CHAPTER 03

Project Approvals

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.

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3.1 Introduction

This chapter summarises the Commonwealth Government, Queensland Government, and local government legislation relevant to the Gowrie to Helidon (G2H) Project (the Project) and identifies the approvals, permits, licences and authorities necessary for the planning, construction and operational phases of the Project.

Section 3.6 tabulates the potential post-Environmental Impact Statement (EIS) approvals, permits, licences and authorities, and details the relevant legislative triggers, administering authorities[1] and whether any exemptions, or self-assessable codes or requirements apply to the Project or to the proponent, the Australian Rail Track Corporation (ARTC).

3.1.1 Purpose of this chapter

On 16 March 2017, the Project was declared to be a 'coordinated project for which an EIS is required' by the Coordinator-General under Section 26(1)(a) of the *State Development and Public Works Organisation Act 1971* (Qld) (SDPWO Act). The declaration initiated the statutory environmental impact assessment procedure of Part 4 of the SDPWO Act, which requires the proponent to prepare an EIS for the Project.

On 17 March 2017, the then Australian Government Minister for the Environment determined the Inland Rail—Gowrie to Helidon Project to be a 'controlled action' under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act), due to the likely potential impacts on Matters of National Environmental Significance (MNES). Assessment of the Project was determined to be under the Bilateral Agreement between the Commonwealth (now the Department of Agriculture, Water and the Environment (DAWE)) and the State of Queensland.[2] The relevant controlling provision for the Project is listed threatened species and communities (Sections 18 and 18A) (reference number EPBC 2017/7882).

The final Terms of Reference (ToR) for the Project was approved by the Coordinator-General under Section 30 of the SDPWO Act and was released on 9 August 2017 (refer Appendix A: Terms of Reference). The ToR sets out the matters the proponent must address in an EIS for the Project under the SDPWO Act. Further, as the Project will be assessed under the Bilateral Agreement between the Commonwealth and the State of Queensland, the ToR also sets out the requirements for the assessment of the EPBC Act controlling provision.

As part of the EIS process, ARTC is not seeking approval and/or stated conditions for environmentally relevant activities (ERA), environmental authorities, watercourse diversions and waterway barrier works because these approvals will be subject to, and are dependent upon, further detailed design for the Project, along with verification of the construction methodology. Further material will be provided to administering agencies as part of any secondary approval applications (e.g. ERA) during detailed design.

This chapter responds to the ToR requirements by providing an overview of the Australian Government and Queensland Government legislative frameworks relevant to the Project and identifies the approvals, permits, licences and authorities triggered by the Project under the relevant legislation. A summary of the ToR requirements and how they have been addressed within this chapter is in Table 3.1.

TABLE 3.1: TERMS OF REFERENCE REQUIREMENTS

	Terms of Reference Requirements	Where addressed in the chapter and the broader EIS
Project approvals process		
6.8	Assess the extent to which the construction and operation of the project meets all statutory and regulatory requirements of the State and that the intended outcomes are consistent with current state policies and guidelines. If there is conflict, provide comment on the planning merit that supports the project	Approvals are consolidated in Chapter 3: Project Approvals
7.1	The proponent must identify in the EIS the scope of government approvals sought through the EIS process	Chapter 3: Project Approvals

1. Departmental and ministerial titles current at the time of writing.
2. Bilateral Agreement between the Commonwealth and the State of Queensland under section 45 of the EPBC Act relating to Environmental Assessment.

Terms of Reference Requirements		Where addressed in the chapter and the broader EIS
7.2	The assessment and supporting information should be sufficient for the Coordinator-General and administering authority to decide whether an approval sought through the EIS process should be granted. Where applicable, sufficient information should be included to enable approval conditions to be developed in relation to later approvals under relevant State and Commonwealth legislation, including but not limited to the *Planning Act 2016* (PA), the *Water Act 2000* (Water Act), *Nature Conservation Act 1992* (NC Act), *Vegetation Management Act 1999* (VMA), *Fisheries Act 1994* (Fisheries Act), *Land Act 1994*, *Forestry Act 1959*, *Biosecurity Act 2014* (Biosecurity Act), *Queensland Heritage Act 1992*, *Transport Infrastructure Act 1994*, *Mineral Resources Act 1989*, EP Act, *Regional Planning Interests Act 2014*, *Environmental Offsets Act 2014* (EO Act) and EPBC Act.	Chapter 3: Project Approvals
9.5.	Describe the approvals required to enable the project to be constructed and operated. Explain how the environmental impact assessment process (and the EIS itself) informs the issue of the leases/licences/permits required by the proponent before construction can commence. Provide a flow chart indicating the key approvals and opportunities for public comment.	Sections 3.2, 3.3, 3.4 and 3.6
9.6.	Inform the reader of how the SDPWO Act, EP Act and the PA interact, with reference to the project. Describe how the EIS process informs approvals required for the project, and how a properly made submission on the EIS relates to applicant processes and later approvals under the PA and EP Act respectively.	Sections 3.2.1.1, 3.2.1.2, and 3.2.1.3
9.7.	Identify any statutory approvals, permits, licences and authorities (including any requirement for owners consent) that will be required for the project to use the land.	Section 3.6 and Table 3.4
9.8.	Describe the assessment process under the Bilateral Agreement between the Commonwealth and the State of Queensland under section 45 of the EPBC Act relating to Environmental Assessment.	Sections 3.2.1 and 3.2.2
9.9.	The State Development Assessment Provisions (SDAP) prescribed in the Planning Regulation 2017 set out the matters of interest to the State for development assessment where the chief executive or referral agency of PA is the assessment manager for development applications. If the proponent intends to satisfy the information requirements of future development assessment decisions under SDAP for any component of the project during this coordinated project EIS process, the material provided in accordance with sections 10-11 of this ToR should be sufficient to permit those assessments to be completed for that project component. Refer to Appendix 1 for further information on SDAP requirements.	Not relevant—refer Sections 3.2 and 3.4.20.1
9.10.	The EIS will provide, where relevant, the information required under section 125 of the EP Act in support of the project's environmental authority application for Environmentally Relevant Activities (ERAs).	Not relevant—refer Sections 3.2 and 3.4.10.3
9.11.	Any ERAs to be conducted as part of the project should be listed separately with appropriate ERA number, activity name and required threshold (see EP Regulation, Schedule 2 for a list of ERAs). This assessment and supporting information should be sufficient for the administering authority to decide whether an approval should be granted. Environmental values and approval requirements are specified in the EP Act, the EP Regulation, environmental protection policies and relevant guidelines.	Sections 3.2, 3.4.10 and 3.6
10.10	Describe the planning schemes, regional plans, state policies and government priorities for the preferred alignment, including those that have been publicly notified. This description should include those instruments currently under development and likely to be implemented within planning and construction timeframes.	Section 3.5 Chapter 2: Project Rationale, Sections 2.4.2.6 and 2.4.2.7 Chapter 8: Land Use and Tenure, Section 8.9

3.2 Key Project legislative requirements and approvals

The principal purpose of this EIS is to provide sufficient information to enable the Queensland Coordinator-General and the Australian Government Minister for the Environment to evaluate and assess the Project under the SDPWO Act and EPBC Act respectively, and for conditions to be stated (where relevant) and recommendations made regarding approvals required by the Project under other legislation. The approvals sought as part of the EIS process are listed in Table 3.2, and are further discussed in the following sections. Noting that legislation, policies and approvals relevant to the Project and the relevant environmental aspect are also discussed in the relevant chapters and technical reports.

TABLE 3.2: KEY PROJECT APPROVALS

Legislation	Approval
SDPWO Act	Coordinator-General's EIS evaluation report
EPBC Act	Approval for taking a controlled action for the purposes of the relevant controlling provision (listed threatened species and communities) under Section 18 and 18A of the EPBC Act

The Project will trigger the requirement to obtain a number of approvals, permits and authorities under state legislation. In the event that the Project is recommended to proceed under the EPBC Act and the SDWPO Act, the Project will seek to obtain these approvals after completion of the EIS process, when detailed design has sufficiently progressed to satisfy the information requirements for the relevant development application or other secondary approval.

3.2.1 State Development and Public Works Organisation Act 1971

3.2.1.1 Overview

The SDPWO Act is administered by the Coordinator-General. Relevantly, the Coordinator-General may declare a project to be a 'coordinated project' for which an environmental impact statement is required. The SDPWO Act also includes mechanisms for the Coordinator-General to control and manage State Development Areas, administer prescribed projects and critical infrastructure projects and compulsorily acquire land.

3.2.1.2 Relationship with the Planning Act 2016

Where a proposed development has been the subject of an EIS under the SDPWO Act, certain aspects of the development assessment process under the *Planning Act 2016* (Qld) (Planning Act) are modified.

A development application that includes a material change of use (MCU) of premises:

- Is not required to undergo public notification under the Planning Act
- Has no referral agencies under the Planning Act, as the Coordinator-General's report for the EIS is taken to be a referral agency's response under the Planning Act
- For an impact assessable development application, a properly made submission about a draft EIS or any additional information required by the Coordinator-General that was publicly notified, is taken to be a properly made submission about the application under the Planning Act.

Further explanation of the SDPWO Act's interaction with the Planning Act is shown in Figure 3.1.

3.2.1.3 Relationship with the Environmental Protection Act 1994

Chapter 3 of the *Environmental Protection Act 1994* (Qld) (EP Act) includes provisions for an EIS process that applies only to projects, other than coordinated projects that are mining and resource activities. Mining and resource activities that trigger an EIS under the EP Act require a project-specific Terms of reference.

The EP Act, together with the Planning Act, provides a licensing regime for ERAs. Details on the requirements for ERAs are in Section 3.4.10.

The SDPWO Act's interaction with the EP Act is shown in Figure 3.1.

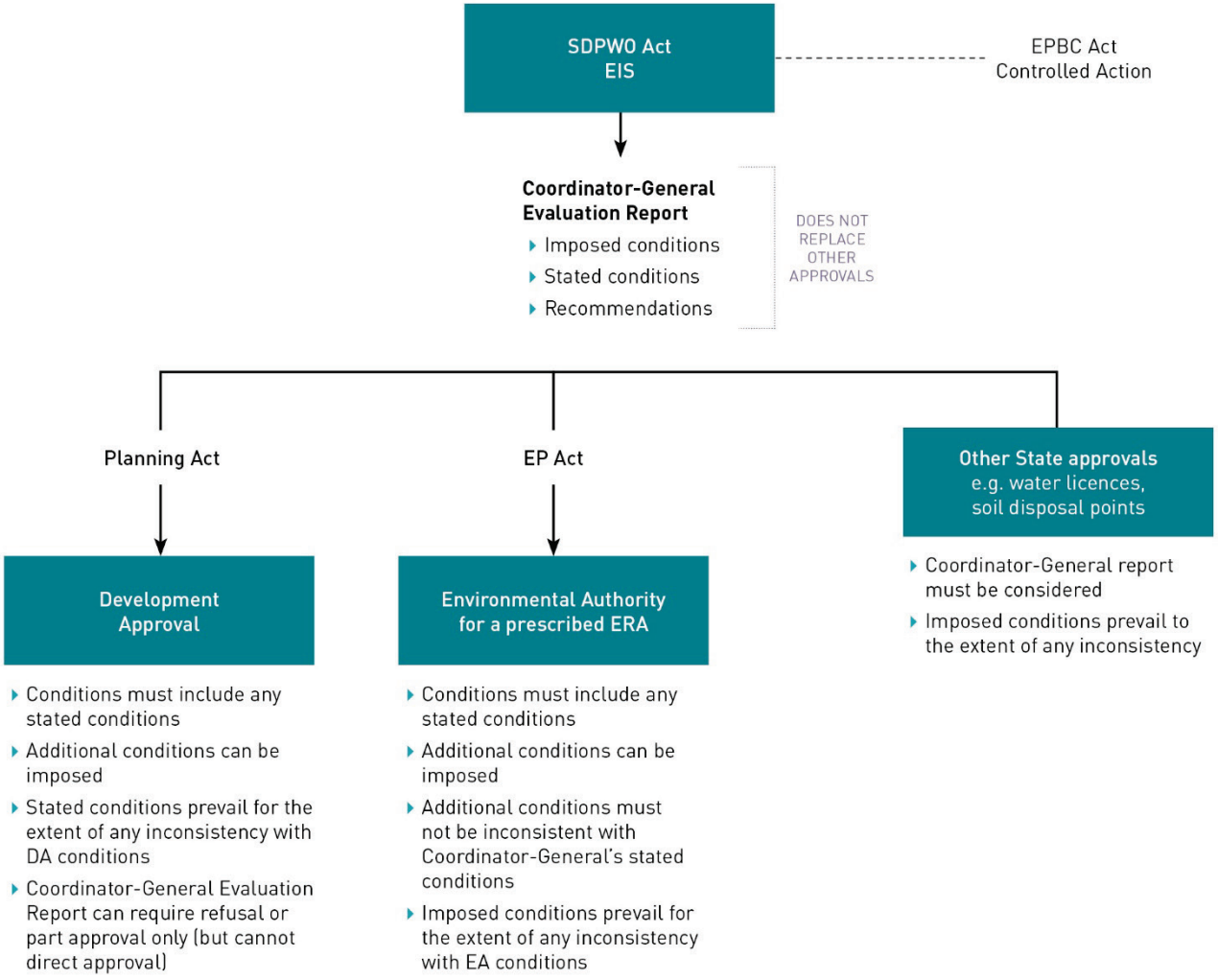

FIGURE 3.1: RELATIONSHIP BETWEEN THE STATE DEVELOPMENT AND PUBLIC WORKS ORGANISATION ACT, THE PLANNING ACT AND THE ENVIRONMENTAL PROTECTION ACT, INCLUDING OTHER STATE APPROVALS

3.2.1.4 Relevance to the Project

In accordance with Section 26 of the SDPWO Act, the Coordinator-General may declare a project to be a 'coordinated project' for which an EIS is required; or declare a project to be a 'coordinated project' for which an Impact Assessment Report is required. Declaration of a project as a 'coordinated project' is based on one or more of the following criteria applying:

- Complex approval requirements involving local government, state government and federal government
- Significant environmental effects
- Strategic significance to the locality, region or state, including for the infrastructure, economic and social benefits, capital investment or employment opportunities it may provide
- Significant infrastructure requirements.

An EIS provides the Coordinator-General with a framework to:

- Consider the environmental, social and economic aspects of the Project in the context of legislative and policy provisions and decide whether the Project can proceed
- State, recommend or impose for approval, as appropriate
- Ensure appropriate environmental management and monitoring programs to avoid, minimise, mitigate or offset any adverse impacts.

Consistent with the legislative process under the SDPWO Act, this EIS has been prepared to address the ToR issued by the Coordinator-General on 9 August 2017. The following steps in the coordinated project process remain to be completed:

- The EIS (as a draft EIS) is made available for public comment. Submissions may be made by any person to the Coordinator-General during the submission period. The Coordinator-General may request further information under Section 34B(2) of the SDPWO Act.
- A revised draft EIS is prepared in response to properly made submissions and further information requested by the Coordinator-General.
- The Coordinator-General will evaluate the revised draft EIS and may accept it as the final EIS.
- If accepted as final, the Coordinator-General prepares a report (i.e. Coordinator-General's evaluation report) on the final EIS consistent with the requirements of the SDPWO Act.

The Coordinator-General's EIS evaluation report is provided to the Australian Government Minister for the Environment for assessment under the EPBC Act through the Bilateral Agreement between the Commonwealth and the State of Queensland. The SDPWO Act EIS process is accredited under the Bilateral Agreement for the assessment of the Project under Section 45 of the EPBC Act, discussed in Section 3.2.2.

The steps undertaken for the environmental impact assessment, including public notification of the EIS, under the SDPWO Act and its interaction with the Bilateral Agreement with the Commonwealth are shown in Figure 3.2.

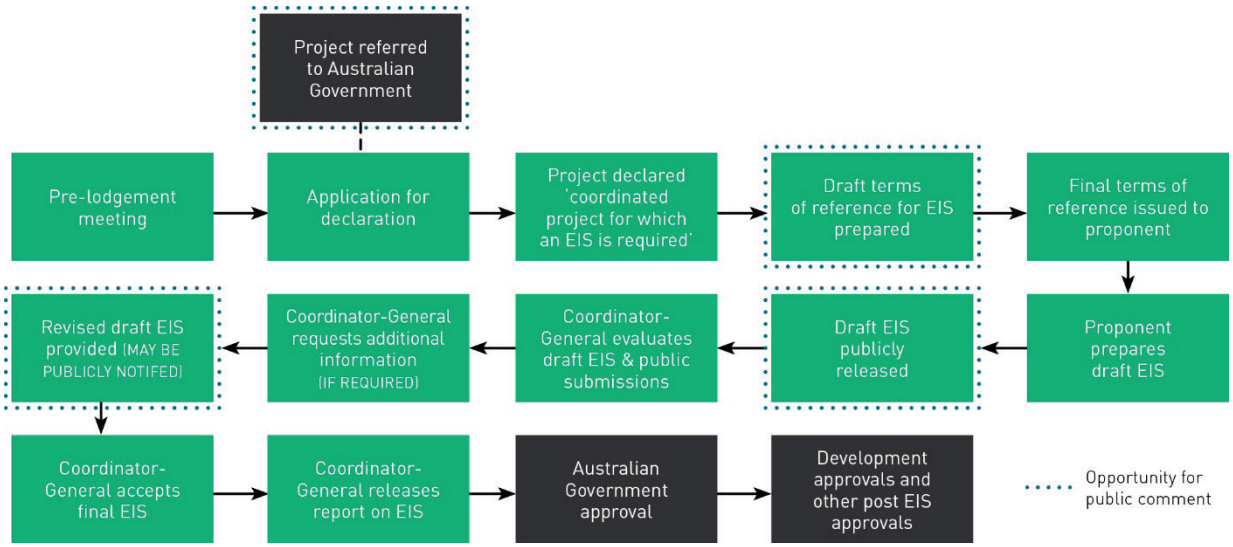

FIGURE 3.2: THE ENVIRONMENTAL IMPACT ASSESSMENT AND CONSULTATION PROCESS UNDER THE STATE DEVELOPMENT AND PUBLIC WORKS ORGANISATION ACT AND BILATERAL AGREEMENT WITH THE COMMONWEALTH

3.2.1.5 Coordinator-General's report

Under the SDPWO Act, the Coordinator-General's report may include:

- An evaluation of the environmental effects of the Project and any other related matters
- Imposed conditions for the undertaking of the Project
- Stated conditions that must be imposed on subsequent development approvals
- Recommendations for other approvals required by the Project.

The Coordinator-General's report for the project applies to the assessment of development applications under the Planning Act and development approvals issued under that Act. The Coordinator-General's report for the EIS may state that:

- Any development approval given for the development must be subject to stated conditions
- Any development approval given must be only for a stated part of the development
- Any development approval given must be a preliminary approval only
- The Coordinator-General has no conditions or requirements for the development
- A development approval for the development must not be given.

All other approvals from local governments and the State Government will be obtained, where required. Permits and approvals that are expected to be required, and will be obtained following the Coordinator-General's report for the EIS, are outlined in Table 3.4.

3.2.2 Environment Protection and Biodiversity Conservation Act 1999

3.2.2.1 Overview

The EPBC Act provides that any action (i.e. a project, development, undertaking, activity or series of activities) that has, will have, or is likely to have a significant impact on a MNES, or other matters protected under the EPBC Act such as the environment of Commonwealth land, requires approval from the Australian Government Minister for the Environment.

The EPBC Act, which is administered by DAWE identifies the following triggers for potential Commonwealth assessment and approval:

- World Heritage properties
- National Heritage places
- Wetlands of international importance (Ramsar wetlands)
- Listed threatened species and ecological communities
- Listed migratory species
- Commonwealth marine areas
- Great Barrier Reef Marine Park
- Nuclear actions (including uranium mines)
- Water resources, in relation to coal seam gas development and large coal mining development
- The environment, where actions proposed are on, or will affect Commonwealth land and the environment
- The environment, where Australian Government agencies are proposing to take an action.

If a project is likely to impact on any MNES, a referral under the EPBC Act must be made to the Australian Government Minister for the Environment. Subsequent to the receipt of a referral, the Minister will determine whether or not the proposed action is a 'controlled action'. If the action is considered a 'controlled action', then an environmental assessment must be submitted to the Minister for approval.

The environmental assessment can proceed through a Bilateral Agreement that accredits a State or Territory assessment process (i.e. EIS process under the EPBC Act), a ministerial declaration that accredits another Commonwealth agency or through assessment determined by the Minister.

3.2.2.2 Controlled Action environmental impact assessment under the Bilateral Agreement

This EIS has been prepared to address the ToR issued by the Office of the Coordinator-General on 9 August 2017, which includes (under Section 11 of the ToR) the specific assessment matters relevant to MNES (refer Appendix J: Matters of National Environmental Significance) and, where applicable, the matters set out in Schedule 4 of the Environment Protection and Biodiversity Conservation Regulations 2000 (Cth).

The EIS describes all the relevant impacts that the Project will have or is likely to have on receiving environments, including on the EPBC Act controlling provision for the Project (listed threatened species and communities), together with mitigation measures and any offsets for residual impacts.

At the conclusion of the SDPWO Act EIS process, the Australian Government Minister for the Environment will receive a copy of the Coordinator-General's EIS evaluation report and will take this report into account when making a decision under the EPBC Act. The Australian Government Minister for the Environment will decide whether to approve the Project with or without conditions.

3.3 Other Commonwealth legislation

3.3.1 Aboriginal and Torres Strait Islander Heritage Protection Act 1984

3.3.1.1 Overview

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) (ATSIHP Act) enables the Commonwealth to intervene and, where necessary, preserve and protect areas and objects of particular significance to Aboriginal persons or groups of persons from being desecrated or injured.

The ATSIHP Act allows the Australian Government Minister for the Environment, on the application of an Aboriginal person or group of persons to make a declaration to protect an area or object or class of objects of particular Indigenous significance from threat of injury or desecration.

The ATSIHP Act was intended as a last resort in cases when state or territory laws do not provide effective provision for the protection of significant Aboriginal areas and objects. The Commonwealth would ordinarily only seek to exercise its power after the relevant Indigenous party has exhausted all opportunities to preserve and protect the area or object through the relevant state or territory legislation.

The ATSIHP Act does not apply to all Aboriginal heritage, but only to areas and objects that are of particular significance to Aboriginal people in accordance with Aboriginal tradition, and to Aboriginal remains.

3.3.1.2 Relevance to the Project

There are currently no areas or objects within the EIS investigation corridor that are protected by the ATSIHP Act.

3.3.1.3 Project compliance

Cultural Heritage Management Plans (CHMPs) for the Project were developed between ARTC and the relevant Aboriginal Parties in 2018 (CLH17009). These CHMPs have been approved under the *Aboriginal Cultural Heritage Act 2003* (Qld) (ACH Act) and consequently meet all the requirements for the identification, assessment and management of Aboriginal heritage under the Project's ToR. Areas and objects of particular significance to an Aboriginal person or group of persons will be managed through the approved CHMPs.

Chapter 18: Cultural Heritage provides further discussion on Aboriginal cultural heritage values within the Project disturbance footprint.

3.3.2 National Environment Protection Measures (Implementation) Act 1998

3.3.2.1 Overview

The *National Environment Protection Measures (Implementation) Act 1998* (Cth) (NEPM) and complementary State and Territory legislation allow the National Environment Protection Council to make National Environmental Protection Measures (NEPMs). NEPMs are a special set of national objectives designed to assist in protecting or managing particular aspects of the environment.

3.3.2.2 Relevance to the Project

The NEPMs that are related to the Project are:

- National Environment Protection (Used Packaging Materials) Measure
- National Environment Protection (National Pollutant Inventory) Measure
- National Environment Protection (Movement of Controlled Waste between States and Territories) Measure
- National Environment Protection (Diesel Vehicle Emissions) Measure
- National Environment Protection (Ambient Air Quality) Measure
- National Environment Protection (Assessment of Site Contamination) Measure.

3.3.2.3 Project compliance

The assessments contained within this EIS have, where relevant, been undertaken in line with achieving the NEPM objectives and desired environmental outcomes, which include:

- To reduce environmental degradation arising from the disposal of used packaging and conserve virgin materials through the encouragement of re-use and recycling of used packaging materials
- To minimise the potential for adverse impacts associated with the movement of controlled waste on the environment and human health
- To minimise the potential for adverse impacts associated with diesel exhaust emissions on the environment and human health
- Ambient air quality allows for the adequate protection of human health and wellbeing
- To collect a broad base of information on emissions and transfers of substances on the reporting list
- To provide adequate protection of human health and the environment, where site contamination has occurred, through the development of an efficient and effective national approach to the assessment of site contamination.

Chapter 12: Air Quality provides further discussion on the Project's consideration of the NEPMs.

3.3.3 National Greenhouse and Energy Reporting Act 2007

3.3.3.1 Overview

The *National Greenhouse and Energy Reporting Act 2007* (Cth) (NGER Act) was established as a single national framework for reporting and disseminating company information about greenhouse gas emissions, energy production and energy consumption. The regulations under the NGER Act and the National Greenhouse and Energy Reporting (Measurement) Determination 2008 establish the legislative framework for a National Greenhouse and Energy Reporting scheme.

Under the NGER Act (Part 2, Division 1A, Section 13), corporations that meet certain thresholds must report to the Clean Energy Regulator their emissions, energy production and energy consumption each financial year. There are two types of thresholds that determine which companies have an obligation under the NGER Act:

- Facility thresholds
- Corporate group thresholds.

The current facility threshold is:

- 25 kilotonnes (kt) or more of greenhouse gases (carbon dioxide equivalent (CO_2e)) (scope 1 and scope 2 emissions)
- Production of 100 terajoules (TJ) or more of energy
- Consumption of 100 TJ or more of energy.

The current corporate group thresholds are:

- 50 kt or more of greenhouse gases (CO_2e) (scope 1 and scope 2 emissions)
- Production of 200 TJ or more of energy
- Consumption of 200 TJ or more of energy.

The potential emission sources to be reported for the Project include:

- Combustion of fuels for energy
- Industrial processes (such as producing cement and steel)
- Waste management.

3.3.3.2 Relevance to the Project

Under the requirements of the NGER Act, ARTC will need to incorporate the emissions, energy production and energy consumption from activities associated with the Project's construction and operational phases into its annual reporting if these activities trigger the corporate group threshold. ARTC last reported greenhouse gas and energy data to the Clean Energy Regulator on 24 October 2019 for the 2018–2019 reporting period.

3.3.3.3 Project compliance

Annual greenhouse gas and energy data for the Project, along with the wider Inland Rail Program, will be captured for the construction and operational phases. This data will be used to inform ARTC's annual reporting obligations under the NGER Act if it triggers the corporate group threshold.

3.3.4 Native Title Act 1993

3.3.4.1 Overview

The *Native Title Act 1993* (Cth) (NT Act) establishes a framework for the recognition and protection of native title, including by conferring on Indigenous people who hold (or claim to hold) native title rights and interests in respect of any land or waters the right to be consulted on, and in some cases to participate in decisions about activities proposed to be undertaken on the land (or in the waters). The NT Act provides for the validation of past Commonwealth acts that may have been invalid because of native title and enables each of the states and territories to make similar provision in their own laws. The NT Act also establishes the processes involved in having native title recognised and the role and responsibilities of the different bodies involved in this process.

The NT Act:

- Provides procedures for Indigenous peoples to be able to have their native title rights and interests recognised and protected, through the making and determination of native title claims
- Sets out the circumstances in which proposed actions will validly affect native title, and provides for management of the impact that proposed actions may have on native title, through the 'future acts' system and associated agreements and procedural rights
- Confirms that the effect of certain government acts (including the grant of particular freehold estates and leasehold tenures, and the construction or establishment of public works activities or infrastructure) will extinguish native title over the affected areas (either wholly, or to the extent of any inconsistency with the acts being undertaken).

The NT Act adopts the common law definition of 'native title' and establishes the National Native Title Tribunal, which has a number of functions in relation to the regulation of native title in Australia, including in relation to native title applications, inquiries and recommendations.

While the NT Act confirms that native title has been extinguished over validly granted freehold land, native title interests and rights may still exist over a number of other tenures, including reserves; state forests and national parks; land that is, or has been, subject to pastoral leases; other types of non-exclusive leases; and waters that are not privately owned; as well as Unallocated State Land (USL). The NT Act contains statutory processes to allow the parties to use land and waters where native title may continue to exist (which can require negotiation of agreements) and for state and territory governments to grant valid interests over such land and waters to both native title and non-native title parties.

Under section 24JA, if an act such as granting statutory approval or land tenure in relation to land subject to native title, which was dedicated as a reserve on or before 23 December 1996, the act will be valid from a native title perspective provided it fits within the purpose of the reserve (or would have no greater impact on native title than acts that fit within the purpose of the reserve).

Further, if the act consists of the construction or establishment of a public work, which includes a road, railway or bridge that is constructed or established by or on behalf of the Crown, or a local government body or other statutory authority of the Crown, in any of its capacities, the act will extinguish native title in relation to the area on which the public work is situated. In these cases, the person proposing to do the work would need to notify all affected representative bodies and registered native title claimants of the work and give them an opportunity to comment.

The *Native Title (Queensland) Act 1993* (Qld) is discussed in Section 3.4.17.

3.3.4.2 Relevance to the Project

Tenure within the Project disturbance footprint is predominately freehold where, on the assumption that the freehold grants were either past acts validated when the *Native Title (Queensland) Act 1993* commenced or future acts validly done in accordance with the NT Act, native title rights have been extinguished.

Where the Project footprint uses existing rail and road corridors established by or on behalf of the Crown or a statutory authority of the Crown on or before 23 December 1996, native title rights have been extinguished through the establishment of these public works.

The Project traverses watercourses where native title is likely to exist, including Gowrie Creek, Rocky Creek (Bells Road) and Lockyer Creek, along with unlinked parcels at the western (Lot 1 on RL2085) and eastern (Lot 1 on RL7496) extent of the Project. The Project is unlikely to interfere with the rights of parties to use this land associated with the three watercourses; however, for the other land parcels, native title and interest will be extinguished.

The proposed Toowoomba Range Tunnel passes beneath two parcels of reserve tenure (Lot 10 on AG89 and Lot 40 on SP157008), along with Gowrie Creek where native title is unlikely to be extinguished. The Project is unlikely to interfere with the rights of parties to use this land (i.e. volumetric resumption with no proposed changes to current land use or to the purpose of the reserves). Refer Chapter 8: Land Use and Tenure (including Figure 8.3) and Section 3.4.17 for further discussion.

Searches of the National Native Title Tribunal's Register of Native Title Claims and Schedule of Native Title Applications have revealed one current native title claim—the Yuggera Ugarapul People claim (QC2017/005)—which has been accepted for registration, but is yet to be determined within the Project's EIS investigation corridor.

No native title determinations are recorded in the National Native Title Tribunal Register for the Project footprint.

3.3.4.3 Project compliance

Where it is determined that native title has not been extinguished within the Project disturbance footprint, ARTC will, in order to allow the Project to proceed, ultimately be seeking the extinguishment of native title rights and interests in question before construction. This may involve either the voluntary surrender of native title by the appropriate native title parties under a registered Indigenous Land Use Agreement (ILUA) (which will be valid under Section 24EB of the NT Act) or the compulsory acquisition of native title under a relevant state law (which will be valid under Section 24MD of the NT Act), to enable the granting of the necessary interests in Crown lands required to construct the Project.

Details on native title claims are further discussed in Chapter 8: Land Use and Tenure.

3.3.5 Water Act 2007

3.3.5.1 Overview

The *Water Act 2007* (Cth) provides the legislative framework for ensuring that the Murray–Darling Basin (Australia's largest water resource) is managed in accordance with Australia's national interests. The *Water Act 2007* recognises that Australian states in the Murray–Darling Basin continue to manage water resources within their jurisdictions that occur within the Murray–Darling Basin. The *Water Act 2007*:

- Establishes the Murray–Darling Basin Authority with the functions and powers, including enforcement powers, needed to ensure that basin's water resources are managed in an integrated and sustainable way
- Requires the Murray–Darling Basin Authority to prepare the Basin Plan—the *Basin Plan 2012* is a strategic plan for the integrated and sustainable management of water resources in the Murray–Darling Basin
- Establishes a Commonwealth Environmental Water Holder to manage the Commonwealth's environmental water to protect and restore the environmental assets of the Murray–Darling Basin, and outside the basin where the Commonwealth owns water
- Provides the Australian Competition and Consumer Commission with a key role in developing and enforcing water charges and water market rules along the lines agreed in the National Water Initiative
- Gives the Bureau of Meteorology (BoM) water information functions that are in addition to its existing functions under the *Meteorology Act 1955* (Cth)
- Gives the Productivity Commission a role in reporting on the effectiveness of the implementation of the Murray–Darling Basin Plan and water resource plans and the progress towards achieving the objectives and outcomes of the National Water Initiative.

3.3.5.2 Relevance to the Project

The EIS investigation corridor travels through two catchment areas: the Condamine River Basin and the Lockyer Creek Catchment.

The western extent of the Project (Project Chainage (Ch) -1.76 km to Ch 8.8 km), including the majority of the Toowoomba Range Tunnel, is located in the Condamine River Basin. The Condamine River Basin is one of the largest catchments in the Murray–Darling Basin, covering an area of approximately 25,440 square kilometres (km^2)

with the main watercourse, the Condamine River, surrounded by several sub-catchments. The Project is located in the Gowrie Creek Catchment, which is part of the Upper Oakey sub-catchment. The *Water Plan (Condamine and Balonne) 2019* is the prevailing management plan for the surface water and groundwater resources (excluding Great Artesian Basin resources) for this catchment.

The eastern extent of the Project (Ch 8.8 km to Ch 26.2 km), is located in the Lockyer Creek Catchment, which is part of the Brisbane drainage basin. The Lockyer Creek Catchment covers an area of approximately 3,000 km^2 with the main Lockyer Creek surrounded by the sub-catchments. The sub-catchments intersected by the Project alignment within the Lockyer Creek Catchment include the Gatton Creek and Upper Lockyer Creek sub-catchments. The *Water Plan (Moreton) 2017* is the prevailing management plan for the surface water and groundwater resources (excluding Great Artesian Basin resources) for this catchment. Water resources within this catchment are not subject to the *Water Act 2007.*

3.3.5.3 Project compliance

Compliance with the *Water Act 2007—Basin Plan 2012* will be achieved by complying with the *Water Plan (Condamine and Balonne) 2019* under the *Water Act 2000* (Qld) (Water Act). The plan is the prevailing management plan for the surface water and groundwater resources in the Condamine–Balonne water resource plan area and was accredited by the Australian Government Minister for Water Resources, Drought, Rural Finance, Natural Disaster and Emergency Management as being consistent with the Basin Plan in September 2019.

Where necessary, construction water rights will be obtained from water markets subject to the water management protocol rules under the relevant water plans, or water permits or licences subject to a statutory application process under the Water Act.

3.4 Other State legislation

3.4.1 Aboriginal Cultural Heritage Act 2003

3.4.1.1 Overview

The purpose of the ACH Act is to provide effective recognition, protection and conservation of Aboriginal cultural heritage. This is defined as objects and areas in Queensland that are of particular significance to Aboriginal people because of Aboriginal tradition or history, or archaeologically or historically significant evidence of Aboriginal occupation of an area of Queensland.

The ACH Act protects Aboriginal cultural heritage primarily by prescribing a 'cultural heritage duty of care' that requires all persons to take all reasonable and practicable measures to avoid harming cultural heritage. Failure to comply with the cultural heritage duty of care is an offence. Additional offences prescribed by the ACH Act include unlawfully harming, excavating, relocating, taking away and possessing Aboriginal cultural heritage.

Relevantly, a person who carries out an activity will be taken to have complied with the cultural heritage duty of care in relation to Aboriginal cultural heritage (and will not commit any of the other offences prescribed by the ACH Act) if the person is acting under an approved CHMP that applies to the cultural heritage. An approved CHMP is mandatory for projects that require an EIS.

3.4.1.2 Relevance to the Project

The Yuggera Ugarapul People and the Western Wakka Wakka People are the relevant Aboriginal Parties for the EIS investigation corridor. CHMPs (CLH017009), under Part 7 of the ACH Act, have been developed, negotiated, and executed (2018), where required with the relevant Aboriginal Parties for the Project.

Searches of the Department of Aboriginal and Torres Strait Islander Partnerships (DATSIP) (now Seniors, Disability Services and Aboriginal and Torres Strait Islander Partnerships (DSDSATSIP)) Database and Register between 2018 and 2020 identified 770 reported Aboriginal cultural heritage sites within proximity to the Project (refer Table 3.3). The majority of these sites are the site type 'Object Collection', which appear to be salvaged artefacts, followed by artefact scatters, isolated finds and scarred trees.

TABLE 3.3: INDIGENOUS CULTURAL HERITAGE SITES REGISTERED WITH DSDSATSIP WITHIN THE PROJECT DISTURBANCE FOOTPRINT PLUS A 200 M BUFFER

Site type	Count	Per cent of the total
Object collection	413	53.64%
Artefact scatter	232	30.13%

Site type	Count	Per cent of the total
Isolated find	26	3.38%
Scarred tree	21	2.73%
Scarred/carved tree	16	2.08%
Aboriginal Intangible Place	14	1.82%
Earth feature	10	1.30%
Landscape feature	10	1.30%
Cultural site	5	0.65%
Stone feature	4	0.52%
Stone arrangements	4	0.52%
Grinding grooves	4	0.52%
Resource area	3	0.39%
Pathways	2	0.26%
Burials	2	0.26%
Quarry	1	0.13%
Earthen arrangements	1	0.13%
Contact site	1	0.13%
Shell middens	1	0.13%

Chapter 18: Cultural Heritage provides a further discussion on Aboriginal cultural heritage values in proximity to the Project.

3.4.1.3 Project compliance

Cultural heritage management plans for the Project were developed between ARTC and the relevant Aboriginal Parties (CLH017009) in 2018 and approved under the ACH Act. Areas and objects of particular significance to an Aboriginal person or group of persons will be managed through the approved CHMPs.

Compliance with the CHMPs will ensure compliance with the cultural heritage duty of care and ensure avoidance of offences prescribed by the ACH Act. CHMPs are a confidential agreement between the relevant Aboriginal Parties and ARTC and will not be released as part of the EIS.

Chapter 18: Cultural Heritage provides further discussion on Aboriginal cultural heritage values within and in proximity to the Project disturbance footprint.

3.4.2 Acquisition of Land Act 1967

3.4.2.1 Overview

The *Acquisition of Land Act 1967* (Qld) (AL Act) enables constructing authorities to acquire land for public purposes. The AL Act provides power to take land (or an easement) for a certain purpose (including railway purposes) and also the process to be followed to take the land. Most constructing authorities have their own legislation, which gives power to take land for specific purposes; however, the process is always the process in the AL Act.

3.4.2.2 Relevance to the Project

The Project has been intentionally aligned to use the existing West Moreton System rail corridor, existing road corridor and the Gowrie to Grandchester future state transport corridor where possible, minimising the extent of 'new' properties to be acquired. Notwithstanding this, the acquisition of land and interests in land will be required for the construction and operation of the Project.

Excluding untenured land that contains waterways and road reserves, the Project will directly impact 151 properties: 94 properties within the Toowoomba Regional Council (TRC) Local Government Area (LGA) and 57 within Lockyer Valley Regional Council (LVRC) LGA, along with 41 interests (e.g. easements, strata parcels etc.). Of the 151 properties, the Toowoomba Range Tunnel traverses under 36 properties including 7 properties with aboveground disturbance proposed. A list of the impacted properties, including the level of disturbance and tenure, is in Appendix V: Impacted Properties.

Of the 151 impacted properties:

- The Project traverses 20 properties (13 per cent) 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. These properties are all lands lease with the land to be secured in accordance with the *Land Act 1994* (Qld) (Land Act).
- 82 properties (~54 per cent) are located within the Gowrie to Grandchester future state transport corridor, and consist of:
  - 68 freehold properties (45 per cent)
  - 10 lands lease properties (6.6 per cent) and these properties are associated with the West Moreton System rail corridor. This land will be secured in accordance with the Land Act
  - 3 lands lease properties (2 per cent) are owned by QR with the land to be secured in accordance with the Land Act
  - 1 property (0.7 per cent) is a reserve (above the tunnel) with the land to be secured in accordance with the Land Act
  - Some of these properties have been acquired by the Department of Transport and Main Roads (DTMR) as an outcome of the *Gowrie to Grandchester Rail Corridor Study* (Queensland Rail and Queensland Transport, 2003) or as a result of the Toowoomba Second Range Crossing Project.
- 59 properties (39 per cent) are located outside both the West Moreton System rail corridor and the Gowrie to Grandchester future state transport corridor, consisting of:
  - 55 freehold properties (36.4 per cent)
  - 3 lands lease properties (2 percent) (former rail corridors) with the land to be secured in accordance with the Land Act
  - 1 property (0.7 per cent) is a reserve (above the tunnel) with the land to be secured in accordance with the Land Act.

The 36 properties intersected by the Toowoomba Range Tunnel will require a volumetric acquisition of the space below the surface of the land to allow for the proposed Toowoomba Range Tunnel to pass beneath each of the properties that are located on the land above. The properties traversed by the tunnel consist of:

- 32 freehold properties, including 7 properties impacted by surface works; 7 properties are also associated with the Toowoomba Bypass
- 2 properties are lands lease properties, with 1 associated with the Western Line and the other with the Main Line
- 2 properties are reserves.

Where volumetric acquisition is required, existing rights and interests of the aboveground surface area are retained by each respective landholder, with this process discussed in more detail in Chapter 6: Project Description and Chapter 8: Land Use and Tenure. Refer Section 3.4.31 for further discussion about the *Gowrie to Grandchester Rail Corridor Study* (Queensland Rail and Queensland Transport, 2003).

The Project will also require the acquisition of land burdened by easements and depth restrictions. The Project disturbance footprint traverses 41 easements, including 10 above the tunnel and six strata parcels of land which are leased under the Land Act.

Only the land required for the Project can be compulsorily acquired. Additional land may also be acquired where necessary or by agreement with affected owners.

3.4.2.3 Project compliance

The Project has been designed to:

- Use the existing West Moreton System rail corridor and the Gowrie to Grandchester future state transport corridor, where possible
- Align with roads and property boundaries where possible to reduce the severance of land parcels
- Reduce or mitigate potential impacts on property access, services or operational arrangements.

The required land can be acquired by negotiation with the landholder or through a compulsory acquisition process, known as 'land resumption'. Land is usually not acquired more than 1 or 2 years before construction and generally follows the approval of the Project.

The majority of land will be acquired by a constructing authority (e.g. a Queensland Government department or entity) that has compulsory acquisition powers. Where compulsory acquisition of land is required, the process outlined in the AL Act will be followed.

For example, DTMR is a constructing authority for the purposes of the AL Act and can acquire or resume new rail corridors under the *Transport Planning and Coordination Act 1994* (Qld) (TPC Act) for Queensland Rail (QR) and other rail managers such as ARTC. These resumption or acquisition powers can only be exercised if all environmental and public purpose issues have been addressed. DTMR may also consider an early purchase of a property under their Early Acquisition Policy.

The arrangements between ARTC and a constructing authority are yet to be finalised. Temporary and permanent access to state land tenures such as USL, reserves and roads will be undertaken in accordance with the Land Act.

The land required for the Project will be determined during detailed design in consultation with the construction contractor and the constructing authority.

Chapter 6: Project Description and Chapter 8: Land Use and Tenure provide further discussion regarding land requirements for the Project, with a list of the impacted properties in Appendix V: Impacted Properties.

3.4.3 Agricultural Chemicals Distribution Control Act 1966

3.4.3.1 Overview

The *Agricultural Chemicals Distribution Control Act 1966* (Qld) (ACDC Act) and the Agricultural Chemicals Distribution Control Regulation 1998 (Qld) aim to control the distribution of agricultural chemicals from aircraft and from ground equipment. Herbicides, a category of agricultural chemicals, are defined as any material used or intended to be used for destroying or preventing the spread of weeds. Herbicides are registered by the Australian Pesticides and Veterinary Medicines Authority. The misuse of herbicides has the potential to harm agriculture or livestock, the environment, trade, or human health, and the ACDC Act and Regulation are in place to ensure that commercial operators and their businesses distribute herbicides responsibly.

3.4.3.2 Relevance to the Project

Large areas of the Project disturbance footprint have significant weed growth, particularly non-native grasses, which have been introduced as part of historical agricultural land use of the area (refer Chapter 11: Flora and Fauna). In addition, the Project activities have the potential to increase the proliferation of weeds and pests. There is a requirement to appropriately manage weeds and pests as part of Project works.

Under the ACDC Act, the Project disturbance footprint is mapped as being a 'regulated area', meaning the provisions of the ACDC Act apply. Within the regulated area, three hazardous areas have been declared to protect susceptible crops in those areas from damage from certain volatile herbicides. A portion of the EIS investigation corridor is within mapped Hazardous Area No. 2, between Gowrie Junction and Mount Kynoch.

3.4.3.3 Project compliance

Any use of pesticides or herbicides to manage pests and weeds will need to be undertaken in accordance with the ACDC Act. Ground distribution of pesticides and herbicides may require both the operator of the equipment and the company or business employing or directing the operators to be licensed in accordance with the ACDC Act. For the purposes of the Construction Environmental Management Plan (CEMP), the Australian Pesticides and Veterinary Medicines Authority will regulate the lawful application of pesticides and herbicides for targeted pest and weed management activities.

A Biosecurity Management Plan will be developed as part of the CEMP and will include requirements under the ACDC Act. Refer Chapter 23: Draft Outline Environmental Management Plan for further details.

3.4.4 Biosecurity Act 2014

3.4.4.1 Overview

The *Biosecurity Act 2014* (Qld) (Biosecurity Act) safeguards the economy, agricultural and tourism industries, environment and way of life, from:

- Pests (e.g. wild dogs and weeds)
- Diseases (e.g. foot-and-mouth disease)
- Contaminants (e.g. lead on grazing land).

The Biosecurity Act achieves this by providing comprehensive biosecurity measures to ensure a consistent, modern, risk-based and less prescriptive approach to biosecurity in Queensland.

Under Section 23 of the Biosecurity Act, all people have a 'general biosecurity obligation'. This means that everyone is responsible for managing biosecurity risks that:

- Are under their control
- They know about or should reasonably be expected to know about.

Under the general biosecurity obligation, individuals and organisations whose activities pose a biosecurity risk must:

- Take all reasonable and practical steps to prevent or minimise each biosecurity risk
- Minimise the likelihood of causing a 'biosecurity event' and limit the consequences if such an event is caused
- Prevent or minimise the adverse effects the risk could have and not do anything that might make any adverse effects worse.

The Biosecurity Act classifies biosecurity risk as either a prohibited matter or a restricted matter. Under the Biosecurity Act, the Chief Executive of the Department of Agriculture and Fisheries (DAF) can declare a place to be restricted (restricted place) if they suspect that place poses a biosecurity risk.

Prohibited matter is not found in Queensland and if prohibited matter is found or if it is believed that this matter exists, it must be reported immediately to Biosecurity Queensland. Restricted matter is found in Queensland and action should be taken to limit its impact by reducing, controlling or containing it.

Fire ants (*Solenopsis invicta*) are a Category 1 Restricted Matter under the Biosecurity Act, with fire ant biosecurity zones in place in areas of Queensland to restrict the movement of materials that could spread fire ants. The Biosecurity Regulation 2016 prescribes biosecurity zones for fire ants, along with procedures that must be undertaken when moving or storing a high-risk material within and between fire ant biosecurity zones and requires a biosecurity instrumentation permit to be obtained in certain instances.

3.4.4.2 Relevance to the Project

Project activities, including the transport and movement of people, vehicles and machinery during construction, or the transport and movement of goods in operation, have the potential to increase biosecurity risks relating to the spread of weeds and pests.

The Project is not located within a fire ant biosecurity zone; however, other Inland Projects, Helidon to Calvert, Calvert to Kagaru and Kagaru to Acacia Ridge and Bromelton are located in fire ant biosecurity zones. Movement between these areas and the Project disturbance footprint during construction and operation will need to consider relevant measures under the Biosecurity Regulation 2016 to manage the risk of transporting fire ant material.

The Project EIS field assessments identified 19 restricted matters being listed flora (17) and fauna (2) species under the provisions of the Biosecurity Act, noting that there is the potential for other restricted matters to occur within the Project disturbance footprint and adjacent habitats. In addition to restricted matters, a total of 134 introduced flora species and 6 introduced fauna species have been recorded within the EIS investigation corridor during EIS field investigations.

The movement of equipment, material and vehicles may inadvertently introduce and spread weed and pest species present within the Project footprint across the wider region. This also applies to the operating rail corridor where weeds may proliferate in the disturbed areas associated with the Project or be introduced along the rail corridor.

Restricted matter that is encountered within the Project disturbance footprint will require management in accordance with the relevant categories of restricted matter.

Further analysis of biosecurity risks relevant to the Project as they relate to matters protected under the Biosecurity Act is in Chapter: 9 Land Resources, Chapter 11: Flora and Fauna and Chapter 13: Surface Water and Hydrology.

3.4.4.3 Project compliance

ARTC acknowledges their responsibilities under the Biosecurity Act and general biosecurity obligation to manage biosecurity risks.

ARTC will comply with the general biosecurity obligations under the Biosecurity Act through the implementation of biosecurity management plans. The plans will aim to mitigate the impacts of invasive species on the local ecosystems, and species assemblages, along with adjacent land uses in particular agriculture during the construction and operation of the Project, including measures to control, eradicate and monitor biosecurity

matters. The plans will include measures around the management of feral animals, along with invasive flora species, with the measures to align with existing pest management plans developed by the local councils, DAF and where applicable landholders.

Biosecurity risks associated with the Project will be managed in accordance with the relevant requirements of the Biosecurity Act.

Ecological surveys will be undertaken to identified and where applicable map out the biosecurity matters within the Project disturbance footprint, and where applicable adjacent habitats. This information will be used to develop biosecurity management plans, which will aim to mitigate the impacts of invasive species on the local ecosystems, and species assemblages, along with adjacent land uses in particular agriculture during the construction and operation of the Project, including measures to control, eradicate and monitor biosecurity matters.

A Biosecurity Management Plan will be developed as a component of the CEMP (refer Chapter 23: Draft Outline Environmental Management Plan). This plan will include provisions relating to the management of biosecurity risks associated with weeds, pests and where applicable diseases, parasites and virus (e.g. 'Dieback caused by the root-rot fungus *Phytophthora cinnamomi*' is listed as a key threatening process under the EPBC Act).

The Biosecurity Management Plan will include weed and pest surveillance and treatment during construction and rehabilitation activities to reduce the potential impacts from biosecurity risks to agricultural properties. The plan will also consider the movement of material and machinery, including from the other Inland Rail projects, particularly the Helidon to Calvert and Calvert to Kagaru projects.

The CEMP will include monitoring and management measures including weed surveillance and treatment during construction and rehabilitation activities, reducing the potential impacts from biosecurity risks to adjoining land and agricultural properties.

Biosecurity is also a risk during operations, with the Inland Rail rail corridor a potential conduit to move weeds or pest along the Inland Rail alignment and infest new areas. Weed management will be a key part of operations maintenance, with the aim of identifying and monitoring and then treating as required. Pest animal control will occur as needed to prevent high-priority pest animals inhabiting the rail corridor.

Some of these works are likely to be in partnership with adjacent landholders, stakeholders, relevant councils and other government agencies. This approach will help to prevent weeds and pests from establishing or spreading along the rail corridor or on neighbouring properties.

Rail operators will have their own policies and procedures to manage biosecurity.

Chapter 11: Flora and Fauna provides greater detail regarding biosecurity matters for the Project.

3.4.5 Building Act 1975

3.4.5.1 Overview

The *Building Act 1975* (Qld) (Building Act) regulates building work in Queensland. The Building Act specifies the type of work that constitutes assessable development under the Planning Regulation 2017 (Qld) (Planning Regulation). Building work under the Building Act is assessable development unless it is:

- Declared under Section 21 of the Building Act to be accepted development, or
- Carried out by or for the State or a public sector entity, to the extent the building work complies with the relevant provisions for the building work.

3.4.5.2 Relevance to the Project

Development approvals for building works under the Planning Act are expected to be required for components of the Project, including site offices required to support construction of the Project, along with the tunnel control centre and ventilation buildings.

3.4.5.3 Project compliance

Development permits for building work will be obtained for buildings and structures including site offices and the tunnel control centre to support construction of the Project. Development applications will be made as required during the detailed design phase.

3.4.6 Disaster Management Act 2003

3.4.6.1 Overview

The main objectives of the *Disaster Management Act 2003* (Qld) are:

- To help communities:
  - Mitigate the potential adverse effects of an event
  - Prepare for managing the effects of an event
  - Effectively respond to, and recover from, a disaster or an emergency situation.
- To provide for effective disaster management for Queensland.

A disaster is defined in Section 13 of the *Disaster Management Act 2003* as being a serious disruption in a community, caused by the impact of an event, that requires a significant coordinated response by the State and other entities to help the community recover from the disruption.

An event within the meaning of the *Disaster Management Act 2003* includes a cyclone, earthquake, flood, storm, storm tide, tornado, tsunami, volcanic eruption or other natural happening, an explosion or fire, a chemical, fuel or oil spill, or a gas leak, an infestation, plague or epidemic, a failure of, or disruption to, an essential service or infrastructure and an attack against the state. An event may be natural or caused by human acts or omissions.

Serious disruption means:

- Loss of human life, illness or injury to humans
- Widespread or severe property loss or damage
- Widespread or severe damage to the environment.

3.4.6.2 Relevance to the Project

Chapter 20: Hazard and Risk identifies relevant hazards and risks in the existing environment (in the absence of the Project) and also a number of potential hazards which have the potential to exist with the development of the Project. For the purposes of the *Disaster Management Act 2003* these include but are not limited to:

- Natural hazards that are external risks on the Project:
  - Historic climate data and long-term climatic predictions show that there is the potential for extreme temperatures which can create compression and tension stresses on rail infrastructure causing movement and buckling. In addition, there are risks from high winds on the viaducts.
  - The Project disturbance footprint interacts with two catchment areas: the Lockyer Creek Catchment and the Condamine River Basin. Within the Lockyer Creek Catchment, due to steep slopes in the upper reaches of the catchment (where the Project is located), watercourses may experience high flows—even those parts of the catchment that receive low rainfall.
  - The Project disturbance footprint includes scattered areas mapped as 'Medium Potential Bushfire Intensity' Bushfire Prone Area, with an area of 'Very High Potential Bushfire Intensity' occurring along the Toowoomba Range.
  - Potential for flash flooding events after periods of intense rainfall exists, particularly in areas of saturated soil or poor soil absorptivity.
  - There is potential for wildlife to interact with the Project.
  - The Project disturbance footprint intersects one Commonwealth Department of Defence mapped area for unexploded ordnances (potential to contain two-inch mortar and grenades) and is located adjacent to a second area (Queensland Government Explosives Reserve). Both areas are defined by the Department of Defence as areas of 'Slight Disturbance' for which land usage and development can continue without further unexploded ordnance investigation or remediation. The Project also crosses the former Mount Lofty Rifle Range where there is the potential for unexploded ordnance to occur.
- Potential hazards that exist with the development of the Project:
  - The Project disturbance footprint crosses areas of steep grade, specifically when traversing through the Toowoomba Range at Ballard, Withcott and Lockyer, which requires significant cuttings and the use of a tunnel. The inclusion of the Toowoomba Range Tunnel aims to reduce the risk of landslips and provide an efficient route through the steep terrain; however, tunnels introduce other hazards associated with

the risk of trespass, fire, explosion, flooding and subsidence. A serious accident in the tunnel would potentially involve temporary closure and significant expenditure for repair.

- The construction of the railway may involve blasting activities using explosives (earthworks and tunnel portals, and potentially within the tunnel).
- Freight of dangerous goods and/or hazardous chemicals during operation of the Project also poses a potential hazard.

If these hazards are not managed appropriately, the possibility of a disaster increases. The Project also intercepts known evacuation routes for local residents and their communities (e.g. Murphys Creek north of the Project is a Neighbourhood Safe Place during bushfires).

3.4.6.3 Project compliance

The Project has assessed potential hazards and risks which, if not identified and managed appropriately, may increase the possibility of a disaster.

The design of the Project has been developed to minimise the risk of a number of potential hazards, including:

- The Project will implement safety measures for the potential damage of tracks and assets as a result of extreme hot weather events, such as considering the use of elastic fasteners or heavier sleepers to reduce the risk of track buckling, selection of materials and colour to reduce heat load on trackside equipment.
- The Project's detailed design phase will include provision of access, including Rail Maintenance Access Roads (RMAR), to facilitate emergency access, first response firefighting, accessible and sufficient water supply for firefighting purposes and safe evacuation.
- Detailed drainage design has been undertaken to control cross flow and longitudinal flow from local and regional catchments to ensure the Project has the required immunity and that there are minimal impacts to flood sensitive receptors.
- The Project is located in the upper reaches of most catchments and elevated structures (e.g. bridges and viaducts) are designed where the Project intersects floodplains.
- The Project has been designed to achieve a 1% Exceedance Probability (AEP) flood immunity and to minimise unacceptable impacts on the existing flooding and drainage regime, with the exception of connections to existing infrastructure that has an existing lower immunity.
- Design and ratings of earthwork and geotechnical structures including culverts, viaducts, and bridges has been developed in accordance with geotechnical investigation findings and slope design to minimise risk from landslides.
- The design of the Toowoomba Range Tunnel has been based on geotechnical assessment and detailed ground modelling. Parameters such as space proofing, cross section, structure, design life, egress and tunnel linings will meet the requirement of relevant Australian Standards. The tunnel has been designed with mechanical ventilation for management of heat, particulate matter, and gases. The design of the tunnel accounts for the presence of dangerous goods in the specification of safety features.
- Design and ratings Toowoomba Range Tunnel has been developed in accordance with geotechnical investigation findings to minimise risk from subsidence.

Refer to Chapter 20: Hazard and Risk for a detailed discussion of the proposed mitigation measures regarding hazard and risk.

3.4.7 Electricity Act 1994

3.4.7.1 Overview

The *Electricity Act 1994* (Qld) is the main legislation governing Queensland's electricity industry and provides a framework for the generation, transmission and distribution of electricity in Queensland. Under the *Electricity Act 1994*, the Department of Energy and Public Works issues generation, transmission and distribution authorities.

Electricity distribution and transmission entities may assess development that will interface with electricity infrastructure forming part of the distribution and transmission network. Regardless of whether development is assessable development under a local categorising instrument or the Planning Regulation, works must comply with the rights and restrictions stated for an easement that is registered to a property's title. This may involve prior notification to the relevant electricity entity to seek approval for works.

Network service providers manage user connections to the electricity distribution network.

3.4.7.2 Relevance to the Project

ARTC is working with Ergon to provide a connection from the existing networks to the proposed substations at the eastern and western tunnel portals, the intermediate ventilation shaft and in tunnel. It is anticipated that the supply of these services will be delivered by relevant providers under the terms of their respective approvals and/or assessment exemptions.

The Project also interfaces with electricity infrastructure and easements operated by Energy Queensland (Energex and Ergon) and Powerlink. This includes the proposed rail alignment crossing over or under infrastructure; new access tracks through easements and altering current access roads.

3.4.7.3 Project compliance

The Project will comply with requirements of the *Electricity Act 1994* through consultation and approval of connection plans with the appropriate distribution network service providers. ARTC has engaged with the providers to identify interactions, proposed mitigation measures, approval pathways and costs (e.g. interaction reports and feasibility studies).

Pending detailed design and siting investigations and where necessary, development applications will be referred to the appropriate electricity entity for advice agency assessment where works and/or infrastructure are proposed within or in close proximity to electricity easements and assets.

Further information regarding interfaces with public utilities is in Chapter 6: Project Description and Chapter 8: Land Use and Tenure.

3.4.8 Electrical Safety Act 2002

3.4.8.1 Overview

The purpose of the *Electrical Safety Act 2002* is to prevent people from being killed or injured by electricity and preventing property from being destroyed or damaged by electricity.

3.4.8.2 Relevance to the Project

The Project will impact electricity utilities consisting of overhead powerlines owned by Energy Queensland (Energex and Ergon) and Powerlink. Further, electricity supply will be required for points, signalling and other infrastructure for the Project. The Toowoomba Range Tunnel will require a substation building for power supply and distribution to electrical equipment. It is anticipated that the supply of these services will be delivered by relevant providers under the terms of their respective approvals and/or assessment exemptions under the *Electricity Act 1994* (refer Section 3.4.7). Chapter 6: Project Description provides a further discussion on the utility/service crossings and supply requirements for the Project.

Chapter 20: Hazard and Risk identified that there is the potential for construction activities around existing services to introduce a risk of collision of plant and equipment with underground utilities and aboveground services. Interactions with existing services could pose a risk to public safety and the natural environment and habitat. Damage to or contact with services during construction could result in service outage to nearby communities.

3.4.8.3 Project compliance

Overhead transmission lines and buried telecommunication cables will be identified before construction to ensure that construction and operation do not interfere or damage the utilities as per the requirements of the *Electrical Safety Act 2002.* The Project has considered the design of the alignment to minimise the potential interference with these overhead utilities.

The Project will also comply with the clearance distance as specified in the ARTC Engineering Standard for Requirements—Electric Aerials Crossing ARTC Infrastructure (ARTC, 2005a) to ensure sufficient clearance and prevent contact with live electricity. The standard requires that all structures supporting a span of electric aerials over ARTC railway track or sidings be located so that in the event of failure, no part will fall within 1.8 m outside the rail of any railway track.

3.4.9 Environmental Offsets Act 2014

3.4.9.1 Overview

The main purpose of the *Environmental Offsets Act 2014* (Qld) (EO Act) is to counterbalance the significant residual impact of particular activities on prescribed environmental matters through the use of environmental offsets.

The EO Act establishes a framework for environmental offsets in Queensland, which includes:

- EO Act
- Environmental Offsets Regulation 2014 (Qld) (EO Regulation)
- Queensland Environmental Offsets Policy.

An environmental offset may be required as a condition of certain approvals where, following consideration of avoidance and mitigation measures, the prescribed activity is likely to result in a significant residual impact on prescribed environmental matters.

The EO Act defines a prescribed environmental matter as any of the following:

- An MNES
- A matter of state environmental significance (MSES)
- A matter of local environmental significance (MLES).

Once the administering authority has decided that a prescribed activity is required to provide an offset, the offset is required to be delivered in accordance with the EO Act, EO Regulation and the Queensland Environmental Offsets Policy.

To avoid duplication of offset conditions between jurisdictions, state and local governments can only impose an offset condition in relation to a prescribed activity, if the same, or substantially the same impact, and the same, or substantially the same matter has not be subject to assessment under the EPBC Act, *Great Barrier Reef Marine Park Act 1975* (Cth) or another Commonwealth Act prescribed by regulation.

The EO Act does not affect or limit the functions of the Coordinator-General under the SDPWO Act to impose offset conditions irrespective of the EO Act.

Environmental offsets for significant residual impacts to a prescribed matter may be delivered through a proponent-driven offset (e.g. land-based offset), a financial offset calculated in accordance with the Financial Settlement Offset Calculation Methodology, or a combination of proponent driven and financial offsets.

3.4.9.2 Relevance to the Project

For a prescribed activity, an environmental offset may be required as a condition of approval where, following consideration of avoidance and mitigation measures, the activity is likely to result in a significant residual impact on a prescribed environmental matter.

The Project is likely to result in significant residual adverse impact on prescribed environmental matters (MSES and/or MLES) requiring environmental offsets. Offsets will need to be provided in accordance with requirements of the EPBC Act, Coordinator-General's evaluation report and, for some approvals, the EO Act.

ARTC proposes to provide its offset obligations post EIS, following the detailed design phase. The ARTC Environmental Offset Delivery Strategy—Queensland (refer Appendix Y: ARTC Offset Strategy) documents the approach to be taken in relation to the delivery of Project environmental offsets.

Further discussion is contained in Chapter 11: Flora and Fauna, Appendix I: Terrestrial and Aquatic Ecology, and Appendix J: Matters of National Environmental Significance.

3.4.9.3 Project compliance

ARTC has undertaken significant residual impact assessments for MNES and MSES in accordance with following guidelines to determine whether the Project will have a significant residual impact:

- MNES were assessed using the *Significant Impact Guidelines 1.1—Matters of National Environmental Significance* (EPBC Act) (Department of the Environment (DotE), 2013) (refer Appendix J: Matters of National Environmental Significance)
- MSES were assessed using the relevant criteria outlined in the following documents (refer Appendix I: Terrestrial and Aquatic Ecology):

- *Significant Residual Impact Guideline for matters of State environmental significance and prescribed activities assessable under the Sustainable Planning Act 2009* (Department of State Development, Infrastructure and Planning, 2014)
- *Queensland Environmental Offsets Policy: Significant Residual Impact Guideline Nature Conservation Act 1992 Environmental Protection Act 1994 Marine Parks Act 2004* (DEHP, 2014a).

The ecological aspects described in the EIS (refer Chapter 11: Flora and Fauna, and Appendix J: Matters of National Environmental Significance) are subject to further investigations to more accurately determine the magnitude of the significant residual impacts upon the identified MNES and MSES. Specific mitigation measures (e.g. refinement of the corridor width or location of access tracks to avoid a known threatened species population) will then be applied to ensure that the significance ratings of any potential impacts are classified as low as reasonably practical.

Where appropriate, offsets have been proposed to compensate for the significant residual impacts and will be delivered via an Environmental Offset Plan post-EIS, following detailed design. ARTC will have regard to the principles of the Queensland Environmental Offsets Policy in determining and implementing offset requirements for MSES and MLES. The ARTC Environmental Offset Delivery Strategy—Queensland (refer Appendix Y: ARTC Offset Strategy) documents the approach to be taken in relation to the delivery of Project environmental offsets.

3.4.10 Environmental Protection Act 1994

3.4.10.1 Overview

The EP Act is Queensland's overarching environmental legislative framework for the protection and management of environmental values. The purpose of the EP Act is to:

> 'protect Queensland's environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends'.

The EP Act regulates activities that will or may have the potential to cause environmental harm and prescribes several mechanisms to ensure the objectives of the Act are met.

The EP Act also lists obligations and duties to prevent environmental harm, nuisances and contamination. The two primary duties that apply to everyone in Queensland are:

- General environmental duty—a person must not carry out any activity that causes or is likely to cause environmental harm, unless all reasonable and practicable measures to prevent or minimise the harm have been taken by that person (Section 319(1) of the EP Act). Environmental harm is defined in Section 14 of the EP Act as 'any adverse effect, or potential adverse effect (whether temporary or permanent and of whatever magnitude, duration or frequency) on an environmental value, and includes environmental nuisance'.
- Duty to notify of environmental harm—to inform the administering authority and landowner or occupier when an incident has occurred that may have caused or threatens serious or material environmental harm that is not authorised.

The EP Act also provides the power to administering authorities to order actions to be taken to improve environmental performance, conduct audits and environmental evaluations of activities, approve environmental management programs and impose penalties or prosecute persons for non-compliance with the requirements of the EP Act.

The EP Act, together with the Planning Act, provides a licensing regime for ERAs. ERAs are prescribed under Schedule 2 of the Environmental Protection Regulation 2019 (Qld) (EP Regulation) and include activities where the Governor in Council is satisfied that:

- A contaminant will or may be released into the environment where the activity is carried out
- The release of the contaminant will or may cause environmental harm.

Approval in the form of an Environmental Authority is required to lawfully undertake a prescribed ERA under Schedule 2 of the EP Regulation. Where a prescribed ERA is also listed as a Concurrence ERA in Schedule 2, a development permit for an MCU under the Planning Act is also required where a change of land use occurs.

The EP Act also requires that any person carrying out an ERA must be a Registered Suitable Operator, which is a person or corporation who has been registered by the Queensland Department of Environment and Science (DES) as being suitable to undertake an ERA. Once a person or corporation becomes registered, the registration remains in effect unless it is suspended or cancelled.

The following Environmental Protection Policy (EPP) subordinate legislation supports the operation of the EP Act:

- Environmental Protection (Air) Policy 2019 (EPP (Air)) (refer Chapter 12: Air Quality)
- Environmental Protection (Noise) Policy 2019 (EPP (Noise))
- Environmental Protection (Water and Wetland Biodiversity) Policy 2019 (EPP (Water and Wetland Biodiversity)) (refer Chapter 11: Flora and Fauna and Chapter 13: Surface Water and Hydrology).

The DES has also developed a suite of guidelines to assist proponents by specifying the information that must be included within an application for an EA. The guidelines include information required in relation to impacts to land, water and air. These EPPs are discussed further in the relevant chapters including any potential exemptions, for example Section 8 (4) (a) of the EPP (Noise). This section of the EPP (Noise) cross-references matters mentioned in Section 1, Part 1, Schedule 1 of the EP Act (which includes 'ordinary use of rail transport infrastructure') as being excluded from the Acoustic Quality Objectives.

DTMR's document *Transport Noise Management Code of Practice: Volume 2—Construction Noise and Vibration* (CoP Vol 2) (DTMR, 2015a) has been gazetted under s318E of the EP Act. It is also named as an applicable guideline in the ToR. The CoP Vol 2 has requirements for various stages of projects and is a means of demonstrating compliance with the General Environmental Duty under the EP Act. Further information is in Chapter 15: Noise and Vibration.

In addition to provisions under the EP Act relating to the assessment and management of contaminated land, the EP Act also contains provisions for the lawful disposal of contaminated soil. Under Section 739 of the EP Act, the removal and disposal of contaminated soil from land that is recorded on the Contaminated Land Register (CLR) or Environmental Management Register (EMR) to an offsite location will require a disposal permit under the EP Act to lawfully undertake the works. Disposal permits enable appropriate and legal disposal and tracking of contaminated soil or materials. Further information about land contamination is in Chapter 9: Land Resources.

3.4.10.2 Relevance to the Project

Under the EP Act, assessment and approval is required if the Project involves:

- Prescribed ERAs
- Movement of soil from land on the CLR or EMR.

Further, when considering the proposed works, and as part of making any environmental management decision under the EP Act, the administering authority is required to have regard to the matters set out under the EP Regulation, which includes consideration of the relevant EPPs.

The following ERAs prescribed under Schedule 2 of the EP Regulation are may be required as part of the Project's construction phase, noting that ERAs required to support construction will not be confirmed until a construction contractor is appointed, with the construction contractor to obtain the required authority or permit.

- Chemical storage (ERA 8) consists of storing:
  a) 50 tonnes (t) or more of chemicals of dangerous goods class 1 or class 2, division 2.3 in containers of at least 10 cubic metres (m^3)
  b) 50 t or more of chemicals of dangerous goods class 6, division 6.1 in containers capable of holding at least 900 kilograms (kg) of the chemicals
  c) more than 500 m^3 of chemicals of class c1 or c2 combustible liquids under Australian Standard (AS) 1940 or dangerous goods class 3
  d) the following quantities of other chemicals in containers of at least 10 m^3:
     i) 200 t or more, if they are solids or gases
     ii) 200 m^3 or more, if they are liquids.
- Electricity generation (ERA 14):
  - Generating electricity by using gas at a rated capacity of 10 megawatt (MW) electrical or more
  - Generating electricity by using a fuel, other than gas, at a rated capacity of:
    a) 10 megawatts (MW) electrical to 150 MW electrical
    b) more than 150 MW electrical.
- Extractive and screening activities (ERA 16):

b) extracting, other than by dredging, a total of 5,000 t or more of material, in a year, from an area

c) screening 5,000 t or more of material, in a year

- Under section 16(2)(c) the relevant activity does not include extracting material from a place for constructing a road or railway at that place.

- Crushing, milling, grinding or screening (ERA 33):
  - Consisting of crushing, grinding, milling or screening more than 5,000 tonne of material in a year
  - Under section 33(2)(a) the relevant activity does not include crushing, grinding, milling or screening grain crops, other agricultural products on a farm for use in a farm, waste or for carrying out an activity associated with extractive and screening activities (ERA 116)
- Regulated waste transport (ERA 57):
  - Consists of transporting regulated waste in a vehicle (Refer to Section 57(2) of the EP Regulation for exclusions).
- Water treatment (ERA 64)
  - Consists of carrying out any of the following activities in a way that allows waste, whether treated or untreated, to be released into the environment:

    a) Desalinating 0.5 mega litres (ML) or more of water a day

    b) Treating 10 ML or more of water a day

    c) Carrying out advanced treatment of 5 ML or more of water in a day.

3.4.10.3 Project compliance

By complying with relevant legislation, and government plans, policies, standards and guidelines (such as the CoP Vol 1 and CoP Vol 2), the Project will be consistent with the principles of best practice environmental management.

ARTC will comply with the general environmental duty and conditions of approvals for the Project, which will be implemented through the relevant environmental management plans and systems for the construction and operational phases of the Project, including the Draft Outline Environmental Management Plan (refer Chapter 23: Draft Outline Environmental Management Plan).

The Project environmental management plans will reflect the requirements outlined in the EPP (Air), EPP (Noise) and EPP (Water and Wetland Biodiversity). Further discussion of the Project's consideration of the EPP requirements is contained in Chapter 12: Air Quality, Chapter 15: Noise and Vibration, Chapter 13: Surface Water and Hydrology, and Chapter 23: Draft Outline Environmental Management Plan. The type and location of ERAs required in support of construction of the Project is yet to be confirmed. Therefore, the Project is not seeking stated conditions for ERAs as part of the EIS assessment process.

Relevant statutory approvals including EAs, development permits for an MCU for a concurrence ERA and Suitable Operator Registration will be obtained by the appointed contractor before commencing the relevant works. Subsequent applications for EAs will consider relevant guidelines (including but not limited to) *Guideline: Environmental authorities–Approval processes for environmental authorities* (Version 5 or later, 2019a) and the relevant guidelines regarding application requirements for activities with impacts to land, water and air.

Where soil from a landholding listed on the EMR/CLR cannot be treated or managed onsite and requires removal offsite, a disposal permit will be obtained by the approved contractor to authorise movement of the soil to a licensed waste disposal or treatment facility. Further information regarding land contamination is provided in Chapter 9: Land Resources.

3.4.11 Explosives Act 1999

3.4.11.1 Overview

The *Explosives Act 1999* (Qld) (Explosives Act) provides a framework to ensure the safe use, storage, handling, and disposal of explosive material so as not to endanger persons, property or the environment. The Explosives Act is enforced by the Explosives Inspectorate, Resource Safety and Health Queensland.

Under the Explosives Act, blasting can only be conducted by a person holding a shotfirer's licence.

Notification obligations for the use of explosives in blasting other than at a mine, quarry or explosives factory are set out in Section 154(1) and 155 of the Explosives Regulation 2017 (Qld) (Explosives Regulation). Under the Regulation, a Blasting Notification Form must be lodged with the Department of Resources Explosives Inspectorate, a minimum of seven days before the blasting is to occur.

In accordance with Section 154(2) of the Explosives Regulation, it is a requirement for a Blasting Notification to include certain information. This information is assessed for compliance with *Australian Standard (AS) 2187.2-2006 Explosives - Storage and use* : (Standards Australia, 2006a), by an inspector.

3.4.11.2 Relevance to the Project

Explosives may be used during construction of the Project to advance excavations by blasting of rock in locations where substantial cuts are required, as well as for construction of the tunnel portals and the tunnel. While locations requiring blasting are yet to be confirmed for the Project, Chapter 15: Noise and Vibration and Appendix O: Construction Noise and Vibration provides an assessment of construction noise and vibration that considers blasting activities.

3.4.11.3 Project compliance

Explosives will be transported, stored and used in a manner that is compliant with the following:

- *Explosives Act 1999*
- Storage of explosives is to meet the requirements detailed in Part 8 of the Explosives Regulation and *AS 2187.1-1998 Explosives—Storage, Transport and Use—Storage* (Australian Standards, 1998)
- Transport of explosives is to meet the requirements detailed in Part 9 of the *Australian Code for the Transport of Explosives by Road and Rail* (Australian Government, 2009) and the *Australian Code for the Transport of Dangerous Goods by Road and Rail.* (National Transport Commission, 2018)
- The use of explosives is to meet the requirements detailed in Part 10 of the Explosives Regulation and *AS 2187.2-2006 Explosives—Storage and Use Part 2: Use of Explosives* (Australian Standards, 2006a).

3.4.12 Fire and Emergency Services Act 1990

3.4.12.1 Overview

The objects of the *Fire and Emergency Services Act 1990* (Qld) are to provide for the prevention of, and responses, to fires and other emergency incidents, provide for rescue services and operations. The also establishes a framework for the management of the Queensland Fire and Emergency Service (QFES), the State Emergency Service, emergency service units established for an emergency service area and the conduct of authorised rescue officers.

3.4.12.2 Relevance to the Project

During the operational phase, tunnel operations will require power and water supplies for the ventilation system including the pressurised longitudinal egress passage and for the fire safety systems. It is anticipated that the supply of these services will be delivered by relevant providers. Fire pumps and tanks will be required to support the operation of the Toowoomba Range Tunnel.

In case of the train stopping in the tunnel due to fire or other emergency the design incorporates a fire-rated longitudinal egress passage. Additionally, emergency access/egress is provided on the viaduct structures should emergency situations occur.

During the construction of the Project, emergency services are to be kept informed of Project progress and changes in traffic management plans to ensure services are maintained in the surrounding region.

3.4.12.3 Project compliance

In consultation with QFES, the tunnel design has incorporated fire and life safety mitigation measures, to ensure appropriate facilities are available. These mitigation measures include limiting the amount of combustible material used in the construction of the tunnel, providing fire detection systems, preventing derailed trains from entering the tunnel, and preventing trains that are on fire from stopping in the tunnel.

QFES have also been consulted regarding access requirements to the tunnel and viaducts, including clearance and watercourse crossing design requirements. Further information is provided in Chapter 6: Project Description, Chapter 19: Traffic, Transport and Access and Chapter 20: Hazard and Risk.

3.4.13 Fisheries Act 1994

3.4.13.1 Overview

The *Fisheries Act 1994* (Qld) (Fisheries Act) provides for the use, conservation and enhancement of fisheries resources and fish habitats in Queensland. DAF is responsible for the conservation and management of fish habitats in Queensland, and provides advice regarding development assessment under the Planning Act that impacts on fisheries resources.

Schedule 1 of the Fisheries Act defines waterway barrier works as a dam, weir, or other barrier across a waterway if the barrier limits fish stock access and movement along the waterway. Operational work that is the constructing or raising of waterway barrier works can either be accepted development or assessable development under the Planning Act.

Accepted development must comply with all of the relevant requirements within the *Accepted development requirements for operational work that is constructing or raising waterway barrier works* (DAF, 2018b). If the development does not comply, it is assessable development and a development permit for operational work that is the constructing or raising of waterway barrier works must be obtained before development commences.

For any waterways that are not represented on the spatial data layer, *Queensland Waterways for Waterway Barrier Works*, it is essential that the subject waterway is attributed a colour as per the spatial data layer to inform whether the proposed work is able to be undertaken in accordance with the *Accepted Development Requirements for Operational Work that is Constructing or Raising Waterway Barrier Works* (DAF, 2018b), or alternatively is assessable development.

3.4.13.2 Relevance to the Project

Activities associated with the Project, such as the construction of the rail line and access roads will require works across waterways. The Project traverses mapped waterways requiring waterway barrier works and, therefore, will trigger the requirement to obtain a development permit for operational works, that is constructing or raising waterway barrier works, unless the works are accepted development.

The Project disturbance footprint intersects 24 waterways that are mapped on the *Queensland Waterways for Waterway Barrier Works* spatial data layer. Waterways providing for fish passage are a prescribed environmental matter under Queensland Environmental Offsets legislation, unless the waterway is within an urban area as defined under the Planning Regulation. The 24 waterway crossing points are classified as follows:

- 8 waterways mapped as green
- 9 waterways mapped as amber
- 4 waterways mapped as red
- 3 waterways mapped as purple.

There may be waterways present on ground that are not mapped on the Q*ueensland Waterways for Waterway Barrier Works* spatial data layer. There are over 70 watercourses mapped under the Water Act that intersect the Project disturbance footprint but are not mapped by the *Queensland Waterways for Waterway Barrier Works* spatial data layer (refer Chapter 13: Surface Water and Hydrology). The status classification of these waterways under the Fisheries Act is to be confirmed through on-ground assessments in consultation with DAF.

The western tunnel portal area (Ch 4.10 km) overlays two unmapped watercourses under the Water Act, which travel from the west to the east, draining to Gowrie Creek. Two trapezoidal diversion drains are proposed, one on the south (125 m long) and one on the north (600 m long). One of these unmapped watercourses is identified as an amber waterway on the *Queensland Waterways for Waterway Barrier Works* mapping, while an on-ground survey is required to confirm whether the other feature is a waterway providing for fish passage.

Further, two trapezoidal diversion drains (along a single stretch of a drainage pathway leading to an unnamed tributary of Gowrie Creek) are to be constructed at locations where the Project disturbance footprint will be located over existing flow paths on an unnamed tributary which is also an unmapped watercourse. The unmapped watercourse is identified as a 'green' waterway on the *Queensland Waterways for Waterway Barrier Works* mapping.

From Ch 17.25 km to Ch 17.44 km, the rail embankment will be located over an existing flow path and a diversion of the flow path will be required. This existing flow path is not identified at risk of impact on the *Queensland Waterways for Waterway Barrier Works* mapping. An on-ground survey is required to confirm whether this feature is a waterway providing for fish passage.

Other works likely to trigger waterway barrier works include filling, diversions, rock lining, and alterations to the bed and banks both permanent and temporary. Advice will be sought from DAF and appropriate approvals sought for operational works that is the constructing or raising of waterway barrier works.

3.4.13.3 Project compliance

The design was undertaken in consideration with the *Guide for the Determination of Waterways using the Spatial Data Layer Queensland Waterways for Waterway Barrier Works* (DAFF, 2013c) where watercourses that are not coloured on the *Queensland Waterways for Waterway Barrier Works* spatial data layer were not considered waterways. Under this guide waterway barrier works on these streams do not require approvals or assessment under the Fisheries Act.

Based on the *Queensland Waterways for Waterway Barrier Works* spatial data only 24 waterways for waterway barrier works intersect the Project disturbance footprint. Where the Project intersected a mapped waterway the design was undertaken in accordance with *Accepted development requirements for operational work that is constructing or raising waterway barrier works* (DAF, 2018b) for waterways that are mapped green, amber, and red. For example, fish passageway culverts have been upsized by 300 mm height for box culverts and 300 mm diameter for pipes from the calculated hydraulic sizes in order to submerge the culverts beneath the existing bed level by 300 mm at the upstream and downstream ends to comply with the fish passage requirements.

The design of each cross-drainage structure intersecting a mapped waterway will be verified at the detailed design stage to confirm compliance with the accepted development requirements.

In accordance with advice from Fisheries Queensland about the *What is a waterway barrier?* (DAF, 2021a), an assessment against the current waterway colour-coding has been undertaken. Where the Project disturbance footprint will be located over existing flow paths and other features not mapped as a waterway on the *Queensland Waterways for Waterway Barrier Works* spatial layer, further assessment and consultation with DAF will be undertaken to confirm whether that are considered to be a waterway providing fish passage under the Fisheries Act, and if so, what colour they should be mapped as.

The Toowoomba Range Tunnel will avoid works within instream habitats and riparian zones associated with Gowrie Creek. Further, the Project incorporates 6.7 km of bridges and viaducts, which predominantly avoid impacts to a number of waterways (i.e. footings are located above high-bank and outside the riparian zone). Structures are provided in the design to minimise disturbance of aquatic habitats over the following waterways:

- Gowrie Creek a mapped 'purple' waterway
- Oaky Creek a mapped 'red' waterway
- Six Mile Creek a mapped 'red' waterway
- Lockyer Creek a mapped 'purple' waterway.

New access roads are proposed through Rocky Creek, a mapped 'purple' waterway. The current design of these structures and access roads is such that the works would not constitute a waterway barrier under the Fisheries Act.

The Project also includes extension of existing culverts associated with the existing West Moreton System, with the design of the culverts being in accordance with the *Accepted Development Requirements for Operational Work that is Constructing or Raising Waterway Barrier Works* (DAF, 2018b).

Further information on the Project design is provided in Chapter 6: Project Description, with the design drawings illustrating waterways relative the Project design and key features provided in Appendix C: Design Drawings.

Engagement with DAF will be required to confirm whether the proposed works constitute waterway barrier works. This includes all proposed waterway crossings, diversions, filling and alterations to the bed and banks of waterways, along with the bridges and viaducts with in-stream components such as piers and scour protection. This is particularly relevant to areas adjacent to the Toowoomba Bypass where determinations under the Fisheries Act were previously made, which may impinge on the Project or the Project may impact on the existing works. This also applies to the proposed works adjacent under the West Moreton System.

Where structures do not meet the accepted development requirements, development permits for operational work that is constructing or raising waterway barrier works (Planning Regulation, Schedule 10, Part 6, Division 4, Section 12) will need to be obtained.

Where waterway crossings are constructed in accordance with *What is not a waterway barrier work?* (DAF, 2021b) or in accordance with the *Accepted Development Requirements for Operational Work that is Constructing or Raising Waterway Barrier Works* (DAF, 2018b), the works do not result in a significant residual impact.

Chapter 11: Flora and Fauna and Chapter 13: Surface Water and Hydrology provide further detail regarding aquatic environments and waterways affected by the Project.

3.4.14 Forestry Act 1959

3.4.14.1 Overview

The purpose of the *Forestry Act 1959* (Qld) (Forestry Act) is to provide for forest reservations, the management, silvicultural treatment and protection of state forests, the sale and disposal of forest products and quarry material, the property of the Crown on state forests, timber reserves and on other lands and for other purposes.

State-owned forest products and quarry material occur on state land including state forests, leasehold land, roads, USL and also on other lands where forest products and quarry material are reserved to the state. The Forestry Act manages and protects state forests and state-owned forest resources. Under Section 45 of the Forestry Act, the Crown has ownership of all forest products and quarry material unless otherwise expressly provided by some other Act. Sections 53 and to 54A prohibit interference with state-owned forest products or quarry material on state land other than under a permit granted without an authority under the Forestry Act or another Act.

Furthermore, the Forestry Act seeks to regulate the sale and disposal of the state's native forest products and quarry materials within these areas and on other Crown land where these occur. Under the Forestry Act, quarry material includes any stone, gravel, sand, rock, clay and earth that are not defined as a mineral under the *Mineral Resources Act 1989*. Quarry material within the non-tidal reaches of streams (called watercourses), freshwater natural lakes and the associated outer banks is regulated via the Water Act.

Section 25 of the Forestry Act gives power to the Governor in Council, by way of regulation, to set apart and declare particular land as a state forest. This includes any Crown land, or land that is part of an existing timber reserve, or a forest reserve that is declared under the *Nature Conservation Act 1992* (Qld) (NC Act).

A permit is required to interfere with any forest products or quarry material in any state forest, timber reserve, forest entitlement area, and on leasehold land or USL, or other land where ownership of these is reserved to the state.

3.4.14.2 Relevance to the Project

The Project does not traverse any areas of state forest, timber reserve, forest entitlement areas or USL, but does traverse roads, reserves and leasehold land, that area recognised as state lands where state-owned forest products and quarry materials are reserved to the state. The Project also intersects a number of freehold land parcels where state-owned forest products and quarry materials may occur and be reserved to the state.

Chapter 8: Land Use and Tenure and Appendix V: Impacted Properties describes the land uses and land tenure within the EIS investigation corridor and directly impacted by the Project.

3.4.14.3 Project compliance

Permits will be obtained by the proponent where required, or otherwise in accordance with the Forestry Act to authorise the interference with any state-owned forest products or quarry material. For example, a sales permit may be sought for the removal of materials or interfering on state land, including where applicable from the excavation of the Toowoomba Range Tunnel.

3.4.15 Land Act 1994

3.4.15.1 Overview

The Land Act prescribes the framework for the allocation of non-freehold land tenure and its subsequent management. The Land Act is administered by the Department of Resources and regulates the management of state land in Queensland for the benefit of the people by having regard to seven key principles: sustainability, evaluation, development, community purpose, protection, consultation and administration.

Chapter 3, Part 2 of the Land Act provides for, relevantly, the dedication and opening of roads, the closing of roads (including temporary and permanent road closure applications) and the issuing of road licences for temporarily closed roads.

The Department of Resources requires tenure to be issued under the Land Act for the occupation of a reserve, road, leased land or area of USL.

3.4.15.2 Relevance to the Project

State land and local roads are generally managed under the Land Act. As outlined in Section 3.4.2, the Project intersects state land, including lands lease, reserves, waterways and road reserves.

Where the permanent disturbance footprint traverses local roads and other state land, the land will be secured in accordance with the Land Act.

The Project will also require access to non-freehold land for construction, with nine lands lease parcels directly impacted by both the permanent and temporary disturbance footprint. In some instances, appropriate tenure or interest in state land, including for roads will be required for the Project under the Land Act.

Further information on the land use and tenure is provided in Chapter 8: Land Use and Tenure.

3.4.15.3 Project compliance

Where the Project requires tenure or interest in state land, ARTC and/or the constructing authority will engage with the relevant Land Administration and Acquisitions Unit within the Department of Resources and, where applicable, the relevant asset owner to discuss options and to begin proceedings under the Land Act. In addition, ARTC will also liaise with adjoining property owners and the relevant road/rail manager (i.e. local government, DTMR or QR) in the instance that temporary or permanent works (such as road closures) are required.

3.4.16 Mineral Resources Act 1989

3.4.16.1 Overview

The *Mineral Resources Act 1989* (Qld) provides the framework for exploration, development and mining tenure. Under the *Mineral Resources Act 1989*, the following mining tenements can be granted:

- Prospecting permits—a prospecting permit can be sought for any mineral other than coal and entitles the holder to prospect, hand-mine and peg a mining lease or claim.
- Exploration permits—exploration permits allow for more advanced methods to determine the quantity and quality of materials present. Permitted activities under exploration permit includes prospecting, conducting geophysical surveys, drilling and sampling and testing of materials.
- Mineral development licences—mineral development licences are issued to allow the holder to evaluate the development potential of the defined resource. Mineral development licences can be granted if an exploration permit is held where there is a significant mineral occurrence of possible economic potential.
- Mining claims—a mining claim can be issued for any mineral other than coal. A mining claim allows the holder to conduct small-scale mining operations such as prospecting and hand-mining.
- Mining leases—a mining lease allows the holder to conduct larger scale mining operations. Mining leases can be issued for any specified material, with permitted activities within the lease area including machine mining or other activities associated with mining or promoting the activity of mining.

3.4.16.2 Relevance to the Project

The Project does not impact on any mineral resource interests or areas where coal or mineral exploration permits have been granted under the *Mineral Resources Act 1989*, therefore the Act does not apply. Further information on mining tenements relative to the Project is provided in Chapter 8: Land Use and Tenure.

3.4.16.3 Project compliance

Not applicable—refer Section 3.4.16.2.

3.4.17 Native Title (Queensland) Act 1993

3.4.17.1 Overview

Consistently with the NT Act, the *Native Title (Queensland) Act 1993* is the law of Queensland that provides for the validation of certain historic acts undertaken in Queensland that were invalidated because of the existence of native title. The NT Act confirms that particular acts previously done in Queensland have resulted in the extinguishment of native title. The *Native Title (Queensland) Act 1993* has been developed to ensure that Queensland law is consistent with the standards set by the NT Act for future dealings affecting native title.

3.4.17.2 Relevance to the Project

Tenure within the Project disturbance footprint is predominantly freehold where, pursuant to the *Native Title (Queensland) Act 1993*, and on the assumption that the freehold grants were either past acts validated when the *Native Title (Queensland) Act 1993* commenced or future acts validly done in accordance with the NT Act, native title rights have been extinguished.

There is one current native title claim, the Yuggera Ugarapul People claim (QC2017/005), which has been accepted for registration, but yet to be determined within the Project's EIS investigation corridor.

The proposed Toowoomba Range Tunnel passes beneath two parcels of reserve tenure (Lot 10 on AG89 and Lot 40 on SP157008) and a waterway where native title may not be extinguished. The Project also traverses waterways and unlinked parcels where native title is likely to exist. Refer Chapter 8: Land Use and Tenure (including Figure 8.3) for further discussion.

The Project's potential impact on native title rights and interests will be addressed in the way described in Section 3.3.4.2.

3.4.17.3 Project compliance

The assessment of the Project disturbance footprint to ascertain where native title has not, consistently with the *Native Title (Queensland) Act 1993,* been extinguished is required in order to be clear about the areas in relation to which the carrying out of the Project would affect native title, and therefore be or involve future acts. To ascertain the extent to which native title may have been extinguished in relation to the Project disturbance footprint, the steps detailed in the Queensland government's Native Title Work Procedures will be followed.

Any such future acts will only validly affect native title if they are covered by (and, where applicable, done in accordance with) a provision of Part 2, Division 3 of the NT Act.

The potential impact of the Project on native title rights and interests is addressed in Chapter 8: Land Use and Tenure.

3.4.18 Nature Conservation Act 1992

3.4.18.1 Overview

The NC Act is the principal piece of legislation governing nature conservation in Queensland. The objective of the NC Act is the conservation of nature while allowing for the involvement of landholders and Indigenous people in the management of protected areas in which they have an interest under Aboriginal tradition or Island custom. A framework is created under the NC Act for the dedication, declaration and management of protected areas, protection of wildlife and its habitat.

The NC Act also includes mechanisms for the management of protected areas.

In Queensland, threatened species are listed under the NC Act in the following categories:

- Protected wildlife, that is:
  - Extinct
  - Extinct in the wild
  - Critically endangered
  - Endangered
  - Vulnerable
- Near threatened, where a species is at risk of becoming threatened in the near future
- Special least concern
- Least concern.

The Nature Conservation (Animals) Regulation 2020 (Qld) and Nature Conservation (Plants) Regulation 2020 (Qld) (replacing the previously repealed Nature Conservation (Wildlife) Regulation 2006 list the fauna and flora respectively that is recognised as extinct in the wild, endangered, vulnerable, and near threatened, and special least concern. The Nature Conservation (Animals) Regulation 2020 and Nature Conservation (Plants) Regulation 2020 further address the significance and declared management intent for each class.

Under the NC Act, permits and licences are required to authorise interference with certain native wildlife. This includes for clearing native plants, tampering with animal breeding places and catching and relocating wildlife.

Unless clearing is exempt, a protected plant-clearing permit will be required to be obtained under the NC Act for any proposed clearing which impacts Critically Endangered, Endangered, Vulnerable or Near-Threatened species. Under the NC Act, an authorisation will be required for the tampering of an animal breeding place (low-risk or high-risk species management program), interfering with a cultural or natural resource in a protected area or erecting a structure in a protected area.

A person must not take, use, keep or interfere with a protected animal unless the person is an authorised person.

A person, other than an authorised person, must not take, use, keep or interfere with native wildlife (other than protected wildlife) in an area that is identified under a regulation or a conservation plan as, or including a critical habitat or an area of major interest. Permits and licences are required to authorise interference with certain native wildlife.

3.4.18.2 Relevance to the Project

Clearing of vegetation and works associated with the Project may impact on threatened flora and fauna species, as listed under the NC Act.

During desktop assessment for fauna species, 30 threatened species were predicted or are known to occur with the EIS investigation corridor. Of these, three are considered likely to occur within the EIS investigation corridor based on specimen and database records and/or the presence of suitable habitat, with a further 18 species being considered possible to occur based on the presence of suitable habitat. During the Project EIS field assessments, two threatened fauna species were confirmed as occurring within the Project disturbance footprint.

During desktop assessments for flora species, 25 threatened flora species were predicted or are known to occur with the EIS investigation corridor. Of these species, seven are considered likely to occur within the EIS investigation corridor based on specimen and database records and the presence of suitable habitat, with a further 13 species being considered possible to occur based on the presence of suitable habitat. During the Project EIS field assessments, four threatened flora species were confirmed within or in close proximity to the Project disturbance footprint.

A number of special least concern species (flora and fauna), along with potential breeding habitat was also confirmed as occurring within, or in close proximity to the Project disturbance footprint.

The following permits and management plans may be required for the Project:

- Wildlife Movement Permits (Sections 88 and 97 of the NC Act)—for wildlife protected under the NC Act, and those found in certain areas covered by conservation plans created and implemented under the NC Act
- Clearing Permit (protected plants) (Section 89 of the NC Act)—for the clearing of vegetation contained within high-risk areas identified on the DES flora survey trigger map or where a threatened flora species is known to occur
- Rehabilitation Permit (spotter catcher endorsement) (Section 200 of the Nature Conservation (Animals) Regulation 2020)
- Damage Mitigation Permit (removal and relocation) (Section 161 of the Nature Conservation (Animals) Regulation 2020)
- Species Management Program submitted to the DES for approval for tampering with some animal breeding places (Section 332 of the Nature Conservation (Animals) Regulation 2020).

The Project is located predominantly in District A under the Nature Conservation (Koala) Conservation Plan 2017, with a small area less than 1% of the Project disturbance footprint in District C. The Project is also located in areas subject to the Nature Conservation and Other Legislation (Koala Protection) Amendment Regulation 2020, which amended a range of existing regulations to provide increased protection to koala habitat areas in South East Queensland.

The *South East Queensland Koala Conservation Strategy 2020–2025* (Koala Strategy) (DES, 2020m) was also established as part of the koala conservation reforms, with the strategy outlining the Queensland Government's direction in reversing the decline in koala populations across South East Queensland and, in doing so, safeguarding the future of this iconic species.

3.4.18.3 Project compliance

To inform approval requirements under the NC Act, further ecological surveys in accordance with relevant guidelines (e.g. *DES Flora Survey Guidelines—Protected Plants*) will be undertaken during detailed design. The surveys will aim to address changes to the Project design, methodology and footprint, along with further informing the design and construction, including specific measures to avoid, mitigate, minimise impacts on a particular species, along with ongoing monitoring activities. Noting that findings from a number of the existing protected plants surveys are no longer valid or the information will lapse before construction commences.

A Biodiversity Management Plan will be developed for the Project that will outline specific measures to tamper with animal breeding places and meet requirements under the Nature Conservation (Koala) Conservation Plan 2017 and where applicable the Koala Strategy. Alternatively, species management programs will be sought. Both approaches will require consultation with relevant State government agencies and, where applicable, DAWE.

Where a permit under the NC Act is required in support of proposed Project activities, the necessary permit will either be obtained by the construction contractor in advance of commencing the activity, or an appropriately licensed specialist, holding valid permits, will be engaged to undertake the tasks.

Chapter 11: Flora and Fauna describes the biodiversity and natural environmental values of the terrestrial and aquatic ecology likely to be impacted by the Project.

3.4.19 Petroleum and Gas (Production and Safety) Act 2004

3.4.19.1 Overview

In Queensland, petroleum and gas exploration and production activities are regulated under *Petroleum and Gas (Production and Safety) Act 2004* (Qld). Petroleum and gas authorities are granted for:

- Exploration—authority to prospect (ATP), potential commercial area (PCA)
- Production—petroleum lease
- Infrastructure development—petroleum facility licence and petroleum pipeline licence (PPL)
- Information gathering—petroleum survey licence, water monitoring authority and data acquisition authority.

The holder of the ATP may carry out the following activities within the area of the authority:

- Explore for petroleum
- Test for petroleum production
- Evaluate the feasibility of petroleum production
- Evaluate or test natural underground reservoirs for the storage of petroleum or a prescribed storage gas.

An ATP area can be declared a PCA under Section 90 of the *Petroleum and Gas (Production and Safety) Act 2004.* A PCA retains an ATP beyond its term to provide more time to commercialise the resource.

3.4.19.2 Relevance to the Project

There are no petroleum and gas exploration or production permits granted within the EIS investigation corridor. However, the Project disturbance footprint traverses one PPL, the Roma Brisbane Gas Pipeline (PPL 2) at three locations:

- Cranley (Ch 7.8 km), with the rail alignment in tunnel, approximately 125 m below ground level
- Harlaxton/Ballard (Ch 11.1 km), with the rail alignment travelling over the easement
- Helidon Spa (Ch 24.5 km), with the rail alignment travelling over the easement (Lockyer Creek Viaduct).

This PPL is held by APT Petroleum Pipelines Pty Limited (PPL 2) and is detailed in Chapter 8: Land Use and Tenure.

3.4.19.3 Project compliance

Consultation has commenced with APT Petroleum Pipelines Pty Limited (a subsidiary of APA Group) regarding asset interface requirements, including works within and traversing PPL 2. Consultation is detailed in Chapter 5: Stakeholder Engagement and Appendix D: Community Consultation.

Changes to tenure arrangement associated with the PPL will be managed under the *Transport Planning and Coordination Act 1994* (Qld) (TPC Act) in consultation with APA and the constructing authority.

When the proponent becomes the landholder of the rail corridor, it is a requirement of the Land Access Code (Department of Natural Resources and Mines, 2016) that the proponent consults with petroleum tenure holders. The proponent acknowledges their responsibilities under this provision and intends to advise APT Petroleum Pipelines Pty Limited as soon as possible of any changes in operations or management programs.

Further information on petroleum tenements relative to the Project is provided in Chapter 8: Land Use and Tenure.

3.4.20 Planning Act 2016

3.4.20.1 Overview

The Planning Act establishes the framework and overarching policy for land use planning for Queensland. The purpose of the Planning Act is to:

> 'establish an efficient, effective, transparent, integrated, coordinated and accountable system of land use planning and development assessment to facilitate the achievement of ecological sustainability'.

This purpose is achieved through:

- Protection of ecological processes and natural systems at local, regional, state, and wider levels
- Economic development
- Maintenance of the cultural, economic, physical and social wellbeing of people and communities.

The Planning Act includes state and local planning instruments that set out policies for planning or development assessment. State planning instruments are State Planning Policies and Regional Plans. Local planning instruments are planning schemes, temporary local planning instruments or a planning scheme policy.

The Planning Act includes a development assessment system, by which assessment managers assess and make decisions on development applications. There are three categories of development: prohibited, assessable or accepted development.

Under the Planning Act, development is either accepted, assessable or prohibited. The Planning Act also establishes a development assessment system (DA Rules), by which assessment managers assess and make decisions on development applications. The DA Rules set out a standardised assessment process to ensure State-wide consistency and transparency in development assessment.

Development may be prescribed as assessable development by the State in Schedule 10 of the Planning Regulation or by a local government through a planning scheme. The relevant assessment managers and referral agencies are set out in Schedule 7 and 10 of the Planning Regulation.

For development applications involving referral agency assessment, the State Assessment and Referral Agency (SARA) coordinates the referral process and issues decisions in response to its assessment of matters of State interest.

Under Division 4, Subdivision 1 of the SDWPO Act there are provisions, which modify the usual legislative process applying to the assessment and decision of proposed development under the Planning Act, where proposed development has been the subject of an EIS.

Schedule 6 of the Planning Regulation identifies development that cannot be made assessable under a local government planning scheme. Relevantly, this includes:

Schedule 6, Part 5, Section 26—infrastructure activities:

(1) Development for ancillary works and encroachments for a road carried out by or for the State

(2) Development for the construction of the following infrastructure, if the infrastructure is government supported transport infrastructure—

(d) transport infrastructure

(3) Development that—

(a) is adjacent to—

(iv) transport infrastructure; and

(b) ancillary to the use, maintenance, repair or upgrading of the infrastructure.

The following definition under Schedule 24 is relevant to the applicability of this exemption:

> 'government supported transport infrastructure' means infrastructure for transport that is for public use and funded, wholly or partly, by the State or Commonwealth, or provided by a person, other than under a development approval or infrastructure agreement, on conditions that are agreed to by the Government, and are intended to support the commercial viability of the infrastructure.'

This definition relies on the terms 'transport infrastructure' and 'rail transport infrastructure', which are defined under Schedule 6 of the *Transport Infrastructure Act 1994* (Qld) (TI Act). A discussion of these terms is provided in Section 3.4.29.

Further, the definition also relies on the term 'public use'. 'Public use' is not defined in the Planning Act and therefore the phrase has its ordinary meaning.

Schedule 7 of the Planning Regulation identifies development that is accepted development for which approval is not required. Under Part 3, this includes, relevantly, operational work for constructing or raising a waterway barrier, where the requirements for the works are prescribed under Fisheries Act, and the work complies with the requirements (i.e. the accepted development requirements for operational work that is constructing or raising of waterway barrier works). Further discussion regarding waterway barrier works approval requirements and exemptions is in Section 3.4.13.

Schedule 21 of the Planning Regulation also identifies vegetation clearing work that is exempt clearing work, for which approval is not required. Further discussion is in Section 3.4.32.

The Queensland State Development Assessment Provisions (SDAP) are the assessment benchmarks used by the state in development assessment in accordance with the Planning Regulation. The SDAP is a statutory instrument under the Planning Act and has effect throughout the state where the Chief Executive of the Planning Act is the assessment manager or referral agency for development applications that affect a State interest. Under the Planning Act, a State interest is defined as an interest that the Queensland Planning Minister considers affects an economic or environmental interest of the state or part of the state; or affects the interest of ensuring that the purpose of the Planning Act is achieved.

The SDAP consists of state codes, which are supported by Development Assessment mapping. Applicants must address the relevant state codes of the SDAP as part of a development application.

3.4.20.2 Relevance to the Project

The coordinated project declaration for the Project under the SDPWO Act does not exempt ARTC from the need to obtain relevant development approvals or infrastructure designation under the Planning Act.

The Project is, however, considered exempt from assessment under a local government planning scheme by Schedule 6, Part 5, Section 26 as 'government supported transport infrastructure' given:

- It is infrastructure for transport, being rail transport infrastructure as defined under Schedule 6 of the TI Act (refer Section 3.4.29)
- It is infrastructure for transport that is for a public use. The Project falls within the ordinary meaning of a 'public use' as:
  - Inland Rail Program provides a freight service that is available for use by the public
  - Components of the Inland Rail Program network will facilitate public passenger use, in addition to freight
  - Payment of a fee for use of the service does not detract from the public nature of the service
  - Rail corridor will be on state-owned land, and subject to a statutory lease under Section 240 of the TI Act
- It is funded partly by the Australian Government.

The Project triggers various aspects of the Planning Regulation depending on the type of activity and the location of the activity.

The relevant SDAP state codes will be addressed as part of applications to obtain post-EIS development applications.

3.4.20.3 Project compliance

A summary of the likely development approvals triggered by the Project together with potential exemptions are detailed in Section 3.6 and Table 3.4.

3.4.21 Plumbing and Drainage Act 2018

3.4.21.1 Overview

The *Plumbing and Drainage Act 2018* (Qld) (Plumbing and Drainage Act) provides the legislative framework for plumbing and drainage in Queensland and is overseen by the Department of Energy and Public Works. The Plumbing and Drainage Act provides for licensing plumbers and drainers and the approval of certain plumbing and drainage works. The Plumbing and Drainage Act regulates the carrying out of plumbing and drainage work in a way that reduces risks to public health and safety, and the environment.

3.4.21.2 Relevance to the Project

Aspects of the Project that are expected to require approvals under the Plumbing and Drainage Act include site office facilities that require regulated plumbing and drainage.

3.4.21.3 Project compliance

Approvals for plumbing or drainage work for site office facilities will be obtained, where required.

3.4.22 Public Health Act 2005

3.4.22.1 Overview

The objective of the *Public Health Act 2005* (Qld) is to protect and promote the health of the Queensland public by, relevantly:

- Preventing, controlling and reducing risks to public health
- Providing for the identification of, and response to, notifiable conditions
- Imposing obligations on persons and particular health care facilities involved in the provision of declared health services to minimise infection risks
- Inquiring into serious public health matters
- Responding to public health emergencies
- Providing for compliance with this Act to be monitored and enforced.

The Queensland Government's *Health considerations—Environmental Impact Statement: Guidelines for Proponents* (Department of Health, 2016) has been developed to ensure that EIS proponents identify relevant environmental hazards that have the potential to impact on human health and wellbeing and provide guidance to proponents on how to demonstrate that risks to human health have been minimised.

On 29 January 2020, the Queensland Minister for Health declared a public health emergency under Section 319(2) of the *Public Health Act 2005* (Qld) in response to the COVID-19 global pandemic. This declaration has continued under a number of extensions issued under Section 323(1) of the Public Health Regulation 2018 (Qld) and is currently in effect until 31 March 2021. During a public health emergency, the Chief Health Officer can issue Public Health Directions to assist in containing, or responding to, the spread of COVID-19 within the community.

3.4.22.2 Relevance to the Project

The Project has the potential to generate impacts that may impact on human health and wellbeing. Measures to avoid, minimise and manage Project impacts will therefore be required. These requirements have been considered in developing the current design for the Project and will continue to be relevant for advancing the detailed design post-EIS.

ARTC has developed a COVIDSafe Plan and management responses to the COVID-19 pandemic, which have been informed by the close monitoring of guidance provided by various State and Commonwealth government departments, work health and safety regulators and industry bodies.

Q fever (*Coxiella Burnetti*) is an airborne disease passed from animals to humans. People usually get infected by breathing in the Q fever bacteria that is in the air or dust (Parker & Parker, 2002). Cattle, sheep and goats are the main sources of infection; however, a wide range of animals including domestic and feral dogs and cats, feral pigs, horses, rabbits, rodents, alpacas, camels, llamas, foxes, and Australian native wildlife (including kangaroos, wallabies and bandicoots) can also spread the bacteria to humans. Infected animals often have no symptoms. The bacteria can be found in the placenta and birth fluids (in very high numbers), urine, faeces, blood or milk of animals

who are infected with or carry the bacteria. The bacteria can survive in the soil and dust for many years and be spread over several kilometres by the wind (NSW Government, 2019).

It is highly unlikely that the Gowrie to Helidon project will exacerbate any impacts or spread of Q fever. As there is already livestock moving along the existing rail corridor the risk is considered to be the same for this Project in the brownfield areas. Further detail is provided in Chapter 20: Hazard and Risk.

3.4.22.3 Project compliance

The requirements listed in *Health considerations—Environmental Impact Statement: Guidelines for Proponents* (Department of Health, 2016) have been considered and addressed by the Project, as follow:

- Air quality: an air quality assessment has been undertaken which demonstrates how the Project complies with the EPP (Air). Additional details are in Chapter 12: Air Quality.
- Noise: an environmental noise assessment has been undertaken which demonstrates how the Project complies with the EPP (Noise). Additional details are in Chapter 15: Noise and Vibration.
- Water quality: water quality issues associated with the Project, and a discussion on how these issues will be managed in accordance with the EPP (Water and Wetland Biodiversity), is covered in Chapter 13: Surface Water and Hydrology
- Land management (i.e. contaminated land, waste management, biosecurity and vector and pest management): land management issues associated with the Project, and discussion on how these issues will be managed, is covered in Chapter 9: Land Resources and Chapter 11: Flora and Fauna
- Community health and social aspects: community health and social issues associated with the Project, and discussion on how these issues will be managed, is covered in Chapter 16: Social.

Further, Chapter 23: Draft Outline Environmental Management Plan provides the environmental management framework to ensure that reasonable environmental outcomes are achieved for construction and commissioning of the Project, which includes consideration of aspects with the potential to impact human health and wellbeing.

ARTC and the construction contractor will implement COVIDSafe plans and procedures in accordance with the *Public Health Act 2005* (Qld) and relevant Public Health Directions to minimise any risk of contributing to the spread of COVID-19 infections. Further discussion is in Chapter 16: Social and Appendix Q: Social Impact Assessment.

3.4.23 Queensland Heritage Act 1992

3.4.23.1 Overview

Cultural heritage in Queensland is protected by the *Queensland Heritage Act 1992* (Qld) (QH Act). The aim of the QH Act is to protect heritage areas that are assessed to be of State significance for the benefit of the community and future generations. The identified heritage areas are placed on the Queensland Heritage Register and administered by the Queensland Heritage Council with advice from DES.

The Planning Act and QH Act regulate development on state heritage places to protect their cultural heritage significance and ensure their values are conserved. Any works that have the potential to impact the heritage significance of a state heritage place require either exemption or approval under the QH Act or the Planning Act.

Under the QH Act, it is an offence to knowingly destroy or otherwise interfere with a registered place or heritage item. Approval is required for any proposed development that has the potential to destroy or reduce the cultural heritage significance of a state heritage place.

The QH Act also creates a framework for the identification and management of places of local heritage significance. Under the Planning Regulation, development on a local heritage place is assessable development, except (relevantly) where the development is stated in Schedule 6 (which includes development for infrastructure facilities (transport infrastructure)).

The QH Act also protects archaeological artefacts and underwater cultural heritage artefacts, requiring notification of the discovery of any object that is an important source of information about an aspect of Queensland's history. It is an offence to knowingly destroy or otherwise interfere with such an object.

3.4.23.2 Relevance to the Project

A portion of the Project associated with the Toowoomba Range Tunnel passes beneath the West Moreton System at Ballard (at a depth of approximately 200 m). This section of the West Moreton System includes the Main Range Railway which is a state heritage place under the QH Act (Queensland Heritage Register Place ID #601480).

Additionally, the Project intersects one local heritage place associated with the Bicentennial National Trail at Gittins Road. As transport infrastructure, the Project is exempt from local heritage protections.

It is possible that archaeological discoveries will be made during project works. Any finds that have the potential to be of state significance will be reported to DES.

Chapter 18: Cultural Heritage and Appendix S: Non-Indigenous Cultural Heritage provides further discussion on non-Indigenous cultural heritage values relevant to the Project, along with mitigation measures to manage these values and any unexpected finds.

3.4.23.3 Project compliance

A heritage assessment has been prepared for the Project, which is contained in Appendix S: Non-Indigenous Cultural Heritage. The Project will pass beneath one state heritage place (Main Range Railway); however, the Project will not directly impact on Main Range Railway given the depth at which tunnelling will occur (approximately 200 m below ground level). Accordingly, ARTC is of the view that no approval is required under the Planning Act and QH Act.

The Project will intersect with one local heritage place, which is not assessable under a local government planning scheme in accordance with Schedule 6 of the Planning Regulation as it involves government supported transport infrastructure.

A Heritage Management Plan will be developed as part of the CEMP. The Heritage Management Plan will detail mitigation and management measures to be implemented during construction in relation to cultural heritage, including protocols for managing unexpected discoveries of archaeological materials.

3.4.24 Rail Safety National Law (Queensland) Act 2017

3.4.24.1 Overview

The purpose of the *Rail Safety National Law (Queensland) Act 2017 (*Qld) (RSNL Act) is to provide for safe railway operations in Australia. One of the objects of the Act is to establish the Office of the National Rail Safety Regulator (ONRSR) as the regulator in Queensland. The Rail Safety National Law was created following an agreement of the Council of Australian Governments to deliver a consistent approach to rail safety policy regulations (and to remove the inconsistencies) between the previous state and territory rail safety regimes.

The ONRSR has been established under the RSNL Act to administer a national system of rail safety regulation. Sections 52, 53 and 54 of the RSNL Act provide that rail transport operators and associated industry participants—contractors, manufacturers, designers and suppliers, referred to collectively as 'duty holders'—have an obligation to ensure the safety of railway operations. Under Section 46 of the RSNL Act, duty holders are required to:

- Eliminate risks to safety, so far as is reasonably practicable
- Where it is not reasonably practical, minimise those risks so far as is reasonably practicable.

The *ONRSR Guideline: Meaning of duty to ensure safety so far as is reasonably practicable* (ONRSR, 2016) states that the concept of 'so far as is reasonably practicable' is to achieve the best possible safety outcomes, to the extent that is 'reasonably practicable'.

3.4.24.2 Relevance to the Project

The RSNL Act governs the safe operation of the rail system in Queensland. The ongoing operation of the Project will need to comply with all aspects of the RSNL Act, covering rail industry work practices and protocols for safe working in rail corridors and associated accreditation, signalling and control, the ongoing management of structures and civil works, interfaces with public roads and highways and other activities impacting on rail safety.

The Project will also undertake works within and adjacent to the existing West Moreton System rail corridor, where QR is the rail infrastructure manager.

3.4.24.3 Project compliance

To fulfil the requirements under the RSNL Act, the Project has included a 'safety in design' process, which addresses the identification, development and implementation of hazard reduction measures achievable through its part in the overall design process. The safety in design identifies potential dangers across the Project lifecycle and provides a comprehensive framework to avoid or minimise risk and enhance safety, without unreasonably impacting on other design objectives.

ARTC is also seeking certification of the safety management system under this Act, refer Chapter 20: Hazard and Risk for further details on ARTCs safety management system.

ARTC will also continue to work with QR regarding potential interfaces during construction and operations, including access requirements, track possession, safety management system, level crossing (construction and operations), safety in design, signalling and mitigation measures for cumulative impacts from the operation of two rail system (e.g. noise).

Further information on potential interfaces between the exiting rail corridor the Project is provided in Chapter 19: Traffic, Transport and Access.

3.4.25 Regional Planning Interests Act 2014

3.4.25.1 Overview

The *Regional Planning Interests Act 2014* (Qld) regulates areas of regional interest (including strategic cropping areas) and requires that a resource activity or a regulated activity proposed to be located in an area of regional interest obtain a regional interests development approval following an assessment of the extent of the expected impact of the activity on the area. There are four areas of regional interest protected under the *Regional Planning Interests Act 2014*:

- Priority agricultural area
- Strategic cropping area
- Priority living area
- Strategic environmental area.

A Regional Interests Development Approval may be required when a resource or regulated activity is proposed in an area of regional interest.

3.4.25.2 Relevance to the Project

The Project is not a resource activity nor a regulated activity under the *Regional Planning Interests Act 2014*, and therefore the Act does not apply.

3.4.25.3 Project compliance

Not applicable—refer Section 3.4.25.2.

3.4.26 Soil Conservation Act 1986

3.4.26.1 Overview

The *Soil Conservation Act 1986* (Qld) (Soil Conservation Act) governs the conservation of soil resources and facilitates the implementation of soil conservation measures by landholders for the mitigation of soil erosion. The Soil Conservation Act regulates the approval of two types of soil conservation property plans to ensure the coordination of runoff to control erosion: property plans and project plans. The plans consist of a map and specifications for the soil conservation structures and practices necessary to control erosion. They may cover the whole of a property or part of it.

Approved property and project plans are binding on all present and future owners and the Crown. Both approved property plans and project plans can be modified to accommodate circumstances that differ from those applying at the time of approval. Plans may be amended or their approval may be revoked. This involves similar procedures to those used in the initial approval process.

3.4.26.2 Relevance to the Project

There are no soil conservation plans approved under the Soil Conservation Act that are impacted by the Project. Further information on soil conservation relative to the Project is in Chapter 9: Land Resources.

3.4.26.3 Project compliance

Not applicable—refer Section 3.4.26.2.

3.4.27 Stock Route Management Act 2002

3.4.27.1 Overview

The main purpose of the *Stock Route Management Act 2002* (Qld) is to provide for the management of the stock route network in Queensland.

Stock route area networks are primarily used by the pastoral industry for:

- An alternative to transporting stock by rail or road
- Pasture for emergency agistment
- Long-term grazing.

Stock routes can be a road that is declared to be a stock route or may be any route that has historically been used for walking stock.

The *Stock Route Management Act 2002* provides that a person must not, without reasonable excuse, obstruct the movement of travelling stock on a stock route (Section 179), burn or remove pasture on a stock route (Section 180) and place things on a stock route network that may harm travelling stock (Section 181).

3.4.27.2 Relevance to the Project

The Project does not traverse any declared stock routes.

Further information on stock routes is provided in Chapter 8: Land Use and Tenure.

3.4.27.3 Project compliance

While the Project does not traverse any declared stock routes, it is understood that there may be informal stock routes throughout the EIS investigation corridor used to transfer stock to various grazing paddocks and holding yards. Consultation is ongoing with landholders to identify impacts and any relevant requirements under the *Stock Route Management Act 2002*, in relation to stock routes that have historically been used for walking stock and informal stock routes.

3.4.28 Strong and Sustainable Resources Communities Act 2017

3.4.28.1 Overview

The *Strong and Sustainable Resources Communities Act 2017* (Qld) commenced on 30 March 2018.

The *Social Impact Assessment (SIA) Guideline* (SIA Guidelines) was developed by the Coordinator-General in accordance with Section 9(4) of the *Strong and Sustainable Resources Communities Act 2017* and was published in March 2018. It details what must be included in an SIA and covers the identification and assessment of social impacts, as well as their management and monitoring.

The SIA Guideline is a statutory instrument for all projects identified as large resource projects under the *Strong and Sustainable Resources Communities Act 2017*. It is also a non-statutory guideline for non-resource projects subject to an EIS process under either the SDPWO Act or the EP Act.

3.4.28.2 Relevance to the Project

The SIA Guideline is to be used as non-statutory guideline for the EIS. The Project is a linear infrastructure project for which 'potentially affected communities' include towns and rural areas in and near the EIS investigation corridor rather than 'nearby regional communities' within a 125 km radius as defined by the *Strong and Sustainable Resources Communities Act 2017.*

3.4.28.3 Project compliance

An SIA has been prepared for the Project, which meets the requirements of the SIA Guideline, as referenced within the ToR. The SIA is summarised in Chapter 16: Social and in detail in Appendix Q: Social Impact Assessment.

3.4.29 Transport Infrastructure Act 1994

3.4.29.1 Overview

The TI Act provides a framework for integrated planning and the efficient management of transport infrastructure. The objectives of the TI Act are to allow the Queensland Government to have a strategic overview of the provision and operation of all transport infrastructure.

As discussed in Section 3.4.20, development that is for 'government supported transport infrastructure' cannot be made assessable under a local government planning scheme. The definition of 'government supported transport infrastructure' under the Planning Act relies on the following terms which are defined under Schedule 6 of the TI Act:

- 'transport infrastructure' includes air, busway, light rail, miscellaneous, public marine, **rail or road transport infrastructure;** and transport infrastructure relating to ports; and other rail infrastructure; and active transport infrastructure
- 'rail transport infrastructure' means facilities necessary for operating a railway, including railway track and works built for the railway, including for example; cuttings, drainage works, excavations, land fill, track support earthworks; and any of the following things that are associated with the railway's operation; bridges, communication systems, machinery and other equipment, marshalling yards, notice boards, notice markers and signs, overhead electrical power supply systems, over-track structures, platforms, power and communication cables, service roads, signalling facilities and equipment, stations, survey stations, pegs and marks, train operation control facilities, tunnels, under-track structures.

Under the TI Act, various authorisations are required where infrastructure or works are proposed within transport corridors, including:

- Written approval of the Chief Executive under Section 33 of the TI Act to carry out works on a state-controlled road, or to interfere with a state-controlled road or its operation
- Road corridor permit under Section 50 of the TI Act to construct, maintain, operate or conduct ancillary works and encroachments on a state-controlled road
- Written permission from the railway manager under Section 255 of the TI Act to interfere with a railway.

3.4.29.2 Relevance to the Project

The Project is 'government supported transport infrastructure' as discussed in Section 3.4.20.

The Project interfaces (i.e. rail over road) with state-controlled roads, Murphys Creek Road and the Toowoomba Bypass. The Project also crosses under approximately 220 m below the New England Highway and the Toowoomba Bypass at Mount Kynoch, along with crossing under the Toowoomba Bypass at Gowrie Junction and Cranley.

The Project connects into the existing West Moreton System rail corridor at Gowrie and Helidon, and also runs parallel to the existing rail corridor for 5.6 km. The Project will also require a new road over rail crossing at Gowrie and a rail over rail crossing at Lockyer Creek. The Project will also cross under the existing West Moreton System rail corridor at Cranley and Ballard.

Approvals under the TI Act will be required for activities and works that interfere with state-controlled roads or railways.

The Project also generally aligns with the Gowrie to Grandchester future state transport corridor under the Public Passenger Transport Guideline (No. 1) 2019 made under the TPC Act in 2005.

3.4.29.3 Project compliance

It is expected that the impacted properties (freehold) or leased (state land) by the relevant constructing authority, will be converted to USL and dedicated as 'railway corridor land' under the TI Act or in some cases a road under the Land Act.

The land acquired for 'railway corridor land' will likely be held as a perpetual lease by DTMR, with a similar sub-lease arrangement to that of the existing West Moreton System rail corridor between QR and DTMR (e.g. head lease between ARTC and DTMR). Under this sub-lease arrangement, ARTC will have a duty of care to the land, while DTMR will approve any third-party uses or new crossings of the corridor. ARTC is already considered a rail manager under the TI Act, with an existing sub-lease arrangement of the Sydney to Brisbane interstate rail line.

Approvals under the TI Act will be obtained for the Project as required.

Refer to Chapter 19: Traffic, Transport and Access for further information regarding interfaces with the State-controlled road network.

3.4.30 Transport Operations (Road Use Management) Act 1995

3.4.30.1 Overview

The T*ransport Operations (Road Use Management) Act 1995* (Qld) provides for the effective and efficient management of road use in the State and vehicle use in a public place. The T*ransport Operations (Road Use Management) Act 1995* also provides for a scheme for managing the use for the State's roads. The scheme provides for the:

- Identification of vehicles, drivers and other road users, and the establishment of performance standards
- Establishment of rules for on road behaviour
- Monitoring of compliance with the *Transport Operations (Road Use Management) Act 1995*, including by using alternative compliance schemes
- Management of non-performing vehicles, drivers and other road users
- Control of access to the road network, or parts of it, for vehicles, drivers and other road users
- Management of traffic to enhance safety and transport efficiency.

3.4.30.2 Relevance to the Project

The Project involves works within the road network which will be managed by traffic management plans.

3.4.30.3 Project compliance

Where works are required within the existing road network, traffic management plans will be prepared and implemented to control traffic and maintain the safety of traffic.

Refer to Chapter 19: Traffic, Transport and Access for further information regarding the need for traffic management during construction.

3.4.31 Transport Planning and Coordination Act 1994

3.4.31.1 Overview

The TPC Act is the primary legislation relating to transport in Queensland. The TPC Act aims to achieve transport effectiveness through strategic planning and management of transport services so as to improve the economic, trade and regional development performance of Queensland, and the quality of life of Queenslanders.

Under the TPC Act, these objectives are achieved through:

- Development and delivery of a transport coordination plan to provide a framework for strategic planning and management of transport resources in Queensland (currently the Transport Coordination Plan 2017–2027 (Transport Coordination Plan) (DTMR, 2017c)). The objectives of the Transport Coordination Plan focus on five key areas:
  - Customer experience and affordability
  - Community connectivity
  - Efficiency and productivity
  - Safety and security
  - Environment and sustainability.
- Enabling the chief executive to encourage increased integration between land use and transport

- Affording the chief executive powers including:
  - Authority to acquire, hold, dispose of or otherwise deal with land for the purposes of transport, for an incidental purpose, for the purpose of a transport associated development or for a combination of these purposes
  - Acquire land through resumption processes for the purpose of transport infrastructure, transport associated development or for an incidental purpose.

For the purposes of the State Planning Policy, a state transport corridor and a future state transport corridor is defined as an active transport corridor and a future transport corridor under a guideline made pursuant to the TPC Act.

3.4.31.2 Relevance to the Project

The Project represents a significant element of transport infrastructure which will interact with Queensland's existing transport network of rail, state-controlled roads and local government roads.

The following objectives of the Transport Coordination Plan are of relevance to the Project:

- Transport meets the needs of all Queenslanders, now and into the future
- Transport connects communities to employment and vital services
- Transport facilitates the efficient movement of people and freight to grow Queensland's economy
- Transport is safe and secure for customers and goods
- Transport contributes to a cleaner, healthier and more liveable environment and is resilient to Queensland's weather extremes.

The Project also generally follows the Gowrie to Grandchester future state transport corridor under the Public Passenger Transport Guideline (No. 1) 2019 made under the TPC Act. This aligns with the direction from the State to follow the future state transport corridor.

The Gowrie to Grandchester future state transport corridor was protected by the State under the TPC Act in 2005 following the *Gowrie to Grandchester Rail Corridor Study* (Queensland Rail and Queensland Transport, 2003). The intent of the corridor was for:

- A high level of rail service to connect the south west of the state to Brisbane
- Design speeds up to 200 km/hr, where possible, to cater for potential future higher train operating speeds
- Possible future double stacked container freight trains
- Potential link to any future private sector proposal for the Melbourne–Darwin inland rail concept
- Standard and narrow-gauge rail capability
- Electrification, if this is a future requirement
- Retention of historic rail tunnels and stations.

Refer to Chapter 2: Project Rationale for further discussion regarding the *Gowrie to Grandchester Rail Corridor Study* (Queensland Rail and Queensland Transport, 2003).

3.4.31.3 Project compliance

The Project is consistent with the objectives of the Transport Coordination Plan as it will:

- Provide opportunities for economic benefit in regional communities
- Provide an efficient and cost-competitive freight option when compared to road transportation
- Enable freight movements that are currently reliant on road transportation, to be migrated to rail and in doing so, facilitate improvements to the safety of the existing road network.

The benefits of the Inland Rail Program, and the Project, and the relevance to the Transport Coordination Plan are discussed in Chapter 2: Project Rationale.

3.4.32 Vegetation Management Act 1999

3.4.32.1 Overview

The VM Act regulates and manages the process and impacts of native vegetation clearing. The objectives of the VM Act include conservation of remnant regional ecosystems (REs), prevention of the loss of biodiversity, maintenance of ecological processes, and conservation of vegetation in areas of high nature conservation value, lands vulnerable to land degradation, and the preservation of high-value regrowth areas.

Clearing of relevant remnant or regulated regrowth vegetation constitutes operational works under Schedule 10 of the Planning Regulation that will require development approval, unless the clearing is exempt clearing work or the clearing is undertaken in accordance with an accepted development vegetation clearing code.

Under Schedule 21, Part 1, Item 14 of the Planning Regulation, the following clearing work is exempt clearing work for which a development permit is not required:

(14) Clearing vegetation for the construction or maintenance of infrastructure stated in Schedule 5, if:

a) the clearing is on designated premises

b) the infrastructure is government supported transport infrastructure.

where:

- 'infrastructure' stated in Schedule 5 (of the Planning Regulation) includes (under Part 1) 'transport infrastructure, including transport infrastructure stated in Schedule 2 of the Planning Act under the definition of 'development infrastructure'
- 'transport infrastructure' as defined under Schedule 24 of the Planning Regulation, includes:

  a) other rail infrastructure

  iii) rail transport infrastructure.

  Schedule 6 of the TI Act defines these terms:

- *'other rail infrastructure' under Schedule 6 of the TI Act means (a) freight centres or depots; or (b) maintenance depots; or (c) office buildings or housing; or (d) rolling stock or other vehicles that operate on a railway; or (e) workshops; or (f) and any railway track, works or other thing that is part of anything mentioned in paragraphs (a) to (e).*
- *'rail transport infrastructure' under Schedule 6 of the TI Act means facilities necessary for operating a railway, including:*
  - *railway track and works built for the railway, including for example: cuttings, drainage works, excavations, land fill, track support earthworks; and*
  - *any of the following things that are associated with the railway's operation: bridges, communication systems, machinery and other equipment, marshalling yards, noticeboards, notice markers and signs, overhead electrical power supply systems, over-track structures, platforms, power and communication cables, service roads, signalling facilities and equipment, stations, survey stations, pegs and marks, train operation control facilities, tunnels, under-track structures; and*
  - *vehicle parking and set down facilities for intending passengers for a railway that are controlled or owned by a railway manager or the chief executive; and*
  - *pedestrian facilities, including footpath paving for the railway that are controlled or owned by a railway manager or the chief executive*
  - *but does not include other rail infrastructure.'*
- Development infrastructure (under Schedule 2 of the Planning Act) includes:
  - *(a) land or works, or both land and works, for:*

    ii) transport infrastructure, including roads, vehicle lay-bys, traffic control devices, dedicated public transport corridors, public parking facilities predominantly serving a local area, cycleways, pathways and ferry terminals.

Government supported transport infrastructure means (under Schedule 24 of the Planning Regulation) infrastructure for transport that is for public use and is funded, wholly or partly, by the state or Commonwealth, or provided by a person, other than under a development approval or infrastructure agreement, on conditions that are agreed to by the government; and are intended to support the commercial viability of the infrastructure.

3.4.32.2 Relevance to the Project

The Project disturbance footprint extends across a range of vegetation categories and communities mapped under the VM Act, including Category B and Category C regulated vegetation, regulated vegetation within or near a watercourse and therefore clearing of vegetation regulated under the VM Act will occur as a result of the Project.

In addition, the Project intercepts state land tenures including reserves, USL and road reserves where clearing of native vegetation mapped as Category X will occur. The clearing of native vegetation within a Category X area on these tenures is assessable development (unless prescribed as accepted development or exempt), noting that there is no clearing associated with the two reserves as they are associated with the Toowoomba Range Tunnel.

Clearing of vegetation for the Project, including any early works is considered to be eligible for exemption under Schedule 21 of the Planning Regulation (i.e. government supported transport infrastructure) and does not require a development approval. This includes clearing for early works and pre-construction activities, including the establishment of laydown areas and access roads as described in Chapter 6: Project Description.

Government supported transport infrastructure is transport infrastructure that is for public use and funded wholly or partly by the state or Commonwealth or which is provided on conditions agreed to by the relevant government (other than under a development approval or infrastructure agreement) and intended to support the commercial viability of the infrastructure.

The VM Act is relevant to the flora and fauna assessment to the extent that it provides for classification of regional ecosystems as endangered, of concern, or least concern, with relevant categories of regulated vegetation also considered to be MSES under the EO Regulation. Chapter 11: Flora and Fauna provides further detail regarding relevant vegetation categories and communities.

There is potential for development for the construction of the Project (e.g. borrow sites used to source construction material) to occur outside of the Project footprint. Depending on the nature of the mapped vegetation, underlying land use zoning and nature of proposed use, operational work that is vegetation clearing may be exempt clearing work, accepted development or assessable development for which a development permit for operational works is required.

3.4.32.3 Project compliance

The Project is considered to involve exempt clearing work under Schedule 21 of the Planning Regulation, subject to confirmation of the final Project disturbance footprint, the nature and requirement for temporary development works outside of the Project disturbance footprint, the timing or staging of planned clearing works proposed and the tenure of the land. In the instance that portions of clearing works for the Project are not eligible for exemption or the clearing cannot be undertaken in accordance with an accepted development vegetation clearing code, the necessary approvals will be obtained where required, noting that this would be the responsibility of the respective contractor or site owner.

3.4.33 Waste Reduction and Recycling Act 2011

3.4.33.1 Overview

The *Waste Reduction and Recycling Act 2011* (Qld) (WRR Act) promotes waste avoidance and reduction, resource recovery and efficiency actions. The WRR Act provides a strategic framework for managing wastes through a waste and resource management hierarchy, as listed below in the preferred order to be considered:

a) Avoid or reduce

b) Reuse

c) Recycle

d) Recover energy

e) Treat

f) Dispose.

Under the WRR Act, the management of priority wastes are of strategic importance, due to the high disposal impacts, social impacts, potential resource savings and business opportunities associated in their recovery. This piece of legislation also enables the Queensland Government to work with industry and the community in identifying the most appropriate management options for priority wastes. The management of waste activities associated with the Project will largely be underpinned by the WRR Act hierarchy.

The Waste Reduction and Recycling Regulation 2011 (Qld) sets out the mechanisms to achieve the objectives of the WRR Act. The Queensland Government has developed a waste management and resource recovery strategy to reduce the amount of waste being generated and to grow the resource recovery and recycling industry. This is underpinned by a waste levy, which commenced on 1 July 2019.

3.4.33.2 Relevance to the Project

The construction phase of the Project will generate the majority of the Project's waste. This waste can be broadly classified as:

- Green waste from vegetation clearing
- Construction and demolition waste (including spoil)
- General waste (municipal waste) from construction compounds
- Regulated waste (required to be managed in accordance with the EP Regulation)
- Recyclables which are waste streams that can be reconditioned and reprocessed for reuse.

Where waste is not reused or recycled onsite, waste generated through the Project will need to be disposed of offsite at appropriately licensed facilities. There are a number of landfills in the Toowoomba and Lockyer Valley LGAs, with the Toowoomba Waste Management Centre identified as the major facility to receive material given its capacity and proximity to the Project.

ARTC has had initial discussions with TRC and LVRC regarding capacity of the landfills to support the Project, in particular spoil management. Noting that there is limited capacity for the Toowoomba Waste Management Centre to accept spoil material.

3.4.33.3 Project compliance

The management of waste and spoil associated with the Project will be underpinned by the WRR Act waste and resource management hierarchy, as listed above.

Where avoidance is not possible, all waste will be reused or recycled in the first instance where practical. Where waste is not reused or recycled onsite, waste generated through the Project will need to be disposed of offsite at appropriately licensed facilities involving payment of applicable waste levies under the WRR Act.

The Project proposes to manage excess material from the Project (~1,000,000 m^3) within the rail corridor, including a permanent stockpile at the western tunnel portal for the management of material excavated from the tunnel. Where possible, this material will be made available for other projects in the region, with the potential for the material to be reused on the adjacent NSW/Queensland Border to Gowrie Inland Rail project and also by TRC. Further, any spoil material that cannot be reused due to unsuitability of composition, not meeting construction specifications for the required application or if identified to be contaminated, will be treated to allow reuse and avoid disposal.

The sustainability commitments embedded into the Environment and Sustainability Policy (ARTC, 2018a) include encouraging sustainability throughout the value chain for goods and services used to build and operate Inland Rail and the Project (refer Chapter 7: Sustainability).

Further information regarding Project waste streams, waste and spoil management plans is in Chapter 21: Waste and Resource Management and Chapter 23: Draft Outline Environmental Management Plan, together with Appendix T: Spoil Management Strategy.

3.4.34 Water Act 2000

3.4.34.1 Overview

The Water Act provides a framework to deliver sustainable water planning, allocation management and supply processes to provide for the improved security of water resources in Queensland. The Water Act is supported by the Water Regulation 2016 (Qld) and various water plans for defined geographic regions. The main purpose of the Water Act is to provide for the:

- Sustainable management of Queensland's water resources and quarry material by establishing a system for:
  - Planning, allocation and use of water, including the preparation and implementation of water plans and water resource plans
  - Allocation of quarry material and riverine protection
- Sustainable and secure supply and demand management for the South East Queensland region and other designated regions
- Management of impacts on underground water caused by the exercise of underground water rights by the resource sector
- Effective operation of water authorities.

Under the Water Act, water plans may set limitations on taking of or interfering with water in the plan area and prescribe the requirements for applications for granting water entitlements or other authorisations. The Water Act also contains provisions for water use plans to be prepared and implemented to regulate water use in a defined area where there is a risk of land and water degradation.

Through the Planning Act, and the Planning Regulation 2017, certain types of water-related development are assessable under the Water Act, requiring approval (as operational works). This includes approval for most works proposed within a defined watercourse (i.e. pumps, gravity diversion, stream diversion, weirs, barrages and dams).

Under the Water Act, a watercourse is defined as:

- *A river, creek or other stream, including a stream in the form of an anabranch or a tributary, in which water flows permanently or intermittently, regardless of the frequency of flow events:*
  - *In a natural channel, whether artificially modified or not, or*
  - *In an artificial channel that has changed the course of the stream.*

The Queensland Government maintains Watercourse Identification Mapping, which identifies defined watercourses under the Water Act, as well as drainage features.

In addition to the water related development approvals triggered under the Planning Act, the Water Act regulates the taking or interfering with the flow of water on, under or adjoining land (including surface water, artesian water, and in some instances overland flow where regulated through a water plan). This may require a water licence under the Water Act to be obtained as evidence of entitlement to the resource and a development permit for operational work under the Planning Act where constructing or installing certain types of works.

The Department of Regional Development, Manufacturing and Water (DRDMW) maintains *Exemption requirements for construction authorities for the taking of water without a water entitlement* (Version 3.05) (Department of Natural Resources, Mines and Energy (DNRME, 2019a). These exemption requirements may only be used by a constructing authority defined under Schedule 2 of the AL Act and includes state government departments and local governments. At present these guidelines do not directly apply to ARTC and a water entitlement would be required for the taking of water from a watercourse.

Riverine protection permits are required to excavate, or place fill in a watercourse, lake or spring. In certain circumstances, exemptions apply where the works are undertaken in accordance with the *Riverine protection permit exemption requirements* (Version 2.01) (DNRME, 2019b) guidelines. ARTC is an approved entity for the purpose of the Riverine Protection Permit Exemption Requirements.

3.4.34.2 Relevance to the Project

The Project is located within *Water Plan (Condamine and Balonne) 2019, Water Plan (Moreton) 2007* and *Water Plan (Great Artesian Basin and Other Regional Aquifers (GABORA)) 2017* plan areas.

The *Water Plan (Condamine and Balonne) 2019,* is the prevailing management plan for the surface water, overland flow (other than springs connected to underground water) and groundwater resources (excluding Great Artesian Basin resources) within Gowrie Creek catchment. As noted in Section 3.3.5, this plan is endorsed under the *Water Act 2007* (Cth). Under this plan the Project is subject to the following:

- The plan, along with the supporting management protocol provides a framework managing water allocations, defines the availability of water in the water plan area and measures, where practicable to reverse degradation of natural ecosystems due the taking of, or interference with, water in the plan area. The documents also have performance indicators and water allocation security objectives for underground water to protect holders of underground water allocations.

- The surface water plan area is accessed from both supplemented (regulated) water sources and unsupplemented (unregulated) streams, including harvesting of overland and floodplain. The Project is located within the Gowrie and Oakey Creek Water Management Area.
- There are four water supply schemes within the water plan area; however, none are applicable to the Project.
- Cooby Dam, where construction water may be sourced, is subject to this water plan.
- For groundwater resources, the Project is within the Condamine and Balonne Underground Water Management Area and the Upper Condamine Basalts Underground Water Management Unit, which is part of the Main Range Volcanics (MRV) aquifer system composed of basaltic fractured rock aquifers. Within this unit:
  - The Project is predominantly within the Toowoomba City Basalts subarea, with parts of the Project also located within the Toowoomba North Basalts and Toowoomba South Basalts, described as limitation areas where limitations on use can be applied under s29 of the Water Act.
  - The Project will intercept groundwater associated Toowoomba City Basalts subarea and the Toowoomba South Basalts limitation area during tunnelling activities, and may also impair bores within the aquifer type associated with this area as a result of drawdown.
  - Groundwater authorisations are currently required for all uses except stock and domestic, noting that there are no water allocations for groundwater within the Project area.
- The Condamine River Basin Healthy Waters Management Plan prepared in accordance with the EP Act and EPP (Water and Biodiversity) identifies the environmental values relevant to the area and recommends water quality objectives to protect these values.
- The Condamine and Balonne Water Management Protocol 2019 applies to surface water and groundwater in the plan area.

Surface water, overland flow (other than springs connected to underground water) and groundwater resources (excluding Great Artesian Basin resources) within the Lockyer Creek catchment are primarily managed by the *Water Plan (Moreton) 2017*. Under the plan:

- Together with the supporting management protocol, the plan provides a framework for water allocations to take surface water, granting or amending water entitlements for groundwater and granting water entitlements for overland flow. The plan also defines the availability of water in the water plan area and measures, where practicable to reverse degradation of natural ecosystems.
- The Project is located within the Lockyer Valley groundwater management area (GMA) and the Tenthill Creek and Ma Ma Creek (implementation area 2B), with the latter consisting of alluvial and hard rock aquifers (groundwater units 1 and 2 respectively). The Project will intercept both types of aquifers, with tunnel intercepting hard rock aquifers, and may also impair bores within the aquifer type associated with this area as a result of drawdown.
- Groundwater may not be taken in this GMA, unless it is for stock or domestic purposes, under a water entitlement or water permit, to allow monitoring or salinity control or under an authorisation under section 72 of the plan (e.g. at the commencement of the plan, the owner of the land using an existing water bore on the land to take groundwater may continue to take groundwater using the bore).
- The *Water Plan (Moreton) 2007* includes performance indicators and objectives such as:
  - Environmental flow objectives: assessing periods of low flow and medium to high flow
  - Water allocation security objectives.

The *Water Plan (GABORA) 2017*, which underlies the entire Project disturbance footprint, is the prevailing management plan for water of the Great Artesian Basin:

- The plan, along with the supporting management protocol provides a framework for sustainably managing water and the taking of water in the plan area, along with defining the availability of water in the water plan area and measures, where practicable to reverse degradation of natural ecosystems.
- The Project is located within the Hutton (Marburg Subgroup (Koukandowie Formation and Gatton Sandstone)) and Springbok Walloon groundwater units (Walloon Coal Measures). These groundwater units include the Eastern Downs Marburg, Murphys Creek Marburg and Eastern Downs Walloon Sub-Areas of the *Water Plan (GABORA) 2017*. The tunnel intercepts the Koukandowie Formation within these sub-areas, and may also impair bores within this aquifer type as a result of drawdown.

- The Precipice Groundwater Unit (Woogaroo Subgroup) is not considered relevant to the Project due to depth below the tunnel, including the Precipice Sandstone.
- Within these sub-areas, landholders are permitted to take water for stock and domestic purposes without the need for a water licence.[3] All other uses require a water licence, water permit, or seasonal water assignment notice.
- The plan also identifies a number of ground-dependent ecosystems, where the decisions on a water licence is dependent on the distance between and/or cumulative drawdown on the ground-dependent ecosystems. There are two groundwater-dependent ecosystems under the plan within the general vicinity of the Project (refer Chapter 14: Groundwater).
- There is unallocated water under the water plans which may be granted to a coordinated project under the SDPWO Act (i.e. state or strategic reserve). Based on advice from DRDMW, there is state reserve water under the *Water Plan (GABORA) 2017*, with water potentially available in the Eastern Downs in the Springbok Walloons, Marburg and Precipice aquifers.

The Project is likely to involve:

- Works in a defined watercourse
  - While the majority of watercourses intersected by the Project are drainage lines under the Water Act, the Project will intersect a number of defined watercourses for which the Water Act will apply.
- Taking or interfering with the flow of water
  - During construction of the Project, water will be required for dust control, site compaction and reinstatement. A number of potential water sources have been investigated, including extraction of groundwater or surface water, private bores and watercourses. Under the Water Act (including the *Water Plan (Moreton) 2007*), artificial waterbodies under 5 ML (as accepted development) are exempt from authorisation and may be used for dust suppression, site compaction, and reinstatement as required and after stakeholder engagement
  - Overland flow diversions are proposed at the western tunnel portal of the Toowoomba Range Tunnel, the intermediate tunnel ventilation infrastructure drain diversion at Cranley and drainage infrastructure at Postmans Ridge
  - During operation of the Project, potable water will be required for operation and maintenance activities. Groundwater has not been considered as a potable water source
- Taking or interfering with groundwater as part of the Toowoomba Range tunnelling activities (e.g. groundwater inflow into the tunnel and drawdown of groundwater)
- Excavation or placing fill in a watercourse, lake or spring
- Interfering with existing water authorisations as a result of land acquisition process (e.g. acquisition of a land parcel where an existing water licence applies).

Water authorisations for any 'make-good' arrangements will likely be the responsibility of the bore owner and these will be determined on a case by case basis, noting that not all of the existing bores are licensed and/or registered.

ARTC is an approved entity for the purposes of the Riverine Protection Permit Exemption Requirements.

The water plans also identified risks to Aboriginal values and uses of water where applicable. Native tile rights and interests are discussed further in Section 3.3.4 and Section 3.4.17.

3.4.34.3 Project compliance

ARTC has sought advice from the DRDMW regarding the status of the unmapped watercourses intersected by the Project, with preliminary advice that the majority of the unmapped watercourses are likely to be drainage features under the Water Act. Further consultation between ARTC and DRDMW, including potential site visits, will be required for some watercourses (e.g. Oaky Creek and Six Mile Creek).

[3] A water licence is an authority granted under the *Water Act 2000* to: take water, interfere with water, or both interfere with and take water where these two activities are inextricably linked.

ARTC has consulted with DRDMW regarding the water authorisations required under the various water plans as a result of the Project activities (e.g. construction water and inference with groundwater (short term and long term) as a result of the tunnels construction and operation). DRDMW has noted the complexities of the groundwater resources in the area and the overarching legislation and further consultation is required to confirm the approval process and to ensure that Project complies with the legislative requirements under the Water Act and associated water plans, without adversely impacting existing water users and groundwater resources. The later also includes measures to rectify any impairments to existing bores due to the Project.

For the purposes of the tunnels construction, it is likely that a water permit will be secured under the three water plans. The water permit is preferred as it is temporary activities and with a foreseeable end date, while for long-term impacts associated with the operation of the tunnel a water licence will be required.

ARTC or the construction contractor will obtain a water entitlement (water permit or licence) under the Water Act to authorise the taking of water under the Water Act. Where required, ARTC or the construction contractor will also obtain a development for operational work for the taking or interfering of water under the Planning Act.

The construction water requirements (i.e. volumes, quality, demand curves, approvals requirements and lead times) will be confirmed as the construction approach is refined. The ultimate water sourcing strategy for the Project will be documented in a Construction Water Plan developed for the Project. The Construction Water Plan will be developed involving all levels of government, specifically DRDMW Water Services, and other entities. Sources of construction water will be finalised as the construction approach is refined during the detailed design and tender phases of the Project (post-EIS) and will be dependent on:

- Climatic conditions in the lead up to construction
- Confirmation of private water sources made available to the Project by landholders under private agreement
- Confirmation of access agreement with local governments for sourcing of mains water.

The use of groundwater to supplement the construction demand for the Project may be considered if private owners of licensed/registered bores have capacity under their water licence or entitlement that they wish to sell to, or trade with, ARTC under a private agreement.

Where acquisition of land will directly impact on an existing water license the water licence will automatically expire and the landholder will need to reinstate the water licence. This type of impact will be managed through the acquisition of land process and the subsequent compensation package. Requirements for make good agreements are well described under Part 3 of the Water Act for the mining and coal seam gas industries but are unclear for a Project of this nature; however, ARTC is proposing to adopt some of the make-good obligations under the Act to ensure that bore holders are properly compensated for any impacts from the Project and that any impairment caused by the Project is 'made good'. Further and ongoing consultation with DRDMW will be undertaken, noting that ARTC's preference will be for monetary compensation and for the works to be undertaken by the bore owners, where applicable, and that an authorisation may be required for that replacement facility. It is also acknowledged that resolution of this matter will assist in securing the relevant water authorisations for the construction and operation of the Project. Further details on 'make goods' are in Chapter 14: Groundwater.

The measures, including relevant water authorisations, will be on a case-by-case basis and will be confirmed during detailed design, when the construction and design is confirmed, with the groundwater model to be updated to reflect any changes to the construction methodology and design, along with the detailed geotechnical data, groundwater monitoring data and the assessment data. Any required legal agreements will also be confirmed during detailed design.

No dams will be constructed for the Project; however, a number of sedimentation basins in the Lockyer Valley are proposed (refer Chapter 6: Project Description, Section 6.6.15.3). These basins are all less than 5 ML. Farms dams that will need to be dewatered for the Project in the Lockyer Valley (refer Chapter 13: Surface Water and Hydrology, Section 13.7.1.5) are also less than 5 ML and therefore automatically authorised (and larger if authorised), they can be used for any purpose. The dams in the Gowrie Creek catchment are associated with unmapped watercourses under the Water Act and may require authorisation (e.g. interference with a watercourse).

Where works are proposed within a watercourse, these activities will be undertaken in accordance with the *Riverine Protection Permit Exemption Requirements* (DNRME, 2019b). A riverine protection permit will be required in instances where the exemption requirements cannot be achieved. Adherence with the water quality objectives outlined in the *Healthy Waters Management Plan: Condamine River Basin* (DES, 2019e) and the *Environmental Protection (Water) Policy 2009 Lockyer Creek* environmental values and water quality objectives for Basin No 143

(part) including all tributaries of the creek (Department of Environment and Resources Management 2010a) should ensure compliance with the Water Act and the relevant water plans.

ARTC has consulted with DRDMW about the water authorisation required under the various water plans because of the Project activities (e.g. construction water and inference with groundwater, short term and long term, because of the tunnel's construction and operation). DRDMW has noted the complexities of the groundwater resources in the area and the overarching legislation, and further consultation is required to confirm the approval process and to ensure that the Project complies with the legislative requirements under the Water Act and associated water plans, without adversely impacting existing water users and groundwater resources. The latter also includes measures to rectify any impairments to existing bores due to the Project.

Ongoing consultation with the DRDMW will be critical to resolve some of the complexities associated with the Water Act and supporting water plans relevant to the Project. Noting that most of the issues relate to groundwater allocations.

Further information on water sources is in Chapter 6: Project Description, Chapter 13: Surface Water and Hydrology and Chapter 14: Groundwater.

3.4.35 Work Health and Safety Act 2011

3.4.35.1 Overview

The *Work Health and Safety Act 2011* (Qld) (WHS Act) provides a framework and general duties for the protection, safety and welfare of workers in Queensland whilst they are at work. The WHS Act is supported by the Work Health and Safety Regulation 2011 (Qld), which relates to the protection of the construction and operation workforces, as well as members of the public, including community receptors that may be affected by work-related hazards. Under the WHS Act, designers must ensure that, so far as reasonably practicable, structures are designed to be without risks to the health and safety of persons.

3.4.35.2 Relevance to the Project

There are two specific requirements for designers to provide information under the WHS Act.

Firstly, under Sections 22(4) and 22(5) of the WHS Act, the designer must provide the following information to anyone who is issued with the design:

- Indicating the purpose for which the structure is designed
- Results of any testing and analysis undertaken
- Any conditions necessary to ensure that the designer has designed the structure to be without risk to health and safety when it is used as a workplace during its lifecycle.

Current relevant information must also be provided to people who use, construct, maintain or demolish the structure on request.

Secondly, under Section 295 of the Work Health and Safety Regulation 2011, the designer of a structure or any part of a structure that is to be constructed is required to provide the person conducting a business or undertaking who commissioned the design, a written safety report outlining the potential hazards relating to the design that may pose a hazard to people carrying out construction work.

3.4.35.3 Project compliance

The Project has incorporated risk identification and assessment practices throughout the design development phase to date and ARTC has a strong commitment to implementing and maintaining appropriate safety practices throughout operations. Chapter 20: Hazard and Risk provides detailed discussion regarding safety in design, and hazard and risk identification undertaken to date, including a risk register and matrix of hazards, likelihood, consequence and mitigations. Project design documentation has been prepared to comply with the requirements of the WHS Act.

3.4.36 Water Supply (Safety and Reliability) Act 2008

3.4.36.1 Overview

The *Water Supply (Safety and Reliability) Act 2008* (Qld) promotes the safety and reliability of water supply. The purpose of the Act is achieved by:

- Providing a regulatory framework for water and sewerage services in the state, including functions and powers of service providers
- Providing a regulatory framework for the provision of recycled water and drinking water quality, primarily for protecting public health
- Regulating referable dams
- Providing for flood mitigation responsibilities for particular referable dams that require an approved flood mitigation manual
- Protecting the interests of customers of service providers.

Under the *Water Supply (Safety and Reliability) Act 2008,* a service provider is a provider of a retail water service or sewerage service in a service area.

3.4.36.2 Relevance to the Project

ARTC will not, in the course of undertaking the Project, be providing a water or sewerage service to others and is not a 'service provider' as defined under the *Water Supply (Safety and Reliability) Act 2008*. Further, the Project will not involve the provision of a recycled water scheme, or the construction of or interfering with a referable dam.

3.4.36.3 Project compliance

Not applicable—refer Section 3.4.36.2

3.5 Local government plans and policy

In addition to the Commonwealth and State legislative requirements discussed in Sections 3.2, 3.3 and 3.4, the Project has the potential to trigger approval requirements under local government legislation.

3.5.1 Local laws

The *Local Government Act 2009* (Qld) empowers and provides responsibilities to local governments to make and enforce any local law that is necessary or convenient to reflect community needs and ensure the good rule and government of an LGA. These laws usually relate to the protection of amenity or other values important to communities including local government-controlled roads, carrying out works on a road or interfering with a road or its operation, control of local pest declared by council, the management of noise, light and waste, as well as vegetation, parks and fencing.

The Project is within the LGAs of Lockyer Valley and Toowoomba and will impact on local government-controlled roads (refer Chapter 19: Traffic, Transport and Access). The Project will adhere to and be carried out in accordance with relevant local laws, where applicable, along with matters relating to the council's role as a road authority.

3.5.2 Planning schemes

Local government planning schemes are the principal documents guiding growth and development in each LGA. Planning schemes are prepared by councils after community consultation and are approved by the Queensland Minister responsible for the Planning Act, currently the Minister for State Development, Infrastructure, Local Government and Planning.

The Project is located within the area of the following planning schemes:

- Toowoomba Planning Scheme
- Gatton Shire Planning Scheme.

As of February 2021, a proposed Lockyer Valley Planning Scheme has been prepared and is being reviewed by the Queensland Government. Following review and approval, the proposed Lockyer Valley Planning Scheme will be released for public consultation. When the Lockyer Valley Planning Scheme is in effect, this planning scheme will supersede the current Gatton Shire Planning Scheme.

Further details on these individual planning schemes are in Chapter 8: Land Use and Tenure, including the zones traversed by the Project disturbance footprint within each LGA and their relevance to the Project.

In accordance with Schedule 6, Part 5, Section 26(2) of the Planning Regulation, development for the construction of transport infrastructure, where the infrastructure is 'government supported transport infrastructure', cannot be made assessable development under the relevant local categorising instruments. The Inland Rail Program is considered to be 'government supported transport infrastructure'. Accordingly, the provisions of these local government planning schemes do not apply to the Project. Notwithstanding, the relevant land use zoning under each by the planning scheme have been taken into consideration when determining impacts of the Project on existing and future land use in the area.

3.6 Post-Environmental Impact Statement approvals

A summary of the potential post-EIS approvals is in Table 3.4. The post-EIS approvals will be subject to review and confirmation during the detailed design process.

In some instances, the consent of the relevant landholder will be required to support the applications to the state. The Planning Act requires that the owner of the land give consent for certain DAs, including the Department of Resources, for the following activities:

- Land subject to a lease, including a freeholding lease or a reserve or deed of grant in trust, held by the department on behalf of the state as the lessee or trustee of the land
- Land subject to a lease, including a freeholding lease, or a reserve where the lessee or trustee is not or does not represent the state
- Land subject to a permit to occupy or licence under the Land Act
- Land subject to an estate in fee simple (freehold) held by the department on behalf of the state
- Land that is unallocated state land
- Land that is a road (other than a state-controlled road) or stock route.
- Further details on landowners consent is in Chapter 6: Project Description.

In addition to the approvals identified in Table 3.4, a range of additional permits, licences and/or agreements will be required. To address these requirements, ARTC has commenced consultation with, and will continue to consult with, infrastructure owners and utility providers about asset interface requirements such as works within and traversing infrastructure easements.

TABLE 3.4: POST-ENVIRONMENTAL IMPACT STATEMENT PROJECT APPROVALS

Legislation	Administering authority	Development action/trigger	Approval	Potential exemption	Project timing	Indicative approval processing timeframe
State						
ACH Act	DSDSATSIP	Undertaking any excavation, construction or other activities that may cause harm to Aboriginal cultural heritage Undertaking a project for which an EIS is required	Cultural Heritage Management Plan in consultation with the relevant Registered Aboriginal Party or Parties	-	Prior to commencement of any excavation, construction or other activities that may cause harm to Aboriginal cultural heritage	Completed CHMPs (#CLH0710009) have been developed, negotiated and executed for the Project with the Western Wakka Wakka People and the Yuggera Ugarapul People
Building Act/ Planning Act	Relevant local government or private certifier	Undertaking building works	Development approval for building works	Building work is assessable development, unless it is accepted development under the Planning Regulation or the Building Act	Prior to commencement of building works	2 months
Electricity Act 1994	Energy Queensland or Powerlink	Connection of new electrical supply or an increase in connected load of an existing supply	Approval for connection of supply/load increase	-	Prior to commencement of relevant works	10 business days
Explosives Act	Department of Resources (Queensland Explosives Inspectorate)	Use, possession, storage or transport of explosives	Licences to store, transport or use explosives	-	Prior to transport, storage or use of explosives	20 business days for routine applications, non-routine applications that require inspection will require a longer timeframe

Legislation	Administering authority	Development action/trigger	Approval	Potential exemption	Project timing	Indicative approval processing timeframe
EO Act	DES	Undertaking a Prescribed Activity for which there will be a significant residual impact on one or more Prescribed Environmental Matters	Provision of offsets in accordance with the Environmental Offsets Policy	-	The Proponent is required to submit a Notice of Election as notification along with details of the elected offset arrangement This can occur before, during or after the authority for the relevant Prescribed Activity has been granted	Once the Notice of Election is received, the Administering Authority has 40 business days to consider the notice
EP Act	DES	Undertaking an ERA prescribed under Schedule 2 of the EP Regulation. The Project is considered likely to trigger: ▸ ERA 8—Chemical storage ▸ ERA 14—Electricity generation ▸ ERA 33—Crushing, milling, grinding or screening ▸ ERA 16—Extractive activities ▸ ERA 41—Cement manufacturing ▸ ERA 57—Regulated waste transport ▸ ERA 64—Water treatment	Environmental Authority Registered Suitable Operator	-	Prior to commencement of relevant construction works	5–8 months (excluding requests for further information)
		Disposal of contaminated soil from sites listed on the EMR/CLR	Disposal permit	-	Prior to removal or disposal of contaminated land	20 business days

Legislation	Administering authority	Development action/trigger	Approval	Potential exemption	Project timing	Indicative approval processing timeframe
Fisheries Act/Planning Act	DAF	Constructing or raising waterway barrier works (temporary and/or permanent waterway barrier works)	Development permit for Operational Works that are Waterway Barrier Works (temporary and/or permanent)	A development permit is not required where: ▸ Works are determined to be 'works which are not waterway barrier works' or ▸ Works can comply with the Accepted development requirements for operational work that is the constructing or raising waterway barrier works	Prior to the relevant construction works commencing	3–6 months (excluding requests for further information)
Forestry Act 1959	DAF	Interference with state-owned forest products or quarry-material	Sales permit	-	Prior to commencement of relevant construction works	No statutory timeframes. This will require further consultation with DAF and Department of Resources during the detailed design and construction phases of the Project
Land Act 1994 and *Native Title Act 1993* (Cth)	Department of Resources, Land Administration and Acquisitions Unit	Occupation and use of a reserve, road, lands lease or USL	Tenure dealings	Nil	Before construction and prior to commencement of works	3–6 months subject to early consultation with the Department of Resources

Legislation	Administering authority	Development action/trigger	Approval	Potential exemption	Project timing	Indicative approval processing timeframe
NC Act	DES	Clearing of least concern flora species within a mapped Flora Survey Trigger Area	Exempt clearing notification	-	Prior to vegetation clearing works	10 business days
		Clearing of threatened flora species or clearing of non-threatened flora species where impact to threatened flora species is likely to occur	Clearing permit	-	Prior to vegetation clearing works	40 business days
		Works involving the tampering of an animal breeding place	Species Management Program (Low Risk or High Risk)	-	Prior to any works that impact on animal breeding places	2–3 months
		Removal and relocation of protected wildlife	Damage Mitigation Permit	-	Prior to undertaking any relevant works	2–3 months
		Spotter catcher endorsement	Rehabilitation Permit	-	Prior to undertaking any relevant works	2–3 months
		Taking, using, keeping or interfering with protected animals or native wildlife	Wildlife Movement Permit	-	Prior to undertaking any relevant works	2–3 months
Planning Act	DSDILGP/ relevant local government	Undertaking assessable development under a relevant local government planning scheme	-	Exemption where development is for transport infrastructure under Schedule 6, Part 5, Item 26 – development for infrastructure activities (transport infrastructure)	-	-
	DSDILGP	Taking or interfering with water from a watercourse, lake or spring	Development permit for operational works (taking or interfering with water)	-	Prior to the relevant construction works commencing	2–3 months

Legislation	Administering authority	Development action/trigger	Approval	Potential exemption	Project timing	Indicative approval processing timeframe
Planning Act/EP Act	DES	Undertaking an ERA that is a Concurrence ERA under Schedule 2 of the EP Regulation. The Project is considered likely to trigger the following Concurrence ERAs/thresholds: ▸ ERA 8—Chemical storage ▸ ERA 14—Electricity generation ▸ ERA 16—Extractive activities (2(b),2(c)) ▸ ERA 41—Cement manufacturing ▸ ERA 64—Water treatment	Development permit for a material change of use for an ERA	-	Prior to the relevant activities being carried out	5–8 months (excluding requests for information)
Planning Act/QH Act	DES	Development on a local heritage place	-	Exemption where development is government supported transport infrastructure that is transport infrastructure under Schedule 6, Part 5, Item 26—development for infrastructure activities (transport infrastructure)	Prior to commencement of the relevant works	-
Planning Regulation 2017	Pipeline licence holder	Reconfiguring a lot subject to a pipeline easement; or material change of use of premises subject to a pipeline easement; or Operational work on premises subject to pipeline easement	Referral agency assessment under Schedule 10, Part 9, Division 3—Oil and gas infrastructure—referral agency's assessment, Table 1, 2 and 3	Nil	Prior to undertaking the relevant works (i.e. the Project intersects the Roma Brisbane Gas Pipeline at three locations)	-

Legislation	Administering authority	Development action/trigger	Approval	Potential exemption	Project timing	Indicative approval processing timeframe
TI Act	DTMR	Interfering with a railway	Written permission from the railway manager to interfere with the railway under Section 255 of the TI Act	-	Prior to commencement of the relevant works	20 business days
		Constructing, maintaining, operating or conducting ancillary works and encroachments on a state-controlled road	Road corridor permit under Section 50 of the TI Act	Exemptions are available if the works are: ▸ In accordance with the requirements specified by the chief executive of DTMR by gazette notice; or ▸ Done as required by a contract entered into with the chief executive of DTMR	Prior to the commencement of the relevant works	20 business days
		Carrying out road works on a state-controlled road or interfering with a state-controlled road or its operation	Written approval of the chief executive of DTMR under Section 33 of the TI Act	-	Prior to commencement of works or interfering with a State-controlled road	20 business days
VM Act	Department of Resources	Works involving the clearing of Regulated Vegetation	Development permit for operational works for vegetation clearing	Exempt clearing works under Schedule 21, Part 1, Item 14 (infrastructure that is government supported transport infrastructure) of the Planning Regulation	Prior to vegetation clearing works	2–3 months

Legislation	Administering authority	Development action/trigger	Approval	Potential exemption	Project timing	Indicative approval processing timeframe
Water Act	DRDMW	Undertaking works in a watercourse, lake or spring	Riverine protection permit	Exemption where ARTC (as an approved entity) carry out the works in accordance with DNRME's Riverine Protection Permit Exemption Requirements)	Prior to commencement of the relevant works	1–2 months
		Works that involve the taking or interfering with water (authorises entitlement to the resource) Amending the purpose for which a water entitlement has been granted	Water authorisation (permit) to authorise the taking of water which has a reasonably foreseeable end date Water authorisation (licence)—taking or interfering with water from a watercourse, lake or spring Or A change to a water entitlement purpose	-	Prior to commencement of construction and/or operations. Noting that a water permit is likely for construction activities, including construction water and to support tunnelling activities as it is issued for temporary activities and with a foreseeable end date A water licence that is applicable to long-term activities (i.e. operation of the tunnel) and is usually attached to land (ARTC will acquire land, but also as occupiers of rail corridors ARTC will be able to apply for this license) is likely required for operations	90 business days, subject to native title and public notification requirements

Legislation	Administering authority	Development action/trigger	Approval	Potential exemption	Project timing	Indicative approval processing timeframe
Local						
Local Government Act 2009—Approval under a local law	Relevant local government	Undertaking works to which a local law applies. May include: TRC *Subordinate Local Law No. 1.15 (Carrying out works on a road or interfering with a road or its operation)* LVRC *Subordinate Local Law No. 1.1 (Alteration or improvement to local government controlled areas and roads)*	Local law approval, if it is determined that a local law applies as specified in a local law	Pursuant to the relevant local law	Prior to the commencement of the relevant works	Various
Plumbing and Drainage Act 2018	Relevant local government	Undertaking plumbing and drainage works	Plumbing and drainage works approval	A permit is not required where works are notifiable work, minor work or unregulated work	Prior to the commencement of the relevant works	Various