholders' water access are expected to include direct impacts on bores in the Project disturbance footprint and indirect (drawdown) impacts on other bore users (refer (Chapter 14: Groundwater). The Draft Outline Environmental Management Plan (Draft Outline EMP) (refer Chapter 23: Draft Outline Environmental Management Plan) provides that ARTC will undertake a landholder bore survey to identify the location of any bores that may be lost due to construction or impaired during operations and engage with bore owners to determine an appropriate mitigation strategy (e.g. replacement of water supply, if required). A groundwater monitoring strategy is also recommended to provide an ongoing assessment of potential impacts on bores. This is expected to reduce the potential for impacts on groundwater users in relation to registered and unregistered bores, and it has been assumed here that mitigation strategies, including make-good arrangements, where necessary, will neutralise any impacts on other water users.

ARTC will consult with affected bore owners to identify compensation or make-good arrangements (i.e. replacement of the water source); however, the loss of bores or loss of water from bores may lead to short-term impacts on farm management.

The Project's construction will result in noise levels that could exceed the Project's noise criteria, and may cause frustration and anger for residents exposed to noise; particularly those who would experience noise for longer periods, e.g. in relation to viaduct and bridge construction. ARTC and its contractors will implement the mitigation and management measures proposed in Appendix O: Construction Noise and Vibration, which are expected to reduce the level and/or frequency of noise exceedances. ARTC will also undertake proactive consultation with residents within 1,000 m of the rail corridor to identify specific concerns and, where possible, tailor any site-specific noise mitigation required to address residents' needs.

The results of air quality risk assessment for the Project indicate that while unmitigated air emissions from the construction phase of the Project could pose a risk to human health, with effective mitigation of construction dust sources, the residual impact on both dust deposition and human health will not be significant.

The results of air quality impact assessment for the Project's operation indicate that compliance with air quality goals has been predicted for all pollutants of concern, including drinking water impacts for all identified sensitive receptors, with the exception of one dwelling. Full details are provided in Appendix K: Air Quality Technical Report.

The Project's operation would generate low- and high-frequency noise associated with running trains and trains idling at crossing loops, along with the operation of the tunnel. While noise exceedances are expected to be mitigated by the measures outlined in Appendix P: Operational Railway Noise and Vibration, the Project's operation would generate long-term noise exposure for properties near the rail corridor.

Property acquisitions, construction noise, disruption to cultural associations, and disruption to local connectivity and travel times are likely to generate frustration and anxiety in the local communities, potentially impacting mental wellbeing and health for some. The primary triggers would be:

- Uncertainty for landholders about impacts on property values (including compensation), acquisition process (including timing and duration), ability to achieve future plans, and potential for property acquisition
- Concern about the potential for homes, farms and roads to be impacted by floods or increased flood duration
- Noise and vibration disturbance, particularly for residents in proximity to the Project disturbance footprint
- Disruptions caused by route severance and travel time delays for everyday community mobility needs, and for conducting business, farming, emergency and other service activities
- Needing more information about Project impacts that will not be available until the EIS is complete and/or detailed design is undertaken for the Project.

In isolation or in combination, these triggers for stress and anxiety may affect individual, family and community wellbeing.

Inland Rail is committed to supporting the wellbeing of communities impacted by the Inland Rail Program and recognises that early activities during the feasibility stage may cause concern or anxiety in the community. To address this, ARTC has developed a mental health partnership initiative with the Darling Downs and West Moreton PHN to:

- Promote local, independent mental health services that are accessible to stakeholders at no cost
- Ensure local mental health services, including General Practitioners, are aware of Inland Rail progress in local areas
- Provide resources to services to mitigate any increased demand caused by Inland Rail.

Safety risks associated with Project operation include derailment, tunnel and train fires, runaway trains due to the gradient and railway-based suicide. Chapter 23: Draft Outline Environmental Management Plan includes strategies and actions addressing traffic management, hazard and risk management, and application of safety design standards to mitigate safety risks. ARTC will apply best-practice design and management measures to mitigate community safety impacts and will develop tailored rail safety awareness programs for nearby communities. During operations, the Project's infrastructure and rail operations may result in demands on emergency service and potential changes to emergency response times. Planning for ongoing cooperation with emergency services during the Project's operations will be initiated during the construction phase.

Community concerns about dust emanating from the rail corridor during operation, and regarding air quality at the intermediate ventilation shaft location in Cranley, indicate the need to provide information to the community about how dust from the Project's construction and operation will be minimised. The potential for dust to affect homes or water tanks, and management measures to reduce dust, are considered in Chapter 12: Air Quality. No impacts on the quality of water in rainwater ranks is predicted.

At the national level, the Inland Rail Business Case (ARTC, 2015a) anticipates that the Inland Rail Program as a whole will remove 200,000 truck movements from roads each year, resulting in improved road safety, a reduction in serious accidents and reduced truck volumes in regional towns.

ARTC has established the Inland Rail Community Sponsorships and Donations Program. The purpose of the program is to support community-initiated projects, events or activities that:

- Are one-off and short term
- Focus on one or more of Inland Rail's priority areas of culture, safety, environment, recreation and entrepreneurism
- Align with the core values of Inland Rail, which are future thinking, active engagement, no harm, and results.
- The desired social outcome for Community Sponsorships and Donations is to contribute to the community's wellbeing, prosperity and/or sustainability.

Potential impacts to health and wellbeing are outlined in Table 16.13.

TABLE 16.13: POTENTIAL IMPACTS TO HEALTH AND WELLBEING

Impact area	Delivery phase	Potential impacts
Schools, community facilities and services	Construction	Temporary disruptions to school access routes and school bus scheduling are anticipated during construction and Project-related roadworks. An increase in traffic volumes as a result of Project construction traffic or delays at level crossing or bridge construction sites could result in increased travel times for school bus services. The only school bus route that interfaces with the Project disturbance footprint is the route to Gowrie State School, which will be managed as part of the Project's Traffic Management Plan (TMP).
	Construction	As the majority of the Project's construction and operation workforce is expected to be drawn from the local labour pool, the Project is not expected to generate increased demands on existing education, childcare, community or recreational facilities. There may be exceedance of the construction noise criteria at the Postmans Ridge Pioneers Memorial Hall.
	Construction and operations	Potential exceedances of noise criteria could occur at the Gowrie State School during both construction and operation. Local roads that would be closed during the construction period (and remain closed during operations) include Morrie Road in Gowrie, Drapers Road, Ganzer Road and an undeveloped section of Howmans Road. This will cause small increases in travel times for residents travelling to services.
	Construction	There is potential for an increased need for support services for residents adjusting to stresses and/or disruptions to households' circumstances for those who would need to locate as a result of the Project.
	Operation	Project operation is not expected to generate direct negative impacts on community facility or school sites; however, exceedance of the noise criteria due to rail operation is expected at Gowrie State School, which could be reduced if windows were closed or facades installed to control the intrusion of noise. A travel safety benefit is expected through the provision of a grade-separated crossing over the rail line.
Health and emergency services	Construction	The workforce of up to 596 personnel may generate an increase in demand for health and ambulance services. It is likely that, for the most part, this would involve minor injuries and illness attended to by local general practitioners and health services, and that most of workers' healthcare needs would be taken care of by their local doctors or health service providers.
	Construction	The construction workforce would see a minimal redistribution of the 'daytime' population in the Project region but may lead to an increase in demand for traffic policing on roads used to access the Project. Emergency service providers anticipate that the Project would increase demands on their resources during construction through a combination of: - Workplace accidents - Remoteness of and difficulty of access to some worksites - Technical requirements for in-tunnel incidents - Increased traffic accidents associated with workforce commuter traffic, and an increase in heavy haulage and large load vehicles - Theft of materials from laydown areas (in particular, metal theft) - Disputes about land acquisition or protests about the Project.

Impact area	Delivery phase	Potential impacts
Health and emergency services [continued]	Construction	Accessibility for emergency services could be impeded during construction at rail–road interfaces or where changes to road networks are proposed.
	Operation	An increased risk of road/rail accidents may create additional demand on health and emergency services (including QPS, QAS and QFES). Responses to any derailments, level crossing accidents, load loss, hazardous goods spill or other major incidents would place a significant demand on police and emergency resources.
	Operation	Accessibility and response times for emergency services may be impeded when the railway is operational, due to route alterations; however, there may also be opportunity for emergency services to access remote areas via the proposed rail corridor. ARTC will work with police and emergency services to mitigate this impact.
Access to natural resources	Construction and operation	The Project's potential to affect landholders' access to water was a key community concern, heightened by the long periods of drought that farmers and graziers in the Lockyer Valley and Toowoomba LGAs have endured. Landholders and other community members are concerned that water storage or collection infrastructure could be damaged and that the Project's use of water will restrict access by other water users. An assessment of the groundwater resources within and near the Project disturbance footprint identified the potential to impact groundwater users during construction, due to a temporary drawdown of localised groundwater levels and the possibility that groundwater drawdown as a result of tunnelling activities could occur. This has the potential to temporarily affect the availability of groundwater from bores (refer Appendix N: Groundwater Technical Report). A total of 48 registered bores were identified within the drawdown extent, of which two are within the Project disturbance footprint and would be decommissioned. The extent of drawdown on individual bores will range widely and the likely extent of impact on each bore has not yet been determined. The Project's potential to impact on other users' access to surface water (e.g. from creeks and drainage catchments) was assessed in Appendix L: Surface Water. The impact to water plans (supply and conveyance) within the disturbance footprint was assessed as minimal due to limited overland flow interference and no diversion of defined watercourses. Appendix L: Surface Water notes that potential impacts on surface water users relate primarily to impacts on water quality (e.g. from increased debris, altered water quality and hydrology, an increase in erosion and sedimentation or introduction of contaminants), and that this may have transient impacts to local water users, potentially restricting access to human drinking water, stock water and crop irrigation. The assessment identified that for the Project's construction and operational phases, the combination of design considerations and mitigation measures (refer Appendix L: Surface Water) relevant to surface water quality would be sufficient to mitigate most potential impacts, such that the residual significance would be low. The Project construction water requirement is predicted to be 700 megalitres, including raw and potable water. The TBM operations will require a significant amount of water, some of which may be sourced from within the Project disturbance footprint during construction (i.e. groundwater infiltration into the tunnel). As discussed in the Appendix L: Surface Water, sources of construction water will be finalised as the construction approach is refined, during the detailed design phase of the Project (post-EIS), and will be dependent on: ▸ Climatic conditions in the lead up to construction, including soil moisture ▸ Confirmation of private water sources acquired for the Project (e.g. acquisition of land and registered interests, such as farm dams and water entitlements) ▸ Confirmation of private water sources made available to the Project by landholders or other stakeholders under private agreement, including recycled water ▸ Confirmation of access agreements with local Councils and State government agencies/corporations for sourcing of mains water for such activities as concrete batching purposes, including the water network operated by Queensland Urban Utilities in the area east of Murphys Creek Road.

Impact area	Delivery phase	Potential impacts
Access to natural resources [continued]	Construction and operation [continued]	Construction water sources and demand will employ a hierarchical approach to confirming the suitability of water sources, with a focus on using existing sustainable allocated water entitlements from private water holders. This will include identification of opportunities to use dewatered artificial impoundments (where impacted along the alignment) for construction purposes. This hierarchy is expected to avoid or minimise impacts on other water users. An assessment of the suitability of each source will need to be made for each construction activity requiring water during the detailed design phase. Licenses, approvals and agreements to access water from sources identified in the finalised construction water strategy will be obtained and may include water licenses under the *Water Act 2000* (Qld) or access agreements with bulk water suppliers or private landholders. Further details are provided in Chapter 3: Project Approvals. The Draft Outline EMP provides that ARTC will undertake a landholder bore survey to identify the location of any bores that may be lost due to construction or operation, and engage with all relevant users to determine an appropriate mitigation strategy (e.g. replacement of water supply, if required). A groundwater monitoring strategy is also recommended, to provide an ongoing assessment of potential impacts on bores. This is expected to reduce the potential for impacts on groundwater users in relation to registered and unregistered bores, and it has been assumed here that mitigation strategies, including make-good arrangements, where necessary, will neutralise any impacts on other water users. The potential for impacts on wildlife, including koalas, is a concern to the community. The Project's potential impacts on terrestrial and aquatic ecology have been assessed and are detailed in Appendix I: Terrestrial and Aquatic Ecology, which describes the potential to impact on flora and fauna (predominantly during the construction phase), e.g. through habitat loss, change, or fragmentation, injury to fauna, displacement of flora and fauna by weed and pest species, noise, or barrier effects (i.e. changing fauna's movement patterns).
Health and environmental qualities	Construction	Assessment of the potential for dust and/or diesel emissions to affect air quality is detailed in Appendix K: Air Quality Technical Report. The Project goals for air quality are based on protecting health and wellbeing, and biodiversity of ecosystems. Construction activities, such as earthworks, blasting, land clearing and truck movements over unpaved surfaces may generate airborne contaminants (such as silica) that may pose a health risk, with a particular risk to tunnel construction workers (further details are provided in Chapter 20: Hazard and Risk, Section 20.8.2 and Section 20.10). The results of air quality risk assessment for the Project indicate that while unmitigated air emissions from the construction phase of the Project could pose a risk to human health, with effective mitigation of construction dust sources, the residual impact on both dust deposition and human health will not be significant. Assessment of the potential for construction noise or vibration that would disturb human comfort for residents near the EIS investigation corridor (Appendix O: Construction Noise and Vibration) indicates that there is potential for construction noise to affect areas near the Project. Construction noise or vibration may affect enjoyment of daytime activities, or cause sleep disturbance. The Project's construction will result in noise levels that could exceed the Project's noise criteria and may cause frustration and anger for residents exposed to noise; particularly those who would experience noise for longer periods, e.g. in relation to viaduct and bridge construction. Mitigation measures would be applied were it is deemed feasible and reasonable, to reduce the predicted impacts to sensitive receptors within proximity to the construction routes. Works that will create vibration (e.g. piling and vibratory rolling) will be undertaken as part of construction. Minimum working distances are proposed (refer Appendix O: Construction Noise and Vibration) to avoid or minimise impacts on human comfort.

Impact area	Delivery phase	Potential impacts
Health and environmental qualities [continued]	Operation	Assessment of the potential for noise and vibration impacts during operation of the Project is presented in Appendix P: Operational Railway Noise and Vibration. Night-time noise levels could be above the maximum assessment criteria and trigger a review of feasible and practicable noise mitigation measures at 32 sensitive receptors (2040). Sensitive receptors located within 50 m of the alignment, or 160 m of the tunnel, may experience ground-borne vibration from railway operations. The results of air quality risk assessment for the Project indicate that, while unmitigated air emissions from the construction phase of the Project could pose a risk to human health, with effective mitigation of construction dust sources, the residual impact on both dust deposition and human health will not be significant. The results of air quality impact assessment for the Project's operation indicate that compliance with air quality goals has been predicted for all pollutants of concern, including drinking water impacts for all identified sensitive receptors, with the exception of one dwelling. Full details are provided in Appendix K: Air Quality Technical Report. However, community concerns about air quality changes may persist regardless of the EIS findings. Clear and transparent communication about the EIS air quality assessment findings may assist to reduce community concerns.
Mental health	Construction	The Project will require property resumptions, commencing prior to the construction period. Uncertainty about the property resumption process and future living arrangement is a considerable source of stress and anxiety for some people whose homes would be acquired. Residents living adjacent to the disturbance footprint are also experiencing stress about the potential for construction or operational noise to affect the amenity or value of their properties. Other potential sources of frustration and anxiety in the community may include travel delays or concern about particulate emissions.
	Construction	There is potential for noise and vibration disturbances to cause stress and anxiety for residents near construction sites, particularly if those sites require extended periods of activity.
Community safety	Construction and operation	Safety risks associated with Project operation include derailment, tunnel and train fires, runaway trains due to the gradient and railway-based suicide. Chapter 23: Draft Outline Environmental Management Plan includes strategies and actions addressing traffic management, hazard and risk management, and application of safety design standards to mitigate safety risks.

16.10.5 Business and industry

This section discusses the Project's potential impacts and benefits for businesses and local industries.

Agriculture is central to the Project region's way of life and economy. The agriculture, forestry and fishing industry, and primarily the agricultural sector, accounts for approximately 3,300 business in the Toowoomba LGA and 850 businesses in the Lockyer Valley LGA. These include farming, cropping, grazing and associated agricultural service businesses, many of which are small family businesses; however, the region also includes Withcott Seedlings, which is a large agribusiness supplying farms throughout the Project region.

The Project is generally within the Gowrie to Grandchester future state transport corridor, which was protected as future railway land and is consistent with State land use planning expectations for the area. The Project crosses agricultural land, including irrigated seasonal horticulture and grazing on pasture and native vegetation. Agricultural land classified as being Class A (land that is suitable for a wide range of crops) or Class B (land that is suitable for a narrow range of crops) is the most productive agricultural land in Queensland (Department of Agriculture, Fisheries and Forestry, 2013b). The Project will sterilise some productive agricultural land located within the EIS investigation corridor.

Assessment of impacts on agricultural land, detailed in Chapter 8: Land Use and Tenure, notes that some areas of Class A and Class B land have already been sterilised. This includes areas associated with the existing QR West Moreton System rail corridor, road reserves, Toowoomba Bypass and Toowoomba Waste Management Centre.

At a local government level, within the Toowoomba LGA, the permanent disturbance footprint traverses approximately 47.03 ha of Class A (less than 0.1 percent), 0.02 ha of Class B (less than 0.1 percent), and 65.23 ha of IAA land (less than 0.1 percent). Within the Lockyer Valley LGA, the permanent disturbance footprint traverses approximately 4.61 ha of Class A (less than 0.1 percent), 3.01 ha of Class B (less than 0.1 percent), and 33.58 ha of IAA land (less than 0.1 percent).

The areas of land that would be sterilised and no longer available for agricultural use represent less than 0.1 per cent of either LGA's Class A and Class B land.

On this basis, land acquisition requirements are not expected to lead to significant impacts on the Project region's agricultural productivity.

Land acquisitions are described in Section 16.10.1, noting that the majority of land acquisitions involve partial 'fenceline' acquisitions of cropping and grazing properties in Charlton, Gowrie Junction, Ballard, Lockyer Withcott, Postmans Ridge Helidon and Helidon Spa. In the Lockyer Valley LGA, the permanent disturbance footprint affects one lot where the predominate use is irrigated seasonal horticulture, which is a carrot farm near Snellings Road at Helidon Spa. Approximately 23.4 per cent of the lot could be acquired, leading to the relocation of the property's access arrangements. There are also 33 lots in the Lockyer Valley LGA where the predominate use is grazing and acquisition would be required, ranging from acquisition of less than 10 per cent per cent for 10 lots, between 10 per cent and 40 per cent for 20 lots, and with full acquisition likely to be required for three lots (ranging in size from approximately 2,000–6,000 m^2). Several of these lots are located on steep vegetated land with minimal-to-no current grazing use.

In the Toowoomba LGA, the permanent disturbance footprint affects approximately five lots where the designated predominate use is cropping, including three mixed cropping lots in the Gowrie Junction/Krienke Road area and lots within Withcott Seedlings. The percentages of the lots to be acquired ranges from 0.2 per cent to 16.3 per cent and the Project is engaging with the landholders to implement measures to maintain the connectivity of these properties.

ARTC has conducted individual consultations with affected landholders to identify and minimise the potential for impacts on highly productive areas, farm management practices and farm infrastructure.

Where loss of agricultural land was unable to be avoided, the Project design placed the rail corridor on, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of properties. Where land would be fragmented or isolated, any impacts on operational farm requirements, such as impacts on access, infrastructure and services, will be managed and reinstated as soon as possible.

While the Project disturbance footprint does not traverse any known stock routes, it is understood that there may be informal stock routes used to transfer stock to various grazing paddocks and holding yards that interface with the Project disturbance footprint.

As the rail corridor is likely to be fenced or constructed in a manner that prevents stock moving onto the rail line, the Project has the potential to alienate and isolate parcels used for traveling stock. Consultation by ARTC with landholders is ongoing to identify impacts, if any, to these informal stock routes.

Project activities, particularly through construction, have the potential to disturb existing contaminated soil or groundwater, or to cause further land contamination through leaks, spills, or the transport and movement of existing contaminated soil or groundwater. The transport and movement of people, vehicles and machinery during construction, or the transport and movement of goods in operation, also have the potential to increase biosecurity risks relating to the spread of weeds. In the Lockyer Valley LGA, the potential for the Project to contribute to the spread of fire ants was also a concern.

Land contamination, biosecurity risks, changes to water surface hydrology, erosion and sedimentation have the potential to impact on agricultural land, with potential effects including reduced soil quality, reduced productivity, and increase in costs to agricultural operations. These impacts are further discussed in Chapter 9: Land Resources, Chapter 11: Flora and Fauna and Chapter 13: Surface Water and Hydrology.

In addition to farms and grazing properties, the Project disturbance footprint traverses or is near a number of other businesses at Charlton, Gowrie Junction, Cranley, Ballard, Postmans Ridge and Helidon. Some of these businesses will be subject to land acquisition under the AL Act. Further discussion is provided in Appendix Q: Social Impact Assessment.

The Project's construction is likely to lead to temporary disruptions to road access, including road works, which may cause delays for product movement, including during harvest periods. Along with an increase in traffic due to construction or workforce vehicles, roadworks are likely to cause temporary delays to farm transport vehicles and transportation businesses.

Direct impacts, such as land acquisition or noise exceedances, were not identified in relation to tourism businesses. There is potential for road works, earth works, bridge construction and the appearance of laydown areas to affect tourists' general experience of the area and their travel times during construction, with potential to affect visitation levels. The visual impact assessment (Appendix H: Landscape and Visual Impact Assessment) concluded that the Project is considered likely to result in visual impacts up to high significance during construction for three viewpoints, including: south-east from Keira Court (Blue Mountain Heights); looking north from Katoomba Point Lookout on Prince Henry Drive (Prince Henry Heights) and looking north-east from Picnic Point Lookout within Picnic Point Parklands (Rangeville). Other impacts of up to moderate significance are anticipated. These will be temporary while construction activities are undertaken in particular areas but some tourists may be deterred from visiting areas near the Project during these times. There is also potential for access to the Bicentennial National Trail north of Withcott to be disrupted during construction, as discussed in Section 16.10.1.

The Project is likely to provide significant opportunities for local and regional businesses to participate in its supply chain. Project supply opportunities during the construction phase may represent a substantial source of trade and an opportunity for local business growth. Businesses located in Toowoomba, or near the Warrego Highway at Helidon or Withcott, include fuel stations, cafes and hotels, which are likely to benefit from construction personnel's expenditure as they pass through the Project region.

The benefits of direct supply to the Project would be more modest during the operations phase but represent a long-term opportunity that would support the viability of businesses and contribute indirectly to increased employment opportunities. Further information on economic benefits is provided in Appendix R: Economic Impact Assessment.

The Inland Rail Program is subject to the *Australian Jobs Act 2013* (Cth) requirement to develop an Australian Industry Participation Plan (AIPP). ARTC is committed to providing local and Indigenous businesses and social enterprises with full, fair and reasonable opportunity to participate in the supply of goods and services on Inland Rail.

This commitment extends to ARTC's supply chain for Inland Rail. ARTC expects all contractors on Inland Rail to demonstrate the same level of commitment to providing local and Indigenous businesses, and social enterprises with the opportunity to compete for work. Upholding this supply chain commitment supports ARTC's social licence to operate.

The Project is also likely to support future industries associated within regional hubs, such as the Toowoomba Enterprise Hub (previously named Charlton Wellcamp Enterprise Area), which is currently comprised of the Wellcamp Airport, Wellcamp Business Park, InterLinkSQ, Witmack Industry Park and Charlton Logistics Park. The Toowoomba Enterprise Hub is an area is of strategic importance in supporting growth in Toowoomba and the Surat Basin, and will host major suppliers of engineering services and logistics.

The Project will also improve access to and from regional markets by providing connectivity opportunities between the existing QR West Moreton System rail corridor and ARTC interstate lines. The Project may also act as a significant catalyst for development in the region, particularly in relation to rail-dependent industries and support industries associated with transport, freight handling, warehousing and logistics.

Potential impacts on businesses and industries during construction are outlined in Table 16.14.

TABLE 16.14: POTENTIAL IMPACTS AND BENEFITS TO BUSINESS AND INDUSTRY

Impact area	Delivery phase	Potential impacts
Farms and agribusinesses	Construction and operation	The Project crosses agricultural land, including irrigated seasonal horticulture and grazing on pasture and native vegetation. Of Class A land, 47.03 ha is located in the Toowoomba LGA and 4.61 ha is located in the Lockyer Valley LGA. The areas of land that would be sterilised and no longer available for agricultural use represent less than 0.1 per cent of either LGA's Class A and Class B land. On this basis, land acquisition requirements are not expected to lead to significant impacts on the Project region's agricultural productivity The Project will involve some land acquisitions, noting that the majority of land acquisitions involve partial 'fenceline' acquisitions of cropping and grazing properties in Charlton, Gowrie Junction, Ballard, Lockyer, Withcott, Postmans Ridge, Helidon and Helidon Spa. In the Lockyer Valley LGA, the permanent disturbance footprint affects one lot where the predominate use is irrigated seasonal horticulture. There are also 33 lots in the Lockyer Valley LGA where the predominate use is grazing, and acquisition would be required.

Impact area	Delivery phase	Potential impacts
Farms and agribusinesses [continued]	Construction and operation [continued]	In the Toowoomba LGA, the permanent disturbance footprint affects approximately five lots where the designated predominate use is cropping. Approximately 44 lots in the Toowoomba LGA, where the designated predominate use is grazing, would be affected by acquisition. There is also one lot in the Toowoomba LGA where the predominate use is manufacturing and industrial. The use of this lot, which is located in the light industrial area near the intermediate ventilation shaft, is not expected to be affected. Impacts on grazing and cropping properties include: ▸ Severance of private roads between land parcels ▸ Severance of lots where bores and other infrastructure, such as drainage structures or fences, are located ▸ Potential for encroachment on pasture production areas ▸ Traffic delays where routes to markets are affected by traffic or roadworks. No formally designated stock routes are located on the Project; however, informal stock movement routes will be severed. Project activities, particularly through construction, have the potential to disturb existing contaminated soil or groundwater, or to cause further land contamination through leaks, spills, or the transport and movement of existing contaminated soil or groundwater. Land contamination, biosecurity risks, changes to water surface hydrology, erosion and sedimentation have the potential to impact on agricultural land, with potential effects including reduced soil quality, reduced productivity and increase in costs to agricultural operations. These impacts are further discussed in Chapter 9: Land Resources, Chapter 11: Flora and Fauna and Chapter 13: Surface Water and Hydrology.
Other nearby businesses	Construction and operation	In addition to farms and grazing properties, the Project disturbance footprint traverses or is near a number of other businesses at Charlton, Gowrie Junction, Cranley, Ballard, Postmans Ridge and Helidon. Some of these businesses will be subject to land acquisition under the AL Act. The potential for disruption of access to local businesses during construction is of concern given they are highly dependent on vehicular access. ARTC is working with all businesses where construction noise would impact on their amenity and/or where road access arrangements would change as a result of Project construction works, or the Project's operation, to ensure a satisfactory level of access is provided for businesses. The Project has the potential to generate noise, dust and access impacts to other nearby businesses. The potential for disruption of access to local businesses during construction is of concern given they are highly dependent on vehicular access. ARTC is working with all businesses where construction noise would impact on their amenity and/or where road access arrangements would change as a result of Project construction works, or the Project's operation, to ensure a satisfactory level of access is provided for businesses.
Tourism	Construction and operation	Impacts on travel times due to traffic detours, and a change to the local scenic character, are expected in areas near the Project during construction. Noise may affect some accommodation cabins and recreational grounds while construction activities are nearby. Property-specific mitigation measures may be required to ensure that amenity impacts do not result in a decline in use of the accommodation. There is potential for diminished scenic amenity due to the Project's location in the rural landscape; particularly, where the rail line would be elevated and where views from features, such as Keira Court, Blue Mountain Heights and Prince Henry Heights, would be interrupted.
Local supply opportunities	Construction and operation	The Project is likely to provide significant opportunities for local and regional businesses to participate in its supply chain, e.g. pre-cast concrete may be sourced from Ipswich, ballast material will be sourced from local quarries, and other major components, such as fencing, may be sourced within the Project region. Project construction will also require a range of services that may be sourced from within the Project region.

Impact area	Delivery phase	Potential impacts
Facilitation of development	Operation	The Project is also likely to support future industries associated within regional hubs, such as the Toowoomba Enterprise Hub (previously named Charlton Wellcamp Enterprise Area), which is currently comprised of the Wellcamp Airport, Wellcamp Business Park, InterLinkSQ, Witmack Industry Park and Charlton Logistics Park. The Toowoomba Enterprise Hub is an area of strategic importance in supporting growth in Toowoomba and the Surat Basin, and will host major suppliers of engineering services and logistics. The Project will also improve access to and from regional markets by providing connectivity opportunities between the existing QR West Moreton System rail corridor and ARTC interstate lines. The Project may also act as a significant catalyst for development in the region; particularly, in relation to rail-dependent industries and support industries associated with transport, freight handling, warehousing and logistics.

16.11 Social Impact Management Plan

16.11.1 Introduction

This section provides the framework for mitigation of social impacts and enhancement of Project benefits, and aims to:

- Provide action for the mitigation of negative impacts on stakeholders and communities
- Incorporate stakeholder inputs on mitigation and enhancement strategies
- Support adaptive management of social impacts, by enabling communication between stakeholders and the Project during the detailed design, pre-construction and construction process, to identify any need for improvements to management measures
- Describe ARTC's initiatives and partnership opportunities that will maximise local employment and business opportunities, and bring about long-term benefits for local communities.

The SIMP includes:

- Information about:
  - SIMP implementation
  - Inland Rail's social performance program
  - The adequacy of proposed management measures
  - Engagement with councils
  - Links to local and State planning
- Five sub-plans, including action plans:
  - Community and Stakeholder Engagement (refer Section 16.11.4)
  - Workforce Management (refer Section 16.11.5.7)
  - Housing and Accommodation (refer Section 16.11.7)
  - Health and Community Wellbeing (refer Section 16.11.8)
  - Local Business and Industry (refer Section 16.11.9).

Each action plan includes:

- An overview of the key impacts and opportunities identified in the SIA
- Objectives and desired outcomes
- Measures to mitigate social impacts and enhance Project opportunities
- The timing for delivery of mitigation measures, i.e. detailed design, pre-construction and construction phases.

Prior to commissioning the Project, ARTC will develop a SIMP for the operational phase, incorporating ARTC's operational procedures for Inland Rail, and including community and stakeholder engagement, as detailed in Section 16.11.4.

A monitoring program is provided in Section 16.11.10.

16.11.2 SIMP implementation

During the EIS process, ARTC has worked with a range of stakeholders to identify issues and priorities and develop management measures to be included in the SIMP.

Management measures that were initiated during the EIS phase include those addressing training and development, business awareness of Project opportunities, mental health service capacity and contributions to community development through sponsorships and donations. Engagement with councils and Government agencies will continue during the remainder of the EIS phase, to review the proposed management measures, develop further detail of initiatives to be implemented in cooperation with stakeholders, and agree specific outcomes, strategies and performance metrics for partnerships.

As noted in Section 16.7, the Project will be delivered by a construction contractor. Under this delivery arrangement, the private sector will design, build, finance and maintain this section of the railway over a defined concession period. ARTC will appoint the contractor prior to the commencement of the detailed design phase. The construction contractor's role is defined in Chapter 23: Draft Outline Environmental Management Plan as including:

- Prepare, maintain and implement the CEMP
- Deliver the Project in accordance with all laws, including conditions of approvals
- Provide notifications and reports, as required by law, including conditions of approvals
- Ensure the construction workforce are properly and regularly trained in environmental responsibilities, including cultural heritage responsibilities, in accordance with the CEMP
- Establish and maintain a complaints management system, to receive and respond to complaints.

The construction contractor will be required to implement SIMP commitments, and ARTC will have dedicated personnel to coordinate and monitor SIMP implementation. Details of respective responsibilities for ARTC and the construction contractor will be further developed as part of the tendering and contracting process.

Further detail pertaining to SIMP implementation at each Project phase is provided in Appendix Q: Social Impact Assessment.

16.11.3 Responses to stakeholder inputs

Stakeholders made a range of suggestions and recommendations regarding actions that ARTC could consider to mitigate adverse Project impacts or maximise Project benefits. Key themes in relation to impact mitigation related to:

- Indigenous values
- Compensation for directly affected landholders and nearby residents
- Management of impacts on residential amenity and property use, including noise, vibration and dust-control measures
- Minimising impacts on the road network and traffic safety
- Transparent and respectful engagement that informs and involves stakeholders in further stages of the Project
- Communication with, and support for, residents affected by Project-related stress
- Cooperation with TRC, LVRC and Queensland Government agencies, including Queensland Health, QPS, QFES, and QAS to confirm the detail of mitigation measures.

Key themes in relation to suggested enhancements largely related to:

- Public infrastructure upgrades, such as better road connections
- Investment in long-term community amenity and specific local investment ideas
- Business and industry engagement and various partnership opportunities
- Ensuring local people benefit from Project employment opportunities.

Stakeholder suggestions about mitigation and enhancement strategies are provided in Table 16.15, which references how these have been addressed.

TABLE 16.15: STAKEHOLDER INPUTS ON SOCIAL IMPACT MITIGATION AND ENHANCEMENT

Impact area	Suggested mitigation	How addressed
Indigenous values	▸ Involvement of Traditional Owners in cultural awareness training for contractors ▸ Create a legacy by addressing the need for an effective Indigenous keeping place for history, art and culture	▸ CHMPs have been developed and signed with the Yuggera Ugarapul People and the Western Wakka Wakka (CLH017009) ▸ Cultural awareness training for Project personnel will be developed and implemented in cooperation with Traditional Owners ▸ Provision of donation to upgrade the Gummingurru facilities to assist with displaying and keeping culturally significant items
	▸ Keep consulting with Traditional Owners to maximise opportunities for Indigenous people to benefit from the Project involvement	▸ ARTC's Indigenous Participation Advisor is working with Traditional Owner groups and local communities to support their consideration of Project opportunities
	▸ Facilitate access to EIS for Traditional Owner groups	▸ ARTC will ensure advice on access to the EIS is provided to Traditional Owner groups, invite them to community information sessions and facilitate assistance with development of a submission to the EIS, if requested
Agriculture	▸ Refine the alignment to minimise impacts on agricultural land and property infrastructure	▸ Where possible, the Project has been located within the existing gazetted rail and road corridors to limit property severance ▸ Use of the existing rail line, the proposed tunnel, and construction of viaducts and bridges will reduce impacts on property severance and access ▸ ARTC is working with landholders to ensure that access between adjoining properties is maintained, and to identify actions that will minimise or offset changes to farm management, access or water flows that affect their properties
	▸ Avoid using construction water sources that would result in impacts on other water users, and manage water use to avoid impacts on other water users	▸ The Project's hierarchy for construction water sources has been designed to avoid, or at least minimise, impacts on other water users, including the use of commercial water supplies, where capacity exists, treated recycled water from tunnel dewatering activities, wastewater from treatment plants and/or Withcott Seedlings, and recycled water pipelines, e.g. Wetalla Water Pipeline ▸ The Project could also use water allocations and licenses associated with properties that would be acquired
	▸ Avoid drilling new water bores that could result in drawdown affecting existing bores	▸ As above, bulk and recycled water sources will be investigated as preferred construction water sources, and existing water entitlements associated with properties to be acquired are expected to be available ▸ Drilling of new water bores is the least preferred option and would require approval under the *Water Act 2000* (Qld). Further information is provided in Chapter 3: Project Approvals.
	▸ Offer training that supports the sustainability of the agricultural industry	▸ Training initiatives developed as part of the Inland Rail Skills Academy include a focus on training for agricultural industry workers, including certification of 'cross-over' skills that are relevant to both agriculture and construction

Impact area	Suggested mitigation	How addressed
Residential amenity	▸ Consult with landholders and ensure they are well informed and supported ▸ Ensure noise, vibration and dust-control measures are of high quality ▸ Locate crossing loops away from residential areas to reduce noise disturbance ▸ Compensate adjoining landholders for effects on amenity and inconvenience	▸ ARTC is maintaining ongoing consultation with directly affected landholders, and other community members, to provide updates on the Project's design and EIS findings ▸ ARTC will promote the availability of the EIS to stakeholders and seek their feedback, to be considered in further Project planning and detailed design ▸ Appendices O: Construction Noise and Vibration and P: Operational Railway Noise and Vibration consider the potential for noise impacts, and proposed mitigation designed to avoid or reduce noise and vibration impacts ▸ The Project will manage environmental impacts in accordance with its approval conditions, in order to minimise impacts on amenity ▸ Management measures will be implemented where noise exceedances are predicted, to reduce impacts on amenity and access ▸ Measures to support mitigation of impacts on amenity are provided in Section 16.11.4
Property values	▸ Compensation for any loss of property values ▸ Early acquisitions requested	▸ ARTC has engaged with landholders, whose properties would be affected by the Project, to identify measures addressing impacts on property management, property access/connectivity and residential amenity ▸ Land acquisition agreements developed by the construction contractor will address compensation for direct impacts on properties ▸ ARTC will advise the construction contractor of landholders' wishes in relation to acquisitions ▸ The Project will employ a suite of environmental management measures, as outlined in the Draft Outline EMP, to reduce noise impacts and inconvenience, such as traffic delays and dust, to reduce impacts on amenity and, therefore, the potential for impacts on property values ▸ Support for mitigation of impacts on affected landholders is addressed in Section 16.11.4
Local character	▸ Construction planning should consider scenic values that support amenity and tourism ▸ Provide planting to cuts and embankments to reduce their visual impacts ▸ Ongoing engagement with TRC and LVRC regarding infrastructure investments, place making, community facility investments and driving economic development	▸ Appendix H: Landscape and Visual Impact Assessment and the Draft Outline EMP provide detailed mitigation measures for impacts on visual amenity and landscape values ▸ Plantings to cuts and embankments will be considered as part of the Project's landscaping strategy in the detailed design phase. Safety design standards and the sustainability of planting will need to be considered. ▸ Initiatives to support the amenity and livability of local towns and rural localities will be identified through engagement with councils and communities during the detailed design phase and implemented during construction
Mental health	▸ Ensure community members have access to open and transparent consultation to reduce uncertainties causing stress ▸ Provide training for community members in recognising and responding to mental health issues	▸ Project consultation during the EIS process, including the display period, is detailed in Appendix D: Community Consultation ▸ ARTC has initiated a mental health partnership to assist community members who are feeling stress or anxiety related to the Project ▸ As part of the mental health partnership, ARTC will consult with the PHNs regarding access to mental health awareness and support training for community members, e.g. through men's sheds and community support groups

Impact area	Suggested mitigation	How addressed
Connectivity and travel safety	▸ Minimise road closures ▸ Improve and upgrade road networks ▸ Avoid closure of Morris Road ▸ Provide grade separations for all crossings (avoid level crossings) of public roads	▸ Where possible, the Project's design has minimised road closures. Proposed road closures are identified in the EIS. ▸ ARTC is working with TRC on an acceptable solution for Morris Road ▸ The Project's design does not include level crossings of public roads ▸ The TMP will include measures to mitigate impacts on traffic volumes, traffic safety and travel times
Public transport	▸ Include provision for passenger rail inclusion as part of the Project design	▸ The Project has been aligned with the Gowrie to Grandchester future state transport corridor to co-locate the future transport corridors, where possible, allowing the corridor to be used by QR for future electrified passenger rail service ▸ The Project does not propose railway stations or passenger services
Local employment	▸ Define local employment and targets (including Indigenous people and women), to ensure that contractors employ people who live locally ▸ Cater for the spectrum of job seekers, including people with barriers to employment ▸ LVRC is also interested in the potential for a rail maintenance hub to be located in the Lockyer Valley	▸ The construction contract will include specification of construction contractor's goals for employment of Indigenous people and people from within the Project region ▸ ARTC is working with the DSDILGP, the Department of Seniors, Disability Services, Aboriginal and Torres Strait Islander Partnerships (DSDSATSIP), CSQ and education and training providers, to identify education and training pathways for local residents to equip them for jobs in Project construction and operations ▸ Decisions regarding the location of maintenance hubs would be made as part of future Project phases and will include consultation with LVRC and TRC
Training and employment	▸ Involve CSQ, local high schools and TAFE in providing skills training and qualifications ▸ Provide school-based opportunities for students ▸ Align Project training strategies with Council's RSIS skills training initiatives	▸ ARTC has established the Inland Rail Skills Academy to support workforce training and development ▸ ARTC is working with DITRDC, DSDSATSIP and CSQ to develop training programs to be delivered through the Inland Rail Skills Academy ▸ ARTC is working with the two Councils' RSIS coordinators to align skills training programs with RSIS priorities
Indigenous training, employment and business participation	▸ Ensure local Indigenous people have access to training and employment opportunities, including young people and mature jobseekers ▸ Employ an Indigenous mentor for construction personnel ▸ Require contractors to employ Yuggera Ugarapul People in Project construction as part of contracts	▸ ARTC is working with Traditional Owner groups to support community members' readiness for employment (refer Section 16.11.5.7) ▸ ARTC will require the construction contractor to specify and meet Indigenous training and employment goals ▸ The Project will continue to engage with Traditional Owner groups to provide access to information about business and skills requirements ▸ Project personnel will include Indigenous mentors ▸ ARTC is in regular consultation with Traditional Owners. This will continue during the detailed design phase, with a particular focus on business and employment opportunities ▸ Indigenous training and employment are addressed in Section 16.11.5.7
	▸ Opportunity for Traditional Owners to talk with government agencies that will be involved in Inland Rail projects ▸ Let Traditional Owners know what capacity building programs are available to suit their needs	▸ ARTC has coordinated a meeting between Yuggera Ugarapul People and DATSIP (now DSDSATSIP) ▸ ARTC will coordinate meetings between DSDSATSIP and other Traditional Owner groups to discuss the Project and assistance available for business capacity and training programs

Impact area	Suggested mitigation	How addressed
Housing and accommodation	▸ Accommodation plan required for construction workforce to manage potential cumulative impacts on local short-term accommodation	▸ The construction contractor will provide an AMP for ARTC's approval ▸ ARTC will monitor the delivery and effectiveness of the AMP This is addressed in Section 16.11.7
Health and wellbeing	▸ Provide access to adequate Project information about potential impacts ▸ Ensure people who are anxious or stressed about the project have access to support ▸ Invest in community facilities to address existing issues and/or Project impacts on community cohesion ▸ Consider potential use of land not needed after construction, to connect to existing trails and public spaces or fire access trails ▸ Include social infrastructure providers in planning and continue to engage with agencies ▸ Continue engagement with Baillie Henderson Hospital to provide Project updates and discuss construction traffic routes	▸ ARTC is undertaking a comprehensive engagement program as part of the EIS process (refer Appendix D: Community Consultation) ▸ The construction contractor will initiate a community reference group (CRG), which will be maintained throughout construction, with future need for the CRG to be agreed with CRG members and the OCG following the conclusion of construction ▸ ARTC has initiated a mental health partnership to assist community members who are feeling stress or anxiety related to the Project ▸ The future use of land within the temporary disturbance footprint, and its potential to contribute to community wellbeing, will be considered by the construction contractor ▸ Mitigation of impacts on community wellbeing is addressed in Section 16.11.8 ▸ ARTC will maintain engagement with Queensland Education, LVRC, and Queensland Heath, with respect to impacts on social infrastructure, e.g. Gowrie State School, and Postmans Ridge Pioneer Memorial Hall ▸ ARTC will maintain engagement with Baillie Henderson Hospital regarding construction traffic, use of roads to the hospital and helicopter flight paths to the hospital ▸ ARTC's Community Donations and Sponsorship program accepts applications for community facility upgrades ▸ Mitigation of impacts on community wellbeing is addressed in Section 16.11.5
Schools	▸ Continue engagement with Department of Education and Gowrie State School to confirm noise mitigation measures	▸ When the detailed design and construction methodology are confirmed, ARTC will meet with Department of Education and Gowrie State School to update them on likely construction noise impacts and confirm mitigation measures (e.g. façade treatments, supplementation of fences, and/or air-conditioning of affected buildings), to be implemented prior to commencement of construction activities that would result in exceedances of Project noise criteria

Impact area	Suggested mitigation	How addressed
Emergency services	▸ Early and regular engagement with QFES, QPS, QAS and SES to develop cooperative management measures ▸ Need for information about dangerous good transport (e.g. in the tunnel) ▸ Close cooperation with the emergency services providers, including disaster management coordinators, was recommended, including orientation to Project alignment ▸ Helicopter access along the alignment needs to be clarified ▸ Paramedics be employed at worksites to reduce demand on local services as far as possible ▸ Workforce health care needs be planned for in advance, in consultation with DDHHS, to inform health service planning	▸ Cooperation and engagement with emergency services, which is addressed in Section 16.11.8 ▸ ARTC is working with QPS, QAS and QFES as part of hazard and risk management planning, which will include consideration of dangerous goods transport and access to the Project during an emergency ▸ During the detailed design phase, ARTC will work with QFES, QAS and QPS to confirm and implement alternative vehicle access points during construction and operation ▸ Emergency access has been addressed during the Project design process. With the provision that the rail line would be shut down in an emergency, there would be several possible helicopter landing sites along the alignment, including at tunnel portals ▸ Paramedics will be employed at worksites to reduce impacts on local health services ▸ The Project will advise DDHHS regarding the workforce ramp-up, to enable DDHHS to plan for any specific anticipated demands on hospitals
Local businesses' participation in supply opportunities	▸ Provide workshops to businesses to promote the opportunities for business growth and support effective preparation for Project supply ▸ Smaller construction businesses will need help to understand where they fit in the supply chain ▸ Toowoomba Chamber of Commerce stakeholder register can be used to promote opportunities ▸ Workshop on developing capacity statements could be offered in cooperation between ARTC and the Chamber ▸ Support the capacity of local contractors and supplies to service the Project	▸ The Project will maintain communication with businesses and business organisations to update them on Project timeframes, supply requirements and capacity building programs ▸ ARTC is working with DSDILGP/DESBT to identify local and regional businesses with potential capacity to supply the Project and to develop capacity building initiatives ▸ ARTC will implement its Australian Industry Participation Plan to ensure local and Indigenous businesses and social enterprises are provided full, fair and reasonable opportunity to participate in the supply of goods and services on Inland Rail ▸ ARTC has been conducting business capacity building workshops during 2020 and will hold further workshops during the detailed design phase ▸ Chamber of Commerce or business representative groups will be used to promote supply opportunities ▸ Workshops on requirements of working with major projects, e.g. developing capability statements, will be offered in cooperation with DSDILGP and Industry Capability Network (ICN) ▸ Local businesses to be encouraged to register on the Inland Rail website and through Tenderlink ▸ Measures addressing local business opportunities and impacts on businesses are discussed in Section 16.11.9.

16.11.4 Engagement with Councils

The Project has consulted extensively with TRC and LVRC regarding a range of issues that are linked to social outcomes, including design issues, grade-separated crossings, flooding risks, environmental management measures, traffic management, waste management and impacts on Council utilities.

As detailed in Appendix D: Community Consultation, ARTC's responses to Council inputs on mitigation of Project impacts have included:

- Development of hydraulic design criteria, bridge and culvert structure design, and design refinements addressing Councils' concerns about changes to flooding patterns and debris from flood events
- Identification of suitable road access alternatives for all formed roads that would be impacted during construction and operation in consultation with Councils, emergency services, landholders and DTMR
- Design responses to specific areas of concern to inform the location and preferred treatment for each road-rail interface (e.g. clearance heights, grade separation).

The results of SIA-specific consultation with Councils on social impacts and benefits, and proposed management measures, are reflected in the:

- Workforce management sub-plan (refer Section 16.11.6), which includes a strong focus on local employment and training opportunities, Indigenous employment opportunities, and alignment with Council on RSIS regional development priorities and SQW programs
- Housing and accommodation sub-plan (refer Section 16.11.7), which incorporates LVRC inputs regarding management of workforce demands on short-term accommodation used by tourists
- Health and community wellbeing sub-plan (refer Section 16.11.8), which includes the framework for co-operation with Councils and other stakeholders to offset impacts on social values, such as amenity and local character, and make positive contributions to community cohesion and resilience
- Local business and industry participation sub-plan (refer Section 16.11.9), which reflects Councils' priorities for maximising the involvement of local businesses in the Project's supply chain, and the importance of tourism to the two LGAs.

ARTC will continue engagement with TRC and LVRC during the draft EIS public display phase and following review of Council submissions to the draft EIS. This will include meeting with the TRC and LVRC to:

- Review the EIS findings
- Agree the program for engagement during the detailed design phase, including issues to be discussed and the program for discussion (e.g. construction water supplies, waste management, road network management and social impact management)
- Progress discussions with TRC and LVRC with respect to community development initiatives that could be delivered in partnership with Councils
- In finalising plans for landscape design, consult with TRC and LVRC to seek and consider their feedback.

The results of further engagement with Councils during and after display of the draft EIS will be reflected in the information provided to OCG by ARTC prior to the Coordinator-General's evaluation of the EIS. Further details regarding Project consultation with Councils during the detailed design, pre-construction and construction phases is detailed in Appendix Q: Social Impact Assessment.

16.11.5 Community and stakeholder engagement

ARTC has delivered a comprehensive communication and consultation program during the draft EIS phase, to ensure that community members are informed about the Project and its potential impacts, have access to the most recently available information, and can contact Project staff to discuss their concerns. Some members of potentially impacted communities have identified uncertainty, anxiety and stress about the potential for the Project to affect local amenity or quality of life as the result of property acquisition, noise or dust impacts, changes to the traffic network and/or impacts on local character.

ARTC has committed to a comprehensive range of environmental and social impact management strategies that will reduce the potential for impacts on amenity or environmental qualities of properties near the proposed rail corridor. Chapter 23: Draft Outline Environmental Management Plan, and the relevant technical report in the EIS appendices, provide detailed measures to address noise and dust impacts on amenity, connectivity and traffic safety issues, and the range of environmental impacts that could affect local stakeholders (e.g. impacts on groundwater, surface water, visual impacts and biodiversity).

Positive social changes during construction that may have ongoing benefits would include:

- Access to training and employment opportunities, which will build the local skills base and support the wellbeing of personnel and families
- Opportunities for local businesses to supply goods and services to the Project, with potential to support business development
- Opportunities for Traditional Owners to work or do business on Country.

The Project's operation would introduce a long-term source of noise in rural and rural residential areas, which, if not mitigated, would have potential to impact the amenity of homes, and/or the potential to affect health through sleep disturbance or stress. Chapter 23: Draft Outline Environmental Management Plan and Appendix P: Operational Railway Noise and Vibration include specific detailed measures addressing railway noise.

Project operations have potential for broader regional and State benefits, including support for regional economic development, which will sustain employment and business activity for the long term.

The purpose of the Community and Stakeholder Engagement Plan, outlined in the following subsections, is to support mitigation and adaptive management of impacts, including:

- Changes to land use in the disturbance footprint, with potential to disrupt residential, business or agricultural uses, by involving stakeholders in the development and refinement of management measures addressing their properties
- Disruptions to the use, amenity or access of private properties during construction, by providing guidance for engagement with directly affected landholders and nearby residents regarding environmental changes during the construction phase
- Changes to the road network, with potential to affect how community members, services and business staff move around the Project region, by providing community information about changes to the traffic network, road–rail safety management and a travel demand management campaign
- Land acquisition resulting in stress, by enabling continuity of engagement between the EIS and land acquisition processes, access to support if required, and through ongoing engagement with affected landholders
- Impacts on amenity, connectivity and cohesion, by ensuring that community members and other stakeholders have access to information and communication channels that help them understand the nature, duration and effect of Project works, and how to resolve issues as they arise
- Concerns about property values, by sharing information about environmental impacts and management measures.

The Community and Stakeholder Engagement Plan includes:

- Objectives and performance measures for engagement
- Stakeholders to be engaged
- Partnerships and agreements that are in progress or being developed
- Responsibilities for engagement implementation
- The complaints management handling procedure
- Measures for ongoing engagement, including:
  - Proposed communication tools and activities
  - Engagement prior to, and following, Project approval
  - Engagement actions that ARTC will undertake and/or require of the construction contractor, including the timing for each action, i.e. detailed design, pre-construction and construction phases
  - An outline of the CRG/s to be established during the detailed design phase
  - Roles of the Community Liaison Officer and Community Relations Monitor
- Monitoring and reporting provisions for community and stakeholder engagement
- Mechanisms for incorporation of stakeholder inputs in refinement of management measures.

16.11.5.1 Objectives and performance measures

ARTC recognises that ongoing engagement with landholders, Traditional Owners, communities, Councils, businesses, government departments and other stakeholders that will be impacted by or stand to benefit from Inland Rail is central to the Project's success. Consultation has been undertaken to inform the EIS and development of the Project's design. Stakeholder engagement will continue to inform detailed design and the development of mitigation measures as the Project progresses.

The key stakeholders addressed by the engagement measures outlined in Table 16.16 include:

- Landholders in and near the disturbance footprint
- Residents, businesses, and community and business organisations in potentially impacted communities
- Traditional Owners and other Indigenous community members
- TRC and LVRC
- Local businesses, including farming and grazing businesses
- Schools
- Government agencies, including Queensland Health, QPS, QAS, QFES, Department of Education, DESBT, DSDILGP, DSDSATSIP, Department of Communities, Housing and Digital Economy (DCHDE) and DITRDC

Key stakeholders that are also addressed as part of other SIMP action plans include:

- Education and training providers (Section 16.11.5.7)
- Short-term accommodation providers (Section 16.11.7)
- Community organisations providing community support or outreach services, and the managers of potentially impacted community facilities (identified in Section 16.8.9)
- Queensland Health, QPS, QAS, QFES and Department of Education (16.11.8)
- DESBT and DSDILGP (Sections 16.11.5.7 and 16.11.9)
- Businesses and business and industry organisations including Lockyer Valley Tourism Association and Tourism Darling Downs (Section 16.11.9)

ARTC will maintain a stakeholder register, building on the register developed during previous Project phases, to ensure regular and consistent engagement with stakeholders. Stakeholder interactions will be documented in order to monitor the success of engagement and identify issues to be addressed as part of implementing the Project's environmental management strategies. Further detail on engagement objectives and performance measures is provided in Appendix Q: Social Impact Assessment.

16.11.5.2 Partnerships and agreements

During the EIS process, ARTC has been working with a range of stakeholders to develop partnerships and agreements that will support the management of social impacts and opportunities. The Project will be delivered by the construction contractor who will have a significant role in implementing specific activities and agreements. Partnerships and agreements will be further progressed with stakeholders during the Project approval process and after the Project is delivered. Detail on the current status of partnerships and agreements with stakeholders is provided in Appendix Q: Social Impact Assessment.

16.11.5.3 Engagement responsibilities

During the remainder of the EIS phase, Inland Rail staff will continue to work with community members and other stakeholders to encourage access to the draft EIS and community participation in the public submission process.

Both ARTC and the construction contractor will maintain roles in community and stakeholder engagement during the detailed design, pre-construction and construction phases. Further detail on the key responsibilities for each party, by phase, is provided in Appendix Q: Social Impact Assessment.

Community Reference Group/s

The construction contractor will establish one or more CRGs during the detailed design phase. The CRGs will replace the CCCs established by ARTC for the EIS phase. The CRG/s may be formed on a Project basis (e.g. one for each of the Inland Rail projects) or on a locality basis (e.g. one in the Toowoomba LGA and one in the Lockyer

Valley LGA). The makeup, number and location of the CRGs will be finalised once the construction contract has been awarded.

The CRG(s) will meet regularly, until completion of construction, to enable representations of community issues to ARTC and facilitate community review of the effectiveness of SIMP measures. The CRG(s) will:

- Provide a channel to inform communities about the construction phases of the Project
- Provide feedback to ARTC about construction plans and programs
- Receive updates on SIMP implementation, and enable feedback on mitigation and enhancement measures that need to be reconsidered or refined
- Enable CRG members to participate in monitoring the effectiveness of social and environmental management measures.

The CRG membership will be selected through a public process (e.g. advertising for members and selection of members according to published selection criteria.

The construction contractor will be required to ensure community members and other stakeholders have access to CRG proceedings by providing endorsed copies of minutes and other meeting records for the public record and for display on the Project's webpage.

The need for a CRG for any part of the operations phases will be reviewed in cooperation with the OCG at the completion of construction.

Community Liaison Officer/s

The construction contractor will provide one or more Community Liaison Officer during the construction period, to:

- Support communication between the contractor, landholders and community members
- Provide community feedback to the construction contractor in relation to the impacts of construction activities on the community and suggested refinements to environment management measures
- Establish and maintain a process for receiving, recording and responding to complaints in relation to construction issues
- Facilitate provision of information to the wider community in relation to construction programming, the nature of construction work, and impact mitigation measures.

Contact details for the Community Liaison Officer will be provided to all landholders within 1 km of the Project disturbance footprint and will be made available to other community members through the Project's website and ARTC's other communication channels.

Community Relations Monitor

The Project will engage an independent, appropriately skilled and experienced entity as the Community Relations Monitor for the duration of the construction phase, to:

- Review and provide advice to the Environmental Monitor (as defined in Chapter 23: Draft Outline Environmental Management Plan) on the service providers' implementation of the SIMP (including the Complaint Management Handling Procedure)
- Review meeting outcomes between the proponent and a directly affected person/s to assess compliance with the SIMP and collaborate on appropriate resolutions/mitigation measures.

The roles and responsibilities of the Community Relations Monitor are set out in Chapter 23: Draft Outline Environmental Management Plan and include:

- Provide monthly reports to ARTC on community issues emerging from the construction and commissioning activities in relation to the Project conditions, the CEMP, complaints, monitoring and community relations.
- Communicate with ARTC and the Environmental Monitor with regard to any imposed conditions, the CEMP, SIMP, community consultation strategies and community concerns
- Review complaints procedures and the resolution of complaints and corrective action reporting, to assess performance of the service provider's implementation of the SIMP and CEMP
- Facilitate discussions between the ARTC and the contractor, and affected entities, about mitigation measures as required by either the ARTC or affected entity
- Provide advice to the Environmental Monitor in relation to complaints.

16.11.5.4 Complaints management

The Inland Rail Complaint Management Handling Procedure applies to all employees of ARTC and to all contractors and site visitors. The aim of the procedure is to ensure that complaints are dealt with efficiently and effectively, and that stakeholders have confidence in the organisation's complaint system.

A complaint is an expression of dissatisfaction about the policies, operations, activities and projects of Inland Rail or its staff. Complaints can be lodged by any member of the public, landholder or other stakeholder. Information on where and how to lodge a complaint is readily available through established ARTC Inland Rail communication channels.

The construction contractor is likely to implement its own complaints management process, which will be required to align with ARTC's Complaint Management Handling Procedure.

ARTC Inland Rail ensures the complaint process is flexible and that no one is excluded from making a complaint. Where necessary, ARTC Inland Rail staff will assist those stakeholders requiring assistance to lodge a complaint.

Appendix Q: Social Impact Assessment provides further details of the complaints management process.

16.11.5.5 Measures for ongoing engagement

ARTC's commitments to community and stakeholder engagement include:

- Provision of clear and consistent information about Inland Rail and its associated projects
- Building a dialogue between landholders and the Project about land access and acquisition processes
- Working with local communities to understand their concerns and identify emerging social issues that need to be addressed at the Project or Program level
- Provision of clear and consistent information about the Project to community members
- Active engagement and effective communication with stakeholders and the community to enable ARTC to construct and operate the Project with the least social impact
- Provision of support to stakeholders and communities that are facing change due to Inland Rail.

Engagement measures to be used are discussed in Appendix Q: Social Impact Assessment and summarised in Table 16.16.

16.11.5.6 Action plan

Table 16.16 provides community and stakeholder engagement measures for each stakeholder group during the detailed design, pre-construction and construction phases.

Performance measures that will assist the Project to track the delivery and effectiveness of mitigation measures are provided in Table 16.22.

TABLE 16.16: COMMUNITY AND STAKEHOLDER ENGAGEMENT

Community and stakeholder engagement measures

Stakeholders:	Landholders and tenants in and near the Project footprint, i.e. within 1 km
Strategy	Engage with directly affected landholders to confirm mitigation of property-specific impacts, and with residents living near the Project footprint, to enable them to understand potential impacts on household amenity and how to resolve any emerging issues with the Project
Impacts addressed	▸ Disruption of property use and amenity ▸ Impacts on property access, access to water or connectivity ▸ Potential exacerbation of disadvantage ▸ Uncertainty and stress

Community and stakeholder engagement measures

Timing	Actions
Detailed design phase measures	▸ Maintain the availability of the EIS, information about EIS approval conditions, and information about ARTC's compliance with conditions on the Project's website, to reduce the likelihood of negative perceptions about the amenity of properties or near the disturbance footprint
	▸ Meet with the owners of directly affected and adjacent properties to confirm property-specific measures to be implemented during pre-construction and/or construction, including, as relevant: ▸ Property access arrangements ▸ Appropriate access and egress solutions incorporated into the detailed design to enable movements across the rail corridor ▸ Changes to road access ▸ Surface water diversion or impacts on groundwater bores ▸ Any noise mitigation measures, where these are triggered ▸ Impacts on agricultural land and/or farm infrastructure ▸ Mitigation of ground-borne noise impacts, e.g. temporary relocation if noise is disturbing ▸ Communication protocols
	▸ Consider landholders' feedback regarding mitigation of impacts on properties in the development of the detailed design and CEMP, and ensure a focus on protecting residents' amenity in the Project's CEMP and Noise and Vibration Management Sub-plan (NVSP), referencing specific measures and SIMP recommendations, where relevant
	▸ Engage with people whose properties may experience noise exceedances, to ensure the potential for impacts on amenity is clearly explained and, where relevant, to obtain residents' inputs to the development of property-specific mitigation strategies (e.g. architectural treatments, where triggered by noise exceedances) to reduce the potential for noise impacts on amenity
	▸ Communicate the need for consideration of landholders' specific circumstances to the constructing authority and the construction contractor, including any hardship circumstances (with landholders' permission), property access arrangements, reparation of property infrastructure and make-good arrangements for any impacts on water infrastructure
	▸ In consultation with the constructing authority and affected landholders, confirm mitigation arrangements for direct impacts on groundwater bores
	▸ Implement ARTC's, or the constructing authority's, Early Acquisition Policy, where landholders meet the Policy's provisions for hardship
	▸ Provide appropriate information and assistance to landholders during the land resumption process, to reduce uncertainties and support their adaptation to changes, including: ▸ Through consultation, identify households where property severance or other changes to amenity may cause distress to residents, ensure their access to communication and complaints mechanisms, and provide referral to support services where required ▸ In consultation with the PHNs, extend the mental health partnership to include provision of services to assist residents (landholders and tenants) whose homes would be removed from the corridor to access alternative accommodation and support services ▸ With due regard to privacy and confidentiality, provide consultation data to DTMR and CCHDE, regarding households who may require assistance to find affordable, to enable a collaborative response and reduce consultation fatigue ▸ Maintain quarterly communication (or as agreed) with residents whose properties would be acquired, to keep them updated and ensure their concerns are considered in developing the CEMP
	▸ Provide a Community Liaison Officer to work closely with residents whose properties will be acquired, and affected DTMR, QR and TRC tenants, to reduce stress related to uncertainty about impacts and the timing of acquisition

Community and stakeholder engagement measures	
Detailed design phase measures [continued]	▸ Communicate with all residents adjacent to, and within, 250 m of laydown areas and bridge construction sites in urban areas, and within 500 m in rural areas and above the tunnel construction areas, to: ▸ Advise them of the measures provided in the Draft Outline EMP ▸ Provide advance advice of the construction schedule and sequence (e.g. how long specific activities will take) ▸ Describe the nature and causes of noise and vibration, and how noise and vibration will be mitigated ▸ Identify any specific household concerns, e.g. the presence of children or seniors who may be affected by noise, dust or change to property access, or the presence of stock, which need to be considered in implementation of environmental management measures
	▸ In finalising plans for landscape design, consult with the owners of homes located within approximately 500 m of elevated structures, e.g. at Gowrie Junction Road/Old Homebush Road, Wallens Road, Gittins Road, Squires Road, Ashlands Drive and Lockyer Creek, to seek and consider their feedback. Plantings to cuts and embankments will be considered as part of the Project's landscaping strategy in the detailed design phase. Safety design standards and the sustainability of planting will need to be considered
	▸ Initiate and maintain communication and co-operation with local landholders during flood alert and recovery periods
Pre-construction phase measures	▸ Implement (as relevant to the pre-construction phase) agreements with landholders affected by property acquisition, temporary or permanent use of land or noise exceedances regarding property-specific measures (as outlined in the detailed design phase actions)
	▸ Where changes to property access arrangements are required, advise property owners/occupants and communicate with them regarding alternative access arrangements
	▸ Establish and promote the complaints management handling procedure
	▸ Communicate the Project's land access protocols, construction hours, Code of Conduct and complaints mechanism to residents and businesses adjoining the temporary construction disturbance footprint
	▸ Notify directly affected and adjacent landholders, residents, businesses, Councils and other stakeholders before pre-construction work starts in their vicinity and provide regular updates on construction activities and progress, through signage, the local media and other forms of communication, such as emails and letters
	▸ Maintain regular engagement with landholders, who are adjacent to the rail corridor and areas used for construction, to share information and identify any issues arising during pre-construction activities, including access to email correspondence, a free-call line and meetings on request
	▸ Communicate with all residents within 1,000 m of laydown areas, tunnel portals and bridge construction sites, and above the tunnel construction areas, to: ▸ Provide advance warning of the construction schedule and sequence (e.g. how long specific activities will take), and any disruptions to access or services ▸ Identify any specific concerns for the household (e.g. presence of seniors or children) or landholder (e.g. presence of stock) ▸ Describe the nature and causes of noise and vibration, and how noise and vibration will be mitigated ▸ Advise on how long construction work will be heard or seen for each property ▸ Provide 24-hour contact details for construction managers
	▸ Continue to consult with residents near and above the Toowoomba Range Tunnel (within 400 m) who may experience ground-borne noise exceedances, to explain likely noise levels and identify mitigation options, e.g. temporary relocation and Project compensation of the costs of alternative accommodation and the timing of the works. The tunnel's construction is expected to be approximately 24 months once the TBM is provisioned and as such impacts in the Mount Kynoch area may not be until 2025 three years after pre-construction.

Community and stakeholder engagement measures	
Pre-construction phase measures [continued}	▸ Measures to reduce the likelihood that blasting would frighten people would include: ▸▸ Establishing a blasting timetable through community consultation, e.g. blasts times negotiated with surrounding sensitive receptors ▸▸ Establishing and communicating the protocol for notifying relevant stakeholders when activities such as blasting are planned to be carried out, with contact details for queries or complaints ▸▸ Avoiding blasting during wind conditions that are likely to transport dust emissions toward sensitive receptors within 500 m of the blasting location
	▸ Establish and promote a complaints and feedback mechanism accessible to all local stakeholders
	▸ Provide advance notice, e.g. email, letter, SMS or public notices of any significant dust-generating activities
Construction-phase measures	▸ Maintain the availability of the EIS, information about EIS approval conditions, and ARTC's compliance with conditions, to local and regional community members, to reduce the likelihood of negative perceptions about the amenity of properties or near the Project disturbance footprint
	▸ Communicate the Project's land access protocols, construction hours, Code of Conduct and complaints mechanism to residents adjoining the Project disturbance footprint and in potentially impacted communities, and provide 24 hour/7-day contact details for a Project representative
	▸ Provide monthly advance notices and updates to landholders adjacent to the temporary disturbance footprint regarding construction activities, including when noisy or vibration-generating activities are planned, impacts and mitigation measures
	▸ Implement (as relevant to the construction phase) agreements with landholders affected by property acquisition, temporary or permanent use of land or noise exceedances regarding property-specific measures
	▸ Receive and consider feedback from landholders and the CRG in relation to the effectiveness of social and environmental impact management measures
	▸ Continue to consult with residents near and above the Toowoomba Range Tunnel (within 400 m) who may experience ground-borne noise exceedances, to explain likely noise levels and identify mitigation options especially with respect to changes to the modelling outputs as a result of changes to design and actual noise monitoring data and the timing of the works and extent of likely mitigation measures requirements. ▸ Implement the agreed protocols with the individual landholders, including agreed milestone reporting (e.g. 300 days, 100 days, 30 days and 10 days prior or within a specific distances). and the agreed mitigation measures
	▸ Maintain regular engagement with directly affected landholders who are adjacent to the temporary disturbance footprint to enable identification of any issues arising, and enable adaptive management of impacts, such as property access by Project personnel, disruptions to property accesses, construction noise or dust
	▸ Maintain communication and co-operation with local landholders during flood alert and recovery periods to support readiness and cooperation
	▸ Engage an independent, appropriately skilled and experienced entity as the Community Relations Monitor
	▸ Provide access to the Community Relations Monitor and Community Liaison Officer and promote their availability through Project communications, such as newsletters, websites, fact sheets and emails
Stakeholders:	**Other residents and businesses in potentially impacted communities**
Strategy	▸ Provision of community information and engagement opportunities (including one or more CRGs) for residents of potentially affected communities
Impacts addressed	▸ Impacts on the amenity and character of rural areas due to construction works ▸ Disruptions to the traffic network ▸ Community safety ▸ Employment and business opportunities ▸ Impacts on community cohesion

Community and stakeholder engagement measures

Timing	Actions
Detailed design phase measures	▸ Establish and maintain consultation with potentially impacted communities, including: ▸ The CRG/s ▸ Regular engagement with landholders who are adjacent to the rail corridor and areas used for construction ▸ Advance notices and regular updates to directly affected landholders (where they remain on their properties) and households adjacent to the Project footprint, regarding construction programs, impacts and mitigation measures ▸ Regular (at least quarterly) updates to potentially impacted communities in a form that is accessible to people without internet access ▸ Updates to the Project's webpage and other locally available communication materials to include the Project's SIMP, quarterly construction updates (including detailed explanations of upcoming activities), workforce ramp-up and stakeholder engagement mechanisms ▸ Complaints and feedback mechanisms ▸ Ongoing driver and community safety education ▸ Promotion of the Project's communication channels, engagement mechanisms and complaints process
	▸ Ensure Project communications are accessible to people without internet access, people with low levels of education and people with limited skills in English through provision of face-to-face consultation options (Community Liaison Officer/s and Project offices), promotion and use of a telephone interpretation service, and printed communication materials
	▸ In consultation with Toowoomba International Multicultural Society and Lockyer Valley Multicultural Association, refine strategies for communication and engagement with culturally diverse residents
	▸ Provide a Community Liaison Officer/s, and ensure contact details are made available in all potentially impacted communities
	▸ Provide information to communities about how noise, dust and traffic delays from the Project will be minimised, e.g. via fact sheets, and consider community feedback about the effectiveness of measures in reviewing the CEMP
	▸ In advance of the commencement of pre-construction works, provide information to landholders, Councils, Traditional Owners and local communities about: ▸ The construction program and activities ▸ The timing, duration and predicted impacts of the works with regard to homes, businesses and community facilities ▸ The predicted effects of construction works on road, rail, and pedestrian and cycle network operations ▸ How to contact the Project ▸ The complaints management system
	▸ Ensure residents in the Harlaxton, Rockville, Wilsonton Heights, Helidon and Cranley communities are provided with information regarding tunnel construction and the period in which they may hear construction noise, recognising that these communities are disadvantaged, and ensuring accessible information for seniors and people with low educational attainment
	▸ Provide respectful and inclusive communication strategies about Project impacts on hydrology, flooding risks and mitigation, recognising that many communities, such as Murphys Creek, Helidon and Helidon Spa, are still traumatised by the 2011 floods
	▸ Communicate with residents who would have close views to the Project, including tunnel portals and tunnel buildings, to explain their purpose and operation, the Project's construction program, operational procedures and management measures relevant to their specific concerns
	▸ Consider and address any potential for coincidence of works that could have cumulative impacts in Calvert or Helidon in the Project's TMP, and communication strategies
	▸ Ensure that the Project's communications about air quality management include information about tunnel ventilation and air quality outcomes

Community and stakeholder engagement measures	
Pre-construction phase measures	▸ Maintain consultation with potentially impacted communities, including but not limited to: ▸ The CRG/s ▸ Monthly advance notices and updates to directly affected landholders (where they remain in local communities) and adjacent property owners regarding construction activities, impacts and mitigation measures ▸ Regular (at least quarterly) updates to potentially impacted communities about the construction process, including disruptions to the road network ▸ Ongoing driver and community safety education ▸ Promotion of the Project's communication channels, engagement mechanisms and complaints process
	▸ Provide accessible information about the Project's impacts and mitigation measures, engagement process, complaints process, construction timeframe and activities to members of potentially impacted communities, including people in rural and rural residential areas; noting a proportion of Project region residents do not have home access to the internet
	▸ Develop a travel demand management community information campaign to inform the public of the proposed construction works and potential effect on local road networks, to allow them to plan their travel
	▸ Communicate ARTC's commitments to environmental management, and EIS approval conditions, to local and regional community members, to reduce the likelihood of negative perceptions about the amenity of properties near the rail alignment
	▸ Develop an incident notification and reporting process, including providing information to the community if an environmental incident occurs
	▸ Provide a clear and efficient process for local people to seek information about employment opportunities and contracting or supply opportunities, and how to register their interest, including via employment portals and through local employment agencies
	▸ Prior to construction works that may result in noise impacts, provide sufficient information to sensitive receptors identified in the Noise and Vibration Sub-plan, as well as residents within at least 2 km of the disturbance footprint and other relevant stakeholders, to enable them to understand the likely nature, extent and duration of noise and vibration impacts during construction
Construction-phase measures	▸ Maintain communication and engagement strategies initiated during pre-construction, including: ▸ Employment of Community Liaison Officer/s ▸ CRG/s ▸ Provision of the Community Relations Monitor ▸ Landholder liaison ▸ Regular (at least quarterly) Project updates to potentially affected communities, including the construction schedule and impacts that may be experienced, e.g. noise or traffic disruption, and how the Project is mitigating those impacts ▸ Traffic and road safety updates ▸ Ongoing driver and community safety education ▸ Updates on the construction schedule and impacts that may be experienced, e.g. noise or traffic disruption, and how the Project is mitigating those impacts ▸ Notices and updates to TRC, LVRC, DTMR and DET (in relation to impacts on school bus routes ▸ Information on the Project's workforce conduct policies ▸ Information on how to communicate with the Project and the contractor ▸ Provision of 24/7 contact details for Project representatives ▸ Promotion of the Project's communication channels, engagement mechanisms and complaints process
	▸ Provide regular (at least quarterly) updates to potentially impacted communities, including detailed explanations of upcoming activities, workforce ramp-up and stakeholder engagement mechanisms

Community and stakeholder engagement measures	
Construction-phase measures [continued]	▸ Update the Project's webpage and other locally available communication materials to include the Project's CEMP and SIMP, quarterly construction updates, detailed explanations of upcoming activities, workforce ramp-up and stakeholder engagement mechanisms, complaints and feedback mechanisms, and annual SIMP reports when available
	▸ Update the Project's webpage and locally available communication materials to include: ▸ The Project's EIS, Draft Outline EMP, CEMP and SIMP ▸ Quarterly construction updates, including detailed explanations of upcoming activities, workforce ramp-up, employment opportunities and stakeholder engagement mechanisms ▸ SIMP monitoring and review reports
	▸ Implement a travel demand management community information campaign to inform the public of the proposed construction works and potential effect on local road networks, to allow them to plan their travel
	▸ Ahead of the operational phase: ▸ Provide timely and well-targeted information about potential traffic delays during Project operations, including an indicative schedule of freight train movements and strategies that ARTC employs to reduce traffic delays ▸ Develop a traffic safety education program that has a clear focus on interactions between the rail corridor, roads and other access tracks, and interactions with rural roads and rural traffic ▸ Renew contact with schools in the SIA study area, to identify any concerns regarding travel delays, and any strategies that could feasibly be applied to reduce inconvenience or other impacts of traffic delays at level crossings
Stakeholders:	**Traditional Owners and other Indigenous community members**
Strategy	▸ Cooperation with Traditional Owners and Indigenous community members to support cultural heritage management, and enable their access to Project employment and business supply opportunities
Impacts addressed	▸ Impacts on cultural landscapes ▸ Training and employment opportunities ▸ Business opportunities
Timing	**Actions**
Detailed design phase measures	▸ ARTC's Indigenous Participation Advisor is working with Traditional Owner groups and local communities to support their consideration of Project opportunities, which will continue during the detailed design phase, with a particular focus on business and employment opportunities
	▸ Continue meeting with Western Wakka Wakka People and Yuggera Ugarapul People to enable opportunities to provide input regarding cultural values for consideration in the detailed design
	▸ Plan with Western Wakka Wakka People and Yuggera Ugarapul People for cultural awareness tours for Project personnel, including respect for cultural landscape features and cultural heritage sites (in progress during the EIS phase)
	▸ Implement a 'vehicle wrap' program, which will commission local Indigenous artists to provide designs for Project vehicles (in progress during the EIS phase)
	▸ Commission local Indigenous artists to produce art works for ARTC offices in the Project region (in progress during the EIS phase)
	▸ Consult with Western Wakka Wakka People and Yuggera Ugarapul People, CSQ, DSDSATSIP, training providers, TRC and LVRC to identify potential opportunities for early skilling programs for Indigenous workers (commenced during the EIS phase)
	▸ Encourage Yuggera Ugarapul People to express their interest in the Indigenous Ranger program to DES

Community and stakeholder engagement measures	
Detailed design phase measures [continued]	▸ Enable meetings between Western Wakka Wakka People and Yuggera Ugarapul People board representatives and the construction contractor, once appointed, regarding cultural heritage management, cultural awareness, training, targeted training initiatives, mentorship for Indigenous workers, business supply opportunities and any need for capacity building with Indigenous businesses
	▸ Communicate with Traditional Owner groups regarding the range of business opportunities that will be available during construction, the availability of Indigenous businesses to participate and the types of capacity building programs that Indigenous businesses may need to prepare for involvement in the Project supply chain
	▸ Work with Traditional Owner groups to identify existing business capacity within their communities and help them to identify business capacity building programs to be supported by ARTC, DSDSATSIP and/or DITRDC, to be continued during the pre-construction and, if required, construction phases
Pre-construction phase measures	▸ Involve Western Wakka Wakka People and Yuggera Ugarapul People in cultural heritage surveys for any proposed new quarry sites
	▸ Indigenous cultural heritage values and Project impacts to these values will be managed under approved CHMP. ARTC will continue regular engagement with Western Wakka Wakka People and Yuggera Ugarapul People to enable opportunities to provide input regarding cultural values
	▸ Implement Indigenous business capacity building programs in cooperation with DSDSATSIP, DSDILGP and Traditional Owners
	▸ Implement Inland Rail Skills Academy programs (in cooperation with CSQ and others as identified in future Project phases) targeting Indigenous training and development for construction works, cross-over skills (to other projects or industries) and business readiness to supply the Project
Construction phase measures	▸ In cooperation with Western Wakka Wakka People and Yuggera Ugarapul People, provide cultural awareness training in relation to Traditional Owners' values, workplace diversity and cultural heritage management requirements to Project personnel
	▸ Continue to engage with Western Wakka Wakka People and Yuggera Ugarapul People to provide access to information about business and skills requirements, and the availability of targeted programs for training and business development
	▸ Maintain regular cooperation with Yuggera Ugarapul People and Western Wakka Wakka People in accordance with the terms of the CHMPs
	▸ Continue engagement and training programs with Indigenous community members to ensure operational roles are considered by Indigenous people
	▸ Continue to cooperate with DESBT, DITRDC and local and Indigenous businesses to: ▸ Build businesses' capacity to participate in the Project's supply chain through business development, mentoring and pre-qualification projects ▸ Support Indigenous businesses to ensure they are prepared for and provided with opportunities to participate
Stakeholders:	**TRC and LVRC**
Strategy	▸ Cooperation with TRC and LVRC in the adaptive management of environmental and social impacts, including management measures for impacts on community facilities, amenity, sense of place and community cohesion
Impacts addressed	▸ Impacts on amenity and local character, including noise ▸ Social opportunities ▸ Training opportunities ▸ Community wellbeing ▸ Connectivity ▸ Traffic safety

Community and stakeholder engagement measures

Timing	Actions
Detailed design phase measures	▸ Meet with the TRC and LVRC to: ▸▸ Review the EIS findings ▸▸ Agree on the program for engagement during the detailed design phase, including issues to be discussed and the program for discussion (e.g. water use, waste management, road network management and social impact management) and Council departments that will be involved
	▸ Seek Council advice on minimising the impacts of roadworks on residents and tourists and, where possible, incorporate Council advice on minimising the impacts of roadworks in construction planning
	▸ Consult with TRC and Gowrie Junction residents with regard to the maintenance of pedestrian and cycle connectivity while the Gowrie Junction Road bridge is being constructed
	▸ Include consideration of the use of identified cycle routes within the Queensland Principle Cycle Network Plans (PCNP) by construction traffic in the TMP
	▸ Continue consultation with TRC and LVRC to: ▸▸ Plan and implement engagement with community members regarding Project works and social programs, to address impacts on rural character and town amenity (e.g. placemaking initiatives, interpretive signage, park or streetscape upgrades, and/or supporting rural localities and towns to upgrade their entrance statements) ▸▸ Identify partnerships and initiatives to reduce or offset impacts on the character and amenity of local towns, with Gatton, Forest Hill and Grandchester as a key focus ▸▸ Confirm mitigation measures for Council assets ▸▸ Confirm alignment of Project initiatives with RSIS projects ▸▸ Agree on the form of specific mitigations triggered by noise exceedances or changes to access to Council-owned facilities ▸▸ Identify and prioritise Project investments in local communities to strengthen local social networks and provide opportunities for people to meet and participate in community activities and events ▸▸ Identify emerging community needs (e.g. COVID-19 community recovery and activation of community organisations to support cohesion) that could be addressed through targeted funding to community organisations in each LGA
	▸ Communicate with TRC and LVRC about EIS results of relevance to rail operations (e.g. noise impacts and road network operation) to support their consideration of any development control measures required to protect the amenity and liveability of residents in areas that are planned for future urban growth
	▸ Consult with TRC and LVRC on the scope of the AMP and issues that should be addressed in the AMP
	▸ In consultation with the two Councils, prepare a Community Wellbeing Plan to provide a framework for cooperation with key stakeholders to implement mitigation measures addressing impacts on quality of life as the result of Project impacts on amenity, character, cohesion or connectivity
	▸ Provide advice to Councils about construction traffic routes and seek their feedback in finalising the TMP
Pre-construction phase measures	▸ Meet with TRC and LVRC to advise the schedule and program for pre-construction, including: ▸▸ When and where specific works would occur ▸▸ The timing for commencement of works in road reserves and utility corridors ▸▸ The schedule for implementation for traffic detours
	▸ Engage with LVRC, TRC, and community, health and recreational facility owners to confirm the detail of mitigation for impacts on community facilities
	▸ Provide an update to TRC and LVRC on the Community Wellbeing Plan and AMP, and seek their feedback
	▸ Provide information that could assist LVRC and TRC with the development of planning controls that reduce residential exposure to rail noise

Community and stakeholder engagement measures	
Construction-phase measures	▸ Meet with TRC and LVRC at least six monthly, to: ▸▸ Review progress with the Community Wellbeing Plan and seek their feedback on the progress of community initiatives ▸▸ Coordinate the implementation of initiatives shared between the Project and Councils, e.g. place-making, training or tourism marketing initiatives ▸▸ Seek Council inputs into monitoring the effectiveness of the AMP ▸▸ Identify partnership opportunities to maximise social opportunities, including support for existing and/or additional community events ▸▸ Seek Councils' feedback and inputs regarding the effectiveness of the Project's community and stakeholder engagement strategies ▸▸ Provide advance notice of the works schedule, including the construction program, potential impacts of construction works, road closures and traffic diversions, disruption to pathway networks, and work in utility corridors ▸▸ Monitor the effectiveness of management measures addressing road safety and road network management issues ▸▸ Discuss other issues and any need for corrective actions as they arise
	▸ Continue consultation with local Councils and DTMR to ensure road safety concerns and road network management issues are addressed
	▸ In cooperation with Councils, implement initiatives and agreements established in previous phases, to mitigate impacts on the amenity and character of towns
	▸ Invite Council's review of annual SIMP reports and participation in annual SIMP reviews
Stakeholders:	**Government and community service organisations**
Strategy:	▸ Engagement with government agencies and community organisations to confirm the detail of mitigation measures for impacts on social infrastructure and develop and implement cooperative arrangements.
Impacts and benefits addressed	▸ Stress, anxiety and mental health ▸ Demands on social infrastructure ▸ Community safety (e.g. traffic safety and emergency service capacity) ▸ Contribution to quality of life and community wellbeing
Timing	**Actions**
Detailed design phase measures	▸ Provide an update on Project design, EIS findings and the construction program to Department of Education, Queensland Health, including Ballie Henderson Hospital, DCHDE, QPS, QAS and QFES
	▸ If the likelihood of construction noise impacts on Gowrie State School is confirmed, meet with Department of Education and Gowrie State School representatives to discuss mitigation of noise impacts, which may include provision of architectural treatments, such as façade treatments, supplementation of fences, and/or air-conditioning of affected buildings. Noise monitoring may also be conducted during construction and the early years of operation to ensure mitigation measures are effective.
	▸ Meet with the Department of Education and Helidon State School to discuss the potential for construction works (as part of the Project and the H2C project), to impact on key access routes to Helidon State School, and consider their feedback in the development of the TMP and CEMP

Community and stakeholder engagement measures	
Detailed design phase measures [continued]	▸ Meet with the Department of Education Gowrie State School and Helidon State School to: ▸▸ Provide a Project update, including the construction schedule and the nature of road-rail interface treatments developed as part of the detailed design ▸▸ Explain how traffic network changes and construction traffic will be managed, and seek feedback ▸▸ Discuss concerns regarding changes to road access that may affect students' routes to school, or any impacts on road or pedestrian safety, and include relevant actions and accountabilities in the Construction Management TMP ▸▸ Confirm all relevant school bus services and contact details for their operators, and consult school bus operators about measures to be included in the TMP, including consideration to limit construction traffic on school bus routes during pick-up and set-down times on school days ▸▸ Identify any specific considerations (e.g. off-campus activities) that should be considered in the Project's TMP ▸▸ Confirm contact details for the construction contractor
	▸ Meet with Queensland Health, to forecast the workforce ramp-up, agree the schedule for communication with the Project and ensure they are aware of additional resources that may be available through the Project to support mental health in affected communities
	▸ Meet with QPS, QAS and QFES, to: ▸▸ Confirm arrangements to ensure effective communication and cooperation throughout the construction phase, including measures to mitigate impacts on emergency service response times during construction and operation (e.g. direct communication with construction managers) ▸▸ Seek input to the Emergency Response Plan and confirm arrangements for cooperation on emergency responses
	▸ Consult QFES in detailing the mitigation measures regarding fire trails, firefighting and a cooperative response to any fire risks affecting the EIS investigation corridor
	▸ Meet with DCHDE to identify any emerging community needs (e.g. COVID-19 community recovery) and seek DCHDE feedback on demands for community support services
	▸ Meet with DCHDE to ensure that they are aware of any support needed by DTMR, QR or TRC tenants and have an opportunity to provide input to the AMP
	▸ When the detailed design, including road network changes and construction traffic routes, are confirmed with DTMR and the two Councils, undertake consultation with all relevant school bus operators identified through consultation with Department of Education/DTMR to identify any concerns regarding changes to school bus routes, and identify any issues that need to be considered as part of the Project's TMP, e.g. limiting construction traffic on school bus routes during pick-up and set-down times
	▸ Cooperate with DESBT, Department of Education, local high schools and training providers, to develop training pathways for employment in Project construction and operation, and identify young people and groups of young people who could be supported to access training for potential employment in the Project's operations
	▸ Continue cooperation with DITRDC, DSDSATSIP and CSQ to develop training programs to be delivered through the Inland Rail Skills Academy, to equip local people for Project employment
	▸ Maintain mental health partnerships with the Darling Downs and West Moreton PHN, and the Brisbane South PHN, to support these residents and others who may experience stress and anxiety in relation to the Project, and regularly review the resources available and the adequacy of services in relation to Project-related demands on mental health services
Pre-construction phase measures	▸ Communicate with Queensland Health to ensure hospital and health services are aware of the construction program and workforce ramp up, to enable planning for any minor upgrades to services that may be required
	▸ Provide support for Lifeline's Community connection programs to help build community cohesion and resilience, and provide community and individual support services for directly affected households, for a term agreed with the PHNs
	▸ Ensure all Queensland Government agencies are registered as stakeholders, to receive Project updates, fact sheets and newsletters

Community and stakeholder engagement measures	
Pre-construction phase measures [continued]	▸ Meet with the QPS, QFES and QAS to update advice on the Project's workforce ramp-up, changes to the road network, review co-operative arrangements, and ensure any safety or service access issues are identified and addressed
	▸ Through consultation with DCHDE prior to construction commencing, and annually during construction, identify any Project-related increase in demand for community services and, if stresses on services are identified, participate in a cooperative response to community needs between DCHDE, ARTC and community organisations
	▸ Prior to the commencement of Project operations, engage with the PHNs and Queensland Health to gauge the need for any ongoing support for mental health services during the operational period
	▸ Develop tailored and targeted rail and road safety programs for delivery during construction to local schools and communities in the Project region
Construction-phase measures	▸ Meet with DCHDE prior to construction commencing, and annually during construction, to= identify any Project-related increase in demand for community services and, if stresses on services are identified, participate in a cooperative response to community needs between DCHDE, ARTC and community organisations
	▸ Provide regular (at least six monthly) updates to the Department of Education, QPS, QFES, QAS, SES and Queensland Health on the workforce ramp-up, construction program, schedule and location for construction activities, changes to the road network, anticipated impacts and community engagement mechanisms
	▸ Meet with DCHDE to monitor the effectiveness of the AMP, to a schedule agreed with DCHDE
	▸ Engage with high schools and training providers in the Project region to promote training opportunities provided as part of the Inland Rail Skills Academy and pathways to employment in the Project's operation
	▸ Establish arrangements with QPS, QAS and QFES to enable cooperative responses to any incidents, e.g. rail accidents, road–rail or suicides during rail operation, and investigate the need for joint training and response exercises to build capacity for Project-associated incident management during operation
	▸ Provide information on train schedules that would help emergency service responders to navigate access arrangements during operations
Stakeholders:	**Businesses in the SIA study area**
Strategy	▸ Engagement with businesses that may be negatively affected, to optimise and monitor impact management measures and increase local businesses' opportunities for involvement in Project supply arrangements
Impacts addressed	▸ Impacts on nearby event/tourism businesses ▸ Impacts on agricultural businesses ▸ Opportunities to supply the Project
Timing	**Actions**
Detailed design phase measures	▸ Hold a workshop or other forum with local Chambers of Commerce, DSDILGP, DSDSATSIP and DESBT to discuss gaps in local business' capacity to work with major projects (e.g. safety management, environmental compliance, working with construction management companies, or specific skills) and discuss and confirm responsibilities for capacity building programs, which may include business forums, such as 'Meet the Buyer' or 'Procurement Opportunity' updates, skills development workshops or training courses
	▸ Work with directly affected landholders, and agricultural and other business owners, adjacent to the Project disturbance footprint, to refine design and construction planning measures aimed at minimising any impacts on business operations, productivity and/or employment

Community and stakeholder engagement measures	

Detailed design phase measures [continued]	▸ Liaise with the following stakeholders to locate specific business capacities of relevance to the Project's supply chain, for inclusion in the Project's register of potential suppliers:
	  ▸ DITRDC
	  ▸ RDA
	  ▸ TRC
	  ▸ LVRC
	▸ Chambers of Commerce in the Toowoomba and Lockyer Valley LGAs

	▸ Communicate with agricultural landholders in and adjacent to the Project footprint, in writing, and via meetings on request, to:
	▸ Describe the construction schedule and the nature and location of works
	  ▸ Explain the land resumption process to landholders whose properties would be acquired, and provide contact details for the constructing authority
	  ▸ Explain the results of EIS studies on noise and dust, as relevant to specific holdings or businesses
	  ▸ Describe measures to be considered in the detailed design, construction methodology or CEMP, to minimise impacts on the movement of stock and produce, access across or between properties, water access, or infrastructure/equipment on agricultural properties, and seek feedback
	  ▸ Propose a schedule for engagement between directly affected landholders and the Project during the pre-construction and construction phases

	▸ Consult (via a business forum or workshop) with tourism-related businesses (e.g. wineries, accommodation facilities, hotels, farm stays, restaurants, cafes and specialty shops) located within 5 km of the Project, to:
	  ▸ Explain the Draft Outline EMP, TMP and CEMP provisions and accept feedback on measures of relevance to tourism and related businesses
	  ▸ Identify any additional, feasible strategies that would reduce or offset impacts on connectivity or businesses' amenity during construction and/or operation, for inclusion in the CMP or TMP
	  ▸ Discuss support for the promotion of local tourism
	  ▸ Share information about opportunities for businesses to supply the Project

	▸ Work with RDA, DSDILGP, DSDSATSIP, TRC, LVRC, the Toowoomba Chamber of Commerce, and Lockyer Valley Chamber of Commerce and Industry, to encourage relevant supply chain development, especially for Indigenous businesses; including the delivery of workshops and/or online training with businesses aimed at building their capacity for involvement in major project construction and associated services and projects, including communication of pre-qualification requirements
	▸ In developing the AMP, consult with the Lockyer Valley Tourism Association and Tourism Darling Downs to confirm peak demand periods (noting these may change from year to year in response to major event schedules) and seasonal demands on tourism accommodation, to minimise the potential for the impacts of Project works to affect major events and avoid Project use of accommodation, which may displace tourists or event visitors
	▸ Establish consultative arrangements with the Lockyer Valley Chamber of Commerce and Industry and Toowoomba Chamber of Commerce to support monitoring of any issues identified in relation to labour draw
	▸ Consult with the Lockyer Valley Tourism Association and Tourism Darling Downs to identify Project initiatives to offset impacts on local character that may affect tourism visitation

Community and stakeholder engagement measures	
Pre-construction phase measures	▸ Cooperate with tourism business owners, Lockyer Valley Tourism Association, Tourism Darling Downs, TRC and LVRC, to develop and implement a strategy to mitigate impacts on tourism values, which may include support for promotional and marketing campaigns during the construction period and/or support for placemaking projects
	▸ Provide business capability workshops, including delivery of workshops, with businesses, including Indigenous businesses aimed at building their capacity for involvement in major project construction and associated services, in Lockyer Valley and Toowoomba locations
	▸ Provide regular updates via emails to local and regional businesses, to ensure they have access to current information about the Project
	▸ In consultation with landholders, ensure an appropriate level of access is maintained for agricultural businesses, across and between properties affected by the Project, and to the roads which link them to markets during the pre-construction period
Construction-phase measures	▸ Maintain regular engagement with landholders and business owners adjacent to the temporary disturbance footprint (at least quarterly during the first year of construction or as agreed with landholders) to monitor the effectiveness of environmental and social impact mitigation measures
	▸ Implement business capacity building programs with RDA, DSDILGP, DSDSATSIP, TRC, LVRC, Toowoomba Chamber of Commerce and Lockyer Valley Chamber of Commerce and Industry as agreed in the detailed design phase, as part of the Inland Rail Skills Academy
	▸ Provide regular Project updates that forecast road works, road realignments and closures, and explain alternative routes, to businesses, agricultural landholders and potentially impacted communities (including residents of rural localities)
	▸ Implement measures agreed with Lockyer Valley Tourism Association, Tourist Darling Downs and the Toowoomba and Lockyer Valley Regional Councils to mitigate impacts on tourism during the construction stage
	▸ Through the Project's CRG, provide feedback to community members on the implementation of proposed measures to reduce the visual impact of rail infrastructure during operation, and seek their feedback
	▸ Promote government services and programs that are available to businesses considering investment in projects related to Inland Rail

16.11.5.7 Community and stakeholder engagement during operation

Prior to completion of the construction phase, ARTC and/or the construction contractor will develop a Community and Stakeholder Engagement Plan for the commissioning and operational phases, which will include:

- Mechanisms for communication and co-operation with landholders and residents who may experience noise, dust, vibration and/or other impacts
- Promotion of operational employment and supply opportunities to local and regional residents
- Measures to identify and remediate issues such as excessive noise or dust deposition
- Community updates on maintenance and track works
- Emergency services access to a timetable of train movements
- Complaints and feedback mechanisms.

The Project's Community and Stakeholder Engagement Plan for operations will be reviewed in Year 3 of operations to determine any need for revision of the Plan.

16.11.5.8 Monitoring and reporting

Table 16.17 provides the framework for monitoring and reporting on community and stakeholder engagement, including desired outcomes, performance measures, monitoring mechanisms, and the timing for monitoring and reporting during the Project's construction. Further information regarding SIMP monitoring, reporting and review is provided in Section 16.11.10. The Project's Community and Stakeholder Engagement Plan will be reviewed annually during construction, in consultation with Councils and CRG/s, and updated as required.

TABLE 16.17: COMMUNITY AND STAKEHOLDER ENGAGEMENT MONITORING

Outcomes	Performance indicators	Mechanism	Timing
Co-operative and respectful relationships exist between ARTC, the contractor, construction personnel and community members	▸ CRG feedback confirms ARTC has engendered positive relationships ▸ Number of complaints about Project impacts ▸ Community Relations Monitor identifies positive feedback on the Project's community and stakeholder relations	▸ Construction contractor will document stakeholder interactions, monitor the effectiveness of engagement programs, report on the complaints register, and identify and report on issues to be addressed as part of environmental management ▸ Construction contractor will request feedback about stakeholder engagement and relationships as a regular item at CRG meetings ▸ Community Relations Monitor will review and provide advice on the Stakeholder and Community Engagement Plan, and be available to community members	Monthly monitoring, quarterly reporting to CRG, during construction phase
Community and stakeholder relationships facilitate information sharing to enable effective management of social impacts	▸ CRG and Council feedback confirms satisfactory access to timely information about the Project and management measures ▸ Households who need to move from within the Project footprint have access to support, if required ▸ Mental health partnership is maintained during the construction phase	▸ Feedback on the effectiveness of community and stakeholder engagement measures requested at each CRG meeting and in meetings with Councils ▸ Community Relations Monitor ▸ Complaints register ▸ ARTC and PHNs will monitor service uptake (mental health and relocation support) from potentially impacted communities	Quarterly during first two years of construction, then as agreed with Community Relations Monitor
Initiatives identified through stakeholder engagement have benefits for local communities and offset impacts on amenity, character and cohesion	▸ Number and outcome measures (to be determined with partners) for community partnerships and programs in potentially impacted communities ▸ CRG will receive reports on SIMP implementation and AMP implementation for their feedback	▸ ARTC and/or the contractor will agree outcome metrics with funded projects and partners ▸ Information on Project-supported initiatives will be provided to the CRG for feedback ▸ Feedback from Council/ community/ government partners	Annually during construction Reports on SIMP implementation at each CRG meeting, and on AMP implementation on a six-monthly basis
Stakeholder issues and grievances are identified, evaluated, addressed and recorded	▸ The Project responds to complaints from community members as per the construction contractor's complaints management system, which will be aligned with ARTC's Complaints Management System ▸ The construction contractor will provide transparency to the resolution of complaints	▸ The construction contractor will maintain a complaints register, monitor complaints and the status of their resolution, and provide a report on complaints at each CRG meeting ▸ ARTC Inland Rail will regularly monitor the quality and effectiveness of the complaints management system and require the contractor to revise implementation, where appropriate, based on stakeholder feedback	Monthly monitoring, quarterly reporting to CRG during construction

Outcomes	Performance indicators	Mechanism	Timing
Community members (including those without internet access or with limited English language skills) have access to information and support to assist adaptation to changes resulting from the Project. ARTC adapts its social and environmental management measures, where required, to improve their effectiveness	▸ Project maintains its communication strategies throughout detailed design, re--construction and construction phases ▸ Tele-interpretation services are available to translate Project information for people with limited English skills ▸ Project can demonstrate that mitigation measures are refined, where necessary, in response to stakeholder feedback	▸ Community and Stakeholder Engagement implementation, as reported in annual SIM reports ▸ Record of any changes to SIMP and CEMP measures	Quarterly monitoring and reporting to CRG during construction

16.11.5.9 Incorporation of stakeholder inputs in the development of management measures

ARTC will conduct community information sessions and other meetings with stakeholders during the EIS display period, to seek stakeholders' feedback on the EIS.

ARTC will continue engagement with TRC and LVRC during the draft EIS public display phase and following review of Council submissions to the draft EIS. This will include discussion of the SIA's findings and, in particular:

- Housing and accommodation: the scope of the AMP and acceptable accommodation solutions
- Workforce management: obtaining an update on Councils' priorities as part of RSIS, SQW, and economic development/recovery initiatives, and confirming Council's interest in joint initiatives
- Community wellbeing:
  - Seeking Council feedback on social issues and community needs in light of COVID-19 related impacts, e.g. increased unemployment, population mobility and business conditions
  - Discussion of Council and community initiatives that the Project could support (e.g. placemaking, community facility upgrades, community events) to strengthen local amenity, character and cohesion
  - Seeking input on Council's priorities and community or Council initiatives which could be considered as part of the Community Wellbeing Plan (see Appendix Q: Social Impact Assessment) and the process for Council involvement in development of the plan
- Local business and industry: seeking advice on business and tourism conditions following COVID-19 restrictions, and refining Inland Rail Skills Academy business capability strategies to reflect Councils' advice
- Other Council priorities emerging from their consideration of the draft EIS.

The results of further stakeholder engagement during and after display of the draft EIS will be reflected in the information provided to the OCG by ARTC prior to the Coordinator-General's evaluation of the EIS.

During the Project's detailed design, pre-construction and construction phases, stakeholder feedback will be incorporated in the refinement of management measures as follows:

- Consideration of feedback from landholders and other stakeholders on the effectiveness of design, environmental and social impact management measures of relevance to their properties, with CEMP or SIMP measures to be refined if unacceptable or unexpected impacts are identified
- Monthly recording of community complaints to identify any issues or trends that need to be addressed as part of implementing environmental management plans, with any changes reported as part of quarterly reports to the CRG
- Seeking feedback from CRG members on the effectiveness of stakeholder engagement and on SIMP implementation
- Involvement of Councils and CRG members in annual reviews of the SIMP.

16.11.6 Workforce management

The workforce management sub-plan describes how ARTC will maximise training and employment opportunities for residents in the Toowoomba and Lockyer Valley LGAs and manage the potential for impacts on other industries.

Table 16.18 summarises workforce management and development objectives, outcomes and actions that will maximise the employment of people from the Project region and Indigenous people in the Project's construction workforce, increase the skills profile of the Project region's labour force, manage workforce behaviour and minimise impacts on other businesses.

Actions undertaken during the construction phase will also address development of capacity of the local and regional workforce for employment in the operational phase.

TABLE 16.18: WORKFORCE MANAGEMENT

Workforce management measures	
Objective	▸ Enable residents of potentially impacted communities and the Project region to access the Project's construction and operational employment opportunities ▸ Facilitate and support workforce training and development pathways to build workforce skills for Project employment ▸ Minimise impacts on employment in other industries ▸ Provide a safe and healthy workplace for all personnel ▸ Manage workforce behaviour to avoid impacts on community safety and community values
Outcomes	▸ Workers within 125 km of the Project, including job seekers living in the SIA study area ▸ ARTC and construction contractor partnerships contribute to increased training and development opportunities in the Project region ▸ Construction employment opportunities are available to Traditional Owners and local Indigenous people ▸ All Project personnel behave with respect and courtesy towards residents, landholders and motorists ▸ Workplace health and safety is supported through a strong safety culture ▸ Impacts on agricultural or tourism employment opportunities are minimised

ARTC commitments	▸ ARTC will develop strategies to promote engagement of workers from the Project region
	▸ Minimum local employment targets will be negotiated and agreed between ARTC and the construction contractor
	▸ ARTC will endeavour to ensure that contractors seek to encourage employment, training and skills development opportunities by:
	  ▸ Identifying the skills required in the building, construction, equipment and services fabrication and supply, maintenance, operation and support to the Inland Rail Program, for all phases of the Inland Rail Program
	  ▸ Arranging timely training and qualification arrangements to meet the needs of skills development to support all phases of the Inland Rail Program
	  ▸ Ensuring that training and qualification systems meet the requirements of the National Standards Framework
	▸ Provide a clear and efficient process for people to seek information about Project employment opportunities and register their interest
	▸ Work with relevant Aboriginal parties and Indigenous communities, industry and government agencies to support the design and delivery of training and development programs, and increase the number of Indigenous people applying for Project-related jobs
	▸ Provide a workplace that is inclusive and values the contributions of Aboriginal and Torres Strait Islander employees
	▸ Work with key partners to link training and development programs with other projects and local industries to provide the greatest regional benefit
	▸ Work with schools, TAFEs and local training providers to provide appropriate training
	▸ Work with the Australian Government to provide long-term outcomes through training, mentoring and other support programs.

Workforce management measures

Detailed design phase measures

Local employment

- Work with CSQ, TRC and LVRC to confirm the availability of skills in the Project region and potential shortages in trades and professions that will be required for construction of Inland Rail projects, to inform the development of Inland Rail training and development programs (in progress)
- Require the construction contractor to develop a workforce management plan to optimise employment of people from the Project region, including:
  - Proposed strategies for recruitment and training of personnel from the Project region
  - Training and apprenticeship strategies
  - Youth, female and Indigenous employment goals and strategies
  - Workforce health and safety strategies
  - Workforce code of conduct and management policies
  - Local Employment Register
- Develop contracting requirements to optimise employment of people from the Project region in construction, including requirements for construction contractors to document their local and Indigenous recruitment and training strategies
- Include requirements for the construction contractor to report on employment participation and initiatives for Indigenous people, women, people under 25 years and residents from the Project region.

Training and development

- Establish partnerships as part of the Inland Rail Skills Academy to develop training pathways for employment of Project region residents in Project construction and operation
- Continue to work with TRC and LVRC RSIS coordinators and economic development teams to identify opportunities to align Inland Rail's workforce training and development initiatives with RSIS projects in the SIA study area, including cross-over skills between construction training and RSIS priorities, and utilisation of the SQW program
- Consult with DESBT and Department of Education, including local high schools, to identify opportunities to align Inland Rail's workforce training and development initiatives with the Queensland Government's jobs, skills and workforce diversity programs
- Continue to work with DITRDC, DSDSATSIP, Registered Training Organisations and CSQ to develop training programs to be delivered through the Inland Rail Skills Academy, to equip local people for Project employment.

Indigenous employment

- Require contractors to specify and meet Indigenous employment goals
- Consult with Western Wakka Wakka People and Yuggera Ugarapul People, CSQ, DSDSATSIP and training providers, TRC and LVRC, to identify potential opportunities for early skilling programs for Indigenous workers
- Facilitate a meeting between Yuggera Ugarapul People and DSDSATSIP to discuss the Project and assistance available for business capacity and training programs (complete)
- Facilitate a meeting between Western Wakka Wakka People and DSDSATSIP to discuss the Project and assistance available for business capacity and training programs
- Enable meetings between Traditional Owner groups and the construction contractor to discuss employment, training and business strategies

Employment in other industries

- Work with directly affected landholders, and agricultural and other business owners, within and adjacent to the Project disturbance footprint, to refine design and construct planning measures aimed at minimising any impacts on business operations, productivity and/or employment
- Identify and document baseline data on agricultural and tourism occupations for the Toowoomba and Lockyer Valley LGAs, using Regional Australia Institute data on vacancies

Workforce behaviour

- Review the construction contractor's Workforce Code of Conduct to ensure it reflects SIMP commitments regarding respectful and positive behaviours by Project personnel

Workforce management measures

Pre-construction phase measures	**Local employment** ▸ Provide information to Project region residents (including those without internet access) regarding the construction timeframe, employment opportunities and how to express interest in employment, contracting or supply opportunities ▸ Establish a Local Employment Register to track and monitor participation in construction employment by people from the Project region, including identification of Indigenous personnel (with their agreement) Training and development ▸ Implement training and development initiatives as part of the Inland Rail Skills Academy that will increase workforce skills applicable to Project construction and also applicable to other industries in the region, e.g. agriculture ▸ Implement Indigenous training and skills development programs agreed with Traditional Owner groups as part of the Inland Rail Skills Academy and/or as part of the construction contractor's delivery plans ▸ Construction personnel will be provided with cultural awareness training in cooperation with Traditional Owners, including respect for cultural landscape features and cultural heritage sites **Workforce behaviour** ▸ Require all Project personnel to comply with the construction contractor's approved Workforce Code of Conduct, complemented by complaints mechanisms that ensure fast and effective resolution to any issues experienced ▸ Implement authorisation procedures and means of identification for personnel accessing private property
Construction-phase measures	**Local and Indigenous employment** ▸ Monitor delivery of the construction contractor's Workforce Management Plan ▸ Use (and require construction contractor to use) multiple platforms to advertise job opportunities and promote the availability of employment, including expression of interest forms, community forums, newsletters and Inland Rail websites (i.e. inlandrail.artc.com.au/work-with-us) ▸ Maintain a Local Employment Register to track and monitor participation in construction employment by people from the Project region, including identification of Indigenous personnel (with their agreement) ▸ Implement Indigenous training and skills development programs agreed with Traditional Owner groups as part of the Inland Rail Skills Academy and/or as part of Project delivery plans ▸ Require employment of Indigenous mentors to support Indigenous people's retention in the construction workforce ▸ Monitor the construction contractor's progress towards local and Indigenous employment targets and require corrective actions (e.g. improved local training and recruitment strategies) if targets are not being met. **Training and development** ▸ Continue to implement training programs and partnerships to equip local and Indigenous people for construction employment, including programs agreed with Councils that align with RSIS priorities and support SQW programs ▸ Consult with QR and relevant Councils about potential for a partnership to support training programs that equip local people for employment in Project operations ▸ Commence implementation of Inland Rail Skills Academy Initiatives ▸ Consult with high schools and training providers in the Project region to identify training pathways and develop programs that will support local people to obtain employment in the Project's operations.

Workforce management measures	
Construction-phase measures [continued]	**Employment in other industries** ▸ Monitor Inland Rail projects' workforce ramp-up and the proportion of Project personnel drawn from within the Project region ▸ Consult with local Councils and Chambers of Commerce regarding any pressures they identify on local labour availability ▸ Monitor baseline data on vacancies in the tourism and agricultural sectors annually ▸ If the Project is contributing to cumulative pressures on labour availability, ARTC will engage with the construction contractor to refine the Project's recruitment and training strategies ▸ Maintain support for training programs that equip local people for construction employment ▸ Consult with high schools and training providers in the Project region to identify and implement training and employment pathways to employment in the Project's operation **Workforce behaviour** ▸ Require all Project personnel to comply with the construction contractor's approved Workforce Code of Conduct, complemented by complaints mechanisms that ensure fast and effective resolution to any issues experienced ▸ Require the construction contractor to report on implementation of, and compliance with, the Code of Conduct, including respect to local values and residents' privacy ▸ Implement authorisation procedures and means of identification for personnel accessing private property ▸ Provide construction personnel and transport drivers with guidelines regarding roads to be used, the standard of driving behaviour required of all personnel and drivers, fatigue management, and the sanctions for driving behaviour that is not in accordance with the Project's standards.

16.11.7 Housing and accommodation

The Housing and Accommodation sub-plan describes the measures that ARTC will undertake to mitigate potential impacts on housing and accommodation access in the SIA study area.

ARTC will require the Contractor to provide an AMP for ARTC's approval. The AMP will provide details of how non-local workers will be accommodated, and how ARTC's Program-wide accommodation principles will be addressed.

ARTC will monitor the implementation and effectiveness of the AMP and provide the results of monitoring as part of the annual SIMP report.

Objectives, outcomes and measures that will support achievement of ARTC's housing and accommodation principles are outlined in Table 16.19.

TABLE 16.19: HOUSING AND ACCOMMODATION

Housing and accommodation measures	
Objective	▸ Avoid adverse impacts on the affordability or availability of housing in the Project region ▸ Any workforce accommodation demands are managed to avoid displacement of tourists from accommodation in the Toowoomba and Lockyer Valley LGAs ▸ Minimise potential for impacts on property values due to impacts on amenity or perceptions about Project impacts ▸ Accommodation providers in the Project region benefit from any Project requirements for workforce accommodation
Outcomes	▸ Rental housing vacancy rates in potentially affected communities are not affected by Project workforce demands ▸ Tourists and event visitors are not displaced from tourism accommodation due to Project demands ▸ Accommodation providers in the Project region benefit from any Project requirements for workforce accommodation ▸ Inland Rail projects' cumulative demands for housing in the Project region are monitored, and strategies put in place if cumulative impacts appear likely

Housing and accommodation measures	
ARTC commitments	▸ The Project will seek to maximise local employment to limit any demands on housing and accommodation in the Project region ▸ ARTC will require the construction contractor to provide an AMP that addresses Inland Rail's Program-wide accommodation principles ▸ If monitoring data indicates a decrease in rental vacancy rates in the Project region (from a baseline established prior to construction commencing), to which the Project is contributing, ARTC will require refinement of the AMP to minimise negative social impacts to potentially impacted communities

Detailed design phase measures	**Impacts on access to housing or short-term accommodation**
	ARTC will require the construction contractor to provide an AMP, which will provide details of how non-local workers will be accommodated, and will include:
	▸ Alignment with ARTC's Program-wide accommodation principles
	▸ Identification of the number of personnel who could require short-term accommodation or temporary housing, and the duration of need
	▸ The results of consultation with Councils, short-term accommodation providers in the Project region and peak tourism associations in the Project region, regarding the likely availability of accommodation at the time the construction workforce is planned to commence and peak
	▸ Accommodation solutions identified in consultation with TRC, LVRC and tourism networks
	▸ Measures to avoid impacts on the availability of rental housing and short-term accommodation, including a short-term accommodation register that identifies accommodation options in the Lockyer Valley and Toowoomba LGAs with sufficient capacity, including consideration of peak occupancy periods (i.e. high tourist periods)
	▸ Measures to avoid impacts on low-income households, including avoiding use of caravan parks and mobile home parks in the Project region
	▸ Measures to enable local accommodation providers to benefit from Project accommodation arrangements
	▸ Mechanisms to monitor:
	  ▸ The number and percentage of the Project's workforce requiring accommodation
	  ▸ The type of accommodation being used
	  ▸ The number of people being accommodated in the Project region each quarter
	  ▸ Rental vacancy rates in potentially impacted communities
	  ▸ Any strains on local rental housing stock or short-term accommodation providers' capacity to service tourists
	  ▸ Development of the AMP will include consultation with TRC, LVRC, DCHDE and local accommodation providers
	▸ ARTC will communicate with TRC and LVRC about EIS results of relevance to rail operations (e.g. noise impacts and road network operation) to support their consideration of any development control measures required to protect the amenity and liveability of residents in areas that are planned for future urban growth
	Property values
	▸ Consider landholders' feedback regarding mitigation of impacts on properties in the development of the detailed design and CEMP
	▸ Compensation for acquisition of legal interests in property will be provided in accordance with the AL Act
	▸ Provide early advice and sufficient detail about volumetric tenure and tunnelling works to landholders with properties directly above the Toowoomba Range Tunnel, and establish communication between them and the construction contractor when necessary

Housing and accommodation measures

Pre-construction phase measures	**Housing and accommodation access** ▸ The construction contractor will implement the AMP as relevant to the pre-construction phase ▸ The construction contractor will review and, if necessary, update the number of non-local personnel that are expected to be required over the duration of the construction period ▸ The AMP will include monitoring mechanisms to identify any strains on local rental housing stock, including consultation with Council, and short-term accommodation providers' capacity to service tourists, as indicated by consultation with local tourism associations ▸ ARTC will require the construction contractor to implement, monitor and report on the AMP ▸ The construction contractor will develop a consistent, proactive approach to identifying and minimising cumulative housing and accommodation impacts for the Project, and the H2C and C2K projects **Property values** ▸ Cooperate with landholders to minimise impacts on the amenity of directly affected and adjacent properties ▸ Communicate ARTC's commitments to environmental management, and EIS approval conditions, to local and regional community members, to reduce the likelihood of negative perceptions about the amenity of properties in or near the EIS investigation corridor.

Construction-phase measures	**Housing and accommodation access**
	▸ The construction contractor will implement the AMP, which will include:
	  ▸ Monitoring of the number of personnel who could require short-term accommodation or temporary housing
	  ▸ Monitoring of demands on short-term accommodation to avoid displacing visitors due to major events or during seasonal peaks, including consultation with accommodation providers, TRC and LVRC as relevant
	  ▸ Measures to avoid impacts on rental availability, including minimising the use of rental housing in potentially impacted communities
	  ▸ Avoiding use of caravan parks and mobile home parks in the Project region
	▸ The construction contractor will be required to monitor:
	  ▸ The percentage of the Project's total workforce requiring accommodation
	  ▸ The type of accommodation being used
	  ▸ The number of people being accommodated in the Project region each quarter
	  ▸ Rental vacancy rates in potentially impacted communities
	▸ ARTC will monitor the outcomes of the AMP to identify any strains on:
	  ▸ Local rental housing stock (as indicated by trends in rental vacancy rates in the relevant postcodes)
	  ▸ Short-term accommodation providers' capacity to service tourists, as indicated by consultation with local tourism associations
	▸ If any strains on housing or accommodation as a result of the Project are identified, ARTC will work with the construction contractor to refine the AMP, which may include alternative training, recruitment or accommodation strategies
	▸ The delivery and outcomes of the AMP will be reported as part of the Project's SIMP reports.

16.11.8 Health and community wellbeing

The Health and Community Wellbeing sub-plan addresses the potential for impacts on community facilities and services, community safety and mental health, and community wellbeing due to changes to local amenity, community cohesion or local character, or changes to water access or environmental qualities.

ARTC has established the Inland Rail Community Sponsorships and Donations Program. The purpose of the funding program is to support non-profit organisations, community groups, Traditional Owner groups, and local government entities with projects, events and activities that will help achieve community and regional prosperity and sustainability. Eligible groups can apply for amounts between $1,000 and $4,000 for one-off, short-term projects or activities. Examples of funded projects may include community resilience-building days, establishing a mentoring program for young entrepreneurs in the area, and community development projects.

As part of planning during the detailed design phase, ARTC will engage with stakeholders, including TRC, LVRC, Queensland Health, DCHDE, the PHNs, emergency services and community groups, to identify cooperative actions to address emerging or changing needs. During the pre-construction phase, the Project will communicate with

Queensland Health to ensure hospital services are aware of the construction program and workforce ramp up to enable planning for any minor upgrades to services that may be required. The Project will also consult with DCHDE in identifying any Project-related stress on community services and organisations in the Project region.

The Project's EIS period has involved stress and anxiety for some local residents, due to concerns about property acquisitions, potential impacts on amenity or environmental changes that could result from the Project.

Inland Rail has developed mental health partnerships with the Darling Downs and West Moreton PHN, and the Brisbane South PHN. The PHNs' role is to provide oversight and coordination of federal funding for mental health (and other health) services. The purpose of the mental health partnership is to:

- Promote local, independent mental health services that are accessible to stakeholders at no cost
- Ensure local mental health services and general practitioners are aware of Inland Rail progress in local areas.
- Provide resources and services to mitigate any increased demand caused by Inland Rail. The Project will contribute to the Inland Rail Program's social and economic benefits, which will be experienced at local, regional and national levels. The benefits of employment and local business participation in the supply chain are also likely to be experienced by residents of local communities.

During the detailed design phase, the Project will prepare a Community Wellbeing Plan to provide a framework for cooperation with key stakeholders, to implement measures addressing impacts on quality of life as the result of Project impacts on amenity, character, cohesion or connectivity. This plan is discussed further in Appendix Q: Social Impact Assessment.

ARTC's investments in local communities will focus on programs and services designed to strengthen local social networks and provide opportunities for people to meet and participate in community activities. These could be delivered by ARTC's Community Donations and Sponsorship program, direct Project funding to community organisations and/or partnerships with relevant Councils or government agencies, which will be detailed as part of the Project's Community Wellbeing Plan.

Table 16.20 provides the objectives, outcomes, performance management measures, ARTC commitments and management measures, to mitigate impacts on community health and wellbeing during the Project's post-approval, pre-construction and construction phases.

TABLE 16.20: HEALTH AND WELLBEING

Health and wellbeing measures	
Objective	▸ Avoid and minimise impacts that may affect community wellbeing, including mental health ▸ Maximise communication and co-operation with local stakeholders to address impacts on quality of life or community wellbeing ▸ Mitigate impacts on the amenity of schools, community and health facilities ▸ Cooperate with police, health and emergency services to manage Project-related demands on services
Outcomes	▸ Changes in the amenity of residential properties and community facilities, and the potential for noise to disturb sleep, are minimised in accordance with the Project's approval conditions and agreements with affected property owners ▸ Mental health and community support services are accessible to people in potentially impacted communities and are adequate for any increased demand resulting from the Project ▸ Vulnerable residents who could be affected by relocation, construction noise or dust are supported to adapt to changes ▸ Health and emergency services have sufficient information and cooperation with ARTC to anticipate and avoid impacts on service capacity ▸ The wellbeing of residents in the Project region is supported by access to community programs and events that enable community participation

Health and wellbeing measures

ARTC commitments	▸ Maintain a focus on creating a safe environment for all and supporting community wellbeing during the changes that Inland Rail will bring ▸ Identify emerging impacts and opportunities that have the potential to impact community wellbeing and, in consultation with the local community, develop appropriate programs or initiatives to address these impacts and opportunities ▸ Identify opportunities and develop programs to improve safety outcomes for local communities ▸ Implementation of ARTC's Community Sponsorship and Donation Program ▸ Ensure ongoing engagement with Indigenous organisations, families and Elders to support Indigenous employees, underpinned by a high level of coordination between contributing programs and agencies
Detailed design phase measures	**Community facilities and services** ▸ Provide an update on Project design, EIS findings and the construction program to the Department of Education, Queensland Health, DCHDE, QPS, QAS, QFES and SES ▸ Consult with LVRC and TRC regarding the potential for investment in community facilities in local towns, and provide funding for initiatives agreed with Councils or other facility owners ▸ In consultation with the PHNs, extend the mental health partnership to include provision of services to assist residents who would need to relocate to access alternative accommodation and support services, if consultation with these residents indicates that support is required ▸ Engage with the Department of Education and Gowrie State School to update them on likely construction noise impacts and confirm mitigation measures, e.g. façade treatments, supplementation of fences, and/or air-conditioning of affected buildings, to avoid, minimise or offset impacts on Gowrie State School, in accordance with the Department's learning environment policy and guideline ▸ Update the Bicentennial National Trail Ltd representatives on detailed design and, if necessary, confirm any feasible actions to minimise disruption of access to the Bicentennial National Trail at Gittins Road during construction ▸ Continue engagement with the Gowrie community (in liaison with the B2G project) to discuss opportunities for a partnership to upgrade support for the newly established Gowrie Junction Multi-Purpose Community Facility ▸ When construction traffic routes are confirmed, consult with the Department of Education, DTMR, local schools and school bus operators to identify measures for inclusion in the TMP to minimise impacts on school bus routes ▸ Liaise with QR in relation to potential impacts on rail traffic, including any track possessions and the elimination of the existing level crossing. Provide for maintenance of access to the Helidon to Ravensbourne Trail if it is expected to be affected, in consultation with DTMR and LVRC ▸ Consult with the managers of community facilities within 1 km of the Project works, to explain the noise modelling results and establish communication between facility managers and the Project team, to enable a corrective response to any noise impacts on the use of facilities ▸ Communicate the noise modelling results to all community facilities within 2 km of the Project works and ensure they have access to Project updates and communication channels throughout the construction period ▸ Make donations and sponsorships available to community organisations in potentially impacted communities, to enable them to strengthen the provision of community programs ▸ Engage with the Toowoomba Horse Riding for the Disabled Association and the Teen Care Challenge Facility to provide advice of the indicative timing for the TBM's passage near and under their properties

Health and wellbeing measures	

Detailed design phase measures [continued]	▸ Agree compensation arrangements for the acquisition of land associated with the Toowoomba Lockyer Valley Kart Club and volumetric acquisition of land in the Toowoomba Horse Riding for the Disabled Association facility
	▸ Obtain the relevant agreements with the utility providers to access and work in their easements, including, where required, relocation of utilities that may be done by the utility provider under relevant legislation
	▸ As part of construction planning and the Project's TMP, develop measures to address the potential for cumulative impacts (with the G2H project) on travel times to Helidon State School, e.g. minimising the coincidence of road works and inclusion of measures, such as minimising works on access roads to the school during peak drop-off and pick-up times within the Project's TMP
	Advise the constructing authority of LVRC's interest in use of land not needed after construction (i.e. within the temporary disturbance footprint) with potential to connect these parcels to existing trails and public spaces or fire access trails
	Health and emergency services
	▸ Consult with QPS, QAS, QFES, Lockyer Valley Disaster Management Group and Toowoomba Disaster Management Group in the development of Emergency Response Plans for construction and operation
	▸ Provide information about dangerous goods transport and tunnel rail to QPS and QFES, and seek their feedback for consideration in emergency response plans
	▸ Consult with DDHHS regarding the workforce ramp-up and any specific anticipated demands on hospitals
	▸ Develop arrangements with QPS, QAS and QFES to ensure effective communication throughout the construction phase, agree on cooperation procedures and plan measures to mitigate impacts on emergency service response times during construction (e.g. direct communication with construction managers)
	▸ Continued engagement with the QFES and rural fire brigades to enable a cooperative response to any fire risks affecting the EIS investigation corridor and nearby residences or facilities
	▸ Continued engagement with DDHHS regarding Baillie Henderson Hospital/future Toowoomba Hospital site to:
	  ▸ Provide an update on the construction program and any changes to the Project design that could affect the hospital campus
	  ▸ Identify and implement measures to avoid construction traffic impacting on access routes to the hospital
	  ▸ Provide information on the ventilation outlet building design, location and construction timeframe, when this is confirmed as part of the detailed design, and seek feedback about any Project measures that could to mitigate conflicts with the flight paths of helicopters accessing the hospital in the vicinity of the tunnel ventilation shaft
	  ▸ Mental health/quality of life
	▸ Consider the potential for particular disadvantage in Helidon/Helidon Spa, Lockyer and Cranley in confirming mitigation measures for construction noise and dust
	▸ Communicate the results of hydrology/flooding assessment results to interested stakeholders and address any legitimate localised concerns during the detailed design process
	▸ Develop partnerships with community and government organisations that can assist residents to access support services
	▸ With the PHNs, explore opportunities to provide training for community members in recognising and responding to mental health issues, e.g. through men's sheds and community support groups
	▸ Development of a Community Wellbeing Plan as described in Appendix Q: Social Impact Assessment
	▸ Engage with TRC and LVRC to identify and implement cooperative actions to support community wellbeing, for example:
	  ▸ Placemaking initiatives
	  ▸ Projects that support community cohesion and resilience

Health and wellbeing measures	
Detailed design phase measures [continued]	Opportunities for alignment with RSIS project initiatives and Councils' economic development programs on training and development strategies **Community health** ▸ Consult with landholders and residents who may experience construction noise exceedances to confirm mitigation, e.g. architectural treatments, supplementation of fencing, acquisition of impacted properties or relocation of homes within the property ▸ Ensure a detailed focus on protecting residents' amenity in the CEMP, referencing property-specific measures and SIMP commitments where relevant ▸ Plan the construction methodology to avoid work during non-standard hours causing noise or vibration, wherever possible, with the exception of tunnelling works, which will be 24-hours a day/7-days a week ▸ Provide engagement staff to work with residents whose properties would be acquired, to provide Project information, ensure their concerns are considered in Project planning and provide referral to support services where required **Access to natural resources** ▸ Consult with affected bore owners to identify compensation or make-good arrangements (i.e. replacement of the water source) **Safety** ▸ Consult with DTMR, LVRC, TRC and QPS in the development of the TMP, with a clear focus on road safety, fatigue management, and safe interactions with rural roads and rural traffic ▸ Consult with QR in relation to works within the existing rail corridor and the elimination of the existing level crossing ▸ Site-specific measures to manage potential risks to pedestrian and cycle safety, where construction traffic routes interface with these routes, will be included in the TMP ▸ Develop a consistent approach to traffic management planning and road safety in relation to the transport of spoil material for adjoining Inland Rail projects Establish and maintain COVIDSafe policies, systems and procedures in accordance with Inland Rail's COVIDSafe Plan.
Pre-construction phase measures	**Community facilities and services** ▸ Engage with Postmans Ridge Pioneers Memorial Hall Inc to develop mitigation to avoid, minimise or offset impacts on the amenity of the hall during construction ▸ Consult with the Toowoomba Horse Riding for the Disabled Association regarding adoption of safety measures in regard to construction noise ▸ Consult with regional bus service operators and QR to develop mitigation, to minimise disruption to services ▸ Through consultation with DCHDE prior to construction commencing, and annually during construction, identify any Project-related increase in demand for community services and, if stresses on services are identified, participate in a cooperative response to community needs between DCHDE, ARTC and community organisations **Health and emergency services** ▸ Develop a protocol with QPS, QAS and QFES to ensure effective communication and coordination of emergency response procedures during construction ▸ Provide a forward schedule for Project activities requiring oversized vehicle escorts to police in all emergency services bases ▸ Provide advance notice and updates on workforce ramp-up and the construction program to Queensland Health, QPS, QAS and QFES, to enable Government agencies to plan for increased demands for health, police and emergency services ▸ Ensure access routes to the Project disturbance footprint are communicated and agreed with LVRC, TRC, DTMR (as relevant), QPS and all emergency services, including alternative routes during extreme events such as during flooding or bushfire ▸ Offer site orientation to QPS, QAS and QFES

Health and wellbeing measures	
Pre-construction phase measures [continued]	**Mental health** ▸ Ensure access to communication and complaints mechanisms for all residents in potentially impacted communities ▸ Maintain the mental health partnership ▸ Implement actions agreed in property acquisition and access arrangements ▸ Require construction contractor tenders to comply with detailed mitigation measures with respect to managing impacts on amenity, privacy and community values ▸ Implement early initiatives identified in the Community Wellbeing Plan, as described in Appendix Q: Social Impact Assessment **Access to natural resources** ▸ Establish groundwater monitoring mechanisms (refer Chapter 23: Draft Outline Environmental Management Plan) to enable a corrective response or mitigation to any drawdown affecting landholder's access to groundwater **Safety** ▸ Develop tailored and targeted rail and road safety programs, for delivery during construction, to local schools and communities in the Project region ▸ Implement communication strategies to advise stakeholders about construction traffic routes, peak construction periods, the Project's workforce conduct policies and how to contact the Project ▸ Consult QFES in detailing the mitigation measures regarding fire trails, firefighting and a cooperative response to any fire risks affected by the Project ▸ Maintain and implement COVIDSafe policies, systems and procedures in accordance with Inland Rail's COVIDSafe Plan and Government directives that apply from time to time.

Construction-phase measures	**Community services and facilities**
	▸ Implement noise mitigation measures agreed with the Department of Education, with respect to Gowrie State School, prior to commencement of construction activities that would result in exceedances of Project noise criteria
	▸ Communicate with all schools, health facilities and community halls and centres in the potentially impacted communities, regarding the construction program, and provide regular updates about road closures and roadworks
	▸ With DCHDE, monitor the adequacy of community support services to meet Project-related demands, and enable cooperative responses if required, e.g. increased funding support for affected services by ARTC or the relevant government agencies
	▸ Provide advice to the Toowoomba Horse Riding for the Disabled Association Inc (THRDA) at least one month prior to the point where the TBM would be 500 m from the THRDA reserve's boundary, including predicted ground-borne noise levels, the area that could be affected and the duration of the impact, to enable THRDA to avoid use of the area that may be affected during that timeframe
	▸ Provide information to the Toowoomba and Lockyer Valley Kart Club at least three months in advance of construction activities that would impact the facility, including regular updates regarding construction works that may result in noise or dust and the mitigation measures the Project will use to minimise impacts on the Kart Club's operations
	▸ Through consultation with the managers of facilities including Gowrie State School, Postmans Ridge Pioneer Memorial Hall, THRDA, Teen Care Challenge Inc, and Toowoomba Kart Club, monitor the effectiveness of noise, vibration and dust mitigation measures, and initiate corrective measures if facilities are experiencing impacts on their amenity or access
	▸ Communicate the potential for ground-borne noise to be audible at the Teen Challenge Care Queensland facility during Project operation
	▸ Fund provision of locally based community development projects for residents in and near the Project, and in potentially impacted communities, to:
	  ▸ Build their capacity to cope with Project-related changes to connectivity, sense of place or community cohesion
	  ▸ Support the growth of social networks
	  ▸ Position local businesses to participate in the Project's supply chain.

Health and wellbeing measures

Construction-phase measures [continued]

Health and emergency services

- Require contractors to have trained paramedic personnel at worksites to reduce impacts on local health services and assist in the promotion of workplace health, and wellness
- Hold regular meetings with Queensland Health, QPS, QAS, QFES, Lockyer Valley Disaster Management Group and Toowoomba Disaster Management Group services to update advice on the Project's workforce ramp-up, review co-operative arrangements, provide advice of major equipment movements, and ensure any safety or service access issues are identified and addressed
- Provide noise monitoring at the Baillie Henderson Hospital
- Develop a protocol between ARTC and emergency service providers, defining appropriate and coordinated responses and communication in the event of emergencies during operations
- Investigate the need for joint training and response exercises with QPS, QAS and QFES to build capacity for Project-related incident management during operation

Mental health and quality of life

- Implement the Community Wellbeing Plan as described in Appendix Q: Social Impact Assessment
- Maintain consultative arrangements that are accessible to all residents in the EIS investigation corridor and potentially impacted communities
- Provide regular updates to landholders and communities about how noise, dust and traffic delays from the Project will be minimised, and how to contact the Project
- Implement communication strategies to ensure stakeholders know about construction traffic routes, peak construction periods, the Project's workforce conduct policies and how to contact the Project personnel in the event of any concerns during construction.
- Maintain a responsive complaints mechanism to address community complaints about construction impacts
- With the PHNs, monitor mental health service uptake in potentially impacted communities
- Adjust the quantum or nature of services provided by the mental health partnership with PHNs in response to monitoring data, if required
- Prior to the commencement of Project operations, communicate the results of air quality modelling and management measures (including operation of the tunnel portals and intermediate ventilation shaft) as part of Project communication strategies targeting potentially impacted communities

Prior to the commencement of Project operations, engage with the PHNs and Queensland Health to gauge the need for any ongoing support for mental health services during the operational period

Community health

- Maintain consultative arrangements that are accessible to all residents in the EIS Investigation Corridor and potentially impacted communities
- Provide regular updates to communities about how noise, dust and traffic delays from the Project are being managed and how to contact the Project
- Provide information to enable Council or State Government review of current land use planning controls in areas that may be affected by operational noise

Safety

- Implement workforce fatigue management procedures, including in relation to travel
- Implement communication strategies to ensure stakeholders know about construction traffic routes, peak construction periods, the Project's workforce conduct policies, and how to contact Project personnel in the event of any concerns during construction
- Require the construction contractor to implement mitigation measures with respect to managing impacts on amenity, privacy and community values (e.g. Code of Conduct and management of noise)
- A Communication and Education Plan will be designed and implemented, prior to the commencement of operations, to provide information about Inland Rail operations and safety to be delivered through community engagement activities and campaigns to increase public awareness ahead of, and during, the operations phase
- Develop a protocol between ARTC and emergency service providers, defining appropriate and coordinated responses and communication in the event of emergencies during operations
- Develop tailored and targeted rail and road safety programs for delivery to local schools, local young people and communities in the Project region during operations (first three years)
- ARTC will explore the need for suicide prevention programs to be delivered in local communities as part of its mental health partnership with the PHNs

Maintain, implement and regularly review COVIDSafe policies, systems and procedures in accordance with Inland Rail's COVIDSafe Plan and government directives that apply from time to time.

16.11.9 Local business and industry participation

The Local Business and Industry Participation Sub-plan addresses the potential for Project impacts on businesses, including farms, agribusiness and tourism-related businesses, and describes ARTC's commitments to ensuring that local and regional businesses benefit from the Project.

ARTC is working, and will continue to work, with directly affected landholders to address their property-specific concerns, as part of the detailed design phase and in the Project's CEMP. This will include working with agricultural property owners and other business operators to reduce the potential for impacts on business operations, including properties' direct access to the road network.

ARTC's Inland Rail Skills Academy will include provision for training and skills development programs that are relevant to the agricultural industry. Longer term, local agribusinesses may have access to better rail–road transport connections for the movement of produce, and through improvements to connectivity opportunities between the existing QR West Moreton System rail corridor and ARTC interstate lines.

ARTC will continue to engage with service providers and relevant businesses to ensure their specific needs are considered in the CEMP and identify opportunities to support the Project. This will include consulting with businesses in Gowrie Junction, and each business that is adjacent to the footprint, to take account of their specific needs for access and operation, including consideration of the needs of transport-related operations, and agricultural operations.

Consultation with the TRC, LVRC and local businesses will be undertaken as part of the detailed design process, to obtain input that will assist in refining mitigation measures that address impacts on scenic amenity and road traffic. ARTC will also collaborate with the Lockyer Valley Tourism Association, the Lockyer Valley Chamber of Commerce, Tourism Darling Downs and interested businesses to support their monitoring of visitation levels and develop and fund marketing or business capacity development strategies during the construction period and the first two years of operation.

ARTC is committed to providing full, fair and reasonable opportunities for capable local businesses to compete and participate in the Project's supply chain. ARTC is also committed to ensuring that Indigenous businesses, including those located in the Project region, are identified and supported to engage in the Project's supply chain. ARTC has developed an AIPP and will work with its various service providers, consultants and contractors in its implementation. This plan is discussed further in Appendix Q: Social Impact Assessment.

ARTC will implement the Inland Rail Sustainable Procurement Policy for the Project, providing details on opportunities, outcomes and strategies for local and Indigenous business participation in the Project's construction and operational phases. The policy is provided in Appendix G: Corporate Policies.

ARTC's Business Capability Development Program provides local and Indigenous small to medium enterprises (SMEs) and social enterprises located along the Inland Rail alignment with access to workshops, presentations and mentoring support aimed at improving their understanding of how to supply to Inland Rail.

ARTC will monitor and report on supplier participation at the following levels:

- Local community: referring to spend within the Toowoomba and Lockyer Valley LGAs
- Region: referring to spend with businesses located in LGAs within 125 km of the Project
- State: referring to spend within Queensland
- National/ANZ: referring to spend within Australia and New Zealand.

Indigenous business participation will also be tracked and reported as part of the SIMP annual review report.

Inland Rail's AIPP and Sustainable Procurement Strategy will maximise the involvement of businesses with existing capacity, and include a focus on building local businesses' capacity, to increase the number of businesses in the SIA study area that can successfully compete for Project supply opportunities. This will increase employment opportunities for workers and jobseekers in the SIA study area.

Table 16.21 provides the objectives, outcomes, ARTC commitments and management measures for ensuring local and Indigenous business participation in the Project.

TABLE 16.21: LOCAL BUSINESS AND INDUSTRY

Local business and industry measures	
Objective	▸ Create local business awareness about supply opportunities and registration and contracting processes for the Project, and build relationships with local businesses to support their involvement in the Project ▸ Provide a framework for full, fair, and reasonable opportunity for local, regional and Indigenous businesses to participate in the supply chain and integrate this framework in construction tender requirements and contracts ▸ Minimise negative impacts on agricultural properties and businesses adjacent to the Project footprint ▸ Support the local tourism industry to develop resilience to Project impacts
Outcomes	▸ Impacts on businesses including farms and grazing operations are minimised through the implementation of measures outlined in the Draft Outline EMP, in cooperation with landholders and business owners ▸ Businesses in the SIA study area benefit from supply opportunities ▸ The Project engages Indigenous businesses in its construction phase and supports Indigenous businesses to develop capacities for supply to the Project's operation and/or other construction projects ▸ Impacts on tourism visitation are minimised ▸ Any cumulative labour draw impacts on local business are identified, to enable refinements to recruitment or training strategies.

ARTC commitments	▸ Implement Inland Rail's AIPP and Sustainable Procurement Policy for the Project
	▸ Capacity-building programs will be delivered as part of the Inland Rail Skills Academy
	▸ Access to services and businesses during construction will be maintained. Where alternative access arrangements are required, these will be developed in consultation with relevant property owners/occupants
	▸ Indigenous participation and local participation will be included as key elements of construction tender assessments and ARTC will work closely with contractors to achieve agreed outcomes
	▸ A clear and efficient process for businesses to seek information about opportunities and register their interest in Project supply is provided
	▸ ARTC will work with DESBT, DITRDC and local and Indigenous businesses to:
	  ▸ Build businesses' capacity to participate in the Project's supply chain, through business development, mentoring and pre-qualification projects
	  ▸ Support Indigenous businesses to ensure they are prepared for, and provided with, opportunities to participate
	  ▸ Work with key partners to link training and development programs with other projects and local industries to provide the greatest regional benefit.

Detailed design phase measures	**Farms and agribusinesses**
	▸ Continued engagement with affected agricultural property owners to explain the land resumption process and/or the result of EIS studies on noise and dust, as relevant
	▸ Consult with agricultural property owners within the EIS investigation corridor and ensure an appropriate level of access and egress solutions are incorporated into the detailed design to enable movements across the rail corridor
	▸ Work with directly affected landholders to develop cooperative strategies that will reduce impacts on grazing, cropping businesses or other agribusinesses, which may include, as relevant:
	  ▸ Property access and communication protocols
	  ▸ Design measures to mitigate impacts on groundwater bores, fences, stock/product movements or water access
	  ▸ Surface and/or groundwater management
	  ▸ Erosion control
	  ▸ Noise and vibration mitigation
	  ▸ Weed and pest management.

Local business and industry measures	
Detailed design phase measures [continued]	**Other businesses** ▸ Continue engagement with directly affected businesses (where land acquisition is required) and businesses that may experience noise exceedances or significant disruption to their access, to identify and implement mitigation strategies, which may include temporary hoardings to provide noise mitigation, road access agreements (e.g. consideration of business' bulk deliveries) and/or business signage ▸ Consult with businesses located within the EIS investigation corridor regarding EIS findings of relevance to them (e.g. identified noise exceedances, potential dust issues, road access arrangements and business-specific issues), to inform development of the CEMP **Tourism** ▸ Consult with tourism-related businesses, accommodation facilities, farm stays, hotels, cafes and specialty shops located in the potentially impacted communities, to: ▸ Explain the Draft Outline EMP, TMP and CEMP provisions, and accept feedback on measures of relevance to tourism and related businesses ▸ Identify any additional, feasible strategies that would reduce or offset impacts on connectivity or businesses' amenity during construction and/or operation ▸ Discuss local marketing and/or business development initiatives that ARTC could support to offset impacts on tourism during construction Local and Indigenous business supply opportunities ▸ Continue consultation with local and regional businesses, Chambers of Commerce, and tourism associations to ensure they have access to current information about the Project and EIS findings ▸ Implement ARTC Inland Rail's Business Capacity Program, including workshops and access to mentoring, for businesses in the Project region ▸ Promote DSDILGP 's online business capability training programs to businesses interested in supplying the Project ▸ Cooperate with any DSDILGP initiative to coordinate a joint forum with other major projects in the Project region, to provide information about a range of projects and their supply requirements ▸ Liaise with the following stakeholders to locate specific business capacities of relevance to the Project's supply chain: ▸ DSDSATSIP ▸ DIRDC ▸ RDA ▸ Chambers of Commerce in the Toowoomba and Lockyer Valley LGAs ▸ Toowoomba Surat Basin Enterprise ▸ Complete a scan of Indigenous businesses in SEQ that could service the Project and develop an Indigenous business register that can be used by construction contractors and Project operators ▸ Communicate pre-qualification requirements to businesses in the Toowoomba and Lockyer Valley LGAs to allow local and regional businesses to achieve the relevant requirements ▸ Communicate with Traditional Owner groups regarding the range of business opportunities that will be available during construction, the availability of Indigenous businesses to participate and the types of capacity-building programs that Indigenous businesses may need to prepare for involvement in the Project supply chain.
Pre-construction phase measures	**Farms and agribusinesses** ▸ Meet with directly affected landholders to confirm the details of property-specific management measures and agree arrangements for engagement for the construction phase ▸ Provide a forum for agricultural businesses in the Project region to learn about the Project's construction phase, potential changes to the road network and alternative access routes ▸ Include a focus on skills and qualifications of relevance to the agricultural industry in the Inland Rail Skills Academy projects and partnerships Impacts on nearby businesses ▸ Implement any measures identified in consultation with businesses near the Project to reduce impacts on their amenity or road access, as relevant to the pre-construction period

Local business and industry measures	
Pre-construction phase measures [continued}	**Tourism** ▸ Work with relevant Councils, Chambers of Commerce, tourism associations and tourism service providers in potentially impacted communities to implement the initiatives identified in the detailed design phase ▸ Work with the Lockyer Valley Tourism Association, the Lockyer Valley Chamber of Commerce, Tourism Darling Downs and interested businesses to support their monitoring of visitation levels, and develop and fund marketing or business capacity development strategies during the construction period and the first two years of operation **Local supply opportunities** ▸ Implement the AIPP as relevant to the pre-construction phase ▸ Provide updates to local and regional businesses to ensure they have access to current information about the Project ▸ Communicate pre-qualification requirements to businesses in the Project region to allow local and regional businesses to achieve the relevant requirements ▸ Facilitate the delivery of workshops with businesses aimed at building their capacity for involvement in major project construction and associated services ▸ Maintain communication with Traditional Owners regarding the range of business opportunities that will be available during construction, the availability of Indigenous businesses to participate and the types of capacity-building programs that Indigenous businesses may need to prepare for involvement in the Project supply chain ▸ Encourage tenderers for construction contracts to set appropriate targets and/or incentives to use local and Indigenous businesses Consult with DESBT, DSDSATSIP, TRC, LVRC and local Chambers of Commerce, to encourage relevant supply chain development, especially for Indigenous businesses **Farms and agribusinesses** ▸ Maintain regular engagement with landholders and other business owners adjacent to the temporary disturbance footprint (at least quarterly during the first year of construction, or as agreed with landholders) to monitor the effectiveness of environmental and social impact mitigation measures ▸ Provide regular Project updates that forecast road works, road realignments and closures, and explain alternative routes ▸ If required by market gardens or crop farms within 500 m of the rail alignment, provide dust monitoring and implement additional dust mitigation measures if monitoring data indicates the need **Other businesses** ▸ Engage with businesses affected by Project construction works on a regular basis (e.g., quarterly) to monitor the effectiveness of environmental management measures and institute corrective actions (e.g. modification of environmental or traffic management measures) if required ▸ Implement any measures identified in consultation with businesses in and near the Project to reduce impacts on their amenity or road access, as relevant to the construction period ▸ Consult with LVRC, TRC, DESBT and Chambers of Commerce in the Project region regarding any pressures they identify on local labour/skills availability, to enable refinement of recruitment and training strategies if local labour shortages are identified **Tourism** ▸ Work with the Lockyer Valley Tourism Association and Southern Queensland Country Tourism to support their monitoring of visitation levels and promotional and marketing campaigns ▸ Through the Project's CRG, provide feedback to community members on the implementation of proposed measures to reduce the visual impact of rail infrastructure during operation, and seek their feedback **Local supply opportunities** ▸ Implement the AIP Plan and report on compliance with the AIP Plan, including participation of businesses from the SIA study area in the Project's supply chain ▸ Implement the Project's Sustainable Procurement Policy to maximise local industry opportunities during the construction phase ▸ Implement capacity-building strategies identified in cooperation with stakeholders during the detailed design and pre-construction stages ▸ Promote government services and programs that are available to businesses considering investment in projects related to Inland Rail.

16.11.10 Monitoring, reporting and review

The purpose of SIMP monitoring is to:

- Track and enable reporting on delivery of measures that mitigate social impacts or increase community benefits
- Ensure that mitigation and benefit enhancement measures are effective
- Support identification of corrective actions to improve the effectiveness of mitigation and benefit enhancement measures.

The monitoring framework provided in Table 16.22 applies to the construction phase. ARTC will track SIMP implementation and review performance measures quarterly (where information is available) to facilitate continual improvement of strategies and practices. ARTC is committed to publicly reporting social performance outcomes and will release quarterly snapshot reports outlining employment and business participation achieved by the Project.

A review of the SIMP and its implementation will be undertaken by an independent third party by the end of Year 1 of construction and prior to commissioning the Project.

Prior to completion of the construction phase, ARTC will develop a SIMP for the operational phase, in accordance with ARTC's established management frameworks for rail operation. The operational SIMP will be independently reviewed in Year 3 of operations, to support consideration by ARTC and the OCG regarding any future need for the SIMP.

TABLE 16.22: SOCIAL MONITORING FRAMEWORK

Impact areas	Outcomes	Performance measures	Mechanisms	Monitoring frequency
Workforce management				
Local and Indigenous employment Training and development opportunities Workforce behaviour/community safety Skills shortages	Workers within 125 km of the Project, including jobseekers living in the SIA study area, are involved in the construction workforce, with a particular focus on providing opportunities for residents in potentially impacted communities	Number of people from the Project region that are employed in Project construction, in line with outcomes agreed between ARTC and the construction contractor	▸ Construction contractor employment register identifying personnel's postcodes ▸ Quarterly public snapshot report proving information on employment and business participation from the Toowoomba and Lockyer Valley LGAs	Six monthly
	ARTC and construction contractor partnerships contribute to increased training and development opportunities in the Project region, reducing labour draw from local businesses	▸ Number of trainees and apprentices involved in construction work compared to targets agreed between ARTC and the construction contractor ▸ Number of people from the Project region involved in training opportunities facilitated by the Project ▸ Traineeship completion/retention rate	▸ ARTC's Inland Rail Skills Academy monitoring process in cooperation with training partners ▸ Construction contractor's trainee and apprenticeship register	Six monthly
	Construction employment opportunities are available to Traditional Owners and local Indigenous people	Number of Indigenous people involved in construction employment, in line with outcomes agreed between ARTC and the construction contractor	▸ Construction contractor's employment register, identifying personnel's Indigenous identification, by agreement with personnel ▸ ARTC monitoring of workforce management plan implementation	Quarterly
	All Project personnel behave with respect and courtesy towards residents, landholders and motorists	Number of substantiated complaints regarding workforce behaviour	▸ Construction contractor monitoring of Code of Conduct implementation and compliance ▸ Complaints register ▸ CRG feedback	▸ Monthly—complaints register ▸ Quarterly—CRG
	Workplace health and safety are supported through a strong safety culture	▸ Implementation of construction contractor's Work Health and Safety Plan ▸ Lost Time Incident rate in comparison to relevant national standard	Workplace Health and Safety records	Monthly

Impact areas	Outcomes	Performance measures	Mechanisms	Monitoring frequency
	Impacts on agricultural and tourism employment opportunities are minimised	▸ Management measures for agricultural properties are implemented in accordance with agreements with landholders, to minimise impacts ▸ Job vacancies data does not show any upward trend in tourism occupation vacancies, or downward trend in agricultural industry vacancies, attributable to the Project	▸ Construction contractor engagement with landholders to monitor the effectiveness of management measures ▸ Construction contractor engagement with Lockyer Valley Tourism Association and Tourism Darling Downs to monitor tourism visitation ▸ Monitor Regional Australia Institute Regional Jobs vacancies (annual report) to identify any upward trend in tourism occupation vacancies or downward trend in agricultural industry job vacancies	Six monthly—landholder engagement Annually—Regional Jobs vacancies and liaison with Tourism associations
Housing and accommodation				
▸ Potential for cumulative demands to impact on housing access and affordability ▸ Potential to displace tourists or community event visitors from tourist accommodation	Rental housing vacancy rates in potentially affected communities are not affected by Project workforce demands	No displacement of local residents from housing due to Project-related increases in housing demand	▸ Consultation with real estate agents in potentially impacted communities ▸ Pricefinder/SQMResearch data on rental vacancy rates and rental price trends ▸ ARTC will monitor the effectiveness of the AMP, in consultation with DHPW, TRC and LVRC, including requests for provision of Councils' feedback regarding any housing/accommodation use	Quarterly
	Tourists and event visitors are not displaced from tourism accommodation due to Project demands	Hotel/motel operators report adequate capacity for tourist trade in the Project region, including for major event periods	Consultation with tourism accommodation providers to identity occupancy baseline at commencement of construction, and to monitor and enable management of any potential to displace tourists	Six monthly
	Accommodation providers in the Project region benefit from any Project requirements for workforce accommodation	Workforce accommodation solutions include accommodation providers in the Project region	▸ Accommodation register Consultation with providers of accommodation used by Project personnel to identify effects on occupancy rates	Quarterly during first two years of construction (during which workforce numbers will peak)

Impact areas	Outcomes	Performance measures	Mechanisms	Monitoring frequency
	Inland Rail projects' cumulative demands for housing in the Project region are monitored, and strategies put in place if cumulative impacts appear likely	The construction contractor has a coordinated approach to monitoring and mitigating the demands of Inland Rail projects on housing and accommodation, and will enable corrective action if strains on housing or accommodation are identified	▸ Consultation with DHPW, TRC and LVRC to seek input to evaluation of cumulative impacts ▸ Pricefinder/SQMResearch data on rental vacancy rates and rental price trends	Quarterly during construction
Health and community wellbeing				
▸ Impacts of noise on lifestyles/sleep ▸ Increased demands for health, community support and/or emergency services ▸ Impacts on mental health through stress and anxiety related to the Project ▸ Impacts on community/traffic safety or emergency vehicle responses ▸ Community benefits for participation in Project employment, supply chain or community initiatives supported by the Project	Changes in the amenity of residential properties and community facilities, and the potential for noise to disturb sleep, are minimised in accordance with the Project's approval conditions and, where relevant, agreements with affected property owners	Number of complaints about noise and dust issues	▸ CRG feedback ▸ Queensland Health ▸ QPS feedback ▸ ARTC and partners' reports on initiatives, agreements and partnerships	Quarterly
	Mental health and community support services are accessible to people in potentially impacted communities and are adequate to any increased demand resulting from the Project	▸ Number of people from potentially impacted communities accessing mental health service provided by ARTC-PHN partnership, over time ▸ Increased ARTC support for mental health/community support services if consultation with the PHNs or Queensland Health identifies the need to supplement existing services provided through the mental health partnership with PHNs ▸ Community donations and sponsorship-funded projects provide demonstrated benefits for local community members	▸ With the PHNs, ARTC will monitor mental health service uptake in potentially impacted communities ▸ ARTC or the construction contractor will consult with DCHDE in identifying any Project-related stress on community services and organisations in the Project region, to enable cooperative responses if required, e.g. increased funding support ▸ CRG, TRC and LVRC feedback on the benefits of community projects funded	Quarterly—with PHNs Annually—with DCHDF and CRG

Impact areas	Outcomes	Performance measures	Mechanisms	Monitoring frequency
	Vulnerable residents who could be affected by relocation, construction noise or dust are supported to adapt to changes	▸ Landholders and tenants in and adjacent to the EIS investigation corridor agree that they have access to timely Project information and an established Project contact ▸ All residents who would need to relocate from the disturbance footprint have access to support if required	▸ Community Relations Monitor ▸ CRG feedback ▸ With DCHDE, ARTC or the construction contractor monitor the adequacy of community support services to meet Project-related and cumulative demands on support services, and enable cooperative responses if required (e.g. funding support for affected services by the ARTC, the Project or the relevant Government agencies)	Six monthly
	Health and emergency services have sufficient information and cooperation with ARTC to anticipate and avoid impacts on service capacity	Queensland Health, QPS, QAS and QFES confirm that ARTC's advice on workforce ramp-up and cooperative arrangements are adequate to support planned responses, including measures to manage any changes to emergency vehicle response rates	▸ ARTC or construction contractor will consult regularly, to a schedule agreed with Queensland Health, QPS, QAS and QFES ▸ Requests for Council's feedback on community needs six monthly, during construction.	Quarterly, during the first two years of construction
	The wellbeing of residents in the Project region is supported by access to community programs and events that enable community participation	▸ Number, financial value and outcome measures for community partnerships and programs in potentially impacted communities ▸ Community donations and sponsorship-funded projects provide demonstrated benefits for local community members	▸ Monitoring of delivery and effectiveness of Community Wellbeing Plan ▸ Records of construction contractor partnerships with community and government organisations ▸ Record of ARTC sponsorships and donations ▸ Funded organisations' reports on outcomes of projects funded by the Project ▸ Requests for provision of LVRC and TRC feedback six monthly, during construction, on the results of initiatives to offset impacts on amenity, character and cohesion.	Six monthly

Impact areas	Outcomes	Performance measures	Mechanisms	Monitoring frequency
Local business and industry				
▸ Impacts on agricultural operations ▸ Potential deterrence of tourists ▸ Local and Indigenous business opportunities ▸ Draw of labour from local businesses	Impacts on businesses, including farms and grazing operations, are minimised through the implementation of measures outlined in the Project's Draft Outline EMP	Ongoing engagement with directly affected landholders and business owners supports effective mitigation and, where necessary, adaptive management of impacts on farms, businesses and grazing operations	Construction contractor will engage with landholders (to schedules agreed with landholders) to monitor the effectiveness of management measures relevant to on-property or road access impacts	Annually
	Businesses in the SIA study area benefit from supply opportunities	▸ Demonstrated alignment of major contracts and contractors to the AIPP goals and ARTC's Inland Rail Sustainable Procurement Policy ▸ Number and value of contracts with businesses located in the Toowoomba and Lockyer Valley LGAs as a percentage of all supply contracts for the Project ▸ Percentage of expenditure in the Project region compared to overall annual Project expenditure for construction	▸ Project's Local Regional and Indigenous Supplier register ▸ AIPP reports ▸ Requests for provision of Council feedback on local procurement outcomes	Annually
	The Project engages Indigenous businesses in its construction phase and supports Indigenous businesses to develop capacities for supply to the Project's operation and/or other construction projects	Number and value of contracts with Indigenous businesses in the Toowoomba and Lockyer Valley LGAs, as a percentage of all supply contracts for the Project	Construction contractor's supplier register and procurement records will identify involvement of Indigenous businesses to enable reporting	Quarterly
	Impacts on tourism visitation are minimised	Project impacts, e.g. roadworks or changes to scenic character, are mitigated in accordance with the Draft Outline EMP	▸ Establish baseline information on tourism visitation (Toowoomba LGA and Lockyer Valley LGA) ▸ Construction contractor engagement with Lockyer Valley Tourism Association and Tourism Darling Downs to monitor any decreases in visitation established as attributable to the Project, to enable corrective actions	Annually

Impact areas	Outcomes	Performance measures	Mechanisms	Monitoring frequency
	Any cumulative labour draw impacts on local business are identified to enable refinements to recruitment or training strategies	ARTC monitors labour draw from local business and initiates corrective actions to recruitment and training strategies if labour draw is identified as affecting local businesses	The Project will consult with LVRC, TRC, DESBT and Chambers of Commerce in the Project region regarding any pressures they identify on local labour/skills availability, to enable refinement of recruitment and training strategies if local labour shortages are identified	Six monthly

16.12 Impact assessment

This section summarises the results of the SIA's risk assessment, including:

- The potential pre-mitigation significance of social impacts and benefits
- ARTC's commitments and Project-specific mitigation (refer Section 16.11)
- The risk of residual impacts after mitigation measures are applied.

Table 16.23 provides the risk assessment ratings. For additional detail refer to Appendix Q: Social Impact Assessment, Section 9.

TABLE 16.23: RISK ASSESSMENT RATINGS

		Consequence Level				
Likelihood		**1 Minimal**	**2 Minor**	**3 Moderate**	**4 Major**	**5 Catastrophic**
A	Almost certain	A1	A2	A3	A4	A5
B	Likely	B1	B2	B3	B4	B5
C	Possible	C1	C2	C3	C4	C5
D	Unlikely	D1	D2	D3	D4	D5
E	Rare	E1	E2	E3	E4	E5

Significance of Social Impact Ratings

Low | Moderate | High | Extreme | Project benefits and opportunities

The likelihood of social impacts and opportunities occurring has been assessed with reference to the social baseline (e.g. findings regarding community vulnerabilities), EIS technical findings and stakeholder inputs. 'Consequence', as defined in Table 16.24 has been assessed based on how the social impact may be experienced by the relevant stakeholders, considering:

- The duration of impacts and benefits, being either short-term (during construction) or long-term (during operation)
- Sensitivity, including stakeholders' specific vulnerabilities and resilience to impacts
- The severity of potential effects on stakeholders and magnitude of potential benefits.

All benefits are considered as positive, with the relative value of the benefit (1–5) qualitatively assessed in relation to the number of people it would benefit, the potential to address inequities, such as high unemployment, among local and Indigenous people, and the duration of the benefit.

TABLE 16.24: CONSEQUENCE CRITERIA

Rating	Impact (-)	Benefit (+)
Minimal	Local, small-scale, easily reversible change on social characteristics, or the values of the community of interest, or communities can easily adapt or cope with change	Local small-scale opportunities emanating from the Project that the community can readily pursue and capitalise on
Minor	Short-term recoverable changes to social characteristics and values of the communities of interest, or the community has substantial capacity to adapt and cope with change	Short-term opportunities emanating from the Project
Moderate	Medium-term recoverable changes to social characteristics and values of the communities of interest, or the community has some capacity to adapt and cope with change	Medium-term opportunities emanating from the Project
Major	Long-term recoverable changes to social characteristics and values of the communities of interest, or the community has limited capacity to adapt and cope with change	Long-term opportunities emanating from the Project
Catastrophic	Irreversible changes to social characteristics and values of the communities of interest, or the community has no capacity to adapt and cope with change	N/A

Source: Adapted from Department State Development, Infrastructure and Planning (Qld.) Social impact assessment guideline July 2013 (DSDIP, 2013b).

Table 16.25 summarises:

- Potential social impacts and benefits as a result of the Project, including potentially affected stakeholders
- A preliminary evaluation of the significance of potential social impacts and benefits, after considering ARTC's existing commitments
- Project-specific management measures
- An evaluation of residual significance, in consideration of Project-specific measures.

Symbols used include:

- +, denoting positive impact
- -, denoting negative impact

Project phases are shown as:

- Construction (C), which includes pre-construction, and represents a period of up to five years
- Operation (O), which represents a period of up to 100 years
- C&O, denoting impacts that commence in construction and continue for the Project's life.

Preliminary (prelim) risk refers to the assessed level of significance to stakeholders and communities prior to application of mitigation strategies, and residual risk refers to the assessed levels of significance following mitigation.

Community adaptation to social impacts, such as changes to connectivity, community cohesion or amenity, may take some time. Evaluation of residual significance (after Project-specific mitigation measures are applied) has assumed that the Project-specific mitigation measures (as refined with stakeholders and in response to social monitoring data) will be effective in reducing the likelihood and consequence of impacts experienced.

TABLE 16.25: IMPACT ASSESSMENT SUMMARY

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Communities and stakeholders							
Indigenous connection to land	The Project will add additional large structures to creeks and valleys, and additional severance to the landscape, with incremental increased impacts of infrastructure on Indigenous people's connection to cultural landscapes	C&O	-	Yuggera Ugarapul People and Western Wakka Wakka People	A4	Cultural awareness training for Project personnel, including respect for cultural landscape features and cultural heritage sites. Indigenous art programs initiated in cooperation with Traditional Owners. Management of impacts on cultural heritage in accordance with the CHMP (CLH017009) or in accordance with agreements with Traditional Owners, as relevant.	A3
Land acquisition impacts	Some landholders have endured an extended period of uncertainty about potential Project impacts, including potential acquisitions and impacts on amenity, which has been stressful.	C	-	Residents and businesses in and near the Project disturbance footprint	A3	Continuing engagement with directly affected landholders Funding for mental health and community support services that support local residents	A2
	The Project would require acquisition of volumetric tenure within 32 freehold lots in Gowrie Junction, Ballard, Mount Kynoch and Cranley, including residential properties, grazing properties and land owned by businesses, a property owned by Teen Care Challenge Inc and a reserve currently used by the Toowoomba Horse Riding for the Disabled Association, as well as land owned by DTMR (Toowoomba Bypass), and land owned by TRC (Toowoomba Waste Management Centre). This would not affect land use or amenity but landholders may have concerns about the potential for the tunnel to affect their land (e.g. through vibration or subsidence).	C	-	Landholders above the Toowoomba Range Tunnel buffer zone of 50 m	A3	Early advice and sufficient detail about volumetric tenure, depth of cover, tunnelling works and potential for ground-borne noise or vibration, and to allay concerns	A2

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Land acquisition impacts [continued]	Surface land acquisition would affect approximately 85 freehold lots, including 45 freehold lots within the Gowrie to Grandchester future state transport corridor and 40 freehold lots outside the Gowrie to Grandchester future state transport corridor (including in Charlton, Gowrie Junction, Cranley, Ballard, Lockyer, Withcott, Postmans Ridge, Helidon and Helidon Spa). This would result in inconvenience to landholders while they are adjusting to the changes resulting from land acquisition and may cause stress and anxiety to some landholders.	C&O	-	Directly affected landholders	A3	Compensation for land acquisition, in accordance with compulsory acquisition process requirements. Provide information and assistance to landholders to reduce uncertainties and support their adaptation to changes, including referral to support services, if required. Ongoing engagement with directly affected landholders to monitor the effectiveness of mitigation measures.	A2
	To date, two property owners have expressed a desire for full acquisition of their properties. This number may increase over time and has been estimated for the purposes of the SIA at up to 20 households. A small number of households would need to relocate, which may lead to distress, disruption to lifestyles and farming livelihoods, and disturbance to social links.	C	-	Directly affected landholders—full acquisitions	A3	Compensation for land acquisition, in accordance with compulsory acquisition process requirements, including assistance with relocation expenses. Community investments in services and networks that can support residents to adapt or relocate. ARTC's mental health partnership with PHN.	A2
Amenity	Large numbers of sensitive receptors would experience construction noise as works move along the Project corridor. This would be intrusive on the amenity of homes, and outdoor spaces, and may affect residents' quality of life during construction. Some affected community members are already fatigued by the Toowoomba Bypass construction process.	C	-	Adjacent landholders in Gowrie Junction, Helidon, Helidon Spa, Postmans Ridge and Withcott	A4	Detailed strategies outlined in the Draft Outline EMP to minimise noise and dust impacts. Engagement with residents and business owners within 1 km of the Project. Timely and accessible information about the construction process, schedule, impacts and mitigation. Complaints process. Avoid noisy work during non-standard hours wherever possible.	A3

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Amenity [continued]	Ground-borne noise may exceed noise criteria while tunnelling occurs within approximately 390 m of homes in Gowrie Junction, Ballard, Cranley and Mt Kynoch, with exceedances of the most stringent night-time criterion (35 dB(A) LASMax) at up to 72 residential receptors. The extent and duration of noise exceedances would vary depending on dwelling construction and their proximity to the tunnel. Ground-borne noise may affect amenity and is likely to result in inconvenience and a temporary disruption to the affected households' lifestyles.	C	-	Residents and landholders within approximately 390 m of the tunnel	B3	Mitigation measures selected in consultation with affected residents during the detailed design, pre-construction and construction phase, which may include temporary relocation of residents. Noting that the tunnels construction will be up to three years and most of the predicted impacts are located in the Mount Kynoch area where works are likely to occur in 2025.	B2
	Construction of the tunnel's western tunnel portal may affect the amenity of nearby dwellings through noise, vibration or dust	C	-	Residents and landholders within approximately 500 m of the portal	B3	Noise and dust mitigation measures within the Draft Outline EMP. Consultation with residents near the western tunnel portal during the detailed design phase to identify mitigation for impacts on amenity.	B2
	Dust from corridor construction, earthworks or bridge construction may cause a nuisance to homes, business and facilities as works move along the proposed corridor	C	-	Residents within the EIS investigation corridor	C3	Detailed dust management strategies within the Draft Outline EMP. Dust monitoring for organic farm. Consultation with landholders adjacent to the temporary disturbance footprint to identify sensitivities and potential mitigation for consideration in CEMP. Dust monitoring if reasonably required by crop farms or homeowners.	C2

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Amenity [continued]	Laydown areas, access tracks and the construction of bridges may affect the amenity of nearby dwellings through a combination of noise, dust, temporary effects on rural character of the roads and/or increased traffic, for extended periods.	C	-	Nearby landholders and residents	A3	Consultation with landholders within 1,000 m of laydown and bridge/viaduct construction areas, to identify particular sensitivities and mitigation for consideration in the EMP. Property-specific agreements with owners of land where partial acquisitions are required. Consideration of respite arrangements (e.g. suspension of noisy works or offering alterative accommodation) during noise-intensive works, to be addressed in the CEMP.	A2
	Without mitigation, operational noise levels are predicted to be above ARTC's noise assessment criteria at 31 sensitive receptors for railway operations, at Project opening 2027. The number of exceedances as a result of the redevelopment activities is just under 50% higher (20) to the number of exceedances as a result of the new rail corridor (12), including 13 receptors on Paulsens Road, Gowrie Junction, 6 receptors near the Gowrie Junction Road and Morris Road interface, Gowrie Junction, 2 receptors on Jones Road, Withcott, 2 receptors on Gittins Road, Postmans Ridge, 1 receptor on Howmans Road and 4 receptors on Squires Road, Lockyer, 4 receptors on Ashlands Drive, Helidon Spa and 1 receptor on Helidon Dip Road, Helidon. An additional, sensitive receptor on Daniel Street, Gowrie Junction will be impacted at the Design Year 2040. Noise from the Project's operation may be experienced by nearby residents as intrusive and stressful, with potential to affect quality of life (further discussed below under health impacts).	O	-	Affected residents near proposed rail corridor	B4	Mitigation measures provided in Appendix P: Operational Railway Noise and Vibration, including monitoring during operation to ensure noise exceedances are avoided. Consult with adjacent landholders to confirm mitigation measures (e.g. architectural treatments). Complaints process.	C2
	Ground-borne noise levels resulting from the movement of trains through the Toowoomba Range Tunnel may trigger an investigation of feasible and reasonable mitigation options for one receptor.	O	-	Residents above tunnel	B3	Acquisition of property within disturbance footprint	B2

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Amenity [continued]	The proposed realignment of Morris Road and Gowrie Junction Road may result in exceedances of the road traffic noise criteria.	O	-	Adjacent landholders and residents	B3	Consultation with adjacent landholders to identify particular sensitivities and mitigation measures for consideration in detailed design and CEMP	B2
Local character and identity/sense of place	Clearing of vegetation, activities at laydown areas and increased traffic and noise may collectively impact on local character, resulting in sadness about the changes, though temporary. Flashbutt welding laydown areas for the B2G project and the Project may detract from the scenic character of the Draper Road/Paulsens Road area in Gowrie Junction while track laying is occurring.	C	-	Residents, landholders and visitors	B3	ARTC will work with the LVRC, TRC and community groups in impacted communities to develop projects to mitigate temporary impacts on character, e.g. placemaking initiatives	B2
	In some areas, where elevated structures or embankments are required, the Project would impact on the qualities that contribute to the scenic character of natural, rural and rural residential areas, which is likely to lead to distress about the loss of views or local character. There is also potential for cumulative impacts associated with the operation of other major projects in the Project region.	C&O	-	Residents, landholders	A4	Measures identified in Appendix H: Landscape and Visual Impact Assessment, e.g. tree screening	A3
	Residents with views to the western tunnel portal from Gowrie Mountain and to the eastern tunnel portal from Blue Mountain Heights may experience a change to the visual amenity of the natural landscape in this area	C&O	-	Residents in the Gowrie Junction and Blue Mountain Heights	B3	Communication with residents to whom tunnel buildings would be visible to explain purpose and operation	B2
	The Baillie Henderson Hospital site and residents with a view to the intermediate ventilation shaft building will experience a small change to the semi-industrial visual character of this area (rated by the Project's LVIA as low).	O	-	Queensland Health Cranley residents	B2	Consultation with Queensland Health regarding any design measures that could lessen visual impact	B1
	The cumulative impacts of B2G, G2H and H2C Inland Rail projects may include changes to social character, amenity and perceptions of safety in the vicinity of Gowrie Junction, Kingsthorpe, Helidon, Helidon Spa and Postmans Ridge while construction works occur.	C	-	Gowrie Junction, Kingsthorpe, Helidon, Helidon Spa and Postmans Ridge residents TRC LVRC	B3	Management of Inland Rail projects in accordance with approval conditions. Implementation of strategies to reduce impacts (e.g. landscape design strategy) detailed in Appendix H: Landscape and Visual Impact Assessment .	B2

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Community cohesion	The relocation of up to an estimated 20 households may affect neighbourhood cohesion but would not be significant at the regional level. Impacts on local connectivity during construction or community conflict about the Project could also affect cohesion.	C	-	Residents and community organisations, LVRC, TRC	C3	Social investment in community projects that strengthen cohesion and community development, to be identified in the Project's Community Wellbeing Plan	C2
Disadvantage	There is potential for construction noise and operational noise to affect the amenity of properties in areas where residents have low levels of social resources to help them cope with change, e.g. Lockyer, Helidon or Murphys Creek, and the northern suburbs of Toowoomba. Residents who have been affected by drought and/or floods, or by the impact of road works for the Toowoomba Bypass, may feel particularly vulnerable to impacts such as noise and traffic disruptions.	C	-	Residents near EIS investigation corridor	B3	Facilitation of support for people who will need to relocate. Employment of engagement staff with local knowledge to work with directly affected landholders and other residents near the Project. Consideration of the needs of residents in disadvantaged and flood-traumatised communities in communication strategies. Funding for community support services to assist residents who require community support, if indicated by ongoing engagement with DCHDE.	B2
	Farming paddocks and infrastructure may be affected by land acquisition, with potential to affect farm operations and, therefore, their owners' livelihoods	C&O	-	Directly affected landholders—farming and agriculture	B3	Compensation payable under AL Act provisions, including assistance with reparation of property infrastructure and make-good arrangements for any impacts on water infrastructure	B2
	At the regional level, a positive impact would result with construction employment sustaining the income of personnel and their families	C	+	Project personnel and families	B2	Requirement for construction contractor to involve local and regional residents in the construction workforce.	B3
	The Project is likely to support the development of future industries associated within regional hubs, such as the Toowoomba Enterprise Hub, and may also act as a catalyst for development of rail-dependent industries and support industries associated with transport, freight handling, warehousing and logistics. This will increase long-term employment opportunities in the Project region and may reduce unemployment rates.	O	+	Project region residents, businesses, LVRC, TRC	B3	None required	B3

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Connectivity and travel behaviour	Traffic flows on local roads would be impacted by bridge construction, construction traffic and road realignments, impacting on school bus services and people travelling by motor vehicle	C	-	Residents, businesses service providers and visitors. QPS, QFES, QAS, LVRC, TRC, DTMR.	A3	Regular Project updates that forecast road works, road realignments and closures, and explain alternative routes. Community education strategy focussed on safety during the construction period. Travel demand management campaign.	A2
	Pedestrian and cyclist access between Gowrie and Gowrie Junction may be impeded during construction of the Gowrie Junction Road bridge	C	-	Residents, businesses service providers, QPS, QFES, QAS	B3	Consultation with TRC as part of detailed design to optimise pedestrian and cyclist connectivity near Gowrie Junction Road bridge	B2
	Property accesses will be interrupted and the closure of private roads may affect connectivity within properties. Access to the road network would be maintained for all affected properties.	C	-	Residents, businesses (including service providers), landholders and visitors	A3	Alternative property accesses provided where required. Closure and reconfiguration of roads on private properties agreed as part of detailed design phase.	A2
	There is potential for the coincidence of Inland Rail's B2G, G2H and H2C project works to affect travel times and cause driver frustration in the Kingsthorpe and Helidon areas, including increases in travel times to and from the Helidon State School. There is also potential for cumulative increases in traffic related to several major projects in the region to impact on traffic volumes and cause concerns about traffic safety.	C	-	Residents, businesses service providers and visitors. QPS, QFES, QAS, LVRC, TRC, DTMR.	C3	Regular Project updates that forecast road works, road realignments and closures, and explain alternative routes. Consideration of the scheduling of Project works in the TMP to minimise the potential for cumulative impacts on travel times to and from the Helidon State School.	C2
	If rail traffic is diverted from the QR West Moreton system rail corridor to the Project, a decrease in congestion related to level in Toowoomba crossings may occur	O	+	Toowoomba residents, businesses and motorists, TRC	C2	None required	C2
Population change	Acquisition of properties may displace up to an estimated 20 households, resulting in a small population loss at the local level but with no appreciable differences to housing access or cost	C	-	Residents of properties to be acquired	B1	None required	B1

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Workforce							
Construction employment	The construction workforce would peak at approximately 596 personnel in Year 2 and, over the full construction period, an average of approximately 264 personnel would be employed. This will benefit construction industry personnel and unemployed people in the Project region and adjacent LGAs.	C	+	Project region residents seeking employment and their families	A2	Locally targeted training and recruitment strategies. Requirement for contractors to target and report on employment of people in the Project region.	A3
Training and development	The construction phase represents an important source of training and career development for young people and Indigenous people in the Project region.	C	+	Local residents experiencing unemployment and their families	B3	Inland Rail Skills Academy. Partnerships to identify training pathways and programs for local people. Indigenous training partnerships and employment pathways. Comprehensive training strategies to increase workforce capacity in the Project region.	B4
Operational employment	A workforce of approximately 15 to 20 personnel is expected for the Project's operation, with potential for Project region residents to obtain long-term well-paid employment.	O	+	Project region residents seeking employment and their families	B1	Inland Rail Skills Academy. Partnerships to implement training pathways and programs for local people.	B2
	As part of the Inland Rail Program, the Project would facilitate complementary private investments, which may contribute to long-term employment opportunities in the Project region	O	+	Residents	C2	Business capacity building and training strategies	C3
Skills and labour availability	Project demands may result in shortages in specific trades (e.g. welding) or skilled occupations (e.g. earthworks), particularly in the context of cumulative impacts of Inland Rail and other major construction projects, affecting other businesses' access to trades.	C	-	Local residents and businesses	B3	Partnerships to implement training pathways and programs for local people. Local business capacity building programs.	B2
Employment in other industries	There is potential for changes to the road network or changes to scenic character during construction, to affect tourists experience and deter visitation.	C	-	Various businesses and service providers	B3	Place-making strategies agreed with TRC or LVRC as relevant. Support for tourism marketing. Communication with businesses in the tourism sector.	B2

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Employment in other industries [continued]	There is potential for coincidental construction of multiple infrastructure projects to affect the availability of construction labour or skilled trades, and/or cause labour to be drawn from other industries.	C	-	Residents, various businesses and service providers	C3	Skills development strategies and partnerships as part of the Inland Rail Skills Academy	C2
Workforce impacts on community values	Workforce behaviour may contribute to concerns about privacy or safety, or to amenity impacts (e.g. noise)	C	-	Residents near the Project disturbance footprint and in potentially impacted communities	C3	Workforce Code of Conduct, including travel behaviour	C2
Housing and accommodation							
Settlement pattern	The Project may change the settlement pattern in the areas designated for rural living at Helidon Spa and Postmans Ridge Road where land is within 250 m of the alignment	C&O	-	LVRC, ICC	B2	Provide information that could assist Councils with the development of planning controls that reduce residential exposure to rail noise	B1
Housing demand	If cumulative or specialist labour force demands result in a requirement for construction personnel from outside a daily driving distance, a small number of personnel may require rental housing. Any demand is likely to build over a two-year period, prior to the workforce peak. Depending on the availability of rental housing, a requirement for 30–60 rental homes (at 5–10 per cent of the peak workforce) could compete with local households for housing and/or cause an increase in rental housing costs. Cumulative housing impacts are possible if the construction of several projects coincides.	C	-	Residents and service providers	C4	AMPs required of Inland Rail contractors, to include monitoring of personnel uptake of housing in nearby communities and strategies to minimise impacts on local housing access. Local training and recruitment strategies. Business capacity development.	C3
Property values	The potential for amenity impacts during Project construction or operation to affect property values is a considerable source of stress and anxiety for some residents near the Project. Changes in property values are dependent on a range of factors and the Project's potential to change property values cannot be determined.	C&O	-	Landholders in and near the EIS Investigation Corridor	A4	Noise mitigation strategies (Appendix O: Construction Noise and Appendix P: Operational Railway Noise and Vibration). Consideration of refinements during detailed design to reduce visual amenity impacts. Clear information about approval conditions, and effective delivery of mitigation, to reduce the likelihood of impacts on property values.	B3

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Short-term accommodation	Some demand for short-term accommodation is anticipated and will be a benefit for accommodation providers. Displacement of tourists or other short-term accommodation users is not anticipated as the result of Project personnel's requirements but accommodation demands will be monitored.	C	Neutral	Tourism accommodation providers, Lockyer Valley Tourism Association, Tourism Darling Downs, Chambers of Commerce	C2	AMP required of the construction contractor, to include monitoring personnel uptake of short-term accommodation in consultation with the Lockyer Valley Tourism Association and Tourism Darling Downs	C1
Health and wellbeing							
Air quality	Air quality assessment (Appendix K: Air Quality) indicates that the Project's operation poses a low risk of human health impacts and a low risk of dust nuisance after recommended mitigation measures are implemented	O	-	Residents, Queensland Health	D1	Air quality mitigation and management measures as detailed in Appendix K: Air Quality	E1
	Air quality assessment indicates that tunnel venting would worsen air quality for one sensitive receptor; however, this property is within the EIS investigation corridor and would be acquired. Emissions vented from the tunnel may be visible and be a source of anxiety for residents.	O	-	Residents in nearby communities and rural localities	C3	Explanation of results of air quality modelling and management measures as part of Project communication strategies targeting potentially impacted communities	C2
Noise	There are up to approximately 35 individual receptors where the predicted noise levels were above the maximum night-time trigger levels with the potential to cause sleep disturbance impacts. If not mitigated, operational rail noise could impact on the health and wellbeing of households, where noise would exceed Project criteria. Rail noise within regulatory limits may also cause stress.	O	-	Affected residents near Project disturbance footprint	B4	Consult with adjacent landholders to confirm mitigation, e.g. architectural treatments, supplementation of fencing, acquisition of impacted properties or relocation of homes within the property to achieve noise criteria. Information to support Council or State Government review of current land use planning controls will be provided. Complaints mechanism.	C3
Flooding	Hydrological assessment predicted that the Project would result in negligible increases in flooding levels; however, anxiety about the Project's potential impacts on flood patterns may affect feelings of security	O	-	Residents in nearby communities and rural localities	B3	Consultation during detailed design to explain hydrology assessment results and address any localised concerns	B2

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Impacts on schools, community and recreational facilities	If unmitigated, construction noise exceedances at the Gowrie State School could affect the school's learning environment. At the Project commencement (2027), rail noise exceedances may affect Gowrie State School.	C&O	-	Gowrie State School community and Department of Education	B3	Engagement with Department of Education to agree mitigation to avoid, minimise or offset impacts on Gowrie State School, in accordance with the Department's Learning Environment Policy and Guidelines, for construction and operation. Noise monitoring to ensure mitigation measures are effective.	C2
	There would be disruption to the Gowrie State School bus route, requiring a short detour, and potential for construction traffic to operate on school bus routes throughout the Project region	C	-	Residents, school bus services and school students (walking/cycling) and school employees	B3	Consultation with the Department of Education, DTMR, local schools and school bus operators to confirm measures for inclusion in the TMP	B2
	There is potential for construction noise exceedances at Postmans Ridge Pioneers Memorial Hall to affect the amenity of users	C	-	Postmans Ridge Pioneers Memorial Hall Inc. owners and users	C3	Engagement with Postmans Ridge Pioneers Memorial Hall Inc to develop mitigation to avoid, minimise or offset impacts on the amenity of the hall	C2
	Noise may be audible (albeit not exceeding noise criteria) at community facilities near the Project, e.g. the Gowrie Junction Community Hall, Harlaxton Community Hall, Harlaxton Neighbourhood Centre and/or the Gateway Church in Harlaxton, which are within 1 km of the Project	C	-	Community facility managers, facility users, TRC	C3	Consultation with managers of facilities within 1 km of the Project alignment to identify and, where practicable, address any issues affecting facility use. Ongoing Project updates to community facilities within 2 km of the Project.	C2
	The Bicentennial National Trail intersects the Project on Gittins Road and construction works could affect the connectivity of this nationally significant trail. There is also potential for cumulative effects (with H2C) on access to the Helidon to Ravensbourne Trail near Helidon.	C	-	Bicentennial National Trail Ltd and Trail users	C3	Consultation with the Bicentennial National Trail Ltd Board and LVRC to identify and implement design refinements or work-arounds to preserve the connectivity of the trails during construction	C2
	Toowoomba Horse Riding for the Disabled Association facility is located adjacent to the tunnel and may be affected by ground-borne noise while tunnelling works pass by, scaring horses or riders.	C	-	THRDA and members	C3	Advice to the THRDA regarding potential for ground-borne noise when the TBM is 500 m ahead of the facility's boundary	C2

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Impacts on schools, community and recreational facilities [continued]	The Project's construction would require temporary use of land during construction in the Toowoomba and Lockyer Valley Kart Club at Helidon Spa as well as permanent acquisition of a small area of the facility (not affecting its operations). Noise and dust may also occur as a result of construction works; however, the Kart Club facility generates noise and dust itself.	C	-	Toowoomba and Lockyer Valley Kart Club and facility users	A2	Compensation for use of land negotiated with the Kart Club. Consultation with the Club to identify and implement mitigation of construction noise (if required), and to monitor noise and dust to enable corrective action if required.	A1
Health facilities and services	Baillie Henderson Hospital, the preferred site for a new Toowoomba hospital, could experience noise exceedances during construction, if mitigation measures are not implemented and effective. Noise is not expected to affect sensitive facilities in the hospital campus.	C	-	Queensland Health— Darling Downs HHS, hospital patients and staff	C3	Engagement with DDHHS to identify and implement noise mitigation measures to avoid impacts on the hospital's environment and the health of patients or staff. Noise monitoring during construction.	C2
	During operations, views from Baillie Henderson Hospital would include the intermediate ventilation shaft building, which may cause concerns regarding air quality or the quality of scenic vistas from the hospital.	O	-	Queensland Health—Darling Downs HHS	C3	Engagement with DDHHS to identify and implement mitigation measures if needed to reduce visibility of ventilation shaft building from the hospital	C2
	Construction personnel may require occasional access to local health services for treatment of injuries.	C	-	Queensland Health DD and WM HHS, local health services	C3	Prior advice and updates to DDHHS and WMHHS on workforce ramp-up and the nature of injuries that may be experienced by rail construction personnel	C2
	Increased stress and anxiety may require an increase in community support and mental health services	C	-	Residents, community and government agencies	B3	Delivery of ARTC's mental health partnership program in the Project region. Monitoring of service capacity to meet Project-related demand. Funding for community organisations to provide emotional and practical support to affected residents.	B2

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Police and emergency services	Accessibility for emergency services will be delayed at road crossing and road re-alignment construction sites, and when encountering oversized vehicles on roads, which may increase emergency response times.	C	-	QPS, QAS, QFES residents and landholders	B4	Draft Outline EMP measures addressing traffic management, hazard and risk management, and safety design standards. Ongoing engagement with QPS, QAS, QFES and Queensland Health to develop joint arrangements for responses to Project-related demands on services. Development of communication protocols supporting Project responses (such as provision of alternative access across the rail corridor) and enabling services to plan around interruptions.	B3
	The Project would increase demands on emergency service providers during construction through a combination of workplace or traffic accidents, remoteness of some worksites, and potentially, theft from construction sites and Project-related disputes. There is also potential for cumulative impacts on police and emergency services in relation to Inland Rail projects and other major construction projects.	C	-	QPS, QAS, QFES	A3	Early and close cooperation with QPS to develop cooperative arrangements. Regular liaison to monitor and address issues affecting community or traffic safety. Develop cooperation protocols with emergency services for flood events.	A2
	During operations, any accidents associated with derailments, in-tunnel incidents, such as fire, rail load loss, hazardous goods spills or other major incidents, would place significant demands on health and emergency services resources	O	-	QPS, QAS, QFES, State Emergency Service	C5	Consultation with QPS, QAS and QFES on Emergency Response Plans. Cooperation with QPS, QAS and QFES to agree emergency response protocols.	C3

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Mental health	The Project may affect local residents' mental health through stress and anxiety relating to property acquisitions, fears about changes to property values, noise exposure, fears about the Project's potential to exacerbate flooding, and/or visual impacts impacting on sense of place	C&O	-	Residents and business owners in potentially impacted rural residential areas and rural and agricultural landholders	B3	Ensure community members have access to information and engagement mechanisms that support their awareness of Project impacts and mitigation. Transparent and accessible information about the property acquisition process and Project impacts. Ongoing engagement with landholders who are adjacent to Project disturbance footprint throughout construction. Mental health partnership.	C3
	The Project would provide construction employment opportunities for Project region residents, supporting households' wellbeing. During operation, personnel may include Project region residents with access to well-paid long-term employment.	C&O	+	Residents, especially jobseekers	A2	Inland Rail Skills Academy—training and development pathway programs	A3
	The Project would increase the opportunity for rail-based suicide, resulting in family and community trauma. This would be heightened in communities where trauma levels are high (such as in communities affected by major floods).	O	-	Residents who are vulnerable to mental health issues, emergency responders, Queensland Health DD HHS and WM HHS, local health services	C5	Restricting access to the rail line. Mental health partnership program, including suicide prevention service, provided in the Project region during the first five years of operation and, if indicated by monitoring, for the longer term	D5
Access to natural resources (water)	Effects on stakeholders' water access are expected to include direct impacts on groundwater bores within the EIS investigation corridor and indirect (drawdown) impacts on bores. The loss of bores or groundwater drawdown is likely to lead to short-term disruption to households and farming/grazing businesses while water access is being restored.	C&O	-	Landholders with affected bores	A2	Engage with all relevant water users to determine appropriate mitigation, e.g. replacement of water supply/make-good arrangements. Groundwater monitoring strategy to provide ongoing assessment of potential impacts on bores.	A1

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Community safety	The location of work sites and laydown areas near private homes may engender anxiety about perceived personal and property safety. There may also be concerns about the cumulative impacts of several major project workforces on feelings of safety.	C	-	Residents near the alignment and laydown areas	C3	Identification of local values incorporated in ARTC's workforce Code of Conduct for all personnel. ARTC agreements with residents for property access are articulated in requirements for construction contractor.	C2
Traffic safety	Large and over-size vehicles, laydown and bridge construction sites and increased traffic may increase the risk of road accidents and demands on emergency services	C	-	Road users. QPS, QFES, QAS, LVRC, TRC, DTMR.	C4	TMP. Rail, pedestrian, equine and traffic safety education campaign targeting school, kindergarten and childcare centre communities.	C3
	Excess spoil material will be transported using the road network and may increase traffic volumes on key routes with potential to affect Levels of Service or traffic safety. An accurate assessment of traffic and transport impacts as a result of spoil transport will not be possible until the detailed design phase.	C	-	Road users. QPS, QFES, QAS, LVRC, TRC, DTMR.	C3	TMP considering spoil management, which considers the potential for impacts on other road users. Consistent approach to spoil management and transport between adjoining Inland Rail projects.	C2
Hazards	Incidents related to dangerous goods transport, trespass, pedestrian and community safety, interface with live trains, derailment and impediments to emergency access are possible and could affect community safety	C&O	-	Residents, motorists, QPS, QFES, QAS	C5	Hazard mitigation measures have been developed for the Project and will be applied throughout its lifecycle	D5
Business and industry							
Agricultural businesses	The Project will result in the loss of agricultural land, impacts on property infrastructure (such as fences and private roads) and potential to interrupt stock and product movements. There is also potential for destruction or dewatering of water bores, which may affect property management while access to bore water is being restored. Property-specific measures agreed with landholders, and compensation under the AL Act, are anticipated to minimise the longer-term impacts of rail operation on agricultural properties.	C&O	-	Agricultural producers, particularly small farms	A3	Consultation with landholders to develop property-specific interface arrangements and compensation in accordance with the AL Act and where applicable the Land Act. Landholder liaison staff with local knowledge. Make-good arrangements, where required, for loss or dewatering of bores.	A2

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Agricultural businesses [continued]	Increases in traffic due to construction or workforce vehicles and roadworks are likely to cause temporary delays to farm transport vehicles and transportation businesses, which could impact on travel times to markets or transport schedules	C	-	Agricultural producers. Transportation companies.	B3	Work with farm owners and business operators to reduce the potential for impacts on property access to road network. Regular Project updates, which forecast road works, road realignments and closures, and explain alternative routes.	C2
	The Project will traverse Withcott Seedlings, with small areas of land to be acquired. Construction activities may disrupt the operations but the Project's horizontal alignment preserves the farm's connectivity and water access during operations.	C	-	Withcott Seedling Farm, dependent businesses	B2	Detailed design to preserve the Project design's avoidance of major impacts. Property-specific agreement and compensation arrangements (including arrangement to maintain access under the viaduct).	B1
	The Project could address current issues surrounding the quality and capacity of transport networks to meet current and future requirements (e.g. competition for access to rail freight) and improve access to and from regional markets by providing connectivity opportunities between the existing QR West Moreton System rail corridor and ARTC interstate lines	O	+	Agricultural producers, farms. Transportation companies.	B3	None required	B3
Impacts on other businesses	Businesses whose properties may be affected by noise, traffic/access disruptions or road closures include horticultural businesses in Charlton, the Gowrie One Stop Convenience centre, Gowrie Landscape Sales, a market garden and beef stock/bird feed manufacturers in Cranley and a road transport business at Helidon.	C	-	Businesses within the EIS investigation corridor	A3	Consultation with businesses within the EIS investigation corridor to identify measures for inclusion in the CEMP, to mitigate impacts on their access or amenity	A2

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Impacts on tourism businesses	There is potential for road works, bridge construction and the visual impact of laydown areas during construction to affect tourists' general experience of the area or affect travel times, affecting tourism visitation	C	-	Tourism business owners and staff, tourists	B3	Measures identified in Appendix H: Landscape and Visual Impact Assessment . Consult with tourism associations and Councils to develop mitigation measures, e.g. a marketing strategy and monitoring of visitation levels. Consideration of the potential impacts of roadworks and construction noise on tourism visitation in the CEMP.	B2
	The nature of the change to scenic amenity will be significant, where elevated structures and the rail line's operation are visible. The potential impact of changes to scenic amenity on tourist visitation is uncertain as some people will find interest in the structures and some will see them as detracting from scenic amenity.	O	-	Tourism business owners and staff, tourists, LVRC, TRC	A3	Measures identified in Appendix H: Landscape and Visual Impact Assessment work with the Lockyer Valley Tourism Association, LVRC, TRC and Toowoomba Chamber of Commerce to support tourism promotion and marketing campaigns	A2
Impacts on labour access	There is potential for cumulative demands for labour to draw tradespeople and professional staff from within local communities, affecting the availability of tradespeople and other business staff. As most small farms are owner-run, with the assistance of casual and seasonal labour, significant impacts on farm labour are not expected.	C	-	Businesses and residents	C3	Inland Rail Skills Academy. Local training and employment pathway programs, including training and skills development of relevance to the agricultural industry. Business capacity-building strategies. Require construction contractor to use businesses in impacted communities in their supply chain.	C2
Local supply opportunities	The Project will provide opportunities for local and regional businesses to participate in its supply chain. It is also likely that businesses would benefit from increased trade from the construction workforce.	C	+	Local businesses	A2	Inland Rail Sustainable Procurement Policy. AIP.	A3
	The operational phase would offer service and supply contracts over the long term and could involve businesses in the Project region	O	+		B3	Inland Rail Sustainable Procurement Policy. AIP.	B4

Impact area	Impact description	Phase	Nature (+/-/0)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Local supply opportunities [continued]	The Project facilitates the growth of industries associated with logistics and freight terminal hubs, supporting the establishment of businesses that will be a source of long-term employment for Project region residents	O	+	Businesses in the Project region, job seekers	B3	None required	B3
	During operations, Inland Rail will better connect the Darling Downs and SEQ regions, as well as connecting to domestic and international markets, and will support associated future industries	O	+	Farms and businesses in the Project region	B3	None required	B3

16.13 Cumulative impacts

Cumulative impacts are those impacts that result from the successive, incremental and/or combined effects of an action, project or activity when added to other existing, planned and or reasonably anticipated future ones. The SIA has considered the spatial distribution (where projects would be located in relation to the Project and nearby communities) and temporal distribution (the time period in which each project may have an effect on the social environment).

Projects that may contribute to cumulative social impacts and estimations of their construction timeframes are shown in Table 16.26 up until Project year 10, as known. This includes the potential cumulative impacts of construction of major projects in the Project region that are being assessed under the SDPWO Act, as identified at the time the EIS ToR were published (i.e. Inland Rail's B2G, H2C and C2K projects and New Acland Coal Mine Stage 3), and other projects deemed to be of local significance. Locally significant projects include:

- Toowoomba Medicinal Cannabis Production Facility, which is proposed for a site near the Toowoomba Wellcamp Airport and has been designated as a Major Project under Commonwealth legislation. This designation expires in 2022, so it has been assumed that construction may begin in 2023 and that the planned three stages of development would be completed over three years, requiring a peak construction workforce of 800 personnel (Australian Government Business.gov.au, 2020)
- Proposed redevelopment of the Baillie Henderson Hospital site as a new Toowoomba Hospital. Queensland Health does not have an assessment of workforce numbers but has advised that coincidence of the new hospital's construction with the Project's construction is unlikely
- Toowoomba Regional Council Waste Management Facility (timing and workforce numbers are uncertain, with commencement of construction estimated below for 2023)
- Bromelton State Development Area (SDA) for which the number of construction jobs is unknown
- GWIZ, which is expected to have a very small construction workforce
- Toowoomba Enterprise Hub projects, including Wellcamp Business Park and Witmack Industry Park and Charlton Logistics Park (forecast to have a combined construction workforce of up to 50 people), and InterLinkSQ — Global Logistics Centre and Industrial Park, for which construction workforce numbers are unknown.

An application has also been made to TRC for development approval for a residential development on land owned by Defence Housing Australia at Mount Lofty with the application rejected. An EPBC Referral was also lodged and is still applicable for the project. The workforce numbers, the likelihood of the project progressing, and the construction timeframe are unknown.

Projects such as the Toowoomba Enterprise Hub projects and Bromelton SDA may require large construction workforces; however, there is no information available to date regarding their schedule or workforce numbers, so impacts associated with these projects have not been considered with respect to cumulative workforce requirements. Smaller projects, such as the Gatton West Industrial Zone (GWIZ), are not expected to have significant cumulative impacts, with the exception of facilitating long-term employment opportunities.

The potential for impacts on labour availability due to construction of rail projects in SEQ has also been considered, including:

- Inland Rail's B2G, H2C, C2K and Kagaru to Acacia Ridge–Bromelton (K2ARB) projects
- Cross River Rail (CRR), which commenced construction in late 2019 and is expected to require an estimated average of 1,547 construction personnel and up to 2,200 construction personnel at peak
- Brisbane Metro, with detailed design and construction of infrastructure anticipated for 2019–2022
- Gold Coast Light Rail Stage 3A, expected to begin construction in 2021.

Refer to Appendix Q: Social Impact Assessment, Section 7.6 for assumptions and limitations on workforce data.

TABLE 16.26: CUMULATIVE PROJECT SET—SOCIAL IMPACTS AND BENEFITS

Project	Construction timeframe	Peak workforce (construction)	Estimated potential overlap by Project Year						
			1	2	3	4	5	6	7–10
			2022	2023	2024	2025	2026	2027	2028–2031
Inland Rail projects									
G2H	2022–2027	596	Construction						Operations
B2G	2021–2026	950	Construction					Operations	
H2C	2021–2026	410	Construction					Operations	
C2K	2021–2026	620	Construction					Operations	
K2ARB	2023–2025	100		Construction				Operations	
Toowoomba Enterprise Hub projects									
InterLinkSQ—Global Logistics Centre and Industrial Park	2017–2037	Unknown	Construction and operation						
Wellcamp Business Park	Ongoing	20	Construction and operation						
Witmack Industry Park and Charlton Logistics Park	Ongoing	30	Construction and operation						
Other projects in or near the Project region									
Toowoomba Regional Council Waste Management Facility	Unknown—estimated	Unknown		Cons.	Operation				
Defence Housing Australia, Mount Lofty development	Unknown—estimated	Unknown		Construction				Operation	
Asterion Medicinal Cannabis Production Facility	Unknown—estimated	800		Construction			Operation		
Bromelton State Development Area (SDA)	2016-2031	Unknown	Construction						
GWIZ	2019-2024	14	Construction			Operation			
New Toowoomba Hospital (Baillie Henderson Hospital site)	Unknown—estimated	Unknown							Construction
New Acland Coal Mine Stage 3	2020–2022	260	Construction		Operation				
Other rail projects									
CRR	2019–2024	2,200	Construction			Operation			
Brisbane Metro	2019–2022	1,500 (estimate)	Construction		Operation				
Gold Coast Light Rail Stage 3A	2021–2023	1,500 (estimate)	Construction			Operation			

16.13.1 Local impacts

The local area of influence for assessment of cumulative social impacts has been defined as including potentially impacted communities, on the basis that this is the area where the physical interfaces of projects may have a material impact, and/or projects could affect social conditions such as connectivity or community wellbeing. Social impacts may occur where the effects of the Project combine with those of other major projects to affect:

- Connectivity:
  - The Project links directly with the adjoining B2G project to the west, approximately 2.5 km south-east of Kingsthorpe. There is potential for the coincidence of works for the two projects to cause temporary traffic delays on Kingsthorpe Tilgonda Road/Drapers Road. There are also two flashbutt welding sites, one in the B2G project area and one in the Project disturbance footprint, which will receive deliveries of track sections and may contribute to increased traffic volumes on these roads while track construction is underway. This is unquantifiable but, if it eventuates, will need to be considered in relation to driver safety and emergency services access.
  - The H2C project will adjoin the Project in an area approximately 400 m north of Helidon Spa and 1.1 km north-west of Helidon. Neither project interfaces with roads in Helidon Spa and Helidon; however, roads through Helidon are haulage routes for the projects, and are also used by traffic associated with the Helidon Magazine (explosives) Reserve. There is the potential for road works for the Project and Inland Rail's H2C project (if they coincide) to result in cumulative impacts on travel times to and from the Helidon State School.
  - If construction works for the Project and H2C coincide in the Helidon area, there is potential to disrupt access to the Helidon to Ravensbourne Trail circuit through the Lockyer National Park, where access to the Trail section along Airforce Road may be affected during construction of the Project, and access to the Trail section along Seventeen Mile Road may be affected during construction of H2C.
- Community and wellbeing:
  - Residents may be concerned about the potential risks to community safety relating to increased numbers of non-local workers, including 'stranger danger' and traffic safety, with any cumulative demands for non-local labour likely to increase this concern
  - There is also potential for cumulative traffic increases as a result of workers' commuter vehicles or heavy vehicles impacting on traffic safety at the local or regional level. More information regarding this issue is discussed in Chapter 19: Traffic, Transport and Access
  - The recent construction of the Toowoomba Bypass has resulted in community fatigue for populations in the Project region that may discourage residents from participating in Project engagement processes, and exacerbate any anger and stress felt as the result of Project impacts
  - While there is potential for the construction of H2C, the Project and B2G to overlap, Chapter 22: Cumulative Impacts notes that dust impacts are likely to be localised to the site locations and managed by ARTC through Project CEMPs
- Amenity and character:
  - Noise from construction activities being undertaken simultaneously on the adjoining H2C and B2G projects has the potential to increase noise levels at nearby sensitive receptors for the Project; however, the expected noise due to cumulative construction activities is not expected to significantly increase the predicted noise levels
  - The presence of laydown areas, earthworks and roadworks associated with construction of the Project and the adjacent B2G and H2C projects are likely to affect the scenic character of the local roads and highways, where works are located. These are likely to detract from the scenic character of the Draper Road/Paulsens Road area while track laying is occurring.
  - With regards to the ongoing cumulative impacts of other land development projects, InterLinkSQ, Toowoomba Wellcamp Airport, Wellcamp Business Park, and the Toowoomba Enterprise Hub (Charlton and Logistics Park and Witmack Industry Park) lie close to the Project, and the combined impacts from these projects may result in the perception of development intensification; however, this is anticipated as part of Council and regional plans
  - Assessment of rail noise from the operation of the adjacent B2G and H2C project sections did not predict a cumulative increase in daily railway noise levels at the sensitive receptors adjacent to the Project
  - Operational impacts associated with views of combined, successive and sequential views of adjoining projects were identified as of medium residual significance

- Population, housing and accommodation:
  - The Project expects to draw the majority of its construction workforce from within the Project region and other nearby LGAs, with personnel returning each night. As such, a change to the size or composition of the population is not expected during construction and a significant influx of personnel requiring housing in local communities is not expected. If cumulative demands for labour result in local shortages, and the Project needs to draw workers from further afield, a contribution to cumulative demands on housing and accommodation is also possible. Any influxes of non-local personnel seeking rental accommodation due to cumulative labour demands could put pressure on rental housing stocks in local communities, with the potential to deplete rental housing stocks and increase rental costs, which could impact on low income households. Potential housing demands relating to the coincidence of several projects' construction periods would be spread across several LGAs and are not quantifiable, but could be significant in the context of the limited rental housing availability; if rental vacancy rates remained low and if demand were concentrated in local communities or centres such as Toowoomba.
- Use of and access to social infrastructure:
  - A cumulative increase in construction workers in local communities has the potential to affect demands for policing and emergency services, with respect to traffic management, site security (e.g. responding to incidents of theft from work sites), road safety policing and, potentially, community protests against Inland Rail or other projects
  - Government funding for police, fire and ambulance services available to local communities may require review by the relevant departments to ensure cumulative project demands do not impact on local community access to services
  - As personnel's health service requirements would primarily be met in their home communities, cumulative demands on health services are less likely but there is potential for workers to be transported to major hospitals in Toowoomba or Ipswich if treatment is required. This is not expected to be a significant drain on major hospitals' services.
- Workforce:
  - In combination, projects listed in Table 16.26 have the potential to provide significant employment and business opportunities for local residents during the next 5–10 years. This includes significant construction employment opportunities related to the construction of Inland Rail projects, the Asterion Medicinal Cannabis Production Facility, Toowoomba Enterprise Hub projects and the new Toowoomba Hospital.
  - Transport, logistics and industrial hubs are not part of the Project, requiring private investment and separate approvals; however, the Project is likely to catalyse industrial development by facilitating the development of intermodal freight facilities, such as the Bromelton SDA and InterLinkSQ, at the Toowoomba Enterprise Hub
  - It may also catalyse development at the GWIZ, which, as noted in ShapingSEQ, is to involve the development of 600 acres of industrial land at Gatton and is one of the few remaining areas within two hours of Brisbane that allows for various forms of heavy industry
  - These opportunities may be further enhanced by the strategic link that would be provided between Inland Rail and the interstate railway line operated by QR, potentially serving to attract rail-dependent industries to the region
  - Collectively, the operation of Inland Rail projects and intermodal freight facilities would contribute to long-term employment opportunities for the residents of potentially impacted communities.

16.13.2 Regional impacts

This section refers primarily to cumulative impacts that may be experienced in the Project region as a whole, acknowledging that employment opportunities, supply opportunities and cumulative demand for labour are also relevant to other Queensland regions. Social impacts may occur where the effects of the Project combine with those of other major projects to affect:

- Connectivity:
  - The coincidence of construction of projects listed in Table 16.26 will have cumulative impacts on traffic volumes and potentially lead to traffic delays during the construction period, throughout the Project region
  - Excess spoil that cannot be re-used (by the Project or other local projects) will be transported to other sites, with the intention to maximise use of the State road network, including the Warrego Highway and Toowoomba Bypass
  - The transport of spoil may increase traffic volumes on key routes with potential to affect Levels of Service or traffic safety
- Workforce:
  - The Project has potential to contribute to significant cumulative increases in employment opportunities in the Project region; both directly, through construction employment opportunities, and through involvement of local businesses in the supply chain
  - Inland Rail projects are currently scheduled to commence construction in 2021 (H2C, C2K and B2G), 2022 (this Project) and 2023 (K2ARB) and it is unlikely that all workforce peaks would coincide; however, the SIA considers this possibility. If the Project was constructed simultaneously with Inland Rail's H2C and C2K projects, and all workforce peaks coincided, a peak workforce of up to 1,626 construction personnel would be required across the Toowoomba, Lockyer Valley, Ipswich and Scenic Rim LGAs. If Inland Rail's B2G project labour force also peaked during the same period, an additional requirement for approximately 950 personnel would result, focused in the Toowoomba and Goondiwindi LGAs. The construction workforce requirement for Inland Rail's K2ARB project is estimated at approximately 100 personnel, so the cumulative total peak (maximum case) for the five Inland Rail projects could see a requirement for approximately 2,676 personnel working across the Goondiwindi, Toowoomba, Lockyer Valley, Ipswich, Scenic Rim, Logan and Brisbane LGAs. In the context of SEQ's large construction and trades labour force, this is unlikely to cause a significant adverse impact on other industries' access to labour.
  - The construction periods from Cross River Rail, Brisbane Metro and Gold Coast Light Rail Stage 3A may overland with Inland Rail construction phases. Coincidence of the peak requirements for these three SEQ rail projects is unlikely given the variance in their construction periods; however, if it occurred, based on Cross River Rail's stated peak construction workforce estimate of 2,200 personnel, and estimates of 2,600 construction personnel required for Brisbane Metro and 760 personnel required for Gold Coast Light Rail Stage 3A, a peak requirement for approximately 5,560 construction personnel could result. In the very unlikely event that all peak requirements for Inland Rail projects' construction also coincided with these projects' workforce peaks, up to approximately 8,200 personnel would be required. This represents a 'maximum case' estimate in relation to the demands on labour and in relation to employment opportunities. In combination, the cumulative impacts of railway construction projects in SEQ, including non-Inland Rail projects, could lead to significant demands for construction personnel, including civil engineering professionals, construction project managers, and construction trades and machinery operators to contribute to skills shortages, affecting access to tradespeople for residents, businesses and other industries.
- Population, housing and workforce accommodation:
  - As noted in Section 16.13.1, Project contributions to cumulative impacts on population size and composition are not anticipated, but there is a possibility that cumulative project demands will result in the need for rental housing for non-local personnel and that they will seek housing in towns and centres within the Project region along with construction personnel from other major projects. This could result in regional-level impacts, e.g. exacerbation of the current shortage of rental housing in the Toowoomba and Lockyer Valley LGAs and, potentially, displacement of low-income households.

- Cumulative demands for short-term accommodation, such has hotels and motels, may also be experienced in the Toowoomba or Lockyer Valley LGAs, and/or in adjacent LGAs. If the coincidence of several major projects' construction phases strains the capacity of the construction labour force in the Project region, this may lead to a requirement for large numbers of non-local personnel to stay locally.
- The Project's contribution to cumulative demands for short-term accommodation is expected to be small; however; the Project's AMP will include measures to monitor the Project's potential demands for short-term accommodation and enable corrective action, if required, to reduce Project demands

- Use of and access to social infrastructure:
  - The Project's contribution to cumulative demands on health and emergency services relate primarily to an increase in the day-time population of the Project region during construction
  - There is also potential for the cumulative impacts of other concurrent projects, including Cross River Rail, Brisbane Metro, Inland Rail, other major infrastructure projects, and coal mines (such as the Carmichael Coal Mine and Rail Project) to require significant construction workforces in a similar timeframe, leading to cumulative demands on construction labour across Queensland and NSW, and potentially nationally.

16.13.3 Summary of cumulative impacts

Potential cumulative social impacts have been evaluated in relation to their likelihood and consequence to the social environment, as summarised in Table 16.27. The significance criteria used to evaluate cumulative impacts are provided in Section 16.12 (Adapted from Department State Development, Infrastructure and Planning (Qld) Social impact assessment guideline July 2013).

TABLE 16.27: POTENTIAL CUMULATIVE SOCIAL IMPACTS

Projects	Potential cumulative impact	Likelihood (A–E) and Consequence (1–5)	Mitigation measure	Residual significance	Significance
G2H and adjacent Inland Rail projects (construction)	Combined impacts of rail construction (presence of laydown areas, earthworks and roadworks, including potential for two flashbutt welding laydown areas in the Gowrie Junction area) and increased traffic on rural character near Helidon, Helidon Spa, Postmans Ridge, Gowrie Junction and Kingsthorpe	C3	TMPs for the projects will consider potential cumulative impacts on traffic and coordinate traffic management accordingly. Design of the landscape earthworks and planting to screen and integrate the Project wherever practicable.	C2	Medium (negative)
	Construction works to Cattos Road (for G2H) and Airforce Road (for H2C) along with use of key roads in Helidon, as construction routes may result in traffic delays for residents and motorists travelling to and from Helidon, including access to the Helidon State School. Potential changes to roads level of service.	B2	TMPs for the two projects will consider potential cumulative impacts on traffic and coordinate traffic management accordingly	B1	Medium (negative)
	Disrupted access to Helidon to Ravensbourne Trail circuit	C2	Consideration of the Trail's connectivity in the TMP to minimise disruption to access	C1	Low (negative)
B2G, G2H, H2C, C2K, K2ARB (construction)	Potential labour draw in the Project region affecting access by businesses, industries and households	C3	Inland Rail Skills Academy. Consultation with Councils and business chambers to monitor labour draw and enable corrective action, e.g. refinement of recruitment strategies.	C2	Medium (negative)
	Project region businesses would benefit from Project and personnel expenditure of the combined Inland Rail projects	B3	N/A	B3	High (positive)
	Increase in demands for policing and emergency services	B2	Cooperation with QPS, QAS and QFES to advice on workforce ramp-up and construction activities	B1	Medium (negative)

Projects	Potential cumulative impact	Likelihood (A–E) and Consequence (1–5)	Mitigation measure	Residual significance	Significance
	Potential to provide significant employment opportunities for local residents	B3	Inland Rail Skills Academy	B3	High (positive)
B2G, G2H, H2C, C2K, K2ARB (construction) [continued]	Transport of spoil and other construction material may increase traffic volumes on key routes with potential to affect the roads level of service or traffic safety	C Unknown	To be determined as part of TMP and CEMP in the detailed design phase	C Unknown	Unknown
Any/all projects (construction)	Cumulative demand for skilled trades and civil construction labour, affecting access by businesses, industries and households	B3	Inland Rail Skills Academy. Consultation with Councils and business chambers to monitor labour draw and enable corrective action, e.g. refinement of recruitment strategies.	B2	High (negative)
	Potential for cumulative demands on rental housing, which is currently in short supply, and/or short-term accommodation but with minimal Project contributions to impacts expected	C3	AMP required of contractors for all Inland Rail projects	C2	Medium (negative)
	Potential for cumulative increases in construction traffic leading to safety concerns and local drivers' fatigue or frustration with road works and traffic congestion	C3	TMPs for the projects will consider potential cumulative impacts on traffic and coordinate traffic management accordingly	C2	Medium (negative)
	Community concern relating to increased numbers of non-local workers, including 'stranger danger' and traffic safety	C2	Workforce Code of Conduct required of all Inland Rail project contractors	C1	Low (negative)
	Increased demands on health and emergency services, leading to reduced access for other residents	C2	Cooperation with Queensland Health, QPS, QAS and QFES to advise on workforce ramp-up and construction activities	D1	Low (negative)
	Potential for stresses associated with construction projects to increase local demands for support services	C3	Mental health partnership with PHNs (refer to Appendix Q: Social Impact Assessment, Section 7.4.8)	C2	Medium (negative)

Projects	Potential cumulative impact	Likelihood (A–E) and Consequence (1–5)	Mitigation measure	Residual significance	Significance
	Expansion in the construction sector would support additional flow-on demand through the construction industry supply chain	B3	Not required—local business participation strategies outlined in Appendix Q: Social Impact Assessment, Section 8.6	B3	High (positive)
B2G, H2C, InterLinkSQ, Toowoomba Wellcamp Airport, Wellcamp Business Park, Asterion Medical Cannabis Production Facility, Toowoomba Enterprise Hub (operation)	Operational impacts associated with views of other projects are likely to affect the Project region's scenic character; however, community members are likely to adapt to landscape changes over time	B2	Develop a Reinstatement and Rehabilitation Plan for areas in the disturbance footprint that do not form part of the permanent works	B2	Medium (negative)
Any/all projects (operation)	The operation of Inland Rail projects and intermodal freight facilities would contribute to long-term employment opportunities for the residents of potentially impacted communities	B4	Not required	B4	High (positive)

16.14 Conclusions

This section discusses distributional equity (the effect of differing impacts across groups, areas and time), and summarises residual social impacts and Project benefits.

16.14.1 Distributional equity

As for all major projects located near human settlements, negative impacts are more likely to be experienced by those living closest, while Project benefits often accrue at a broader regional level. This has been noted by residents in the SIA study area who anticipate negative impacts but are uncertain that significant benefits in the form of employment or business opportunities will result during construction, and of the potential for local communities to benefit during the Project's operation.

Distributional equity considerations for the Project include:

- Up to an estimated 20 households within the EIS investigation corridor would need to relocate to enable the Project's construction
- The potential for social impacts resulting from land acquisition, construction noise or dust, travel delays and changes to local character to affect residents, farmers, graziers and businesses in communities through which the Project would pass
- The potential for construction noise exceedances to affect residents in Gowrie Junction, Helidon, Lockyer/Postmans Ridge, Withcott, Helidon Spa and northern Toowoomba suburbs that experience disadvantage, where particular care will be needed to support residents through the changes resulting from the Project
- The potential for operations and management of farms and agribusinesses could be affected while landholders adjust to land acquisition impacts
- Specific social impacts were not identified for Kingsthorpe outside of impacts, such as travel delays, that would be experienced by other Project region residents and potential for cumulative impacts on rural character during construction
- Specific social impacts were not identified for Blue Mountain Heights, with the exception of views to the eastern tunnel portal affecting scenic amenity around the tunnel portal.

In applying the consequence criteria shown in Table 16.24, assessment of residual risks acknowledged that some construction impacts may occur throughout the duration of the construction period of approximately five years, and that it may take time for residents to adjust to changes resulting from the Project. With a design life of 100 years, the Project's operational impacts and benefits would be experienced for the long term. The Project would involve a significant freight route through rural areas with potential for rail noise to affect amenity in proximity to the rail corridor. This concern is keenly felt by local residents who believe that they will experience impacts but do not believe that significant benefits in the form of employment, business opportunities, or other benefits community benefits will result during operation.

Communities in the SIA study area have experienced a long period of severe drought, with effects on mental health and financial wellbeing, community resilience and business vitality. It is, therefore, particularly important that the Project's impacts are minimised and benefits for local communities are maximised.

Potential Project benefits and opportunities include:

- Employment for up to 596 personnel in Project construction, including people in the Project region and nearby LGAs, with indirect employment also likely to be stimulated, sustaining the income of personnel and their families
- Training and career pathway development for young people, Indigenous people and unemployed people, who are disadvantaged in the labour market
- Opportunities for local, regional and Indigenous businesses to participate in the Project's construction supply chain, and potential for businesses to benefit from increased trade from the construction workforce
- Development of labour force skills and business capacity, which will enable future employment and business opportunities for Project region residents

Support for the development of future industries associated within regional hubs and potential to act as a catalyst for development of rail-dependent industries and support industries, which will increase long-term employment opportunities in the Project region.

The Project is part of the Inland Rail Program, which will make a strong contribution to regional, State and national development. Inland Rail will slow the increase in road freight on regional roads, which will lead to broader benefits for people living near road freight corridors or using roads and highways that are currently dominated by trucks, with potential for traffic safety benefits.

16.14.2 Residual risks

Residual risks to social values are identified in Table 16.25. Residual risks of moderate or major consequence are shown in Table 16.28, along with measures to address and effectively manage the residual impacts.

TABLE 16.28: POTENTIAL RESIDUAL IMPACTS OF MODERATE OR MAJOR CONSEQUENCE

Social conditions	Potential residual impact	Measures to address residual impacts
Community values	The Project will introduce additional linear infrastructure to the landscape, contributing to cumulative impacts on Indigenous people's feeling of connection with Country	ARTC will maintain engagement with the Western Wakka Wakka People and the Yuggera Ugarapul People as the Traditional Owners of Country in which the Project is located, to ensure their awareness of Project works and operations, and the Project's awareness of cultural values and community aspirations. Engagement with Traditional Owners may identify projects or initiatives to strengthen their connection to Country and/or community recognition of their connection to Country.
	Construction noise may be intrusive on the amenity of homes, outdoor spaces and community facilities	Construction noise would be mitigated in accordance with the measures outlined in Chapter 23: Draft Outline Environmental Management Plan and detailed in Appendix O: Construction Noise. The Project will communicate with landholders within 1,000 m of laydown and bridge construction sites and monitor complaints from residents in these areas. If complaints indicate that impacts are affecting households' wellbeing, corrective actions will be implemented as part of the CEMP.
	Impacts on landscapes and visual amenity would be mitigated in accordance with the measures outlined in the Draft Outline EMP and detailed in Appendix H: Landscape and Visual Impact Assessment, but distress about the impact of elevated structures or embankments on the scenic character may continue during operations.	The Project will establish engagement mechanisms with tourism business and networks to enable any specific impacts on tourism visitation to be identified, to enable any corrective actions required as part of communication strategies (e.g. regarding road travel and the construction schedule). Engagement planned as part of the detailed design phase may identify additional initiatives to support tourism in the Project region.
	Operational noise exceedances would be mitigated in accordance with measures outlined in the Draft Outline EMP and detailed in Appendix P: Operational Railway Noise and Vibration, but may be experienced by nearby residents as intrusive or stressful	If complaints about rail noise indicate that the Project is causing unacceptable noise levels, ARTC will investigate and implement measures to address the cause of concern
Housing	If cumulative labour demands or cumulative housing requirements from multiple projects result in competition for rental housing, there is potential for low income households to be displaced from rental housing	The Project will require the construction contractor to prioritise recruitment from the Project region to reduce the potential for impacts on rental housing availability. Inland Rail projects will require the construction contractors to develop, implement and monitor AMPs, and to take corrective actions, such as changes to recruitment or accommodation strategies, if impacts on local communities are identified, in discussion with key stakeholders.

Social conditions	Potential residual impact	Measures to address residual impacts
Community wellbeing	The Project may affect local residents' wellbeing through stress and anxiety, noise exposure, fears about the Project's potential to exacerbate flooding, and/or visual impacts impacting on sense of place.	ARTC will ensure the availability of regular, timely and accessible information to enable local residents to understand and, where necessary, adjust to changes resulting from the Project. ARTC will monitor the delivery and uptake of mental health services and any other services provided as part of the mental health partnership program, in cooperation with the PHNs, and increase the resources available to support mental health or community support services if this is required to maintain service.
	Changes in property values are dependent on a range of factors and the Project's potential to change property values can't be determined. Stress and anxiety regarding changes to property values may affect wellbeing of landholders near the Project.	The Project's CEMP and associated sub-plans will detail management measures to avoid or reduce environmental impacts, which, if not mitigated, could otherwise affect the amenity or use of properties and, consequently, perceptions of property values. ARTC will provide access to the EIS, information about the Project's environmental management measures and EIS approval conditions, and the Project's compliance with approval conditions, via the Inland Rail webpage to enable informed decisions about property purchases.
	Potential for construction works or road works to affect emergency vehicle response times	Development of communication protocols supporting Project responses (such as provision of alternative access across the rail corridor) and enabling services to plan around interruptions
	During operations, any accidents associated with derailments, in-tunnel incidents such as fire, rail load loss, hazardous goods spills or other major incidents would place significant demands on health and emergency services resources.	Measures to address hazards and risks to safety are provided in Chapter 23: Draft Outline Environmental Management Plan. The Project will continue its cooperation with QPS, QAS and QFES during operations, to monitor and mitigate any hazards or risks to safety.
Safety	Incidents related to dangerous goods transport, trespass, pedestrian and community safety, interface with live trains, derailment and impediments to emergency access are possible and could affect community safety	Arrangements with QPS, QAS and QFES will enable cooperative responses to any incidents and monitoring of any specific safety risks to enable corrective action if required
	Large and over-size vehicles, laydown and bridge construction sites, and increased traffic may increase the risk of road accidents and demands on emergency services	The construction contractor will monitor the occurrence of traffic accidents related to construction activities or construction traffic in cooperation with QPS. If monitoring data indicates that traffic safety is declining as a result of the Project, the TMP will be revised to include corrective actions.
	The Project would provide increased opportunity for rail-based suicide for vulnerable people	Prior to operations, the Project will engage with the PHNs and Queensland Health to gauge the need for any ongoing support for mental health services during the operational period. Arrangements with QPS, QAS and QFES will enable cooperative responses to any incidents and monitoring of any specific safety risks to enable corrective action.