CHAPTER 16

Social

HELIDON TO CALVERT ENVIRONMENTAL IMPACT STATEMENT

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

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16.1 Summary

The Social Impact Assessment (SIA) has been developed in accordance with the EIS Terms of Reference (ToR) and the Social Impact Assessment Guideline (DSDMIP, 2018). The purpose of the SIA is to assess how the Project may affect local and regional communities, and describe how the Australian Rail Track Corporation (ARTC) will work with stakeholders to ensure that negative social impacts are mitigated, and Project benefits are enhanced. As outlined in the final ToR, the SIA is to include:

- Definition of the SIA study area
- A social baseline study of potentially impacted communities within the SIA study area
- A profile of key stakeholders and a description of how the potentially impacted communities and affected stakeholders were engaged and consulted during the development of the SIA
- Identification of potential social impacts and their likely significance, including duration over the life of the Project (construction and operation)
- Proposed enhancement and mitigation/management measures in relation to Project impacts
- Details of the Proponent's proposed monitoring and reporting framework.

SIA study area

The SIA study area encompasses the:

- EIS investigation corridor (which extends approximately 1 km from the permanent operational and temporary construction disturbance footprints), with a key focus on landowners, businesses and residents
- Potentially impacted communities including Helidon Spa, Helidon, Grantham, Placid Hills, Gatton, Lawes, Forest Hill, Laidley North, Laidley, Grandchester, and Calvert
- Lockyer Valley local government area (LGA) and the Ipswich LGA.

Social baseline

The EIS investigation corridor is located on land within the Yuggera Ugarapul People's Native Title claim area.

The Lockyer Valley LGA covers an area of 2,200 km^2 and is based around the Warrego Highway one hour west of Brisbane and 20 minutes east of Toowoomba. In 2016, the Lockyer Valley GA had a population of 38,609 people. Agriculture, forestry, farming, transport and small business are key economic strengths, with tourism also growing as a significant economic sector. Regional farm work attracts backpacker, refugee and migrant labourers, giving the region a fluctuating cultural profile.

Gatton is the commercial centre of the region, with other larger towns including Laidley, Grantham and Helidon, and smaller townships and villages including Withcott, Murphys Creek, Plainland and Forest Hill.

Ipswich City is Queensland's oldest provincial city and is the center for the Ipswich LGA which covers some 1,085 km^2 and in 2016, was home to 193,733 people. Ipswich LGA is characterised by the Bremer River and its tributaries, the historic town centre and diverse suburban and semi-rural areas.

Key industry sectors include energy generation, food and agribusiness, defence, advanced manufacturing and transport and logistics (Ipswich City, 2018a). Ipswich LGA also has significant strengths in education, training and health services.

Stakeholder engagement

The SIA draws on the results of ARTC's stakeholder engagement processes with directly affected and nearby landowners, businesses, and community, environmental and economic groups. Additional SIA-specific engagement included:

- A community survey involving more than 400 residents in the Toowoomba, Lockyer Valley, Ipswich and Scenic Rim LGAs
- Meetings with the Yuggera Ugarapul People
- Meetings with Lockyer Valley Regional Council (LVRC) and Ipswich City Council (ICC) officers to discuss community concerns, potential social impacts and benefits, and mitigation and management measures
- Workshops with community organisations and government agencies to discuss social infrastructure access and community concerns about the Project
- Meetings with the Office of Coordinator-General
- Technical workshops with Councils and Government agencies on preliminary SIA findings and management measures.

Social impacts

During construction, impacts on communities and residents would include:

- Acquisition of residential properties and the requirement for relocation of DTMR tenants, leading to stress and disruption of lifestyles and social networks
- Impacts on grazing and cropping properties including land acquisition and impacts on property infrastructure and connectivity
- Noise from rail and track construction, affecting the amenity of homes and businesses
- Potential for impacts on the amenity of homes and businesses within the Gatton, Forest Hill and Grandchester town centres due to noise, traffic and changes to the scenic character, with potential for noise and increased traffic and/or dust to also affect areas within Laidley North and Helidon
- Disruption to the connectivity of the road network and traffic delays
- A potential reduction in community cohesion due to displacement of residents, intensification of the use of the West Moreton System rail corridor, impacts on the amenity or accessibility of community facilities, or conflict about the Project
- Stress and anxiety relating to property acquisition, fears about noise and vibration impacts, concerns about flooding risks and/or distress about changes to the environment
- Acquisition of land on some businesses' boundaries which may affect access or car parking arrangements
- Impacts on tourism businesses including impacts on the amenity of hotels, cafes and specialty shops in Forest Hill and Gatton, and potential for road works and construction sites to affect tourists' experience
- Impacts of construction noise and changes to the road network on the amenity of schools, early learning centres, churches and other community facilities in Gatton, Grandchester, Forest Hill and Laidley
- Noise, visual and access impacts on Gatton Caravan Park, with the likelihood of partial acquisition of land within the caravan park affecting approximately 15 per cent of its current capacity
- Potential to exacerbate shortages in specific trades or affect the availability of labour
- Potential for impacts on farms and/or the amenity of tourism attractions to reduce related employment opportunities.

During operations, potential impacts include:

- An increase in the number and size of trains, increasing the frequency of rail noise and interruptions to north-south movements through the towns of Gatton, Forest Hill and Grandchester
- Changes to views from homes, which may impact on visual amenity near the alignment
- Level crossings on public roads will result in disruptions to traffic
- Rail noise within regulatory limits may cause stress and related health issues
- Impacts on the character of Gatton, Forest Hill and Grandchester, with some impacts on the urban fringes of Helidon, Laidley, Grantham and Calvert
- Concern about the potential for Project impacts to affect property values, leading to stress and anxiety
- An increased risk of road/rail accidents
- Potential for increased frequency of audible rail noise and periodic interruptions to pedestrian connectivity for schools, kindergartens and community facilities in Gatton, Forest Hill and Laidley
- Delays to emergency service vehicles at level crossings when encountering a passing train.

The number of non-local personnel requiring short term accommodation is expected to be small and unlikely to constrain residents' access to housing or tourists' access to accommodation, however this will be monitored and managed in accordance with an Accommodation Management Plan (AMP).

Project benefits

The Project's construction represents an important source of training and career development for residents in the SIA study area. Employment for up to 410 personnel during 2021-2026 will benefit construction industry personnel in the SIA study area and adjacent LGAs. This will include training and employment opportunities for people who are disadvantaged in the labour market, including young people and Indigenous people. A workforce of approximately 15–20 personnel is expected for the Project's operation, with potential for SIA study area residents to obtain long-term employment.

The Project will provide opportunities for local and regional businesses to participate in its supply chain during construction and will have a specific focus on the involvement of businesses in the Lockyer Valley and Ipswich LGAs in the supply chain. It is also likely that businesses would benefit from increased trade from the construction workforce. The operational phase would offer service and supply contracts over the long-term and could involve businesses in the SIA study area.

The Project is expected to facilitate the growth of industries associated with logistics and freight terminal hubs, and to improve accessibility to markets for businesses in the region. This will support business growth, providing long-term employment for SIA study area residents.

Additional economic benefits would accrue at the State and national level. These include the wider employment benefits of Inland Rail, additional investment in consumer-oriented products by the construction workforce, the increased demand for construction materials and development of external infrastructure and complementary services through the development of Inland Rail.

Social Impact Management Plan

The SIA includes a Social Impact Management Plan (SIMP) which outlines the objectives, outcomes and performance measures for mitigation of social impacts. Measures intended to enhance Project benefits and opportunities are also provided.

Action plans are provided for:

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

The SIMP includes a monitoring strategy to report on the delivery and effectiveness of the action plans.

16.2 Scope of chapter

16.2.1 Purpose

This SIA has been prepared for the Helidon to Calvert (H2C) section of Inland Rail (the Project). The purpose of the SIA is to identify how the Project may affect local and regional communities, and what measures the Australian Rail Track Corporation (ARTC) will undertake to ensure negative social impacts are minimised and Project benefits are enhanced.

16.2.2 Objectives

The objectives of the SIA are to:

- Identify potentially affected communities, considering all potential social impacts throughout the Project's life (construction, operation and decommissioning)
- Enable stakeholders to provide inputs into the SIA, including the scope, social impacts and mitigation measures
- Develop a baseline of social characteristics against which potential changes can be assessed
- Provide a detailed assessment of likely social impacts and benefits
- Provide a Social Impact Management Plan (SIMP) that includes measures to avoid or reduce social impacts and enhance social benefits, and a monitoring strategy to support adaptive management of social impacts and benefits
- Evaluate the residual significance of social impacts and benefits.

16.3 Terms of Reference requirements

The ToR describes the matters ARTC must address in the EIS for the Project as detailed in Table 16.1.

The detailed requirements for the social environment, community engagement, impact assessment and management plans are provided in Appendix A of Appendix Q: Social Impact Assessment Technical Report, identifying the SIA section where each requirement is addressed. Appendix B: Terms of Reference Compliance Table also provides a cross-reference for each ToR against relevant sections in this EIS.

The SIA has addressed the Coordinator-General's statutory requirements as provided by the ToR and the 2018 Social Impact Assessment Guideline (SIA Guideline).

TABLE 16.1: TERMS OF REFERENCE—SOCIAL

Terms of Reference requirements		Where addressed
Information requirements		
11.21	The economic and social impacts of the action, both positive and negative, must be summarised. Matters of interest should include: a) Consideration at the local, regional and national levels b) Any public consultation activities undertaken, and their outcomes d) identification of affected parties and communities that may be affected and a description of the views of those parties and communities f) Employment and other opportunities expected to be generated by the Project in each of the construction and operational phases.	Sections 16.9, 16.10, 16.11 and 16.12 Chapter 5: Stakeholder engagement Chapter 17: Economics Appendix C: Consultation Report Appendix Q: Social Impact Assessment Technical Report, Section 6.3 Appendix R: Economics Technical Report
11.140	Conduct a Social Impact Assessment (SIA) in accordance with the Coordinator-General's Social Impact Assessment Guideline (July 2013) and the Coordinator-General's Social Impact Assessment Guideline (draft) (October 2016) or the guideline in place at the time of delivery of the SIA	Section 16.4.1 Appendix Q: Social Impact Assessment Technical Report, Section 2.3
11.141	The SIA should be developed in consultation with the Coordinated Project Delivery Division in the Office of the Coordinator-General, Department of State Development, and describe the potential Social Impact Assessments (positive and negative) on affected communities. The proposed mitigation measures are to be discussed.	Sections 16.8, 16.9, 16.10 and 16.11 Appendix Q: Social Impact Assessment Technical Report, Sections 6.2, 6.3, 7 to 9
11.142	The SIA is to include: a) A profile of key stakeholders	Section 16.9 Appendix Q: Social Impact Assessment Technical Report, Section 4.3.1
	b) A social baseline study of potentially impacted communities within the SIA study area	Section 16.8 Appendix Q: Social Impact Assessment Technical Report, Sections 5.1 to 5.7
	c) An overview of state government legislation and policies and priorities which complement the mitigation measures for the Project's Social Impact Assessments	Section 16.4 Appendix Q: Social Impact Assessment Technical Report, Sections 2.1 to 2.5 and 8.1.6
	d) An explanation of sources used to gather information and analysis methods used. Discuss rationale for both primary and secondary data	Appendix Q: Social Impact Assessment Technical Report, Sections 3.1 to 3.9
	e) A description of how the potentially impacted communities and affected stakeholders were engaged and consulted with during the development of the SIA	Sections 16.5.2 and 16.9 Appendix Q: Social Impact Assessment Technical Report, Section 6.2
	f) Identification of potential social impacts and their likely significance, including duration	Section 16.10 and 16.12 Appendix Q: Social Impact Assessment Technical Report, Sections 7.1 to 7.6 and 9
	g) The proponent's proposed enhancement and mitigation/management measures in relation to Project impacts	Section 16.11.1 to 16.11.6 Appendix Q: Social Impact Assessment Technical Report, Sections 8.1 to 8.6
	h) Details of the proponent's proposed monitoring and reporting framework	Section 16.11.7 Appendix Q: Social Impact Assessment Technical Report, Section 8.7

Terms of Reference requirements		Where addressed
11.158	Outline any consultation undertaken with the relevant emergency management authorities, including the Local Disaster Management Group	Section 16.9.4 Appendix Q: Social Impact Assessment Technical Report, Section 7.4.3 Chapter 20: Hazard and risk Appendix C: Consultation Report
Existing Environment		
11.143	Define the Project's SIA study area (including the local, district, regional and state level as relevant), taking into account the: a) Potential for social impacts to occur b) Location of other relevant projects (existing major projects and/or developments and those which are progressing through planning and approval processes and public information is available) c) Location and types of physical and social infrastructure, settlements and land use patterns d) Social values that might be affected by the Project including integrity of social conditions, liveability, social harmony and wellbeing and sense of community e) Indigenous social and cultural characteristics, such as native title rights and interests, and cultural heritage	a) Section 16.10 and Section 16.13 Appendix Q: Social Impact Assessment Technical Report, Sections 4.2, 5 and 7 b) Sections 16.5.7 and 16.13 Appendix Q: Social Impact Assessment Technical Report, Sections 4.1.7, 5.1.4 and 7.6 c) Section 16.8 and Figure 16.5 Appendix Q: Social Impact Assessment Technical Report, Section 5.1 and 5.6 d) Sections 16.6 and 16.8 Appendix Q: Social Impact Assessment Technical Report, Section 5.3 e) Sections 16.6.4 and 16.8.2 Appendix Q: Social Impact Assessment Technical Report, Sections 5.1.1, 5.2.3, 5.3.2 and 5.3.3
11.144	Undertake a targeted baseline study of the people residing within the Projects SIA study area. This will provide a benchmark against which to identify the Project's social issues, potential negative and positive Social Impact Assessments, and the mitigation measures and management plans to address these impacts	Section 16.8 Appendix Q: Social Impact Assessment Technical Report, Sections 5.1 to 5 .7
11.145	The social baseline study should be based on qualitative, quantitative and participatory methods. It should be supplemented by community engagement processes and primary data collection, and should reference relevant data contained in local and state government publications, reports, plans, guidelines and documentation, including regional and community plans	Sections 16.8 and 16.9 Appendix Q: Social Impact Assessment Technical Report, Sections 5.1 to 5.7 and 6
11.146	A consultative and inclusive community and stakeholder engagement process should inform the baseline study, assessment of potential Social Impact Assessments and development of appropriate mitigation measures and management plans. The engagement should commence at an early stage of the EIS process. It should include consultation with a broad range of stakeholder groups including affected landowners, local residents, community groups, Traditional Owners, state and local government agencies, and non-government organisations, local business and traditional-underrepresented stakeholders (for example, vulnerable groups, women, people with a disability, Indigenous people and persons from diverse ethnic or linguistic backgrounds)	Section 16.9 Appendix Q: Social Impact Assessment Technical Report, Sections 6.1, 6.2 and 6.3 Chapter 5: Stakeholder engagement Appendix C: Consultation Report

Terms of Reference requirements		Where addressed
11.147	The community and stakeholder engagement process should be adequately described and documented in the EIS. This should include details such as stakeholders consulted and how and when they were consulted, principles and processes adopted, overview of the consultation, principles and processes adopted, overview of the consultation program and key events, stakeholder feedback and is raised (Including the means by which these have been or will be addressed), and a statement of agreement/s reached, or to be negotiated, for impact mitigation and management	Sections 16.5.2 and 16.9 Appendix Q: Social Impact Assessment Technical Report, Sections 6.1 and 6.2 Chapter 5: Stakeholder engagement Appendix C: Consultation Report Chapter 23: Draft Outline Environmental Management Plan Appendix E: Proponent Commitments
Impact Assessment		
11.148	Assess and describe the type, level and significance of the Project's Social Impact Assessments (both negative and positive), based on the outcomes of the community engagement, social baseline study and impact analysis processes. This should include sufficient data to enable affected local and state authorities to make informed decisions about the Project's effects. The potential Social Impact Assessments will be identified by considering the potential changes to key aspects included in the social baseline study as a result of the Project	Sections 16.10 and 16.12 Appendix Q: Social Impact Assessment Technical Report, Sections 7.1 to 7.6 and 9
11.149	Impact assessment should include an assessment of the potential scope and significance of impacts at the local and regional level, considering factors such as: a) Population and demographic changes b) Workforce c) Lifestyles and amenity d) Community values e) Housing f) Local and regional planning outcomes g) Social infrastructure h) The health and social/cultural wellbeing of families and communities	Sections 16.10 and 16.12 Appendix Q: Social Impact Assessment Technical Report, Sections 2.5, 7 to 9
11.150	The impact assessment should evaluate and discuss the potential cumulative Social Impact Assessments resulting from the proposed Project in combination with other existing major projects and/or developments and those which are progressing through planning and approval processes (where public information is available) within the SIA study area. key issues assessed should include: a) Population b) Workforce (construction and operation) c) Workforce accommodation d) Local and regional housing markets e) Use of an access to community infrastructure, services and facilities (including social and health services and facilities)	Section 16.13 Appendix Q: Social Impact Assessment Technical Report, Section 7.6 Chapter 22: Cumulative impacts provides a summary of the cumulative impact assessment for the Project.

Terms of Reference requirements		Where addressed
11.151	The impact assessment should include: a) The impacts identified by the SIA process b) Impacted stakeholders c) The timing or timeframes of impacts and the mitigation and management measures d) Description of the mitigation and management measures e) Defined outcomes, and the performance indicators and targets to achieve the outcomes f) Monitoring and reporting framework g) Residual impacts (after mitigation and management measures) and how these will be addressed	Sections 16.9 to 16.12 Appendix Q: Social Impact Assessment Technical Report, Sections 6 to 10
Mitigation measures		
11.83	Provide an outline of the land acquisition and compensation processes for properties directly impacted by the Project	Section 16.10.1.2 Appendix Q: Social Impact Assessment Technical Report, Section 7.1.2 Chapter 8: Land use and tenure
11.117	Discuss and recommend how identified impacts will be mitigated. Mitigation strategies are to be prepared in close consultation with relevant transport authorities (including local government)	Section 16.11 Chapter 5: Stakeholder engagement Chapter 19: Traffic, transport and access Chapter 23: Draft Outline Environmental Management Plan Appendix C: Consultation Report Appendix U: Traffic Impact Assessment
11.152	Management plans for the following are to be provided as part of the SIA: a) Community and stakeholder engagement b) Workforce management c) Housing and accommodation d) Local business and industry content e) Health and community wellbeing	Sections 16.11.2.1, 16.11.3, 16.11.4, 16.11.5 and 16.11.6 Appendix Q: Social Impact Assessment Technical Report, Sections 8.2 to 8.6

16.4 Legislation, policy and guidelines

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

Further guidance on legislation and corresponding potential approval requirements associated with the Project is provided in Chapter 3: Project approvals and Appendix Q: Social Impact Assessment Technical Report.

TABLE 16.2: SUMMARY OF REGULATORY CONTEXT

Legislation, policy or guideline	Relevance to the Project
State Development and Public Works Organisation Act 1971 (Qld) (SDPWO Act)	The SDPWO Act aims to facilitate 'timely, coordinated and environmentally responsible infrastructure planning and development to support Queensland's economic and social progress'. The Act provides for the appointment of a Coordinator-General representing the Queensland Government and gives the Coordinator-General powers to (among other things) declare a Project to be a 'coordinated project', evaluate an EIS for a coordinated project and evaluate proposed changes to coordinated projects. As the Project was declared as a 'coordinated project' for which an environmental impact statement (EIS) is required, ARTC must prepare a draft EIS which addresses the ToR to the satisfaction of the Coordinator-General.

Legislation, policy or guideline	Relevance to the Project
Coordinator-General's Social Impact Assessment Guideline (2018)	The Coordinator-General's SIA Guideline published in March 2018 provides detailed assessment requirements, which have been addressed throughout the SIA and in the development of a SIMP. The SIA also considers local and regional planning objectives. The SIA prepared for the project has addressed the SIA Guideline requirements. The SIA Guideline is discussed further in Section 16.4.1.
State Planning Policy 2017 (Department of Infrastructure, Local Government and planning (DILGP, 2017b)	The State Planning Policy (SPP) identifies 16 State interests relating to land development with five key themes: ▸ Liveable communities and housing ▸ Economic growth ▸ Environment and heritage ▸ Safety and resilience to hazards ▸ Infrastructure. State interests for liveable communities that must be considered in making or amending a planning scheme and designating land for community infrastructure include (in summary): Providing for quality urban design that reflects and enhances local character and community identity Providing attractive and accessible natural environments and public open spaces that are functional, accessible and connected Facilitating vibrant places and spaces, diverse communities, and good neighbourhood planning and centres design Facilitating the provision of pedestrian, cycling and public transport infrastructure and connectivity within and between these networks Planning for cost-effective and well-located community facilities and utilities The SIA has considered the relevant themes of interest contained within the SPP. A summary of the alignment with planning policies is included in Appendix Q: Social Impact Assessment Technical Report, Table 2.3.
South East Queensland Regional Plan 2017 (ShapingSEQ) (DILGP, 2017a)	*ShapingSEQ* sets out five goals for the region's development: ▸ Goal 1: Grow ▸ Goal 2: Prosper ▸ Goal 3: Connect ▸ Goal 4: Sustain ▸ Goal 5: Live. Outcomes for the Western sub-region, which includes the EIS investigation corridor, include a dispersed network of urban and rural centres, significant expansion areas, regional economic clusters and infrastructure connections of national significance. Measures to maximise local employment and local business participation will support *ShapingSEQ* goals such as 'grow', 'prosper' and 'sustain' in the Project region.
Regional Development Australia: Ipswich and West Moreton Regional Roadmap 2016–2020 (RDA, 2016)	The Australian Government established Regional Development Australia (RDA) to help set up committees that seek to strengthen economic development in regional areas of Australia. RDA Ipswich and West Moreton focuses on five key economic development areas including food and agriculture, infrastructure, growth sectors, 'intelligent regions' and tourism. The plan notes the Lockyer Valley region as predominantly rural land used for farming and agriculture, particularly vegetable and grain growing and sheep and cattle grazing. The RDA plan also notes Ipswich as the fastest growing city in Queensland, with a diverse economy of industries including construction, retail, transport and defence.
Lockyer— Our Valley Our Vision Community Plan 2027 (LVRC, 2017b)	*Lockyer—Our Valley, Our Vision Community Plan 2027* (LVRC, 2017b) sets out the ten-year vision for the region based on strategic objectives that address the key focus areas of community, leadership, farming, business, livelihood, planned and nature. The plan continues to position the Lockyer Valley as a leading agricultural production zone in Australia. Gatton is identified as the region's principal rural activity centre, supporting future growth of the business, retail and commercial, government and health sectors. Laidley and Plainlands are also identified as growth areas for local service provision, to supplement the role of Gatton. The plan identifies that effective management of the region's projected population growth to 2031 is one of its greatest future challenges.

Legislation, policy or guideline	Relevance to the Project
Lockyer Valley Economic Development Plan 2018–2023 (Stafford Strategies, 2018)	*The Lockyer Valley Economic Development Plan 2018–2023* was prepared for Lockyer Valley Regional Council (LVRC) in 2018 (Stafford Strategies 2018a), building on the outcomes of a 2013 plan and strategy, updating the economic baseline, and re-evaluating regional economic development strategies. The economic development plan notes that the regional economy is primarily driven by the agricultural industry, with opportunities to stimulate further economic growth to be leveraged from including extracting maximum value from the agricultural sector, proximity to Brisbane and the Gold Coast, accessibility via the Warrego Highway and nearby airports, and The University of Queensland (UQ), Gatton Campus.
Grantham Reconstruction Area Development Scheme 2011 (QRA, 2011)	The *Grantham Reconstruction Area Development Scheme* outlines the blueprint for the reconstruction of Grantham after the flooding events in 2011. The Queensland Reconstruction Authority (QRA) and LVRC developed the scheme in consultation with the local community. The Grantham Reconstruction Area was declared by regulation on 8 April 2011. The development scheme regulates development within the Grantham reconstruction area. The Project traverses the Grantham reconstruction area. The land-use intent for the area as determined by the development scheme has been taken into consideration when determining impacts of the Project on future land use in the area.
City of Ipswich Transport Plan (iGo Plan) 2016 (Ipswich City Council (ICC), 2016)	The *iGo Plan* was publicly released in 2015 to facilitate and guide the growth of transport in the city of Ipswich. Significant population growth in Ipswich means there needs to be considerable road, rail and bus transportation network growth. The *iGo Plan* aims to provide a long-term plan and key short-term actions to facilitate a variety of travel modes, a culture shift and strategic land-use planning. The *iGo Plan* acknowledges Inland Rail and identifies the need to support the planning, design and delivery of the program as a key short-term action.
Advance Ipswich (ICC, 2015)	ICC's community plan, *Advance Ipswich* builds on the programs and strategies in the previous i2020 and i2031 community plans and provides a renewed and contemporary focus for the future of the city. The Plan is structured under five themes: ▸ Strengthening our local economy and building prosperity (jobs) ▸ Managing growth and delivering key infrastructure ▸ Caring for our community ▸ Caring for our environment ▸ Listening, leading and financial management. The plan's five themes include goals with supporting strategies and key actions. Local government's role in the delivery of each key action is also articulated to provide management, support or advocacy.

16.4.1 Social Impact Assessment Guideline

The Coordinator-General published the *SIA Guideline* in March 2018, pursuant to the *Strong and Sustainable Resources Communities Act 2017* (Qld) (SSRC Act). The *SIA Guideline* has been developed for projects subject to an EIS under the SDPWO Act or *Environmental Protection Act 1994* (Qld) (EP Act).

The SIA responds to the *SIA Guideline* and includes:

- Consideration of the SIA Guideline's key matters, for the full life cycle of the Project
- A description of how the potentially impacted communities and stakeholders were consulted during the development of the SIA as part of a meaningful, inclusive and transparent engagement process
- Analysis of the nature and scope of the Project, potentially affected communities and the sensitivity of the social environment
- Development of a social baseline that includes demographic indicators, community values and history, community health and wellbeing, key industries, the local and regional workforce, access to social facilities and services, and housing and accommodation
- Consideration of factors that determine the likely scope and significance of the Project's social impacts
- Assessment of social impacts and opportunities across all relevant issue categories for each stage of the Project lifecycle, including cumulative impacts
- Integration with the EIS process, including consideration of the social consequences of technical matters assessed in other parts of the EIS
- Provision of a SIMP, which documents the management measures that address potential negative impacts, capitalises on positive opportunities and includes a monitoring and reporting framework.

Local social impacts will depend primarily on the relationship of the Project to towns, rural properties and other social land uses, while regional impacts and benefits will relate primarily to construction workforce demands and regional economic development.

The potential for flooding, property severance, changes to connectivity and impacts on amenity are prominent factors for consideration.

The Project is part of Inland Rail, which has inter-regional, State and national social impacts and benefits that require a clear focus on the cumulative effects of each of the Inland Rail projects and other relevant major projects. This is discussed further in Section 16.13 and Chapter 22: Cumulative impacts.

16.5 Methodology

This section describes how the SIA was undertaken.

16.5.1 Social Impact Assessment steps

The key steps in the SIA were:

- Engaging with stakeholders and communities to identify the scope of potential social impacts and benefits, and ensure community views and knowledge were considered in the SIA
- Defining the SIA study area and the scope of assessment
- Developing a social baseline, which combines quantitative and qualitative data to provide an overview of existing conditions in local and regional communities
- Assessing the likelihood, nature and distribution of potential social impacts and benefits, and evaluation of their significance for social conditions and stakeholders
- Considering the results of EIS technical studies with a focus on issues bearing on social impacts and benefits
- Assessing the potential for cumulative social impacts of multiple projects
- Developing management measures that avoid, reduce or offset social impacts and maximise Project benefits
- Evaluating the significance of social impacts and benefits.

These steps are further discussed in the following sections.

16.5.2 Stakeholder engagement

The purpose of stakeholder engagement in SIA is to ensure that directly affected stakeholders and other community members have the opportunity to the SIA. The objectives of stakeholder engagement in SIA are shown in Table 16.3.

TABLE 16.3: PLANNING CONTEXT FOR SIA

Principles	How achieved
SIA considers the views of directly affected stakeholders	The views of community members who may be affected by the Project's impacts or benefit from Project opportunities are sought and represented in the SIA.
Stakeholder engagement is inclusive of all interested stakeholders	Access to SIA engagement was available and accessible through the community survey, community information sessions, drop-in sessions, Community Consultative Committee (CCC) meetings (members and observers), and ARTC's online Social PinPoint and CollabMap tools. The results of ARTC's engagement with landowners, residents, Councils, Traditional Owners, businesses and other key stakeholders are incorporated in the SIA.
Stakeholders are able to provide informed inputs to the SIA	Stakeholders who participated in engagement were provided with information about the nature and location of the Project, and the range of impacts and opportunities that may result.

SIA engagement was integrated with ARTC engagement processes for the Project, including:

- Participation in community information sessions to speak with residents, farmers and business owners
- Attendance at CCC meetings, to provide information about the SIA scope, process and impacts being assessed
- Participation in drop-in sessions, to discuss residents' views on the Project's potential social impacts and benefits.

A profile of Project stakeholders and their key issues in relation to the SIA is provided in Section 16.9. The SIA engagement process included:

- A community survey
- Meetings with LVRC and ICC managers to discuss community concerns, potential social impacts and benefits and potential mitigation measures

- Meetings with the Yuggera Ugarapul People
- Workshops with community organisations and government agencies, including Liworaji Aboriginal Corporation, Uniting Care Community Ipswich, Salvation Army Employment Plus, the Department of State Development, Tourism and Innovation (DSDTI) (now Department of State Development, Infrastructure, Local Government and Planning (DSDILGP)), Department of Transport and Main Roads (DTMR), Department of Employment Small Business and Training (DESBT), Department of Infrastructure, Transport, Regional Development and Communications (DITRDC), Department of Education, Department of Communities, Disability Services and Seniors (DCDSS) (now the Department of Communities, Housing and Digital Economy (DCHDE)) and the Department of Aboriginal and Torres Strait Islander Partnerships (DATSIP) (now the Department of Seniors, Disability Services and Aboriginal and Torres Strait Islander Partnerships (DSDSATSIP)), Queensland Ambulance Service (QAS), Department of Housing and Public Works (DHPW) (now the Department of Communities, Housing and Digital Economy (DCHDE)), Queensland Health and the Queensland Police Service (QPS)
- Meetings with the Office of Coordinator-General.

The SIA also incorporates the results of ARTC's engagement with directly affected and nearby landowners, Traditional Owner representatives, businesses, and community, environmental and economic groups.

The results of stakeholder engagement are provided in Section 16.9 and have been incorporated throughout the SIA as referenced.

16.5.3 Scoping

Matters that were considered in defining the SIA scope included:

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

The scoping process and outcomes are described in detail in Appendix Q: Social Impact Assessment Technical Report.

16.5.4 Social baseline

The social baseline provides a detailed description of social conditions in the areas of social influence. Investigations undertaken to develop the social baseline included:

- Potentially impacted communities' history, land use and settlement pattern
- Population size, composition and growth
- Demographic characteristics
- Housing and accommodation availability and affordability
- Community values
- Community health and safety
- Employment, labour force and skills
- Business and industry
- Infrastructure provision including physical infrastructure and social infrastructure (community facilities, services and networks).

16.5.5 Impact assessment

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

Further detail on impact assessment methods is provided in Appendix Q: Social Impact Assessment Technical Report.

16.5.6 Integration with Environmental Impact Statement findings

The SIA integrates the relevant findings of EIS technical reports, including Project-specific and cumulative impacts on environmental qualities, cultural heritage or traffic infrastructure, to identify any social impacts. The EIS has considered issues identified by stakeholders as part of the SIA engagement process. Appendix Q: Social Impact Assessment Technical Report identifies the SIA's links to EIS findings.

16.5.7 Cumulative impact assessment

Cumulative social impact assessment considers the potential for the combined impacts of a set of projects to affect a social environment over time. The SIA considers the potential impacts of Inland Rail's adjacent Gowrie to Helidon (G2H) and Calvert to Kagaru (C2K) projects, which are currently in the design phase with EIS processes underway, along with other major projects which may be constructed or operated at the same time as the Project.

The potential area of influence has been identified with respect to potential spatial and temporal impacts.

A review of other projects' EISs, relevant literature and qualitative analysis enabled potential cumulative impacts at the local and regional levels to be identified. Cumulative impacts were considered in evaluating the significance of social impacts and benefits.

16.5.8 Significance assessment

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

- Stakeholder inputs on how they expected the Project would affect their communities or households
- The likelihood and consequence of potential social impacts and benefits
- ARTC's commitments, and mitigation and enhancement strategies identified as part of the assessment process
- Identification of residual impacts and benefits.

16.5.9 Social Impact Management Plan

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

- Stakeholder engagement to identify stakeholders' suggestions regarding mitigation measures
- Incorporation of mitigation, management and enhancement measures into the SIMP
- Designing additional mitigation, management and enhancement measures where impacts would be of medium or high significance
- Developing performance indicators and a monitoring and reporting framework to support adaptive management of social impacts.

16.6 Social Impact Assessment study area

The Project commences at Helidon within the Lockyer Valley LGA and ends in the rural locality of Calvert in the Ipswich LGA. The Project is greenfield from Helidon to Grantham, brownfield from Placid Hills to between Forest Hill and Laidley, greenfield from south of Laidley and west of Grandchester, and then brownfield to Calvert. The SIA study area includes:

- The EIS investigation corridor, which includes the permanent operational and temporary construction disturbance footprint for the alignment, as well as a 1 km buffer surrounding the Project as identified within the *Initial Advice Statement* (ARTC, 2017b)
- Potentially affected communities as identified in Section 16.6.2
- The Lockyer Valley and Ipswich LGAs, which equate to the SIA study area as a whole.

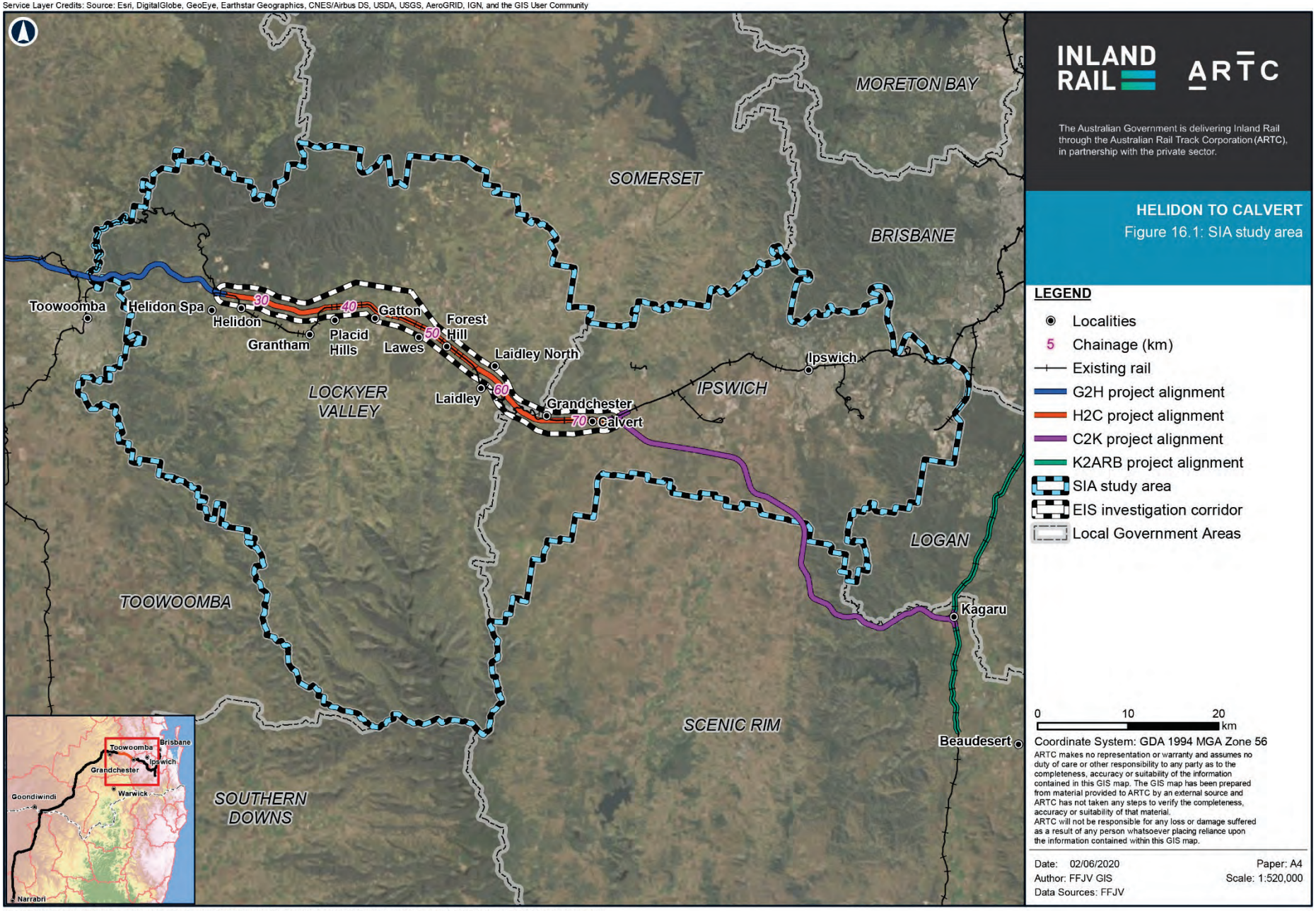
The SIA study area is shown in Figure 16.1.

16.6.1 Environmental Impact Statement investigation corridor

The EIS investigation corridor is shown in Figure 16.1 and refers to:

- The rail corridor and associated crossing loops, maintenance sidings, road crossings, bridges, culverts and infrastructure (also described in the EIS as the permanent operational disturbance footprint)
- Land to be used temporarily for construction purposes, including laydown areas, access tracks and work areas (the temporary construction disturbance footprint)
- Areas adjacent and within approximately 1 km of the rail corridor.

The SIA includes analysis of the potential for impacts on landowners and other community members within the EIS investigation corridor, with a key focus on landowners, businesses and tenants within and adjacent to the temporary construction disturbance footprint, which includes the permanent operational disturbance footprint.


Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
MORETON BAY
SOMERSET
BRISBANE
IPSWICH
LOCKYER VALLEY
LOGAN
TOOWOOMBA
SCENIC RIM
SOUTHERN DOWNS
Toowoomba
Helidon Spa
Helidon
Grantham
Placid Hills
Gatton
Lawes
Forest Hill
Laidley North
Laidley
Grandchester
Calvert
Ipswich
Kagaru
Beaudesert
30
40
50
60
70
INLAND RAIL
ARTC
The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.
HELIDON TO CALVERT
Figure 16.1: SIA study area
LEGEND
Localities
5 Chainage (km)
Existing rail
G2H project alignment
H2C project alignment
C2K project alignment
K2ARB project alignment
SIA study area
EIS investigation corridor
Local Government Areas
0 10 20
km
Coordinate System: GDA 1994 MGA Zone 56
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Scale: 1:520,000
Data Sources: FFJV
Brisbane
Toowoomba
Ipswich
Grandchester
Warwick
Goondiwindi
Narrabri
Map by: LCT/IW/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20202130942_SIA\330-EAP-202002130942_ARTC_16.1_SIA_study_area_v3.mxd Date: 2/06/2020 11:58

16.6.2 Potentially affected communities

Towns and rural residential areas in and near the EIS investigation corridor have been identified as potentially impacted communities, as the Project's social impacts are likely to result from changes to the environment (e.g. changes to land uses, road networks, noise levels, air quality or scenic character), or changes to social conditions (e.g. community cohesion, the amenity of towns and access to community facilities) in these communities.

The Project would pass near or through the following potentially impacted communities in the Lockyer Valley and Ipswich LGAs:

- On the northern border of Helidon Spa and approximately 200 m north of the town of Helidon
- Through the northern part of Grantham
- Through the rural residential community of Placid Hills
- Through the town of Gatton, crossing the Warrego Highway
- Through Lawes, which is primarily farming land, but includes the UQ Gatton Campus
- Through the town of Forest Hill
- Through the Laidley North rural residential community
- In the tunnel, under the rural residential community to Laidley's east
- Through the town of Grandchester
- To the immediate north of the town of Calvert.

Towns and localities within and near the EIS investigation corridor are briefly described below. Australian Bureau of Statistics' (ABS) State Suburb Codes (SSCs) are used to delineate the potentially impacted communities, as they include not just urban localities but the rural and rural residential areas around them. Where specific data is not available for State Suburbs, they have been provided for the relevant Statistical Area 2 (SA2) areas. Data is provided for the two LGAs, and some labour force data have also been provided for the broader labour force region, which includes the Toowoomba and Ipswich Valley SA4s. These statistical areas are shown in Figure 16.2a and Figure 16.2b.

16.6.2.1 Helidon

Helidon is located approximately 20 km east of Toowoomba within the West Moreton System rail corridor. Helidon is bounded by Lockyer Creek to the south and west, and by Lockyer National Park and State Forest to the north and is dissected by the Warrego Highway. Helidon was settled in the 1870s, has an artesian water spa and is known for export quality sandstone used in Queensland's historic buildings and cemetery monuments (LVRC, 2017a).

The Gatton Shire Planning Scheme (Gatton Shire Council, 2007) designates the area as a rural agricultural zone adjoining creek lines, rural general, industrial and community facilities, rural and urban residential, with a defined commercial zone. Areas to the south of the rail line are earmarked for urban residential land supply in 2–10 years. The predominant land uses are grazing native vegetation and conservation and natural environments, with some residential, mining and industrial areas.

The Helidon locality to the east of the town centre is primarily used for grazing and agricultural production, with some irrigated seasonal agriculture. *ShapingSEQ* designates this area as regional landscape and rural production. The floodplains of Lockyer and Sandy Creeks are designated as important agricultural areas under the state planning policy and regional interests (Department of Natural Resources, Mines and Energy (DNRME), 2020).

16.6.2.2 Helidon Spa

Helidon Spa is a locality adjacent to the township of Helidon, bounded by Lockyer Creek and Monkey Water Holes Creek, and is dissected by the Warrego Highway. The area is described as regional landscape and rural production and rural living areas under *ShapingSEQ* (DNRME, 2020). Predominant land use includes grazing native vegetation, residential, natural environments with limited irrigated cropping and industrial areas (DNRME, 2020). Areas to the south of Lockyer Creek are earmarked for rural residential land supply in 5–10 years.

16.6.2.3 Grantham

Grantham is located approximately 30 km east of Toowoomba in the Lockyer Valley, and is surrounded by premier agricultural land, and is known as one of the largest producers of vegetables in Australia. Grantham is bounded by Nunns Road to the west and Philips Road to the east. Lockyer Creek is the southern boundary with Lockyer State Forest to the north. The West Moreton System rail corridor and Warrego Highway dissect the area. The Grantham area is entirely designated as regional landscape and rural production area under *ShapingSEQ* (DNRME, 2020). The predominant land uses are grazing native vegetation, modified grazing, irrigated seasonal agriculture and horticulture in the Lockyer Creek floodplain and rural residential (DNRME, 2020).

Grantham was named after a pastoral run in 1842. A rail siding was established in the West Moreton System rail corridor through this area in 1867, and Grantham became central to Lockyer Valley's dairy industry with the Grantham Butter factory operating from 1907–1971 (Talbot, 2013). The Gatton bypass constructed in 1989 saw the diversion of Toowoomba–Ipswich traffic from the township of Grantham. In 2011, devastating floods resulted in death and property losses and the subsequent rebuilding of the residential areas on higher ground (QRA, 2011).

16.6.2.4 Placid Hills

Placid Hills is a locality approximately 5 km east of the township of Gatton. It is bounded by Lockyer Creek to the south and the West Moreton System rail corridor to the north and is dissected by Old Toowoomba Road. The area has been designated as rural living within the urban footprint, and within the agricultural use areas it is designated as regional landscape and rural production under *ShapingSEQ* (DILGP, 2017a). The land use is predominantly rural residential with the floodplains of Lockyer Creek supporting irrigated agriculture and some areas of grazing native vegetation (DNRME, 2020).

The alignment is adjacent to rural residential properties between Project chainage (Ch) 37.0 km and Ch 41.0 km with homes and water dams within approximately 200 m of the EIS investigation corridor.

16.6.2.5 Gatton

Gatton is the administrative centre of the Lockyer Valley LGA and is located approximately 37 km east of Toowoomba. Gatton is bounded by Lockyer Creek to the west and the Warrego Highway to the north and is dissected by the West Moreton System rail corridor.

Gatton was founded in 1855 and remained a small village until the rail connection to Grandchester opened in 1866. The township has defined commercial and residential precincts, with grazing native vegetation and irrigated agriculture uses dominating the outer margins of the township (DNRME, 2020). The area is known as the salad bowl of the valley with intensive agriculture surrounding the township. Gatton is also the home community for the Gatton Agricultural College (UQ Gatton Campus), which opened in 1897 and is located 5 km east of the township in the localities of Lawes and College View.

To the east of the Gatton township, the existing West Moreton System rail corridor is used mainly for grazing native vegetation. Within the Gatton township, the predominant land use is for commercial services. West of Gatton irrigated seasonal horticulture and grazing native vegetation are the predominant land uses (DNRME, 2020).

16.6.2.6 Lawes

Lawes is located approximately 5 km east of Gatton and hosts the UQ Gatton Campus. The locality was named in 1935 together with the Lawes railway station, which was formerly known as the College siding that serviced the Queensland Agricultural College. The station formed part of the West Moreton System rail corridor and has since been demolished. The area within the existing West Moreton System rail corridor is used predominantly as grazing native vegetation at Lawes, while areas outside of this corridor consist of grazing land and irrigated seasonal horticulture (DNRME, 2020).

The UQ Gatton Campus was first established in 1897 at Gatton as the Queensland Agricultural College, which amalgamated with UQ in 1990. The Gatton Campus is located on the Warrego Highway, approximately 5 km east of Gatton. Entry to the campus grounds features the heritage-listed main campus building, located on a sandstone ridge above the Lockyer Creek floodplain. The campus includes central administrative, teaching and residential facilities surrounded by farm paddocks (UQ, n.d.).

UQ Gatton's farms cover 1,068 hectares and include a dairy, piggery, sheep and goat herd, horticultural fields, post-harvest facilities and greenhouses, and an extensive range of plant and farm machinery. The farms are spread across two locations, including a main area of activity on campus and Darbalara Farm, which comprises

184 hectares (ha) and is located 10 km south-east of the main campus. Darbalara is the home of the School of Veterinary Science Droughtmaster herd and beef cattle teaching facility, as well as other grazing and crop production (UQ, n.d.).

The Halls of Residence at UQ Gatton, comprises 436 rooms and was established in 1897. UQ Gatton Campus also offers short-stay accommodation for visitors and conference groups at the motel and cottage, and the Halls of Residence during non-teaching periods (UQ, n.d.).

The UQ St Lucia and Gatton campuses are linked by an express bus service, which runs five times a day eastbound and four times a day westbound, Monday to Friday, during semester.

A rail–bus service also runs between Brisbane and Gatton, providing a Greyhound bus connection from Rosewood train station to the centre of the Gatton campus (UQ, n.d.).

16.6.2.7 Forest Hill

The Forest Hill township is located 83 km west of Brisbane and 53 km east of Toowoomba in the Lockyer Valley. Forest Hill is bounded by Laidley Creek to the east and is dissected by the West Moreton System rail corridor and Sandy Creek. Forest Hill is a picturesque rural village and part of the Cobb & Co tourist route, 5 km south of the Warrego Highway to the west of Laidley. The existing West Moreton System rail corridor runs through the centre of the town.

The township is designated as urban footprint and the surrounds as regional landscape and rural production in *ShapingSEQ*. The surrounding area is rural agricultural land and rural landscape, including irrigated agriculture and grazing native pasture (DILGP, 2017a).

16.6.2.8 Laidley and Laidley North

The township of Laidley is located 83 km west of Brisbane and is the easternmost town of the Lockyer Valley LGA. The localities of Laidley and Laidley north are bounded by Laidley Creek to the west and dissected by the West Moreton System rail corridor. The township is designated as urban footprint and the surrounds as regional landscape and rural production under *ShapingSEQ*. Areas to the north-east and south of the existing township are earmarked for urban residential development over the next 10 years. Land use around the flood plain of Laidley Creek is irrigated agriculture; within the township the land use is predominantly residential and services. There are some limited areas of mining/quarrying, manufacturing and land in transition (DNRME, 2020). At Laidley North, the area contains land uses mapped as irrigated seasonal horticulture and grazing land (DNRME, 2020).

16.6.2.9 Grandchester

The township of Grandchester is located 76 km west of Brisbane on the westernmost boundary of Ipswich LGA. The locality is dissected by the Little Liverpool Range, Western Creek and the West Moreton System rail corridor. The entire locality is designated as regional landscape and rural production under *ShapingSEQ*. Land use is predominantly grazing native vegetation where it falls within the West Moreton System rail corridor. Outside of the West Moreton System rail corridor, land use is residential and community services, where within the Grandchester township, and residual native cover where the Project exits the proposed eastern tunnel portal (DNRME, 2020).

The first rail line in Queensland from Ipswich to Bigges Camp was opened 31 July 1865. Bigges Camp was renamed Grandchester in August 1865. The rail station was a transfer point from rail to Cobb & Co coach to Toowoomba (Queensland Rail (QR), 2015).

16.6.2.10 Calvert

The town of Calvert is located in Ipswich LGA approximately 3 km south-west of the EIS investigation corridor. The township is dissected by the West Moreton System rail corridor, Hidden Vale Road, Franklin Vale Creek and Western Creek. Calvert is 26 km south-east of Gatton and 25 km south-west of Ipswich City centre. The EIS investigation corridor is within zones mapped as regional landscape and rural production area under *ShapingSEQ* (DILGP, 2017a).

The primary land use for the area is grazing modified pasture with some areas of irrigated cropping and seasonal horticulture in the floodplain of Western and Franklin Vale Creeks that coincide with the identified strategic cropping area. The majority of the remaining grazing use is over native vegetation.

Residential lots have been established in the township area and have been subject to low-density development (DNRME, 2020). The areas surrounding Calvert are considered, under the Ipswich City Plan, to be constrained by factors such as good-quality agricultural land and flood-prone land, the area is also designated as a Future Investigation Area with potential for development as an urban area within the existing lots surveyed within the township boundaries.

The area west of the township of Calvert is designated as regional landscape and rural production area under *ShapingSEQ* (DILGP, 2017a) and the land use is grazing native pasture.

16.6.3 Project region

Community members and other stakeholders in the Lockyer Valley and Ipswich LGAs may experience Project impacts such as traffic disruptions or increased demand for services during construction and may benefit from Project employment and Project supply opportunities.

The Lockyer Valley and Ipswich LGAs form the overall SIA study area and comprise the regional economic catchment referred to as the Project region (shown in Figure 16.2).

16.6.3.1 Lockyer Valley local government area

The Lockyer Valley LGA covers an area of 2,200 square kilometres (km^2) and was formed through the amalgamation of the Gatton and Laidley Shires in 2008. The LGA is based around the Warrego Highway, one hour west of Brisbane and 20 minutes east of Toowoomba. It is surrounded by Southern Downs LGA to the south, Somerset LGA to the north, Toowoomba LGA to the west and Ipswich City and Scenic Rim LGAs to the east.

Pastoralists settled the area in the 1820s, and in the 1870s German and Prussian settlers arrived and brought their farming skills to the region. In 1866, the rail line from Ipswich (en-route to Toowoomba) reached Gatton. The region's agricultural college has been open since 1897 (Centre for the Government of Queensland, 2018). Irrigation enterprises flourished in the 1930s with the introduction of reticulated electricity. Agriculture, forestry, farming, transport and small business are still the main avenues of employment, with tourism also an industry strength. Regional farm work attracts backpacker, refugee and migrant labourers, giving the region a fluctuating cultural profile.

The 2011 flood affected the region deeply, with the loss of life, homes and businesses throughout the valley.

Gatton is the commercial centre of the region, with larger towns being Laidley, Grantham and Helidon and the smaller villages being Withcott, Murphys Creek, Plainland and Forest Hill. The region's deep alluvial soil, climate and good-quality water has earned the nickname 'Australia's salad bowl' as it represents 12–14 per cent of Queensland's agricultural economy (Lockyer Valley Growers, 2018).

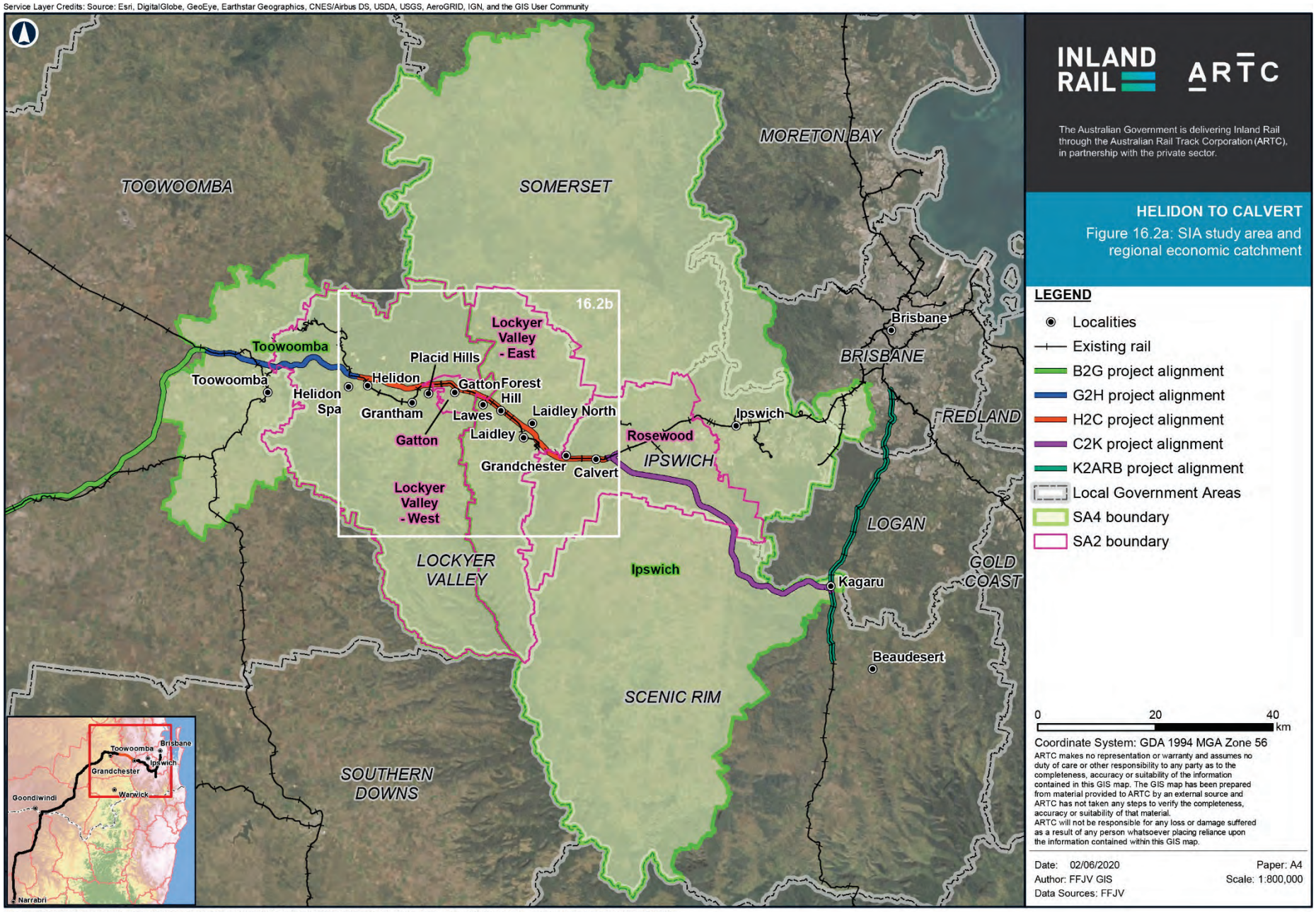
The crops grown in the region include carrots, potatoes, cabbage, broccoli, cauliflower, pumpkins, corns and beans as well as some exotic vegetables. The region's population is predicted to grow steadily and the LVRC recognises the challenge of supporting this growth and residential pressure (LVRC, 2017a). The valley is dissected by creeks that enter the Brisbane River near the village of Lowood.

16.6.3.2 Ipswich local government area

Ipswich City is located on the Bremer River and is the centre for the Ipswich LGA which covers some 1,085 km^2 and is surrounded by the LGAs of Brisbane to the east, Lockyer Valley to the west, Scenic Rim and Logan to the south, and Somerset to the north. In 2016, Ipswich LGA was home to 193,733 people.

The LGA is characterised by the Bremer River and its tributaries, the historic town centre and diverse suburban and semi-rural areas.

The local economy was developed through manufacturing, agriculture, coal mining and railway infrastructure and servicing. Agricultural production is located adjacent to the river and creek floodplains, some mining/extractive uses still exist, and industrial uses are prevalent in the former mining areas. Currently key industry sectors include energy generation, food and agribusiness, defence, advanced manufacturing and transport and logistics. (ICC, 2018a). Ipswich LGA also has significant strengths in education, training and health services.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TOOWOOMBA
SOMERSET
MORETON BAY
BRISBANE
REDLAND
IPSWICH
LOGAN
GOLD COAST
LOCKYER VALLEY
SCENIC RIM
SOUTHERN DOWNS
16.2b
Toowoomba
Toowoomba
Helidon Spa
Helidon
Placid Hills
Gatton
Grantham
Lawes
Forest Hill
Laidley North
Laidley
Gatton
Rosewood
Grandchester
Calvert
Lockyer Valley - East
Lockyer Valley - West
Ipswich
Brisbane
Ipswich
Kagaru
Beaudesert
Goondiwindi
Warwick
Narrabri
INLAND RAIL
ARTC
The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.
HELIDON TO CALVERT
Figure 16.2a: SIA study area and regional economic catchment
LEGEND
Localities
Existing rail
B2G project alignment
G2H project alignment
H2C project alignment
C2K project alignment
K2ARB project alignment
Local Government Areas
SA4 boundary
SA2 boundary
0
20
40
km
Coordinate System: GDA 1994 MGA Zone 56
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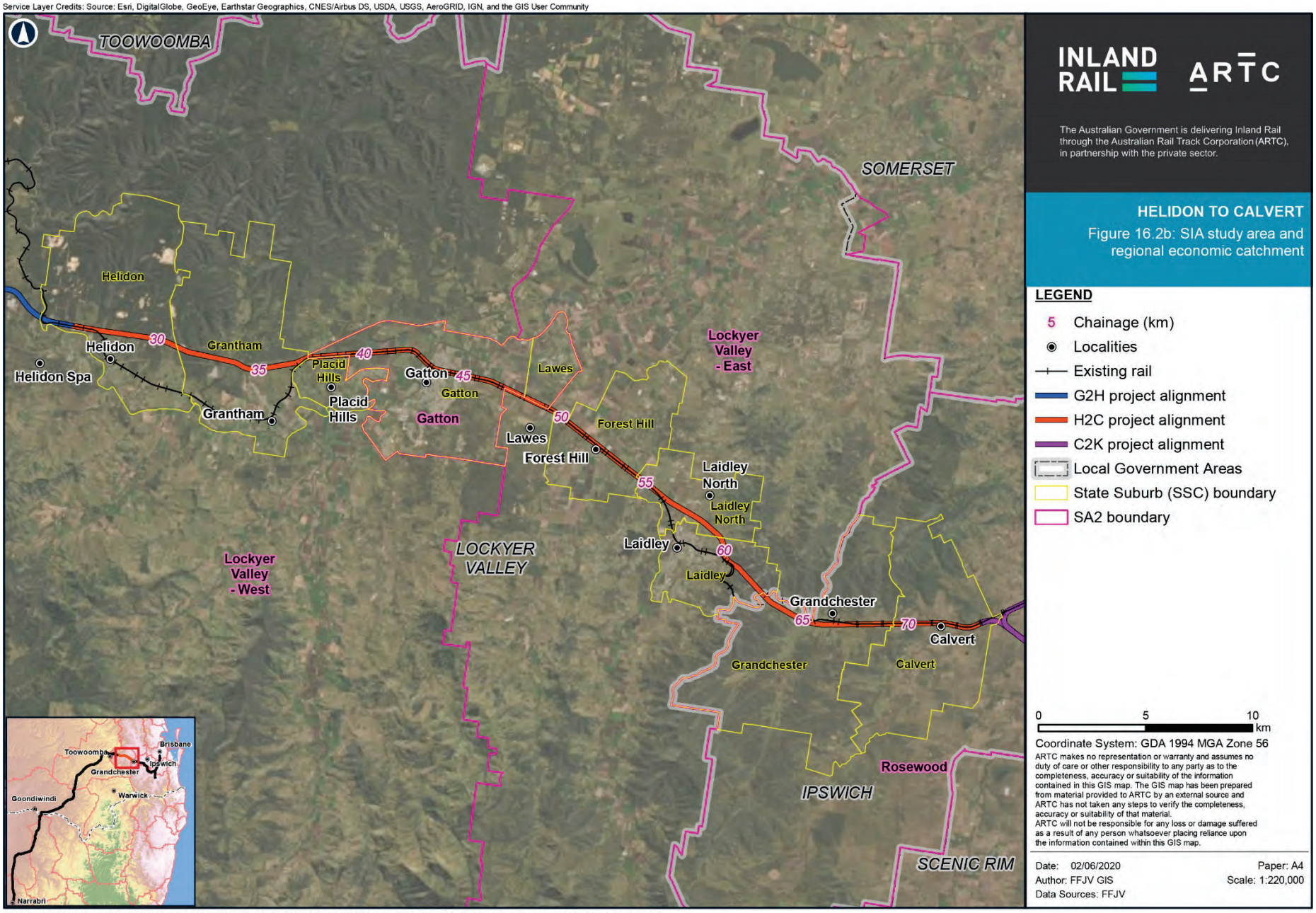

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16.6.4 Traditional Ownership

The EIS investigation corridor is located on land within the Yuggera Ugarapul People's Native Title claim area which has been accepted for registration and is yet to be determined by the Native Title Tribunal.

Land within the EIS investigation corridor is predominately held as freehold or is within the existing West Moreton System rail corridor or the Gowrie to Grandchester future State transport corridor, where native title rights have been extinguished. Land that is held under other forms of tenure including State or Crown land may be subject to native title.

16.7 The Project

The Project's objectives are to:

- Provide rail infrastructure that meets the Inland Rail specifications, to enable trains using the Inland Rail corridor to travel between Helidon and Calvert, connecting with the eastern end of the G2H Inland Rail Project and the western end of the C2K Inland Rail Project
- Minimise the potential for adverse environmental and community impacts.

The intended land use for the Project is rail and associated infrastructure, including road realignments, grade separations and ancillary infrastructure. The corridor will be of sufficient width to accommodate the infrastructure currently proposed for construction, as well as future expansion, including a possible future requirement for 3,600 m trains, and future-proofing for a possible public passenger transport service. The future possible public passenger service would be undertaken by DTMR and as such these future infrastructure requirements are excluded from the Project scope.

The Project will connect with G2H at a tie-in point along Airforce Road, immediately west of Helidon, using the West Moreton System rail corridor, then deviate to follow the Gowrie to Grandchester future State transport corridor through the Grantham area.

The Project re-joins the West Moreton System rail corridor at the rural residential area of Placid Hills, to pass through the town of Gatton, the locality of Lawes, the town of Forest Hill, and the Valley Vista Estate residential area and grazing areas in Laidley North.

Deviating from the existing West Moreton System rail corridor, the Project then follows the Gowrie to Grandchester future State transport corridor, avoiding the Laidley township, entering a proposed tunnel portal at Grandchester near residential and grazing land. The proposed tunnel will run beneath the Little Liverpool Range tunnel for approximately 850 m, exiting in an area of native vegetation.

After exiting the eastern tunnel portal, the Project crosses under the existing QR rail line, and over the Rosewood Laidley Road, bypassing the existing Grandchester Station to the south, running parallel to the West Moreton System rail corridor, and then connecting into the proposed C2K rail line and the West Moreton System rail corridor, west of Calvert.

The Project includes both greenfield (new) and brownfield (existing rail corridor) sections. The EIS investigation corridor is generally consistent with the protected Gowrie to Grandchester future State transport corridor, which was declared a 'future public passenger transport corridor' in 2005.

16.7.1 Key Project components

The Project will involve construction and operation of:

- A single-track dual-gauge rail line with crossing loops to ultimately accommodate trains of up 3,600 m, but initially constructed for 1,800 m train sets
- The Little Liverpool Range, bridges and viaducts to accommodate topography and Project crossings of waterways, roads and other infrastructure
- Laydown areas, workspace and access roads
- Embankments and cuttings along the length of the alignment
- Tie-ins to the existing West Moreton System rail corridor at the Project boundary and other potential intermediate locations to be confirmed by operational modelling
- Associated rail infrastructure, including maintenance sidings and signalling infrastructure
- Ancillary works, including road and public utility crossings and realignments.

Key components of the Project are summarised in Table 16.4.

TABLE 16.4: KEY COMPONENTS OF PROJECT

Key component	
Start and finish point	Helidon to Calvert
Local government areas	LVRC ICC
Rail corridor	47 km (single-track dual-gauge railway) Approximately 24 km of the rail corridor will be established through the existing West Moreton System rail corridor as brownfield development
Track dimensions	Rail corridor containing a single-track, dual-gauge railway line with up to four crossing loops
Train lengths	Initially up to 1,800 m with the potential to accommodate 3,600 m trains in future
Tunnel	Approximately 850 m long tunnel through the Little Liverpool Range
Expected completion	2026

16.7.2 Project elements and operations

Project elements with potential for social impacts and benefits are summarised in Table 16.5.

TABLE 16.5: PROJECT ELEMENTS OF RELEVANCE TO THE SOCIAL ENVIRONMENT

Key elements	Detail	Potential impact areas
Construction		
Corridor and associated works	▸ Establishment of approximately 47 km of new single-track dual-gauge railway including four crossing loops, each 2,200 m in length ▸ Approximately 24 km of the Project established through the existing West Moreton System rail corridor ▸ Significant embankments and cuttings along the length of the alignment ▸ Construction of a tunnel of approximately 850 m through the Little Liverpool Range tunnel ▸ Identification, establishment and use of quarries for the sourcing of construction materials ▸ Construction of temporary site offices ▸ Construction workspace and access roads ▸ Approximately 32 laydown areas will be required during construction	▸ Connectivity ▸ Community cohesion ▸ Agricultural operations ▸ Sense of place ▸ Residential amenity ▸ Privacy and feelings of security ▸ Travel behaviour ▸ Health
Construction employment	▸ A preliminary estimate of the construction workforce is 410 full-time equivalent (FTE) personnel at peak. The average number of FTE workforce on site across the full construction period (four years) is 190 people	▸ Employment and training opportunities ▸ Other industries or communities' access to skilled labour
Rail–road interfaces	▸ Road and rail interfaces include 36 public road (formed) interfaces (seven of which will be active level crossings), nine public road (unformed) interfaces, 50 private interfaces and five pedestrian interfaces (including one pedestrian-over-rail bridge) ▸ Road realignments, road closures, construction of grade-separated and level crossings will be required	▸ Road network access ▸ Property access ▸ Connectivity between and across properties ▸ Property management ▸ Stock and equipment movements ▸ Traffic congestion/safety issues

Key elements	Detail	Potential impact areas
Bridges	▸ The Project requires construction of 31 bridge structures including: ▸ Thirteen rail bridges over waterways ▸ Six over-waterway-and-road bridges ▸ Six rail-over-road bridges ▸ Four road-over-rail bridges ▸ One rail-over-rail bridge ▸ One pedestrian-over-rail bridge	▸ Road network access ▸ Connectivity ▸ Rural character ▸ Noise
Operations		
Freight rail operation	▸ The Project would accommodate double-stacked container freight trains of up to 1,800 m length, with an estimated 33 train movements per day by 2026. ▸ The Project would provide sufficient corridor width for potential future operation of freight trains of 3,600 m length. ▸ Up to 47 train movements are expected per day by 2040.	▸ Residential amenity ▸ Rural character ▸ Tourism values ▸ Community safety ▸ Regional development ▸ Health and wellbeing
Operational employment	▸ Approximately 15–20 personnel	▸ Local employment and training opportunities
Level crossings operation	▸ The Project will have seven active (secured) level crossings	▸ Emergency services access ▸ Traffic safety and travel times ▸ Rural character ▸ Agricultural movements
Crossing loop operation	▸ Crossing loops would be located near: ▸ Helidon–Ch 29.00 km–Ch 31.20 km, with possible future extension between Ch 27.00 km and Ch 31.20 km ▸ Gatton–Ch 44.70 km–Ch 46.90 km, with possible future extension between Ch 44.70 km and Ch 48.70 km ▸ Laidley–Ch 55.00 km–Ch 57.30 km, with possible future extension between Ch 53.30 km and Ch 57.30 km ▸ Calvert–Ch 68.80 km–Ch 71.00 km with possible future extension between Ch 67.00 km and Ch 71.00 km	▸ Residential amenity—noise and air quality ▸ Connectivity
Track maintenance	▸ Regular track maintenance would be performed	▸ Noise ▸ Employment

16.7.3 Construction activities

The Project construction program includes the following stages and activities:

- Pre-construction activities and early works, including detailed design, land acquisition, obtaining environmental planning approvals, surveys and geotechnical investigations, establishment of access tracks, and utility and service relocations
- Site preparation, including site clearance, establishment of construction site compounds and facilities, installation of temporary and permanent fencing, installation of drainage and water-management controls and construction of site access, including temporary haul roads
- Civil works, including bulk earthworks, construction of cuts and embankments, construction of tunnel portals and tunnels, installation of permanent drainage controls, bridge and watercourse crossing construction
- Track works, including the installation of ballast, sleepers and rails
- Rail systems infrastructure and wayside equipment, including signals, turnouts and asset-monitoring infrastructure
- Commissioning, integration testing and handover process to achieve operational readiness.

Construction work will be undertaken from Monday to Friday, 6.30 am to 6.00 pm (and up to 10.00 pm if the construction works comply with the performance requirements in approved environmental management plans) and Saturday from 6.30 am to 1.00 pm (and up to 5.00 pm if the construction works comply with the performance requirements in approved environmental management plans). Track possessions, tunnelling activities and spoil haulage are proposed on a 24-hours/day, 7 days/week basis.

Works that require continuous construction support, such as continuous concrete pours, pipe-jacking or other forms of ground support necessary to avoid a failure or construction incident will also be expected to occur outside of standard construction hours.

Following construction, laydown areas and demountable buildings used during construction will be decommissioned and the areas rehabilitated. Some office facilities may be left within the railway corridor for the commissioning phase. All construction sites, compounds and access routes would be returned to the same or better condition than prior to construction commencing.

16.7.4 Tunnel infrastructure

The Project proposes a tunnel of approximately 850 m through the Little Liverpool Range. Construction will involve roadheaders (a track mounted machine with a cutting head mounted on a boom) with multiple roadheaders commencing excavation from each portal simultaneously. Excavation via drilling and blasting methods may also be required.

The tunnel portal areas will require a substation building for power supply, a pump station for the tunnel hydrant system, and an emergency services staging area. The tunnel will be naturally ventilated so no ventilation outlets are required.

16.7.5 Operations

Inland Rail as a whole will be operational once all 13 sections are complete, which is estimated to occur in 2026. The Project will form part of the rail network managed and maintained by ARTC and has a design life of 100 years. The Project will initially accommodate double-stacked container freight trains of up to 1,800 m length, with potential for future accommodation of freight trains of 3,600 m length. Train services will be provided by a variety of operators and may include grain, bulk freight, and other commodities.

It is estimated that the operation of Inland Rail will involve an annual average of about 33 train services per day in both directions (northbound and southbound) in 2026. This is likely to increase to up to 47 train services per day in both directions in 2040 with current proposed infrastructure. Train design speeds will range from 80 to 115 km per hour (km/hour).

Operational processes will include:

- Use of the railway for freight purposes
- Operation and maintenance of tunnel ventilation, safety systems and signalling
- General track, infrastructure and corridor maintenance, including occasional major maintenance such as track reconditioning and topping up of ballast.

Standard ARTC maintenance activities will be undertaken during operations, typically including:

- Minor maintenance works, such as bridge and culvert inspections sleeper replacement, rail welding rail grinding, ballast profile management and track tamping
- Major periodic maintenance, such as ballast cleaning, reconditioning of track, and adjustment and correction of track level and line.

Standard rural fencing (post and wire) will be required to the extent of the Project but is not generally required between the corridor and an adjacent railway or road corridor. Where superior fencing is required (near roads or to prevent trespass), a 1.8 m chain wire fence may be provided with gates at corridor entry/exit locations and private level crossings.

16.7.6 Decommissioning

The Project will form part of the rail network managed and maintained by ARTC and is planned to operate for 100 years.

Decommissioning would involve removal and recycling of the track and infrastructure that is not required for other future purposes, and rehabilitation according to a Reinstatement and Rehabilitation Plan that will be developed in later phases of the Project. The number of personnel required for decommissioning works is unknown.

Access roads and tracks that will no longer be used will be decommissioned and restored to a condition generally consistent with the pre-existing characteristics of the area. The rail corridor would then be rehabilitated to enable future land uses to proceed.

As the Project has a design life of 100 years, to approximately 2125, the social impacts of Project decommissioning cannot be foreseen and are not discussed further in the SIA.

16.7.7 Skills, services and materials required by the Project

Pre-construction activities are anticipated to require a small workforce of approximately 20–to–50 personnel over a six-month period. The core construction workforce will consist of professional staff, supervisors, trades workers and plant operators, with earthworks crews, bridge structure teams, capping and track-works crews working at different periods though the construction phase.

The workforce is expected to peak at 410 full-time equivalent personnel early in Year 2 of construction. Across the full construction period, the average workforce is expected to be in the order of 190 full-time equivalent personnel.

The construction workforce is expected to be drawn from within a safe daily (one-hour) driving distance, including communities within the Brisbane, Beaudesert, Logan, Ipswich and Toowoomba LGAs, with some personnel sourced from nearby communities. On this basis, a workforce accommodation facility is not proposed.

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

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

Once operational, a workforce of 15–20 personnel will undertake monitoring and maintenance of the track and infrastructure, signalling, environmental monitoring and management of land and infrastructure in the rail corridor. The operational workforce will also be drawn from communities within a safe daily driving distance with little potential for change to population or housing conditions.

16.8 Social environment

This section describes the social characteristics of local communities and regions that may be affected by the Project. Additional data supporting this section are provided in Appendix Q: Social Impact Assessment Technical Report.

16.8.1 Community profile

This section describes the demographic characteristics of the SIA study area.[1]

Socio-Economic Indexes for Areas (SEIFA) are developed by the ABS, based on data from the five-yearly Census, to rank areas according to relative socio-economic advantage and disadvantage (ABS, 2017a). SEIFA scores are compared to the standardised baseline (State) score of 1,000 with a low score indicating relatively greater disadvantage.

16.8.1.1 Environmental Impact Statement investigation corridor

The EIS investigation corridor traverses 37 Statistical Area Level 1s (SA1s) in Queensland. The SA1 areas within the EIS investigation corridor are shown on Figure 16.3.

The SA1s represent a total area of 473.15 km^2, within which there were approximately 5,873 dwellings and a population of 14,632 people in 2016 (an increase of 1,505 people since 2011). Population density in the EIS investigation corridor was highest in:

- SA1 3144812, a residential area near the town of Gatton located 1 km south of the EIS investigation corridor, bound by Woodlands Road, Hennessy Street and Mackay Street (a density of 2,244.90 persons/km^2)
- SA1 3144816, which is located 1.3 km south of the EIS investigation corridor in a residential area bound by Mackay Street, Woodlands Road and comprising Rogers Drive and Davis Crescent (with a density of 2,021.82 persons/km^2)
- SA1 3128019 (1,500.95 persons/km^2) in Laidley.

Eight SA1s recorded very low population densities of less than 15 person/km^2, generally in areas of the Ipswich hinterland.

Key characteristics of the SA1s are shown in Table 16.16. The SA1 areas in within the EIS investigation corridor are shown in Figure 16.3.

The SEIFA and Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD) indicates there is potential for disadvantage within the EIS investigation corridor. Only two of the SA1s had SEIFA IRSAD scores higher than the Queensland standardised rate of 1,000 (around Helidon) while 16 SA1s had SEIFA IRSAD scores within the 1st and 2nd decile (including 11 within the 1st decile), indicating potential for disadvantage (lower socioeconomic resources) within the EIS investigation corridor.

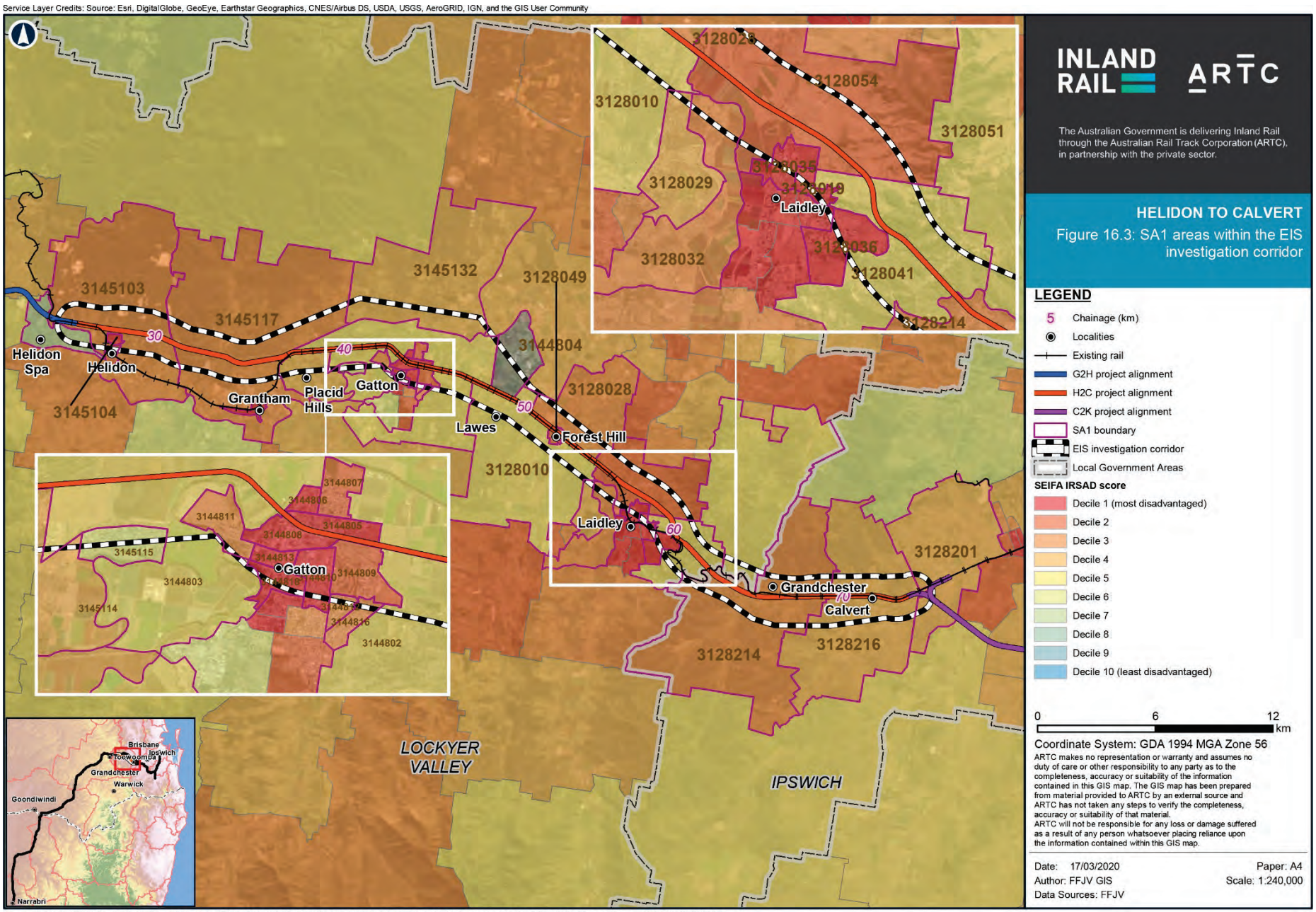
Lowest scores were seen in SA1 3144813, which corresponds to a local area of Gatton, approximately 600 m from the EIS investigation corridor (Harch Street), and SA1 3128035, which corresponds to the Laidley area.

1. The ABS makes small random adjustments to all cell values to protect the confidentiality of data. These adjustments may cause the sum of rows or columns to differ by small amounts from table totals.

TABLE 16.6: STATISTICAL AREA LEVEL 1 EIS INVESTIGATION CORRIDOR SEIFA SCORES 2011 AND 2016, SCORE AND RANKING (DECILE)

SA1	Area (km^2)	Population			Population density (persons/ km^2)	No. dwellings (2016)	SEIFA IRSAD		Index of economic resources	
		2011	2016	Change (%)			Score	Decile	Score	Decile
3145105	5.52	240	327	36.25	59.20	106	1036	7	1105	9
3145103	47.56	333	310	-6.91	6.52	129	928	3	1014	6
3145104	0.39	266	306	15.04	782.61	104	854	1	912	2
3145101	0.36	235	246	4.68	684.09	116	878	2	900	2
3145117	66.03	318	516	62.26	7.81	207	944	3	1016	6
3145114	6.71	478	436	-8.79	65.01	167	974	4	1057	7
3144803	20.76	283	270	-4.59	13.01	94	985	5	1062	8
3145115	0.72	356	392	10.11	544.37	119	1024	6	1112	9
3145132	39.05	642	873	35.98	22.36	292	967	4	1049	7
3144811	0.63	237	217	-8.44	342.70	100	918	3	952	3
3144808	0.54	255	239	-6.27	442.02	124	824	1	810	1
3144813	0.21	259	216	-16.60	1047.53	119	790	1	791	1
3144818	0.32	455	409	-10.11	1261.18	189	857	1	840	1
3144808	0.54	255	239	-6.27	442.02	124	824	1	810	1
3144810	0.48	506	561	10.87	1164.63	209	848	1	869	1
3144805	0.41	535	408	-23.74	983.84	185	810	1	841	1
3144807	0.49	517	574	11.03	1164.06	238	875	2	882	2
3144809	0.76	440	486	10.45	643.37	206	905	2	930	3
3144806	0.17	224	193	-13.84	1168.99	92	825	1	848	1
3144812	0.17	349	374	7.16	2244.90	142	948	3	975	4
3144816	0.29	477	593	24.32	2021.82	214	943	3	927	3
3144802	13.59	412	502	21.84	36.93	175	987	5	1049	7
3144804	7.13	304	328	7.89	46.01	24	ND	ND	ND	ND
3128010	37.13	230	289	25.65	7.78	112	991	5	1057	7
3128028	16.29	334	379	13.47	23.26	157	949	3	1041	7
3128049	0.58	394	472	19.80	815.34	288	880	2	844	1
3128029	3.08	302	326	7.95	105.91	121	958	4	1038	7
3128032	6.36	323	336	4.02	52.80	133	932	3	1030	6
3128054	15.34	ND	408	N/A	26.60	160	914	2	938	3
3128035	0.93	453	493	8.83	531.08	266	797	1	817	1
3128019	0.42	606	631	4.13	1500.95	274	829	1	871	1
3128041	9.66	266	268	0.75	27.75	121	988	5	1012	6
3128036	1.84	528	669	26.70	363.41	253	860	1	914	2
3128214	57.39	504	444	-11.90	7.74	174	934	3	1011	6
3128051	37.89	301	360	19.60	9.50	130	988	5	1077	8
3128216	44.18	281	313	11.39	7.09	114	982	4	1023	6
3128201	29.22	235	229	-2.55	7.84	95	978	4	1033	7
Totals	**-**	**13,133**	**14,632**	**8.31**	**-**	**5,873**	**-**	**-**	**-**	**-**

Source: ABS Census of Population and Housing, 2011a; 2016b


Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
INLAND RAIL
ARTC
The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.
HELIDON TO CALVERT
Figure 16.3: SA1 areas within the EIS investigation corridor
LEGEND
Chainage (km)
Localities
Existing rail
G2H project alignment
H2C project alignment
C2K project alignment
SA1 boundary
EIS investigation corridor
Local Government Areas
SEIFA IRSAD score
Decile 1 (most disadvantaged)
Decile 2
Decile 3
Decile 4
Decile 5
Decile 6
Decile 7
Decile 8
Decile 9
Decile 10 (least disadvantaged)
0
6
12
km
Coordinate System: GDA 1994 MGA Zone 56
ARTC makes no representation or warranty and assumes no duty of care or other responsibility to any party as to the completeness, accuracy or suitability of the information contained in this GIS map. The GIS map has been prepared from material provided to ARTC by an external source and ARTC has not taken any steps to verify the completeness, accuracy or suitability of that material.
ARTC will not be responsible for any loss or damage suffered as a result of any person whatsoever placing reliance upon the information contained within this GIS map.
Date: 17/03/2020
Paper: A4
Author: FFJV GIS
Scale: 1:240,000
Data Sources: FFJV
Helidon Spa
Helidon
Grantham
Placid Hills
Gatton
Lawes
Forest Hill
Laidley
Grandchester
Calvert
LOCKYER VALLEY
IPSWICH
3145103
3145117
3145132
3145104
3144804
3128049
3128028
3128010
3128029
3128032
3128051
3128054
3128041
3128214
3128216
3128201
3144807
3144806
3144805
3144811
3144808
3144813
3144809
3145115
3144803
3145114
3144816
3144802
Brisbane
Ipswich
Toowoomba
Grandchester
Warwick
Goondiwindi
Narrabri
Map by: LCT/IW Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20202130942_SIA\330-EAP-202002130942_ARTC_Figure 16.3_SIA_areas_within_the_EIS_investigation_corridor.mxd Date: 18/03/2020 12:05

16.8.1.2 Local and regional populations

In 2016, the Lockyer Valley LGA had a population of 38,609 people, which was an increase of 3,655 people or 10.5 per cent since 2011. The Ipswich LGA's population was almost five times larger (at 193,737 people) and had increased between 2011 and 2016 by approximately 26,386 people, or 16.1 per cent over the five years (refer Table 16.7).

At the more localised SSC level, the Gatton SSC (equating to the township and surrounds) was the most populous, at 7,102 people in 2016, followed by Laidley with 3,803 people and Helidon with 1,061 people. The largest population growth occurred in the SSCs of Laidley (increasing by 287 people or 8.2 per cent), Forest Hill (increasing by 968 people, or 32.6 per cent) and Gatton (increasing by 232 people, or 3.4 per cent).

Calvert and Grandchester are the only two SSCs in the SIA study area that fall within the Ipswich LGA and have relatively small populations. Calvert in 2016 had 310 people (up 9.5 per cent since 2011) and Grandchester in 2016 had 445 people (down 11.9 per cent since 2011).

TABLE 16.7: POPULATION CHANGE 2011–2016

Community	2011 (persons)	2016 (persons)	Change (no.)	Change (%)
SCC				
Calvert	283	310	27	9.5
Forest Hill	730	968	238	32.6
Gatton	6,870	7,102	232	3.4
Grandchester	505	445	-60	-11.9
Grantham	495	637	142	28.7
Helidon	1,054	1,061	7	0.7
Laidley	3,516	3,803	287	8.2
Laidley North	-	408	-	-
Lawes	305	329	24	7.9
Placid Hills	839	832	-7	-0.8
Total	14,314	15,895	1,581	11.0
LGA				
Ipswich	166,903	193,737	26,834	16.1
Lockyer Valley	34,954	38,609	3,655	10.5
Total	201,857	232,346	30,489	15.1
State				
Queensland	4,332,739	4,703,193	370,454	8.6

Source: ABS Census of Population and Housing, 2016c (Time Series Profiles)

16.8.1.3 Population growth

Estimates and forecasts of population change at the Statistical Area Level 2 (SA2) and LGA levels between 2011 and 2026 are shown in Table 16.8 and Table 16.9.

The Lockyer Valley LGA is projected to grow by 20 per cent (8,029 people) over the four years from 2017 to 2021, and then slow in the following five years to 9.4 per cent (4,514 people) from 2021 to 2026. The main growth is anticipated in Lockyer Valley–East SA2, increasing by 11.2 per cent (2,327 people) by 2021 and a further 11.5 per cent (2,649 people) by 2026.

The most significant growth is expected in the Ipswich LGA with 13.2 per cent growth (28,568 people) projected over the four years between 2017 and 2021, and a further 30.2 per cent (71,097 people) in the five years between 2021 and 2026. This includes growth of 30.4 per cent (3,717 people) in the Rosewood SA2 in the four years from 2017 to 2021 and a further 59.8 per cent (13,246 people) in the five years between 2021 and 2026.

TABLE 16.8: ESTIMATED POPULATION GROWTH 2011–2026—STATISTICAL AREA LEVEL 2 AND LGA (NUMBER)

Location	2011*	2016*	2017*	2021^	2026^
	No.	No.	No.	No.	No.
Statistical Area 2					
Gatton	7,374	7,685	7,752	8,441	9,130
Lockyer Valley—East	18,048	20,341	20,722	23,049	25,698
Lockyer Valley—West	10,458	11,372	11,709	12,347	13,392
Rosewood	12,042	12,350	12,228	15,945	25,474
Total	47,922	51,748	52,411	59,782	73,694
LGA					
Ipswich	172,200	200,123	206,467	235,035	306,132
Lockyer Valley	35,880	39,486	40,189	48,218	52,732
Total	208,080	239,609	246,656	283,253	358,864

Source: * ABS Estimated Resident Population, 2011–2107 and ^ Queensland Government Statistics Office (QGSO), 2017

TABLE 16.9: POPULATION GROWTH 2011 TO 2026—SA2 AND LGA (PERCENTAGE CHANGE)

Location	2011–12	2012–13	2013–14	2104–15	2015–16	2016–17	2017–21	2021–26
				(% of total)				
Statistical Area 2								
Gatton	1.8	0.9	1.0	0.1	0.4	0.9	8.9	8.2
Lockyer Valley—East	2.0	4.5	2.0	1.7	2.0	1.9	11.2	11.5
Lockyer Valley—West	1.4	1.9	2.1	1.4	1.6	3.0	5.4	8.5
Rosewood	0.4	-2.6	0.1	1.6	3.2	-1.0	30.4	59.8
Total	1.4	1.6	1.4	1.4	1.9	1.3	14.1	23.3
LGA								
Ipswich	3.5	3.1	3.1	2.7	2.9	3.2	13.8	30.2
Lockyer Valley	1.9	3.1	1.9	1.3	1.6	1.8	20.0	9.4
Total	3.2	3.1	2.8	2.5	2.7	2.9	14.8	26.7

Source: ABS Estimated Resident Population, 2011–2107 and QGSO, 2017

Indigenous population

In 2016, the percentage of Indigenous population in Lockyer Valley LGA was only slightly lower than the Queensland State average at 3.9 per cent, while the Ipswich LGA was slightly higher than the state average at 4.4 per cent. The greatest proportion of indigenous populations occurred at Calvert (8.7 per cent), Helidon (5.9 per cent) and Laidley North (5.6 per cent), whereas the highest total number of Indigenous population was at Gatton (235 people) and Laidley (185 people) (refer Table 16.10).

TABLE 16.10: INDIGENOUS PEOPLE, 2016—SSC, LGA AND QUEENSLAND (NUMBER AND PERCENTAGE)

Location	Indigenous People	
	No.	% of total
SCC		
Calvert	27	8.7
Forest Hill	42	4.3
Gatton	235	3.3
Grandchester	23	5.2
Grantham	23	3.6

Location	Indigenous People	
	No.	% of total
Helidon	63	5.9
Helidon Spa	16	3.0
Laidley	185	4.9
Laidley North	23	5.6
Lawes	5	1.5
Placid Hills	15	1.8
LGA		
Lockyer Valley	1,503	3.9
Ipswich	8,429	4.4
State		
Queensland	186,482	4.0

Source: ABS 2016d

16.8.1.4 Demographic characteristics

The following section details the demographic characteristics of the populations found within the SIA study area. Further details regarding the demographic characteristics can be found in Appendix Q: Social Impact Assessment Technical Report.

Age profile

The median age in the Ipswich LGA did not change from 32 years during 2011–2016. The median age in the Lockyer Valley LGA increased from 37 years to 39 years (compared to Queensland's median age change of 36 years to 37 years). New residential development in the Ipswich LGA is likely to be contributing to the higher proportion of young people when compared to the Lockyer Valley LGA, where far less residential development is occurring. Greater change in median age occurred within the SSCs, with the largest change in Calvert (from 39 years to 45 years) and Placid Hills (from 34 to 39 years).

The Ipswich LGA recorded a high percentage of persons under the age of 16 years (23.7 per cent) compared to the Lockyer Valley LGA (19.5 per cent) and Queensland (19.4 per cent), while the Lockyer Valley LGA recorded a higher proportion of people aged over 65 years (16.2 per cent) compared to the Ipswich LGA (10.7 per cent) and Queensland (15.4 per cent). There is a significant amount of new housing development occurring in the Ipswich LGA, which is likely retaining young people or bringing young families to the area.

Gender

In 2016, within the Ipswich LGA, 49.4 per cent of the population identified as male, while 50.6 per cent identified as female. The distribution was even in the Lockyer Valley LGA, with 50 per cent of the population identified as male and 50 per cent as female. The location of Lawes stands out with the largest gender discrepancy—30.1 per cent male population and 69.9 per cent female. Most other SSCs recorded a reasonably even distribution of male and females.

Disability

The Lockyer Valley LGA recorded a slightly higher percentage of people requiring assistance (5.9 per cent) due to its older age profile compared to Ipswich (5.7 per cent) and Queensland (5.2 per cent). Within SSCs, Laidley recorded the highest percentage of people requiring assistance (11.3 per cent), followed by Grantham (8.2 per cent) and Laidley North (6.9 per cent).

Households

The Lockyer Valley LGA recorded a high proportion of couple-only households (42.6 per cent), which is indicative of the older age profile and likely drift of younger people to larger centres. A lower 31.7 per cent were couple-only families in Ipswich LGA, with the State average of Queensland at around 39.4 per cent.

Consequently, Ipswich recorded a higher percentage of couple-with-children families (45.7 per cent) than the Lockyer Valley LGA (39.8 per cent) and the Queensland average of 42.5 per cent. However, 20.9 per cent of families in the Ipswich LGA were sole-parent families, compared to the Lockyer Valley LGA at 16.1 per cent and the Queensland average at 16.5 per cent (ABS, 2016b).

The highest percentages of couple-with-children families were recorded in Placid Hills (48.1 per cent) and Calvert (43.8 per cent), reinforcing the importance of ensuring safety and good amenity in this area.

Laidley, Laidley North, Grandchester and Helidon were areas with higher percentages of sole-parent families (at 27.8 per cent, 24.5 per cent, 21.3 per cent and 21 per cent respectively), which indicates vulnerability to the changes in social conditions, such as housing access and living costs. Only Placid Hills was below the State average, with 9.4 per cent of the households belonging to sole-parent families.

The Ipswich LGA had a higher percentage of family households (71.7 per cent) compared to the Lockyer Valley LGA (68.6 per cent), which had a slightly higher percentage of lone-person households (19.2 per cent) compared to the Ipswich LGA (19 per cent). This is indicative of its older population and indicates the potential for vulnerability with respect to changing social conditions, particularly access to services.

Placid Hills recorded the highest percentage of family households (83.8 per cent), while Lawes recorded the lowest (33.3 per cent), likely due to its high percentage of group-households houses (46.7 per cent), which may reflect shared accommodation arrangements among students attending the UQ Gatton campus.

Within Queensland, 71.8 per cent of households were family, 23.5 per cent were lone-person households and 4.7 per cent identified as group households (ABS, 2016b).

Qualifications

The Lockyer Valley and Ipswich LGA's recorded higher percentages of people who did not go to school, or attended to Year 8 or below, compared to Queensland (9.2 per cent, 6.3 per cent and 5.4 per cent respectively). Year 11 or 12 (or equivalent) was the highest level of schooling completed for 44.4 per cent of the population within the Lockyer Valley LGA, followed by 56 per cent in the Ipswich LGA and 58.9 per cent in Queensland.

A lower proportion of educational attainment within the Lockyer Valley LGA may be attributed to the rural nature of the area and distance from schools, the greater proportion of elderly persons (education is more accessible to the current generation) and the higher proportion of employment in farming and trades.

A relatively low proportion of the population in the Ipswich and Lockyer Valley LGA's obtained a bachelor's degree or higher, compared to Queensland (9.5 per cent, 12 per cent and 18.3 per cent respectively). The percentages of those completing an advanced diploma or diploma in Lockyer Valley (6.9 per cent) were lower than that of Ipswich and Queensland (both 8.7 per cent). Both Lockyer Valley and Ipswich were higher than the State in percentages of those completing a certificate.

While less people within the Lockyer Valley and Ipswich LGAs attended university, a higher proportion completed vocational training, compared to the rest of Queensland.

Income

In 2016, median household incomes in the Ipswich LGA ($1,410/week) were comparable to the Queensland average ($1,402/week) and higher than in the Lockyer Valley LGA ($1,198/week).

Placid Hills ($1,694/week) and Calvert ($1,437/week) recorded higher median household incomes than Queensland, while Lawes ($574/week) and Laidley ($879/week) recorded significantly lower median incomes than the State average. The significantly low income for Lawes would likely be due to the higher student population living close to the UQ Gatton Campus.

Due to the higher proportion of families, the Ipswich LGA had a slightly larger average household (2.8 people) compared to the Lockyer Valley LGA and Queensland (2.7 and 2.6 respectively).

Socioeconomic advantage and disadvantage

The Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD) and Index of Education and Occupation (IEO) scores for 2011 and 2016 for the SIA study area are shown in Table 16.11. The Ipswich LGA is neither particularly advantaged nor disadvantaged, being positioned midrange in the 7th decile and ranked 49 of 80 Queensland LGAs. The result is similar for the IEO index, with Ipswich LGA in the 6th decile and ranked 43 of 80 LGAs. The Lockyer Valley LGA has more education and skills relative to other areas, being in decile 4 and ranked 26 of 80 LGAs according to the IEO index. The IRSAD index shows that the Lockyer Valley LGA enjoys relative advantage in decile 5 and ranked 36 of the 80 Queensland LGAs.

In terms of SA2s, of which rankings are out of 526, both Gatton and Lockyer Valley-East SA2s placed in decile 2 and among the 100 most disadvantaged SA2s in Queensland (at positions 59 and 97 respectively based on the IRSAD rankings). However, Gatton lies in decile 1 and ranked 48 of 526 SA2s according to the IEO index. Some of this discrepancy is likely attributed to the student cohort living in proximity to the UQ Gatton Campus in Lawes.

TABLE 16.11: SOCIO-ECONOMIC ADVANTAGE AND DISADVANTAGE

	Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD index)			Index of Education and Occupation (IEO index)		
			Rank in Queensland			Rank in Queensland
Statistical Area	Score[1]	Decile	Position in 526 SA2s/80 LGAs	Score[1]	Decile	Position in 526 SA2s/80 LGAs
Statistical Area 2						
Gatton	899	2	59	887	1	48
Lockyer Valley East	917	2	97	898	2	69
Lockyer Valley West	979	5	232	956	5	221
Rosewood	952	3	173	925	3	141
LGA						
Lockyer Valley	932	5	36	913	4	26
Ipswich	948	7	49	932	6	43

Source: ABS, 2016b

Table note:
1. Scores comparative to the standardised baseline within Queensland of 1,000.

Internet access

In 2016 within the Ipswich LGA, 83.8 per cent of households noted at least one person accessing the internet, compared to 83.7 per cent in Queensland, whereas less people accessed the internet in the Lockyer Valley LGA (77.4 per cent).

Within the SA2 of Gatton and Rosewood respectively, 24.9 per cent and 17.8 per cent of dwellings did not have access to the internet. This is greater than the Queensland percentage of 13.6 per cent and likely attributed to an older median age in these localities.

16.8.1.5 Travel behaviour

The following section details the travel behaviour of the populations found within the SIA study area. Further details regarding the travel behaviour can be found in Appendix Q: Social Impact Assessment Technical Report.

Vehicle ownership

The Lockyer Valley LGA recorded higher numbers of vehicles per dwelling (2.2) compared to the Ipswich LGA and Queensland (1.9 and 1.8 respectively) in 2016. The rural nature of the Lockyer Valley LGA, distance between essential services and less regularity of public transport are likely contributors to the higher percentage of vehicle ownership.

At 2.6 vehicles per dwelling, Placid Hills and Calvert were the highest in vehicle ownership in the region, relating to the higher income and household types in those regions. Lawes had the lowest rate of car ownership of all local communities (at 1.2 vehicles per dwelling).

Key transport networks

The Warrego Highway connects to the Ipswich Motorway to the east, connecting Brisbane to Toowoomba, Dalby, Chinchilla, Miles, Roma and ending in Charleville to the west.

There are two airports that provide access to the Lockyer Valley region, the Brisbane West Airport near Toowoomba (approximately 30-minute drive) and the Brisbane Domestic and International Airport near Brisbane CBD (approximately 1.15-hour drive). This also serves as the main airport for Ipswich LGA.

Public transport

Ipswich is well serviced by passenger rail via the Rosewood to Brisbane train service and has a local public bus service. The QR Rosewood/Ipswich train line provides passenger rail services seven days a week from Rosewood to Brisbane, passing through Ipswich. From Ipswich travelling west, the train stations are Thomas Street, Wulkuraka, Karrabin, Walloon, Thagoona and Rosewood, where the train terminates.

A Translink Bus (route 539) provides services from Rosewood through Grandchester, Laidley, Forest Hill, Lawes, Gatton, Grantham and Helidon, providing twelve outbound buses and six inbound buses from Rosewood on a weekday. This route is reduced to four inbound and four outbound services between Rosewood and Gatton on weekends (Translink Journey Planner, 2018).

Greyhound buses also operate daily between Toowoomba and Brisbane, regularly stopping at Plainland, UQ Gatton Campus, Gatton and Withcott, but can be extended to Grantham, Helidon and Helidon Spa on special request.

Shuttle buses are also provided between the UQ St Lucia campus in Brisbane and its Gatton Campus for UQ staff, students and authorised visitors.

16.8.2 Community values

Each of the LGAs in the SIA study area has a community plan that was developed with extensive community input. The plans reflect shared community values including:

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

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

16.8.2.1 Amenity and quality of life

Amenity refers to the use and enjoyment of private and public properties. Residential amenity in areas close to the EIS investigation corridor is characterised by:

- The strong value placed on the unique character of local towns and community identities
- Low population density, enabling privacy and enjoyment of homes and the outdoors
- Rural land uses (e.g. low-density urban form, open spaces, grazing and crop production)
- Access to facilities that support community interaction and healthy lifestyles within a few minutes' drive
- Connections and mutual reliance between neighbours
- The rural landscape, characterised by hills, plains, vegetation and vistas across rural land
- Access to business and service hubs less than one hour's drive away.

Consultation with community members in and near the EIS investigation corridor indicates that they enjoy a rural lifestyle based on:

- A quiet environment
- Farming as a primary source of livelihood
- Active, self-generated outdoor recreation (such as bike riding, horse riding and trail walking)
- Dependence on small towns such as Rosewood in the east and Gatton in the west for daily needs and social activities
- Involvement in the growing nature and food-based tourism industry.

Other features of the social environment that support local quality of life include a clean and healthy environment, affordable housing, privacy, close community connections, access to local services and community events, and strong community networks.

Historic and current rail operations have formed an integral part of the landscape. Many community members in the area have expressed the desire to reintroduce daily passenger rail journeys from Rosewood to Toowoomba to improve local access to employment and quality of life.

16.8.2.2 Indigenous cultural values

An Indigenous cultural heritage investigation was undertaken as part of the EIS (refer Chapter 18: Cultural heritage). The investigation included an initial desktop assessment and preliminary consultation, which identified a total of 13 reported Indigenous cultural heritage sites within the EIS investigation corridor (but none within the cultural heritage study area). Site types included artefact scatters and scarred/carved trees, followed by cultural sites, landscape features, resource areas Aboriginal historical places and burials (refer Chapter 18: Cultural heritage).

Indigenous cultural heritage studies undertaken as part of the approved Cultural Heritage Management Plan (CHMP) (CLH017009) identified the potential for cultural heritage impacts and developed management measures to address these impacts.

16.8.2.3 Non-Indigenous cultural values

Historical heritage values and impacts on these values are detailed in Appendix S: Non-Indigenous Cultural Heritage Survey Report. Sites within the EIS investigation corridor that reflect the area's non-Indigenous heritage include railway stations, houses, bridges, memorials and historic buildings.

16.8.2.4 Cultural diversity

Cultural diversity in the SIA study area is represented by the proportions of households where a primary language other than English was spoken and residents who were born overseas (refer Appendix Q: Social Impact Assessment Technical Report).

Both Lockyer Valley LGA and Ipswich LGA have a higher percentage of people born in Australia (78.2 per cent and 72.9 per cent) than the State average (71.1 per cent). Local communities also had a strong representation of Australian-born residents, with percentages above 75 per cent, with the exception of Gatton, which had 68 per cent.

Smaller percentages of Gatton's population were born in Taiwan (4.4 per cent), India (2.2 per cent), and Korea
(1.8 per cent). Gatton also had a high representation of non-English or not-proficient-in-English speakers, with
7.3 per cent in Gatton compared to the state average (1.8 per cent). This is reflected by the large migrant workforce composed of backpackers as well as international students studying at UQ Gatton.

16.8.2.5 Community identity

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

The Lockyer Valley LGA's identity has been forged on its rich farmland, with enduring industry strengths in horticulture and agriculture and a modern reputation as 'Australia's salad bowl'. Historically, its small population settlements in areas such as Laidley, Gatton, and Helidon were initially supported by the rail networks. These centres now showing growth owing to the attractive country lifestyle spurring on low density/large acreage developments in the region.

The identity of Ipswich LGA residents is informed by Ipswich's history as an administrative hub and by economic strengths in manufacturing, the public service, railway servicing and mining. During the past few decades, Ipswich has evolved as a self-contained city with a strong orientation towards economic growth and diversity, and a planning mandate for growth, including extensive residential development in the Ripley Valley. Urban form is predominantly low rise throughout the Ipswich LGA, and green space and community facilities contribute to the identity of a well-serviced community with an active lifestyle.

Local communities in and near the EIS investigation corridor have a small-town rural identity influenced by strong connections to agricultural heritage, and a high degree of community cohesion.

16.8.2.6 Community cohesion

Strong communities exhibit resilience and have well-developed social connections and supports, contributing to community health and wellbeing. The SIA community survey indicated that local residents' ratings of their communities' capacity to cope were lower than their ratings for all other factors, so protection of community cohesion is particularly important. The level of volunteering by residents is a measure of community cohesion. Levels of volunteering vary across the potentially affected communities, with lower levels in the suburb of Calvert (16.1 per cent) than in Queensland generally (18.8 per cent). Volunteering levels are particularly high in Lawes (43.5 per cent), Placid Hills (29.8 per cent), Forest Hill (22.5 per cent) and Laidley North (20.9 per cent) (ABS, 2016b).

The ability to access support in times of crisis is also an indicator of the strength of social connections in a community. It is estimated that around 93 per cent of people in the SIA study area SA2s would be able to find support outside the home in times of crisis (slightly higher than the Queensland estimate of 93 per cent), other than in Lockyer Valley East where it is lower at 92 per cent.

Estimates indicate that in the Gatton/Lockyer Valley West SA2s, 81 per cent of residents are able to raise $2,000 within a week in the event of an emergency—similar levels to Queensland (81.9 per cent); the lowest rate was in Lockyer Valley East (74.4 per cent) (Torrens University Public Health Information Development Unit, 2018).

16.8.2.7 Sense of place

Sense of place in the SIA study area has a strong relationship to the land (through farming, and attachment to the landscape), environmental values and the pattern of rural localities and villages, as well as social elements such as relationships between community members and places.

Indigenous people have a particular relationship to land, and their sense of community is strongly connected to natural elements of place. Yuggera Ugarapul People elders are strongly attached to the SIA study area's cultural landscapes.

People who have lived in the area for a long time also have a strong sense of place, imbued by what the place has meant to them and their families, and their knowledge of the area's physical and environmental attributes.

16.8.3 Employment and skills

This section describes the workforce and occupation profiles, trends in unemployment, the availability of skills and labour and the capacity of businesses within the SIA study area.

16.8.3.1 Labour force profile

In 2016, the SIA study area had a workforce population of 100,047 people. Of this workforce, 15,762 (15.8 per cent) lived in the Lockyer Valley LGA and 82,285 (84.2 per cent) lived in the Ipswich LGA. Lockyer Valley LGA workforce industries included:

- Agriculture, forestry, and fishing workers (2,177 people)
- Health care and social assistance workers (1,542 people)
- Education and training workers (1,441 people)
- Retail trade workers (1,428 people)
- Construction workers (1,307 people).

Ipswich LGA workforce industries included:

- Healthcare and social assistance workers (11,091 people)
- Public administration and safety workers (7,647 people)
- Manufacturing workers (8,425 people)
- Retail trade workers (8,839 people)
- Construction workers (7,049 people).

Trends in changes of employment in industries with more than 5 per cent of either the Lockyer Valley or Ipswich LGA's workforce between 2006 and 2016 showed (refer Figure 16.4):

- The agriculture forestry and fishing industry was the Lockyer Valley's largest employer, with 13.8 per cent of the workforce in 2016, down slightly from 14.5 per cent in 2006
- Manufacturing was Ipswich's largest industry in 2006, with 17.7 per cent of the workforce, but this percentage decreased to 10 per cent in 2016, and manufacturing was surpassed by health care and social assistance as the largest employing industry in 2016
- The percentage of the workforce employed in construction had increased from 7.4 per cent to 8.4 per cent in the Ipswich LGA and from 7.4 per cent to 8.3 per cent in the Locker Valley LGA
- Percentages of retail trade workers decreased slightly over the 10 years in both LGAs, but employed 9.1 per cent of Lockyer Valley LGA's workforce and 10.5 per cent of Ipswich LGA's workforce in 2016
- The percentage of the workforce employed in accommodation and food services was similar, at 5.6 per cent in Locker Valley and 5.5 per cent in Ipswich LGA, with little change over the 10 years
- Percentages of people employed in the transport, postal and warehousing industry decreased slightly in Ipswich (from 6.6 per cent to 6.5 per cent) and increased slightly from 6.9 per cent to 7.0 per cent in Lockyer Valley LGA
- Public administration and safety workforce was strong in Ipswich, at 9.1 per cent, compared to 5.7 per cent in the Locker valley LGA in 2016
- The percentage of the workforce employed in education and training, and health care and social services, increased in both LGAs between 2006 and 2016.

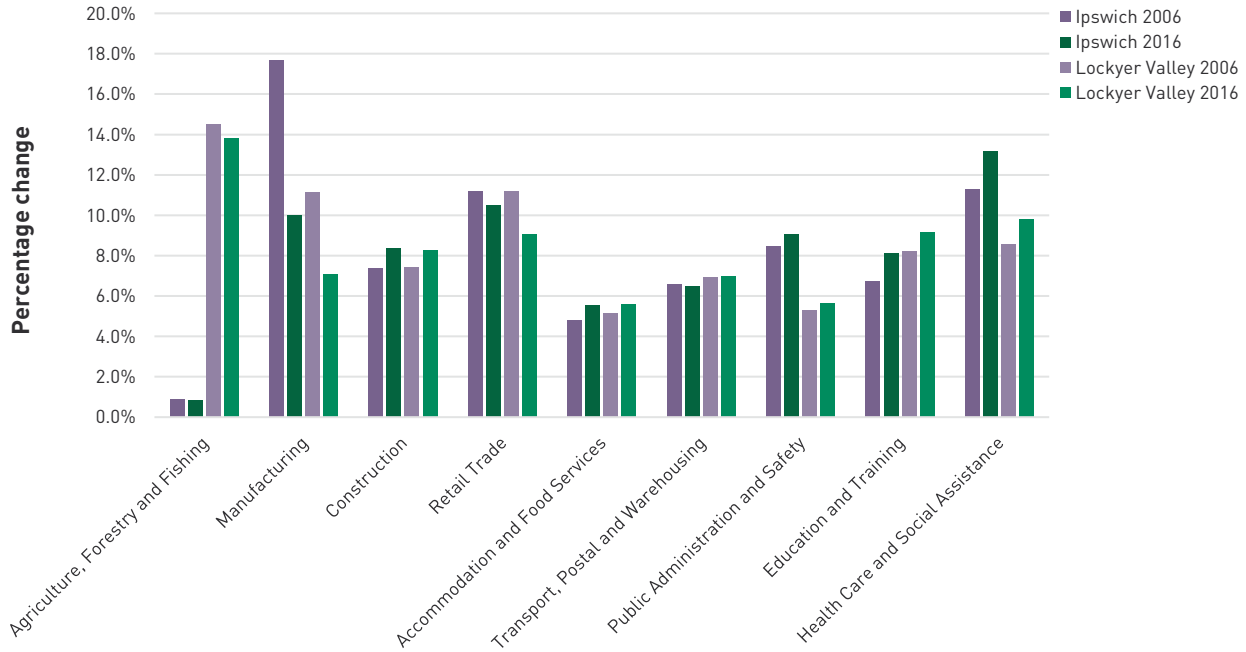


FIGURE 16.4: CHANGE IN LARGEST INDUSTRY SECTOR EMPLOYMENT, 2006–2016 BY LGA

16.8.3.2 Occupational profile

The SIA study area's occupational profile (refer Table 16.12) indicated a higher representation of trades, machinery and labourer occupations, while the representation of professionals and managers was low, compared with Queensland as a whole.

Laborers (18.4 per cent) represent the largest percentage workforce for the Lockyer Valley LGA. Technicians and trade workers are also highly represented in the Ipswich LGA (15.4 per cent) and within the Lockyer Valley LGA (15.24 per cent). This is higher than the Queensland average of 14.3 per cent.

Managers (12 per cent), professionals (12 per cent), and clerical and administrative workers (11.7 per cent) were the next highest occupations represented in the Lockyer Valley LGA. In the Ipswich LGA, the next highest occupations were clerical and administrative workers (14.9 per cent), professionals (14.8 per cent), and community and personal service workers (13 per cent).

TABLE 16.12: OCCUPATIONAL GROUPS, 2016—LGA (PERCENTAGE)

	LGA		
Occupation	Lockyer Valley (% of total)	Ipswich (% of total)	**Queensland (% of total)**
Managers	12.9	9.2	12.1
Professionals	12.0	14.8	19.8
Technicians and trades workers	15.2	15.4	14.3
Community and personal service workers	10.8	13.0	11.3
Clerical and administrative workers	11.7	14.9	13.6
Sales workers	8.6	9.8	9.7
Machinery operators and drivers	10.5	10.1	6.9
Labourers	18.4	12.9	10.5

16.8.3.3 Unemployment trends

Unemployment levels in the SIA study area 2016 were higher than the Queensland average, sitting at 8.1 per cent in the Lockyer Valley LGA and 9 per cent in the Ipswich LGA, compared with 7.6 per cent in Queensland.

Youth unemployment is very high across Queensland (15.8 per cent) (see Table 16.9); this is similar to the Lockyer Valley LGA (15.7 per cent); however, it is especially high in the Ipswich LGA (19.3 per cent).

Indigenous unemployment is slightly below the Queensland rate (20.1 per cent) in the Lockyer Valley LGA (18.9 per cent) and the Ipswich LGA (19.9 per cent), as shown in Table 16.9.

A higher percentage of females were unemployed, compared to males, in both the Lockyer Valley LGA (8.4 per cent female compared with 7.9 per cent male) and the Ipswich LGA (9.2 per cent female compared with 8.8 per cent male).

Unemployment data provided by the Department of Education (former Department of Education Skills and Employment (DESE)) indicates that during the past five years, the unemployment rate in the Ipswich LGA increased from 7.5 per cent in March 2016 to 8.5 per cent in March 2018, decreased during 2018 but increased again during 2019 to reach 8.0 per cent in March 2020 (the most recent data available), an increase of 0.5 percentage points over the five years.

The unemployment rate in the Locker Valley LGA has improved from a rate of 6.9 per cent in March 2016, with the most substantial decreases occurring during 2018-2019 to reach a rate of 5.9 per cent in March 2019, then increasing to 6.4 per cent in March 2020, a decrease of 0.5 percentage points over the five years.

The data indicates that employment availability and participation in the SIA study area have improved during the past two to three years.

The SIA study area and regional economic catchment is shown in Figure 16.2.

16.8.3.4 Labour and skills availability

The Project's major requirement for labour and skills will be during the construction phase.

In the Toowoomba SA4, 3,000 fewer people were employed in the construction industry in 2019 than in 2018, which was largely due to the completion of construction of the Toowoomba Bypass. The number of people employed in construction in the Toowoomba SA4 was 1,600 lower (21 per cent) than in 2014, indicating the likelihood of latent capacity for construction labour within the SA4.

A similar trend was seen in the Darling Downs–Maranoa SA4 (immediately west of the Toowoomba SA4), with 1,300 less people employed in construction over the one-year period, and 1,700 fewer people over the five-year period (a decrease of 30.1 per cent).

The Ipswich SA4 saw significant increases in construction employment, with an additional 1,700 people employed over the one-year period and 5,400 people over the five-year period, an increase of 46.5 per cent. The Logan-Beaudesert SA4 also saw significant increases in construction employment, with an additional 2,900 people employed in construction over the one-year period and an additional 5,800 people (equivalent to an increase of 37.6 per cent) over the five-year period. These trends indicate a substantial construction labour pool exists in the Ipswich and Logan-Beaudesert SA4 regions.

The Australian Department of Jobs and Small Business (DJSB) produces list of occupations for which shortages or some recruitment difficulty is evident. The latest list produced for Queensland was for the year 2017–18. Occupational reports for skill categories relevant to the construction sectors indicate that companies and projects were expecting some difficulties in recruitment.

Key areas of labour shortage potentially relevant to construction include civil engineering professionals and plumbing and gas-fitting trades.

At the national level, the *AIGroup Construction Outlook November 2018 Survey* (Australian Industry Group, 2018a) found that the construction industry was experiencing widespread and increasing difficulties in sourcing skilled labour and materials. Respondents to AIGroup's Workforce Development Needs Survey listed construction trades workers, electricians and mechatronics/ automation trades workers as the top three job roles experiencing skill shortages (Australian Industry Group, 2018b).

As noted in section 16.8.3.3, 9,148 Ipswich LGA residents and 1,178 Lockyer Valley residents were unemployed in March 2020 for a total of 10,326 job seekers in the Project region (DESE, 2020). Between March 2020 and June 2020, the number of Ipswich LGA residents receiving Jobseeker or Youth Allowance increased from 11,400 to 18,485 people (an increase of 62.1 per cent) while the number of Lockyer Valley residents receiving these benefits increased from 1,903 to 2,940 people (an increase of 54.5 per cent) over the same period (id.profile, 2020). This was largely due to decreased economic activity resulting from COVID-19 and indicates that in 2020, the availability of labour in both skilled and unskilled professions is significantly higher than in previous years.

16.8.3.5 Businesses capacity

The Ipswich LGA had more than twice as many businesses as the Lockyer Valley LGA, at 6,914 businesses compared with 3,053 in 2016-2017 (ABS, 2017b).

In 2016–2017, the largest industry sector (as indicated by numbers of businesses) within the Lockyer Valley LGA was agriculture, forestry and fishing (at 27.7 per cent of businesses), nearly three times more than their representation in Queensland (at 9.5 per cent). Many of these businesses are small farming operations.

The Ipswich LGA's largest industry was construction (27 per cent), followed by transport, postal and warehousing (11.5 per cent of businesses respectively). There were fewer businesses identified in mining (0.3 per cent), electricity, gas, water and waste services (0.4 per cent), and public administration and safety (0.3 per cent) within the Ipswich LGA.

Construction is important to the local economy in both the Lockyer Valley and Ipswich LGAs. The construction industry has the largest number of businesses within the Ipswich LGA and the second largest within the Lockyer Valley LGA. Being a significant regional growth area, housing development and associated infrastructure is strengthening growth in this business sector.

In 2016–2017, the majority of registered businesses were classified as 'small' within the Lockyer Valley LGA and the Ipswich LGA. In the Ipswich LGA, 61.5 per cent of businesses had no employees (e.g. sole operators, including farmers), while 36.2 per cent of businesses employed between just 1–to–19 employees. In the Lockyer Valley LGA the percentage of non-employing businesses was even higher at 65.2 per cent, with 32.6 per cent of businesses employing 1 to 19 employees.

16.8.4 Tourism

Lockyer Valley and Ipswich residents have easy access to national parks, which are significant generators of day-trip tourism and are integral to scenic amenity. Walking tracks, flora and fauna, extensive wooded and mountainous vistas and the area's natural beauty attract day trippers and overnight stayers, with a diverse range of bed and breakfasts, farm stays and mountain lodges also on offer.

Key tourism attractions in and near the EIS investigation corridor include:

- Helidon Natural Springs
- Lockyer National Park
- Little Liverpool Range, which is a valued wildlife corridor and bushwalking attraction
- Lockyer Valley Cultural Centre
- Lake Apex and Freeman Parkland Gatton Showground and Indoor Equestrian Centre

- Gatton Golf Course and Gatton Jubilee Golf Club
- The Heritage-Listed UQ Gatton Campus and Darbalara Farm
- Forest Hill Post Office, Gift Shop and Café 4342
- Laidley Cultural Centre
- Branell Homestead Bed and Breakfast
- Cunningham Crest Outlook
- McKeons Lagoon (local water hole) within Calvert township
- Spicers Hidden Vale.

Key opportunities identified in the *Lockyer Valley Tourism Destination Plan 2018–2023* (Stafford Strategies, 2018) were focused on established strengths such as agri-tourism, sports-based tourism and nature-based recreational tourism.

The Lockyer Valley Country Music Week is a key event that has been held variably in February, March or November during the past few years and was held 1–8 March in 2020. Laidley Showgrounds is the hosting facility and offers caravan and camping sites for the event. Ipswich LGA has extensive tourism offerings based in events, sporting carnivals, motor sports events, music festivals, trails (restaurants and producers), nature and adventure trails and heritage (ICC, 2018a), which support tourism visitation throughout the year. The *City of Ipswich Destination Management Plan* includes an objective to develop a seasonal campaign plan for Ipswich's tourism industry (ICC, 2018a). On this basis, tourism will be an important year-round industry in the Project region into the future.

The Ipswich Motorsport Precinct (which is located near Inland Rail's C2K Project) is a major tourist drawcard, which is activated year-round, with event calendars changing on an annual basis. Major events include CMC Rocks (a music festival that was scheduled for March in 2020 but postponed to October 2020), the Ipswich Sprint as part of the Supercars Championship (not scheduled for 2020) and the Touring Car Championships events (scheduled during March, May, June, July, September and October in 2020). Both week-to-week events and major events make a strong contribution to tourism in the LGA, including day-trips and overnight stays, with flow-on benefits to other tourism businesses.

Analysis of overnight visitor numbers provided by id Profile (using unpublished data provided by Tourism Research Australia) indicates that the number of visitor nights in Ipswich LGA in 2018/19 was approximately 22 per cent higher than in 2015/2016.

The same data for the Lockyer Valley LGA indicates an increase in the number of visitor nights between 2015/2016 and 2018/2019 of 81.2 per cent, indicating substantial increases in demand for tourism accommodation over this period (id Profile, 2018).

16.8.5 Housing and accommodation

This section describes the type, cost and availability of housing in the SIA study area. Further information is presented in Appendix Q: Social Impact Assessment Technical Report.

16.8.5.1 Dwelling type

The predominant dwelling type in 2016 within the Lockyer Valley LGA was separate housing, making up 91.4 per cent of the available housing stock. Within the Ipswich LGA, 88.3 per cent of housing stock was separate housing. The Ipswich LGA recorded a higher percentage of semi-detached, row or terrace housing (9 per cent) and flat or apartments (1.8 per cent) compared to the Lockyer Valley LGA, which recorded 2.6 per cent and 1.8 per cent respectively.

Separate houses are the dominant housing type. Within the SSCs of Calvert, Laidley North, Lawes, and Placid Hills, 100 per cent of housing stock was recorded as separate housing. The availability of medium-density housing was limited to Gatton, Laidley and Helidon. Gatton recorded 8.5 per cent of housing stock as semi-detached or townhouse dwellings, and flats or apartments made up 6.2 per cent of stock. Laidley recorded 6.7 per cent of housing stock as semi-detached or townhouse dwellings, with flats or apartments making up 3.8 per cent in Helidon and 3.3 per cent in Laidley. These levels are well below the State average of semi-detached, row or terrace house (10.6 per cent) and townhouse and flat or apartment (11.3 per cent).

16.8.5.2 Housing tenure

In 2016, the Lockyer Valley LGA recorded a much lower percentage of rental properties (23.1 per cent) in comparison to the Ipswich LGA (37.5 per cent). The Lockyer Valley LGA recorded a high percentage of properties owned outright (29.9 per cent) compared to the Ipswich LGA (20.3 per cent) and Queensland (28.5 per cent).

Within the SSCs, Lawes had the highest percentage of rented properties (79.2 per cent) and no homes owned outright (no mortgage) and no homes owned with a mortgage. The remaining 20.8 per cent of the population was recorded as 'other' tenure or was not stated. This trend is likely due to the high student population. Laidley North and Gatton also had high percentages of rented homes (67.5 per cent and 39.0 per cent). Home ownership rates were highest in Placid Hills (34.5 per cent), Grantham (33.5 per cent) and Grandchester (32.5 per cent).

In 2016, within the Ipswich LGA, 3.8 per cent of housing was social housing, compared to 1.2 per cent within the Lockyer Valley LGA. The SA2s of Rosewood, Lockyer Valley West and Lockyer Valley East recorded low percentages of social housing stock (0.6 per cent, 0.7 per cent and 0.1 per cent respectively). Gatton was the only noted SSC with recorded social housing (4.1 per cent).

16.8.5.3 Housing trends

Housing trend data is discussed in this section for the postcodes within and near the SIA study area, including:

- 4344 (Helidon/Helidon Spa)
- 4347 (Grantham)
- 4343 (Placid Hills/Gatton)
- 4342 (Forest Hill)
- 4341 (Laidley/Laidley North)
- 4340 (Grandchester/Calvert).

Purchase prices

In June 2019, the median asking price for all houses within the key postcode areas ranged from an asking price of $319,922 (Grantham) to $398,486 (Grandchester/Calvert). Unit prices ranged from $220,664 (Placid Hills/Gatton) to $418,000 (Helidon/Helidon Spa).

A number of postcode areas experienced high price volatility, reflecting the small market where there are fewer listings, so the trend data should be treated with caution, however one-year changes in house prices were generally positive, while three-year trends were generally negative.

House prices at the LGA level showed steady growth in both Ipswich LGA (rising by 12.7 per cent over the previous five years at an average of 2.5 per cent per year) and the Scenic Rim LGA (rising by 15.9 per cent over the same period at an average of 3.18 per cent per year). Unit prices fell over the five-year period to June 2019 in Ipswich (by -8.5 per cent).

Rental availability and cost

At January 2020, rental costs vary from a low of $276.8 per week (Grantham) to a high of $351.1 (Forest Hill) for houses, and from $243.2 per week (Laidley/Laidley North) to $282.7 per week (Grandchester/Calvert) for units.

The volatility in rental prices across the one- and three-year timeframes is more likely to be a factor of the small size of the rental market and may not be a true reflection of market movement in rental values. Rental stock and vacancy rates were low in the postcode area for Helidon/Helidon Spa, which may influence asking rents there.

Of note, the Project region regularly accommodates transient farm workers, some of whom use rental housing, with others using backpacker, farm stay or short-term accommodation such as hotels and caravan parks, so the availability of rental dwellings fluctuates throughout the year.

At January 2020, there were 131 rental dwellings advertised as vacant in the six postcodes covering the potentially impacted communities. The majority of rental dwellings were in the Laidley/Laidley North and Placid Hills/Gatton postcode areas, with 40 and 65 vacant rental dwellings respectively, while other towns had rental pools ranging from three to 16 dwellings. Overall, this was an increase of 18 available rental dwellings between the six postcodes, or an increase of 15.9 per cent, over the twelve-month period.

Vacancy rates had increased over the 12 months in the larger rental markets in Laidley/Laidley North and Placid Hills/Gatton. The REIQ considers that a healthy rental market exists when vacancy rates are between 2.5 and 3.5 per cent of rental stock; a weak market when rates are at or above 3.6 per cent; and a tight market when vacancy rates are less than 2.5 per cent (REIQ, 2019:2). On this basis, and acknowledging that the rental pools are relatively small, currently:

- Helidon/Helidon Spa and Forest Hill postcode areas have tight rental markets
- Laidley/Laidley North, Grantham, Grandchester/Calvert postcode areas have healthy rental markets
- Placid Hills/Gatton area has a weak rental market.

Larger rental housing markets exist in the regional centres of Ipswich and Toowoomba. At January 2020, the Ipswich central postcode (4305) had approximately 248 vacant rental dwellings, and the Toowoomba central postcode (4350) had approximately 262 vacant dwellings. Of note, rental vacancy rates were low in both these centres at 2.2 per cent and 1.4 per cent respectively in January 2020. Any housing demand from the construction workforce is likely to be shared between these centres and the potentially impacted communities, as discussed in Section 16.10.3 and Appendix Q: Social Impact Assessment Technical Report, Section 7.3.4.

16.8.5.4 Building approvals

As a major regional growth area, the Ipswich LGA recorded 2,471 new dwelling approvals in 2018–2019, more than twelve times the number recorded in the Lockyer Valley LGA where there were 194 new dwelling approvals. However, among the SA2s, Rosewood recorded the highest number, with 157 approvals. Lockyer Valley–East SA2 recorded the next highest number of approvals (112), compared to Lockyer Valley–West (54) and Gatton (28).

16.8.5.5 Short-term accommodation

Hotels and motels throughout the SIA study area offer short-term accommodation, increasingly accessible through online platforms. The following properties are located in or near the EIS investigation corridor at:

- Helidon Natural Springs Spa Resort Motel
- Lockyer Motel
- Royal Hotel
- Commercial Hotel
- Rooms Motel
- Gatton Motel
- Gatton Caravan Park
- Old Britannia Hotel
- Homestyle Lodge (for seasonal workers)
- Lake Dyer Caravan Park and Camping Ground
- Branell Homestead
- Grantham Farmworkers' Lodge
- Spicers Hidden Vale Resort
- Porters Plainland Hotel.

The latest tourism accommodation data provided by the ABS were produced for 2015–2016 (ABS, 2016c) and indicate that at that time, accommodation establishments with at least 15 rooms in the Lockyer Valley, Toowoomba and Ipswich LGAs included:

- In Lockyer Valley LGA, one motel in Gatton (the Gatton Motel) and one in Lockyer Valley West (Lockyer Motel at Helidon), with none recorded in Lockyer Valley East (which represents Laidley and Forest Hill)
- In Ipswich LGA, a total of 10 tourism accommodation establishments with more than 15 rooms including 2 accommodation establishments in Rosewood, 5 establishments in Ipswich Central, and 1 each in the suburbs of Leichardt, North Ipswich and Raceview, with the 5 city centre establishments providing a total of 280 rooms
- In Toowoomba LGA, 36 hotels, motels and serviced apartment establishments, including 1 each in the Toowoomba East, Wilsonton, and Highfields SA2s, 2 each in in the Newton and North Toowoomba–Harlaxton SA2s, three in the Drayton/Harristown SA2, 8 in the Toowoomba East SA2 and 16 establishments in Toowoomba–Central SA2.

16.8.6 Social infrastructure

The following sections detail the provision of social infrastructure as relevant to the SIA study area. Appendix Q: Social Impact Assessment Technical Report provides further detail.

16.8.6.1 Childcare

Within Ipswich LGA there were 153 early childhood education centres and care services in 2018, of which 70 were long day care services. In the same period in the Lockyer Valley LGA, there were only 22 early childhood services, 14 of which were long day care services (DET, 2018). The greater number of early childhood services within the Ipswich LGA is due to the higher proportion of young persons and families as well as the larger population, when compared to the Lockyer Valley LGA.

16.8.6.2 Primary and secondary education

There is a total of 11 primary and secondary education facilities located in proximity to the SIA study area.

In 2018, Gatton State School had the largest student profile of the primary schools within potentially impacted communities at 518 enrolments, followed by Laidley District State School with 369 enrolments. Lockyer District State High School was the largest high school within the potentially impacted communities at 1,052 enrolments.
Grandchester State School situated on Schools Road in Grandchester is the nearest school to the Project footprint at approximately 200 m south of the alignment.

16.8.6.3 Further education and training

Further education and training facilities in the SIA study area include the Bundamba Technical and Further Education (TAFE) Campus, Springfield TAFE Campus, University of Southern Queensland (USQ) campus, USQ Toowoomba Campus and the UQ Gatton Campus.

UQ operates a large campus in Gatton, within the Lockyer Valley LGA. There is onsite accommodation, a bioscience research precinct, sporting facilities, veterinary services, farms and various food services. In 2017 there were 1,735 enrolled students (UQ, n.d.).

USQ has a campus located close to the centre of Ipswich. Approximately 1,500 students study a range of courses at the campus. The campus was officially established in 2015 and was previously owned and operated by UQ. USQ's main campus is located in Toowoomba, approximately 4.5 km to the south of Toowoomba's city centre (UQ, n.d.).

16.8.6.4 Hospital and health services

The SIA study area is serviced predominately by smaller general practitioner clinics. The following primary health care services occur within the SIA study area:

- The Lockyer Doctors Rosewood (Rosewood) (3 practitioners)
- Rosewood General Practice (Rosewood) (4 practitioners)

- Gatton Medical Centre (Gatton) (2 practitioners)
- Family Health Gatton (Gatton) (5 practitioners)
- Lockyer Valley Medical Centre (Gatton) (3 practitioners)
- UQ Healthcare Gatton (Gatton)
- Kambu Medical Centre (Laidley) (4 practitioners)
- Country Doctors Practice (Laidley)
- Laidley Family Doctors (Laidley) (4 practitioners)
- The Lockyer Doctors (Laidley).

16.8.6.5 Police, emergency services and justice

The following police stations are located within the SIA study area:

- Rosewood Police Station—John Street, Rosewood
- Helidon Police Station—Turner Street, Helidon
- Gatton Police Station—William Street, Gatton
- Laidley Police Station—Spicer Street, Laidley.

The following fire stations are located within proximity to the SIA study area:

- Helidon Fire Station—Railway Street, Helidon
- Gatton Fire Station—North Street, Gatton
- Woodlea Fire Station—Woodlands
- Forest Hill Fire Station—Forest Hill
- Laidley Fire Station—William Street, Laidley
- Rosewood Fire Station—John Street, Rosewood
- Grantham Rural Fire Brigade
- Blenheim Rural Fire Brigade.

The following ambulance stations are located within the SIA study area:

- Gatton Ambulance Station—Spencer Street, Gatton
- Queensland Ambulance Service—Railway Street, Laidley
- Rosewood Ambulance Station—John Street, Rosewood.

For larger-scale emergencies within the SIA study area, emergency services are provided from Ipswich.

16.8.6.6 Community services and facilities

Community services and facilities that are located in the SIA study area are detailed in Table 16.13.

TABLE 16.13: COMMUNITY AND CIVIC AND SUPPORT SERVICES

Location	Community and civic facilities and services	Community and family support
Helidon	Helidon and District Community Centre	T.R.U.S.T Support and Understanding for Today's Truckies Inc Helidon and District Progress Association Helidon Hills Smokespotters
Grantham	Grantham Butter Factory	Lockyer Ladies Social Network
Placid Hills	-	NTDL Youth
Gatton	Lockyer Community Centre Lake Apex Visitor Information Centre Gatton Shire Hall	National Centres Association The Gatton and Districts Committee on the Ageing Anuha Services Various Counselling Services
Forest Hill	Forest Hill Community Hall Forest Hill SES Unit	Forest Hill Community Development Association
Laidley and Laidley North	Laidley Community Centre	Lockyer Valley Community Disability Association
Grandchester	Grandchester Community Hall	Country Music Heritage Association Queensland Inc.

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

- Laidley Crisis Care and Accommodation (provides emergency housing support and services to people who are homeless)
- ALARA Queensland Limited–Laidley (provides support and respite services for people with disabilities in the Lockyer and surrounding areas)
- Anuha (provides supported accommodation and community access services for people with a disability)
- Blue Care Lockyer (provides care for seniors and people with disability assistance, transport, community aged care packaged care)
- Gatton and Laidley Meals on Wheels Inc (delivers meals to those in need)
- Kambu Aboriginal and Torres Strait Islander Corporation (promotes Indigenous community wellbeing)
- Laidley Community Centre (provides a wide range of services including information, referral and support activities, events)
- Uniting Care Employment Service
- Lockyer Valley Community Disability Association Inc, (a support and referral service)
- Lives Lived Well New Access Program (provides free, easily accessible services for people experiencing depression and/or anxiety)
- Rural Financial Counselling Service Southern Queensland (provides free and confidential financial assessments for rural small business).

Community service providers operating in the Ipswich LGA include:

- Ipswich Community Youth Service
- Focal Community Service and Access Community Services (supports people with a disability)
- Ipswich Housing and Support Services Inc (supports people experiencing housing security issues including homelessness)
- Mercy Family Services (provides individual, family and community support services)
- Vinnies Community Support programs (provides services to low income individuals and households)
- Uniting Care and BlueCare (provides a range of services, particularly for seniors and people with a disability)
- Liworaji Aboriginal Corporation (provides training and support services for Indigenous people and families)
- Anglicare and Centacare (provides a range of community services to families, young people, seniors and people with a disability)
- The Richmond Fellowship (supports people experiencing mental health issues and social disadvantage).

Within the SIA study area, most of the major recreational and cultural facilities are located in Gatton and Laidley. However, there are also sport and recreation facilities and arts, culture and amenity facilities within Helidon, Grantham and Forest Hill. Further detail is provided in Appendix Q: Social Impact Assessment Technical Report.

16.8.6.7 Aged-care services

In 2016, the Lockyer Valley LGA had six aged-care services and 225 community, residential and transition care places. The Ipswich LGA had a total of 24 aged care services and 1,318 operational community, residential and transition care places.

16.8.7 Health and wellbeing

A complex interaction of social, economic, environmental, behavioural and genetic factors helps to shape a population's health and wellbeing. Further detail in relation to health, wellbeing and safety are discussed below and is provided in greater detail within Appendix Q: Social Impact Assessment Technical Report.

16.8.7.1 Indigenous health and wellbeing

Indigenous status is an important indicator of health status, as Aboriginal and Torres Strait Islander people experience a greater burden of disease and injury than non-Indigenous Queenslanders (Queensland Health, 2017).

Unemployment is associated with poorer health and wellbeing. Like many areas in Queensland, unemployment among Indigenous residents is high in the SIA study area (18.9 per cent), but lower than the State-wide unemployment rate of 20.1 per cent for Indigenous People.

Indigenous residents in West Moreton Hospital and Health Service Region experienced almost twice the expected burden of disease and injury than the non-Indigenous population in Queensland. They also have a shorter average life expectancy of 8.3 years. The six most prevalent contributors to the burden of disease were mental disorders (27 per cent of burden), cardiovascular disease (11 per cent of burden), chronic respiratory disease (9 per cent of burden), diabetes, cancers and neo-natal causes. Cardiovascular disease contributed 2.4 years to the gap in life expectancy (Queensland Health, 2017).

16.8.7.2 General population health and wellbeing

The key indicators that reflect health determinants and health status in the regions surrounding the Project area include:

- The rate of people who assessed their health as being fair or poor in Rosewood, Gatton and Lockyer Valley–West SA2s was similar to that of Queensland (15.5 people per 100), while the rate of poorer health was much higher in Lockyer Valley–East SA2 at 17.7 people per 100 (Torrens University Public Health Information Development Unit, 2018)
- The SIA study area has a higher representation of school-age children who are developmentally delayed in one or more domains than is typical for Queensland, with the percentage particularly high in Lockyer Valley–East SA2 (34.1 per cent compared with 26.1 per cent) (Torrens University Public Health Information Development Unit, 2018)
- While suicide rates are lower than typical rates for Queensland in the Rosewood and Gatton/Lockyer Valley–West SA2s (12.0 and 13.1 people per 100,000 respectively compared to Queensland's 14.1 people), the rate is nearly twice that in the Lockyer Valley–East SA2 (25.4 people per 100,000) (Torrens University Public Health Information Development Unit, 2018)
- Available information shows that Lockyer Valley–East SA2, and to a lesser extent, Rosewood SA2 may have a predisposition to circulatory system disease, with hospital admissions occurring at a higher rate than is typical for Queensland. Rates of hospital admissions for respiratory system diseases are similar to, or lower than, those for Queensland.

Community engagement conducted to date indicates that the SIA study area is well provided with health services however, given the limited public transport services, most residents, particularly in the Lockyer Valley LGA, are reliant on private transport to access health services. Patients who require treatment beyond basic services within the SIA study area are sent to Ipswich Hospital, which is a major acute hospital. Ipswich Hospital is part of the West Moreton Hospital and Health Service that provides services to the entire West Moreton region.

16.8.7.3 Community safety

A measure of perceived safety is taken nationally, focusing on whether people feel safe to walk alone after dark in their local area. The rural and urban fringe communities in Rosewood, Gatton and Lockyer Valley–West SA2s are estimated to feel safer to walk alone after dark in the local area than is typical for Queensland. While in the Lockyer Valley –East SA2, perceptions of personal safety are much lower, at 44 per cent compared with Queensland's 50.9 per cent (Torrens University Public Health Information Development Unit, 2108, referencing 2014 data).

The rate of criminal offences in the SIA study area is higher than the Queensland rate of 6,622 offences/100,000 people. Rates have steadily increased in the three years to 2016/17. Rates are particularly high in Gatton SA2 at 15,562 offences per 100,000 people, followed by Rosewood at 9,155 offences, Lockyer Valley–East at 8,006 offences and Lockyer Valley–West at 7,497 offences (Queensland Police, 2017).

The death rate from road traffic injuries is high in Lockyer Valley–East, occurring at the rate of 7.7 people per 100,000 compared with Queensland's 5.4 people/100,000. Elsewhere, the rate is a relatively low 2.3 people per 100,000 in Rosewood SA2 and 2.9 people in Gatton/Lockyer Valley–West SA2s (Torrens University Public Health Information Development Unit, 2018, referencing 2015 data).

16.9 SIA engagement

16.9.1 SIA engagement process

The consultation approach adopted is critical to the successful delivery of Inland Rail. Between June 2017 and July 2019, consultation activities with Project stakeholders included face-to-face meetings, community information sessions, quarterly CCC meetings, and local, State and federal government briefings.

A wide range of community consultation activities were undertaken during the EIS process, including:

- Five community information sessions in April 2017 (in Helidon, Grandchester, Forest Hill, Gatton and Laidley) to raise community awareness of the Project and advise of the formal start to the approval process
- Twelve community information sessions in May–June 2017 (in Ipswich, Toowoomba, Gatton, and Laidley, with multiple session in all locations except Ipswich) focused on the content of the draft ToR for the Project's EIS and how to make a submission
- Seven community sessions and displays in May 2018 (two in Gatton, two in Grandchester, one in Forest Hill, one in Laidley and one in Helidon) to inform the development of the draft EIS
- Eighteen displays during April–May 2019 at various locations to discuss flooding/hydrology and rail–road interfaces
- Seven community information sessions during July 2019 (three in Gatton and one each in Helidon, Laidley, Grandchester and Forest Hill) to discuss the Project design and potential impacts
- Individual project briefings and meetings with LVRC and the ICC
- Face-to-face meetings involving landowners and business owners
- Meetings with churches, schools, the UQ Gatton Campus, and childcare centres

- Consultation with the Yuggera Ugarapul People, which commenced in February 2017 and is ongoing
- CCC meetings, held quarterly since December 2017
- Targeted workshop on hydrology and flooding, flora and fauna, noise and vibration, and visual impacts
- Communication strategies including paid advertising, fact sheets, mail-outs, interactive mapping available via the Project's website, an email exchange facility and a free call number.

ARTC's community and stakeholder engagement program and the outcomes of engagement to date are detailed in EIS Appendix C: Consultation Report. Key themes raised throughout the EIS consultation process included:

- Concerns about level crossings
- Impacts on local roads, e.g. increased traffic and heavy vehicles, and traffic safety
- Impacts on connectivity including roads, and pedestrian/cyclist routes
- Impacts of property acquisition
- Impacts on property values
- Damage to farm infrastructure
- Amenity relating to laydown areas
- Impacts on amenity related to noise or dust
- Community benefits resulting from the Project
- Impacts on parks and community facilities
- Health concerns
- Management of impacts on biodiversity, e.g. weed management
- Impacts on agricultural activities, stock routes and livestock
- Waste management
- Community safety.

SIA engagement was integrated with the Project engagement processes SIA-specific stakeholder engagement included a community survey, workshops and interviews with community and government service providers, a meeting with the Lockyer Valley Tourism Association, meetings with ICC and LVRC representatives, government agencies and local council workshops. The SIA-specific engagement process is shown in Table 16.14.

TABLE 16.14: SOCIAL IMPACT ASSESSMENT ENGAGEMENT

Stakeholder groups	Engagement purpose	Mechanism	Timing
Community members and businesses	• Provide information about the Project alignment and EIS study process • Enable community members to contribute their views on community values and scope of potential social impacts and benefits • Identify businesses' views on potential impacts and opportunities	• Participation in community information sessions (varying number of participants—see EIS Appendix C: Consultation Report) • SIA community survey (approximately 200 participants from Ipswich, Lockyer and Lockyer Valley/Scenic Rim boundary community members) • The results of ARTC's individual consultations with businesses in and near the disturbance footprint have been considered in the SIA	June 2018 June–July 2018
	• Collect information on social baseline values and residents and businesses' views on potential impacts	• Discussions with Lockyer Valley CCC (approximately 12 members and 52 observers) • Community meeting with Lockyer Valley Tourism Association (approximately 50 people)	October 2018
	• Obtain community input on potential impacts, benefits and mitigation	• Interviews with community members at community information sessions (approximately 20 interviews)	July 2019
Indigenous community	• Identify Indigenous community values to be considered in the SIA	• Meeting with two Yuggera Ugarapul People Elders as part of community information session	May 2018

Stakeholder groups	Engagement purpose	Mechanism	Timing
Indigenous community (continued)	▸ Seek inputs on opportunities for Indigenous economic and community development	▸ Indigenous community organisation participation (Liworaji Aboriginal Corporation) in social infrastructure providers' workshops ▸ Meeting with Yuggera Ugarapul People	May 2018 November 2019
Local Government—Lockyer Valley, Ipswich and Scenic Rim	▸ Brief local governments and managers on the draft SIA scope and seek their inputs on potential impacts and draft mitigation measures	▸ Meetings with planning, health and community development directors (nine officers in total)	October and November 2018
	▸ Provide local government managers with a summary of draft findings and mitigation measures, and seek feedback	▸ Social Technical Advisory Group meeting coordinated by Office of the Co-ordinator General (OCG) (four officers)	July 2019
	▸ Provide opportunity for detailed discussion of social impacts and benefits, and feedback on mitigation measures	▸ Council workshop with LVRC, Scenic Rim Regional Council and ICC (seven officers)	July 2019
OCG	▸ Discuss the proposed SIA scope and assessment requirements	▸ Meeting with OCG	June 2018
	▸ Advise the OCG on the results of stakeholder engagement and preliminary assessment findings	▸ Meeting with OCG officers	January 2018
Community and government agencies	▸ Identify social infrastructure capacity and gaps ▸ Seek input on social impacts and opportunities for social infrastructure providers and vulnerable groups ▸ Seek inputs on mitigation measures and enhancement measures	▸ Two workshops with social infrastructure providers involving health, community, emergency, disability, and Indigenous services (total of 16 organisations)	October 2018
Community and environmental organisations	▸ Seek community organisations views on potential social impacts and mitigation partnerships	▸ Community information sessions (as noted Appendix C: Consultation Report)	October 2018
Government agencies ▸ DSDILGP ▸ DCHDE ▸ DTMR ▸ DESBT ▸ DET ▸ DSDSATSIP ▸ Queensland Health ▸ QPS ▸ Department of Infrastructure, Transport, Regional Development and Cities (DITRDC)	▸ Seek agency input on the preliminary SIA findings and agencies' specific interests with respect to mitigation strategies	▸ Social Technical Advisory Group meeting coordinated by OCG	July 2018

16.9.2 Engagement outcomes

16.9.2.1 Community survey

The Project, combined with the adjacent G2H and C2K projects, was the focus of an SIA community survey undertaken between 31 May 2018 and 31 July 2018, with a total of 403 responses received. The four LGAs affected by the three projects have a combined population of approximately 411,000 people. The statistical validity of the SIA survey results is lessened when broken down by LGA, however the information does provide good insights into community values and views about potential Project impacts.

The community survey data of most relevance to the Project includes inputs from 246 residents in the Project region, which includes 152 people from the Lockyer Valley LGA and 94 people from communities on the border of the Ipswich and Scenic Rim LGAs.

The percentages of survey participants from each LGA, where:

- 18 per cent of the total survey sample (73 responses) came from the Lockyer Valley LGA
- 20 per cent of the total survey sample came from the Ipswich LGA (including 12 respondents from Ivory's Rock Convention and Events Centre)
- 23 per cent of the total survey sample were from communities in the Ipswich/Scenic Rim LGA boundary area
- 12 per cent (49 responses) came from Logan LGA
- 7 per cent or 28 surveys came residents of the Scenic Rim LGA.

The balance of survey responses came from Brisbane LGA (7 per cent, 29 responses), Toowoomba LGA (7 per cent, or 29 responses), and unknown or other locations. Survey respondents were asked to provide inputs on community values, community wellbeing, potential social impacts and benefits, and potential mitigation measures for social impacts. Further information on survey responses is provided in Appendix Q: Social Impact Assessment Technical Report.

The SIA community survey requested respondents to comment on their perceptions of different attributes of community wellbeing in local communities by responding to a series of value statements (based on a scale of 1= strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree). The most highly rated attributes were the community's clean environment and the quality of life. The lowest ratings were regarding local business vitality. Respondents from the Lockyer Valley and Ipswich LGAs anticipated more negative effects from Inland Rail than positive. The general tone of the survey comments indicates mistrust, anger, fear and opposition to the Project.

Some comments acknowledge the Project's national significance and broad-scale benefit, but many others did not expect Project benefits would be experienced at a local level.

The survey results showed that respondents anticipated negative effects for their community in relation to:

- Impacts on local property values and on quiet enjoyment of private properties
- Severance of farming land and impacts to agricultural productivity and local business operations
- Impacts to the scenic amenity and character of townships
- Disruption of residents' quiet way of life and enjoyment of public spaces and townships, also affecting local visitor appeal
- Community wellbeing, including:
  - Fear of community fragmentation, harming cohesion
  - The potential for increased stress, anxiety and depression among affected property owners and also nearby residents who fear or oppose the Project
  - Noise impacts causing nuisance, affecting sleep and general health and wellbeing
  - Potential for pollution and coal dust to affect the drinking water of nearby residents that rely on rainwater tanks.

The least negative response ratings were recorded in relation to the Project's potential effect on employment and training options, industry and economic development and local businesses, however, generally, respondents were lukewarm about employment and economic development opportunities.

While opposition to the Project was a general theme from respondents, many had given considerable thought to what actions the Project team could consider to mitigate adverse impacts or maximise benefits. Stakeholder inputs to suggested mitigation measures are detailed in Appendix Q: Social Impact Assessment Technical Report.

16.9.2.2 Landowners

Consultation has taken place with all directly affected landowners. Landowners in potentially impacted communities have also been engaged with through a combination of: CCC meetings, community information sessions, static displays and community forums. Key issues identified as part of landowner consultation have included:

- Timeline for proposed activities and uncertainty experienced by landowners regarding the acquisition process
- Communication channels for landowners to contact ARTC
- Concerns about the impacts of land acquisition on residential and agricultural uses
- Landowners' requirements with regard to design developments and ensuring legal access to their property
- Proposed changes to public roads and levels crossings
- Concerns about exacerbation of flooding risks
- Concerns about noise impacts and dust.

Further information regarding issues raised by landowners and the ARTC response to these issues is provided in Appendix C: Consultation Report.

16.9.2.3 Community Consultative Committee inputs

The SIA team attended the Lockyer Valley CCC meeting in October 2018 to discuss the social impact assessment. ARTC social performance staff have also attended the CCC meetings in March 2019 to discuss the SIMP, in August 2019 to discuss local business participation, and in October 2019 to discuss social impacts and opportunities.

CCC members raised the following concerns about social impacts:

- Frustration with the process for determining the Project's alignment and opposition to the outcomes
- Location of crossing loops at Laidley and associated noise of train idling
- Impacts of land severance, displacement and reduced amenity for people living in or near disturbance footprint
- Introduction of a freight rail corridor through Lockyer Valley's areas of natural beauty, and potential to deter tourists from the region's growing tourism and event offerings
- Potential for the rail line (embankments, structures and culverts) to change flooding patterns and/or exacerbate flooding
- Changes to the rural character and amenity of local towns
- Impacts on native title interests or cultural heritage
- Noise and vibration impacts on residents, business and properties near the rail line, with specific mention made to the possible future inclusion of 3,600 m long trains on the track
- Potential for passenger rail inclusion as part of Project planning
- Interest in ongoing monitoring of community wellbeing as the Project is delivered
- The future of the InterLinkSQ facility at Gowrie Junction (which is not being delivered as part of the Project and requires separate approvals)
- Noise impacts and noise management measures in relation to the Valley Vista Estate.

16.9.2.4 Community information sessions

During May–June 2018, SIA and EIS team members participated in six community information sessions (at Helidon, Grandchester, Gatton [two sessions], Forest Hill and Laidley) to provide information about the SIA and EIS process, seek input on the scope of potential impacts and interview local residents about potential social impacts. Key themes from the information sessions included:

- Loss and severance of farming properties, business operations and transport routes
- Impacts of severance/realignment on local connectivity
- Impacts on property values, property plans and future economic position of affected residents
- Noise, vibration, visual amenity and connectivity impacts on residential amenity and rural character
- Changed flood patterns and increased flood risk
- Impacts on traffic safety and/or connectivity as the result of road re-alignments, level crossings construction traffic
- Cumulative noise impacts
- Concerns about impacts on wildlife habitat including koala habitat
- Air quality impacts from diesel emissions and concern about coal dust transport
- Safety, including incident management in the Little Liverpool Range, maintaining firefighting access and intersection safety
- Impacts on rural character and environmental qualities
- Impacts on town centre amenity, visitor appreciation and tourism values
- Concerns about derailments and community safety
- The need for more information to enable community members to understand potential impacts.

16.9.2.5 Council engagement

Lockyer Valley Regional Council

The SIA team met with LVRC officers in October 2018 and in July 2019 as part of a workshop with LVRC, ICC and Scenic Rim Regional Council officers. LVRC officers also participated in the community and government agency workshop.

The October 2018 meeting provided an update on the Project, discussed social baseline findings, and identified Council's priorities for the SIA. Key issues raised during the first meeting with Council representatives included:

- Impacts to the Lockyer Valley's visual amenity and the lifestyle and tourism values associated with the landscape and heritage of local towns
- Centrality of Lockyer Valley farms to the Lockyer Valley LGA but also to regional food production
- Effects of the overpass connecting Spencer Street to Eastern Drive on the amenity of the Gatton Caravan Park and Wilks Park
- Potential loss of Apex Park affecting local government's compliance with park area requirements
- Impacts on the connectivity and amenity of Forest Hill
- Need for walking paths to be maintained for residents to get from one part of the town to the other
- Potential for properties close to the Project to lose value, with existing uncertainty around property values and banks' risk assessments already an issue in the area, following flooding
- Concerns regarding the potential for property severance and reduced connectivity across other rail lines to affect the productivity of farms and their contributions to the region's farming sector
- Likelihood that increased noise from the freight rail line would reduce the amenity of residents and the attractiveness of local communities
- Existing community anxiety about flooding, which is exacerbated by fears that the Project will change flooding patterns or that debris caught against rail lines will result in local flooding increases
- Potential for direct impacts on Council parks and roads (e.g. Apex Park) during construction
- Reduced vehicular and pedestrian connectivity within towns and to community facilities in Grandchester, Forest Hill and Gatton
- Impacts on the amenity of businesses and homes in Forest Hill, Gatton and Grandchester
- Concern regarding the potential for construction vehicles and activities to exacerbate the current fire ant problem in the Lockyer Valley, with consequent impacts on use of public areas such as parks
- Decreased property values with potential to affect financial security, and to change the socio-economic characteristics and identity of the town
- Need for ongoing engagement with Council.

At the technical workshops with government agencies and councils in July 2019, the SIA team presented the SIA's draft findings and an outline of the SIMP and sought Council and agency input. Feedback included:

- Concern regarding the impacts of Project operations on the Lockyer Valley's brand as a scenic and natural place to visit
- Need to consider the effects of roadworks, construction noise on tourists' experience of the Lockyer Valley and impacts on the amenity of tourism facilities, and the need for construction planning to consider large tourism events
- Need for management of impacts on businesses' amenity and access e.g. in Gatton and Forest Hill
- Impacts of severance on agricultural lots, and the potential to affect their viability
- Potential for increased housing demands from major project workforces , which could displace low income households
- Need to consider competition for tourism accommodation and potential to deplete the availability of accommodation
- Potential for impacts on the amenity of DEPW properties, which house people with low economic resources
- Perceptions of a decrease in property values near the EIS investigation corridor
- Observations of significant stress being caused by uncertainty and fears about the Project's impacts
- Need for awareness of existing challenges to mental health, including the effects of drought on farmers and business owners
- Concerns regarding the Project's use of water, particularly in drought, which could affect farms and other businesses' access to water
- Concern regarding the potential for upstream flooding impacts in the Brisbane River Valley floodplain.

ARTC met with LVRC's RSIS Coordinator three times during 2019 and 2020. The initial discussion was regarding local priorities as determined by the RSIS consultation process, upcoming initiatives and potential to work together to develop training programs. Subsequent discussions focused on the development of joint Skilling Queenslanders for Work (SQW) application between LVRC and Inland Rail. which focused on construction skills and alignment with RSIS priorities i.e. transferable, cross-industry skills which will also support the agricultural industry.

Ipswich City Council

The SIA team met with ICC in October 2018. Key issues raised for consideration in the SIA included:

- Community anxiety about increased flooding risk, particularly in Grandchester
- Property severance affecting small rural residential blocks
- Intensification of rail activity on amenity and liveability of Grandchester, which has a low population mass and is a vulnerable community following flooding, and also for socio-economic factors
- Noise impacts on local residents and an increase in the frequency of rail noise
- Potential impacts on tourism operations, including the entrance to Spicers Hidden Vale (via Grandchester-Mount Mort Road at Ch 65.9 km)
- Opportunities for Indigenous businesses that are involved in the local government's Indigenous business development program to participate in Project supply opportunities.

At the technical workshops with government agencies and councils in July 2019, Council's feedback included the:

- Importance of ensuring Grandchester's historic character, including the heritage character of the railway station, is protected
- Importance of Grandchester as a tourist departure point to the Spicers Retreat, requiring management of visual impacts and traffic disruptions to avoid deterring tourists
- Need for the Project's recruitment strategy to focus on residents in the Ipswich LGA
- Planned large number of new schools to cater for growth in Ipswich's population, and may need to be considered in relation to the Project's potential impacts
- Need to consider the effects of roadworks, construction noise and other impacts on the amenity tourism facilities
- Need for construction planning to consider both scenic values and large tourism events (e.g. noise impacts on events based on appreciation of the environment, and peak accommodation demands).

ARTC has met with ICC's RSIS Coordinator twice, initially to discuss local priorities upcoming initiatives and potential to work together to develop training programs; and subsequently to develop a joint SQW application between ICC and Inland Rail to offer construction skills training as part of upgrading the Gatton Soccer Club grounds.

16.9.3 Indigenous communities

Consultation has been undertaken with Traditional Owners as part of the Project's cultural heritage assessment process, which involved cultural heritage surveys and consultation with endorsed parties. Engagement is also being conducted with Indigenous community members with respect to Indigenous employment and training opportunities. Aboriginal Elders are also represented on the CCC.

An interview with Yuggera Ugarapul elders (Grandchester CIS, 26th May 2018) along with Elders' inputs to CCC discussions, provided further information for the SIA. Key issues included:

- Respect for the cultural landscape and the Project's potential to change how it is experienced
- The need for ongoing consultation with Yuggera Ugarapul People as the detailed design progresses
- Keen interest in employment opportunities and Indigenous business participation in the Project
- The need for Yuggera Ugarapul People (not just Indigenous people generally) to be employed and to have business opportunities as part of the Project
- Barriers to employment will need to be addressed, e.g. job readiness and drivers' licences
- Potential for the Project to support cultural awareness, e.g. cultural appreciation tours.

A meeting with the Yuggera Ugarapul People was held in November 2019 to discuss the potential impacts and opportunities associated with Inland Rail projects. Key issues of relevance to the Project included:

- Effects of Project construction on wildlife corridors
- Changes to the landscape and environmental impacts cause distress to Aboriginal people
- The need for cultural awareness training for contractors, in consultation with Yuggera Ugarapul People
- Interest in an opportunity to talk with Indigenous agencies that will be involved in Inland Rail projects

- Employment and business opportunities, which could include:
  - Establishing an Indigenous rangers program to be involved in environmental management and rehabilitation works during and after construction
  - A dual focus on skills training and employment for young people and mature jobseekers who can then go onto other construction work
  - Advice to Yuggera Ugarapul People regarding business opportunities and skills that construction contractors require
  - Potential for ICC and Inland Rail to identify opportunities to support Yuggera Ugarapul People to get skills and work experience prior to Inland Rail construction commencing
  - Value of employing an Indigenous mentor for Indigenous personnel
  - Yuggera Ugarapul People's interest in meeting with the primary contractor once awarded, and specification of goals for Yuggera Ugarapul People to be involved in Project construction.

16.9.4 Community and government agencies

Workshops were held with community and government agencies in Gatton and Ipswich, and in Toowoomba where regional services are located, during October 2018. Participants included: Queensland Health (Facility Planning and Management)

- TAFE Queensland
- Indigenous Elders
- Ipswich Community Health Services Centre
- Gatton Health Service (Gatton Hospital, West Moreton Hospital and Health Service)
- Laidley Police Station
- Gatton State School
- Grandchester State School
- UQ Gatton Campus
- Lockyer Valley Minister's Association/Anglican Church of Gatton (St Albans)
- LVRC
- Lions Club of Gatton
- DITRDC.

Key issues raised at the Gatton workshop included:

- Connectivity
  - Concern about access and connectivity in towns, including access to services
  - Disruption of pedestrian links to the Gatton Caravan Park
  - Rail crossings will result in connectivity issues, and back up of traffic on nearby roads, leading to safety risks
  - Transient residents (e.g. students and migrant workers) needing to be made aware of risks relating to crossing the rail corridor.
- Community wellbeing
  - Increased flood risk raised as a concern with reference to Laidley, Forest Hill and Grantham
  - Division of towns (Forest Hill, Grandchester and Gatton)
  - Concern about impacts to Hickey Street in Gatton
  - Anecdotal feedback that land values are already dropping.
- Social infrastructure
  - Increased noise at Gatton State School
  - Concern regarding pedestrian connectivity for children who walk to school, and access to major sporting fields on the other side of the rail line from the schools in Gatton
  - Existing traffic bottleneck at the Gatton Hospital during school drop-off and pick up times, with potential for the Project to exacerbate this issue, and potential for impacts on emergency access
  - Gatton Showground is a heavily used space for community and large-scale events
  - Access to Gatton Bowls Club may be affected by Gaul Street crossing
  - Project represents opportunity to contribute to local community, e.g. investment in schools
  - Anticipation of significant noise being experienced by church communities, with substantial difficulties and expense entailed in obtaining comparable facilities if churches need to relocate.
- Business and employment
  - Access to employment is critical to the sustainability and wellbeing of the local community
  - Hope for improvement in local unemployment rate
  - Concern that the Project would not benefit local towns and their businesses
  - Potential for some businesses to be negatively impacted due to changes to accessibility and convenience.

Key issues raised at the Ipswich workshop included:

- Community safety and health
  - Interest in implications for community mental health
  - Laidley Hospital is a typical rural hospital and resources are limited
  - Concern about UQ student safety
  - Existing mental health vulnerability following the impacts of the floods
  - Concern about how property severance will affect people.
- Social infrastructure
  - Grandchester State School (with 40 students) is in very close proximity to the Project, and there is concern about impacts on the learning environment and the future of the school
  - Grandchester school students' pedestrian and bike access on Grandchester Mount Mort Road could be affected
  - Establish relationships early with police to mitigate impacts on community safety and demands for service.
- Business and employment
  - Increased employment options desired
  - Consideration of potential cumulative impacts on labour demand
  - Project represents opportunity to improve Indigenous unemployment rates
  - Local quarries supply opportunities
  - Tourism values potentially affected during construction of the Project.
- Housing
  - Potential demands on short-term accommodation, particularly in Gatton where accommodation is limited and in demand from seasonal transient workers.

Issues raised in the Toowoomba workshop included:

- Employment and training
  - There is a good mature skills base locally within businesses, strengthened by construction of the Toowoomba bypass and gas fields developments
  - Construction Skills Queensland (CSQ) works closely with TAFE and has good programs supporting construction skills development
  - Toowoomba TAFE being willing to work with the Project to provide work safety, work readiness, skills training and qualifications.
- Health
  - Darling Downs Hospital and Health Service (HHS) district stretches from the border to Kingaroy and includes 19 hospitals, some of them very small and locally oriented
  - Smaller hospitals have limited ability to deal with any additional trauma cases that may occur as a result of the Project
  - Increased demand from the workforce will need to be planned for and managed, e.g. different drugs may need to be stocked
  - Region is seeing increased trends in drug addiction, mental health presentations and suicides as a result of the drought.
- Police services
  - Darling Downs region covers Goondiwindi to Laidley
  - No big gaps in police catchments but there are some areas where it's difficult to get to people
  - Need for information about dangerous goods transportation, e.g. in the rail tunnel
  - Need to orient police to the Project and key sites early in the construction process, and after completion, to aid efficiency in emergency response
  - Desire to work closely together with ARTC to plan ahead for management protocols, joint training and capacity building exercises and equipment movements that may require additional resources
  - Protests are possible (as have been experienced in relation to the gas fields and Toowoomba bypass projects) and use a lot of police resources
  - Decrease in road trauma due to decreased trucks on roads is an important benefit.
- Emergency services
  - Generally speaking, disaster management response capacity is good following regional needs during and post the 2011 floods
  - Disaster Management coordinator needs to be involved in planning emergency responses/hazard management
  - Access for helicopters along the alignment needs to be clarified
  - Distance to service providers not an indication of level of service, e.g. Toowoomba bypass viaduct close to Toowoomba but in a difficult-to-reach area.

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

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

16.9.5 Businesses

Consultation with businesses (including farm owners) has been undertaken to identify potential impacts on businesses and identify business opportunities resulting from the Project, including the need for capacity building to enable local businesses to participate. Issues of interest to businesses in potentially impacted communities include:

- Maintaining access to their properties and business premises
- The potential for traffic congestion or changes to the road network to affect trade e.g. in Gatton and Forest Hill
- Potential for amenity impacts such as noise or dust
- Property acquisition affecting businesses near the Project footprint including road re-alignments, and compensation arrangements
- Concern that flooding risks could be exacerbated and affect businesses
- For farming businesses, impacts on groundwater access
- Impacts on agricultural activities including the movement of stock, produce or equipment across the rail corridor
- Weed management
- Changes to visual amenity affecting the character of towns.

The Project's alignment passes through the Forest Hill and Gatton town centres. ARTC has had more than 330 meetings with businesses in Gatton and Forest Hill, as well as four workshops in each town.

Key issues raised by businesses in Forest Hill included:

- Limited local benefit as terminals or sidings are not proposed for Forest Hill as part of the reference design
- Impacts to local business if the change from a level crossing to a grade-separated crossing affects through traffic e.g. on Victoria Street
- Impact on the visual amenity of Forest Hill streets and public areas close to the rail corridor, likely to detract from current historical character
- Impacts on the amenity of Forest Hill businesses including visual, noise and vibration impacts during construction
- Impacts of construction traffic in the town centre on character and business access
- Concerns about construction noise impacting outdoor dining and accommodation facilities
- Hydrology impacts and potential impact of additional structures (such as noise barriers) in flood events, with some stakeholders acknowledging an opportunity to benefit the community through improved drainage from south to north
- Concerns about operational noise impacting on businesses amenity.

Potential business opportunities identified in the construction phase included provision of accommodation and meals to the workforce.

Additional issues raised by agricultural businesses in the Forest Hill area included:

- Effect of land-take on business sustainability
- Potential to affect irrigation infrastructure
- Concern about flood risk for downstream infrastructure impacts and potential for loss of topsoil in a flood event due to additional drainage.

In Gatton, key issues raised by businesses included:

- Limited local benefit as terminals or sidings are not proposed and passenger rail is not part of the Project
- Impact of the Gaul Street level crossing closure for residents driving north/south, potentially affecting through traffic to town centre businesses
- Potential for closure of the Gaul Street level crossing to affect pedestrian access to the town centre, RSL facility and events such as processions to the ANZAC memorial (a pedestrian level crossing is proposed to address this concern)
- Operational noise and dust impacts to businesses on Railway Street/Crescent Street
- Potential to impact on the availability of parking in the CBD (Crescent Street/Railway Street) due to construction works

- Boundary impacts on business including potential for land acquisition for the widening of Eastern Drive and road re-alignments to affect parking arrangements
- Concern about pedestrian/cycle access over Eastern Drive
- Concern about construction impacts to passing trade, including impacts on the service station accessed from Eastern Drive
- Potential to increase flooding risks
- Concerns about additional wait times at level crossings and implications for transport drivers
- Concern about construction noise, vibration, dust and impacts on visual amenity to affect business premises and homes
- Potential for vibration impacts to ANZAC memorial/Weeping Mothers monument
- Concerns that houses impacted by operational noise could become unattractive to tenants
- Potential for the construction footprint to impact the development of a proposed extension to Bunnings.

Businesses were generally supportive of the potential for employment and supply opportunities during construction. Some also acknowledged support for additional drainage under Eastern Drive and along the rail alignment proposed as part of the Project's reference design.

Additional issues raised by farming businesses included:

- Impact to viability of businesses adjacent to proposed alignment
- Concerns about the potential for proposed land acquisition to affect the viability of farms and farm infrastructure, including dams and greenhouses
- Potential to modify the area's hydrology which could change food risks and/or ability of properties to capture surface water
- Opportunity to supply the construction phase e.g. transport services

Lockyer Chamber of Commerce and Industry based in Gatton has expressed support for the Project, but has concerns regarding flooding impacts, the impact of additional level crossings, potential delays for traffic and community severance as a result of the rail corridor being upgraded. The possibility of stations or terminals for freight being constructed in the Lockyer Valley was of interest, noting that there is otherwise limited local benefit.

Issues raised by community members and businesses at the Project's meeting with the Lockyer Valley Tourism Association in May 2018 included:

- The effect of bridges, viaducts, other elevated structures and embankments on the scenic amenity of the Lockyer Valley
- Concern regarding disruptions to traffic and potential for interruption to tourism businesses' access
- Effects on the rural character of the Lockyer Valley, from a combination of traffic disruption and noise during construction
- Longer term impacts on the scenic amenity of the Lockyer Valley and its rural surrounds due to the appearance of rail bridges
- Operational noise impacts on tourism facilities and local towns.

ARTC has also met with the owner of the Gatton Craven Park twice, with SIA consultation commencing (after a delay during 2020) in October 2020. The results of this consultation are described in Appendix Q: Social impact assessment Technical Report, Section 7.3.7 and include:

- Concern regarding amenity impacts on the caravan park
- Concern about the potential for land acquisition within the park to reduce its capacity.

16.9.6 Summary of issues

Table 16.15 summarises key issues raised by stakeholders of relevance to social impacts and benefits, and where issues are considered in this chapter.

The following issues raised in consultation are not addressed in the SIA:

- Opposition to the Project's location (which is addressed in Chapter 2: Project rationale, Chapter 6: Project description and Appendix C: Consultation Report)
- Specific recommendations regarding air quality management (which are addressed in Appendix K: Air Quality Technical Report)
- Potential for passenger rail inclusion as part of the Project (which is not part of the Project scope).

Stakeholders were also encouraged to provide feedback on actions that ARTC could take to mitigate potential impacts or enhance Project opportunities. Stakeholder inputs on mitigation and enhancement measures are addressed in Section 16.11.1.

TABLE 16.15: STAKEHOLDER ISSUES ADDRESSED IN THE SOCIAL IMPACT ASSESSMENT

Impact area	Issues raised	SIA section
Amenity and character	Potential for homes to be affected by rail noise, vibration or dust during construction or operation	16.10.1
	Potential for construction activities to affect rural or town amenity	16.10.1
	Potential for visual amenity to be adversely impacted by bridges or elevated structures	16.10.1
	Potential for coal dust to affect nearby properties if coal is transported on the rail line	16.10.1
	Potential for noise from crossing loop near Laidley to affect nearby residents' amenity	16.10.1
	Impacts on rural amenity and character	16.10.1
	Impacts on town centre amenity	16.10.1
	Impacts on Grandchester's character and amenity, exacerbating existing disadvantage and flood-related trauma	16.10.1
Property values	Concerns regarding Project effects on property values, with potential for disadvantage to owners	16.10.1
Indigenous community interests	Impacts on native title interests or cultural landscapes, and need for cultural awareness	16.10.1.1
	Employment and business opportunities	16.1.1, 16.10.5
	The potential for cumulative housing demands from major project workforces to displace low-income households	16.10.1
Land acquisition	Impacts of property acquisition (stress and disruption of families and community networks)	16.10.1.2, 16.10.4
	Impacts of property acquisitions on farmers and graziers, including land severance	16.10.1.2, 16.10.5
Connectivity	Impacts of Project construction and operation on connectivity, including access to businesses and facilities within towns	16.10.1
	Impacts on traffic safety or school bus routes due to road re-alignments, construction traffic or level crossings	16.10.1.1
	Impacts on pedestrian connectivity	16.10.1, 16.10.4
Housing and accommodation	Effects on the amenity and capacity of Gatton Caravan Park	16.11.2
	Effects of construction workforce demands on local housing and short-term accommodation	16.11.2
	Potential to impact on DEPW properties	16.11.2
Impacts on farms and agriculture	Impacts of property severance on property use and access	16.10.1, 16.10.5
	Biosecurity concerns through the accidental transfer of pests and disease	16.10.5
	Impacts on access to water, through damage to bores or Project use of water competing with farmers	16.10.5
	Loss of small farms	16.10.5
	Potential for dams or bores to be disturbed	16.10.5
	Property values	16.10.1
	Impacts on farming and grazing, including livestock management	16.10.5
	Potential for labour to be drawn from other businesses and industries	16.10.5

Impact area	Issues raised	SIA section
Impacts on community and health facilities	Proximity of Project construction and operation to churches, schools and community centres	16.10.4
	Increased noise at Gatton schools, and potential for noise	16.10.4
	Potential to affect access, noise levels and viability of Grandchester State School	16.10.4
	Potential to impact on the amenity of future planned schools	16.10.4
	Potential to impact on the use of local government parks	16.10.4
	Effects of construction on Gatton Showground and Gatton Bowls Club	16.10.4
	Existing traffic bottleneck at Gatton Hospital, which could be exacerbated	16.10.4
	Workforce demands impacting on the capacity of small hospitals to service local needs	16.10.4
	Impacts on the amenity and use of the Forest Hill and Grandchester community halls	16.10.4
	Increased demands on local health and emergency services, including delays to emergency service access	16.10.4
	Potential to increase demands for mental health services	16.10.4
	Close cooperation with the emergency services providers including disaster management coordinators	16.10.4, 16.11.5
Community wellbeing	Impacts on firefighting access	16.10.4
	Acquisition of properties resulting in displacement of households from local communities	16.10.1
	Potential for changes in flooding risks to affect homes, farms or roads (no impacts on Brisbane River Valley identified)	16.10.4
	Potential to exacerbate fire ant issues in the Lockyer Valley	16.10.4
	Potential for safety incidents in the Little Liverpool Range tunnel to affect residents' safety	16.10.4
	Project-related stress and anxiety effects on mental health, in the context of existing effects of drought and flooding events on mental health	16.10.4
	Impact to quality of life due to noise	16.10.1, 16.10.4
	Concern for community safety at level crossings	16.10.4
	Effects of changes to air quality as the result of dust, including coal transport	16.10.1
	Project potential to impact on wildlife habitat, particularly koala habitat	16.10.1
Employment and training	Ensuring local communities benefit through employment and supply opportunities	16.1.1
	Ensure local Indigenous people including traditional owners benefit from Project employment and skills-development opportunities	16.1.1
	Potential for cumulative labour demands to result in labour being drawn away from other businesses and industries	16.1.1
Business benefits and impacts	Impacts on businesses in Forest Hill and Gatton	16.10.5
	Construction activities causing traffic delays and impacts on visual amenity of Lockyer Valley, affecting tourism	16.10.5
	Impacts of a rail line on the natural beauty of the Lockyer Valley, and potential to deter tourists	16.10.5
	Concern that rail noise or traffic delays will affect the amenity or access for tourism properties	16.10.5
	Interest in the Project's procurement model and how it will engage local businesses	16.10.5
	Difficulties faced by small businesses in accessing major Project opportunities	16.10.5
	Opportunities for Indigenous businesses to participate in the supply chain	16.10.5

16.10 Potential impacts

This section summarises the potential social and economic impacts and benefits that may result from the Project during construction, operation and decommissioning. Further details are provided in Appendix Q: Social Impact Assessment Technical Report.

16.10.1 Communities and stakeholders

The Project will have impacts for directly affected landowners (i.e. those whose land would be acquired for the Project), neighbouring landowners and other residents who may be exposed to noise during construction or operation, local councils, traditional custodians, community facility users, businesses and community members. While all social impacts and benefits affect communities, this section focuses on changes that may affect community members' amenity and enjoyment of their environments, or impact on community values.

16.10.1.1 Indigenous People's interests

The disturbance footprint traverses one land parcel identified as reserve tenure and five land parcels identified as State land tenure, which may therefore be subject to native title rights. The *Native Title Act 1993* (Qld) (NT Act) prescribes a statutory process to enable native title holders and parties seeking use of land where native title may continue to exist to reach agreements about the use of that land.

The disturbance footprint intersects one land parcel identified as reserve tenure, which is located within the Yuggera Ugarapul People's claim area and may be subject to native title rights. Consultation with the Yuggera Ugarapul People as part of the Project's Aboriginal cultural heritage assessment found that the landscape in the SIA study area is important to cultural heritage and Aboriginal connections to Country. Members of the Yuggera Ugarapul People noted that the imposition of linear infrastructure such as roads and rail infrastructure can affect the ability to connect with landscapes, and the prospect of disturbance to the landscape and environmental qualities causes distress. They were also concerned that the Project would harm wildlife and change the landscape, resulting in a loss of their ability to care for Country.

16.10.1.2 Land acquisition

The Project alignment has been designed to use the existing West Moreton System rail corridor for approximately 50 per cent of the length of the alignment. Where the Project deviates from the existing West Moreton System rail corridor, the Project predominately follows the protected Gowrie to Grandchester future State transport corridor. This has minimised the extent of 'new' properties to be acquired. Where land is required outside of the protected corridors, the corridor will be amended in consultation with DTMR, which will require acquisition of private properties and roads reserves. Any additional land required for the project will mostly be acquired through a compulsory land acquisition process, also known as land resumption.

Land resumption processes in Queensland are undertaken by acquiring agencies (described here as the Constructing Authority) in accordance with the *Acquisition of Land Act 1967 (Qld)* (AL Act), which sets out the process for acquisition and the assessment of compensation principles. The land resumption process will only commence once the Project is approved and all or part of a property is identified as directly affected by Project works.

If land is required only for the construction phase of the Project, and not for the ongoing operation of the Project, land may be occupied temporarily in accordance with the AL Act or may be leased or licensed from landowners.

Directly impacted landowners have been met with to discuss the proposed Project design and to identify where properties would be impacted.

Private freehold lots will be acquired, either in full, or in part where feasible and as determined in consultation with affected landowners, considering factors such as land parcel size, the effect of the alignment on the property, land use and the property's operability following construction.

Of the 193 properties within the permanent operational disturbance footprint, at least 23 properties are likely to be wholly acquired, and a total of 26 households impacted (comprising 19 privately owned households and 7 households owned by DTMR. Partial acquisitions would be required for the remaining properties, including five properties where volumetric tenure is required.

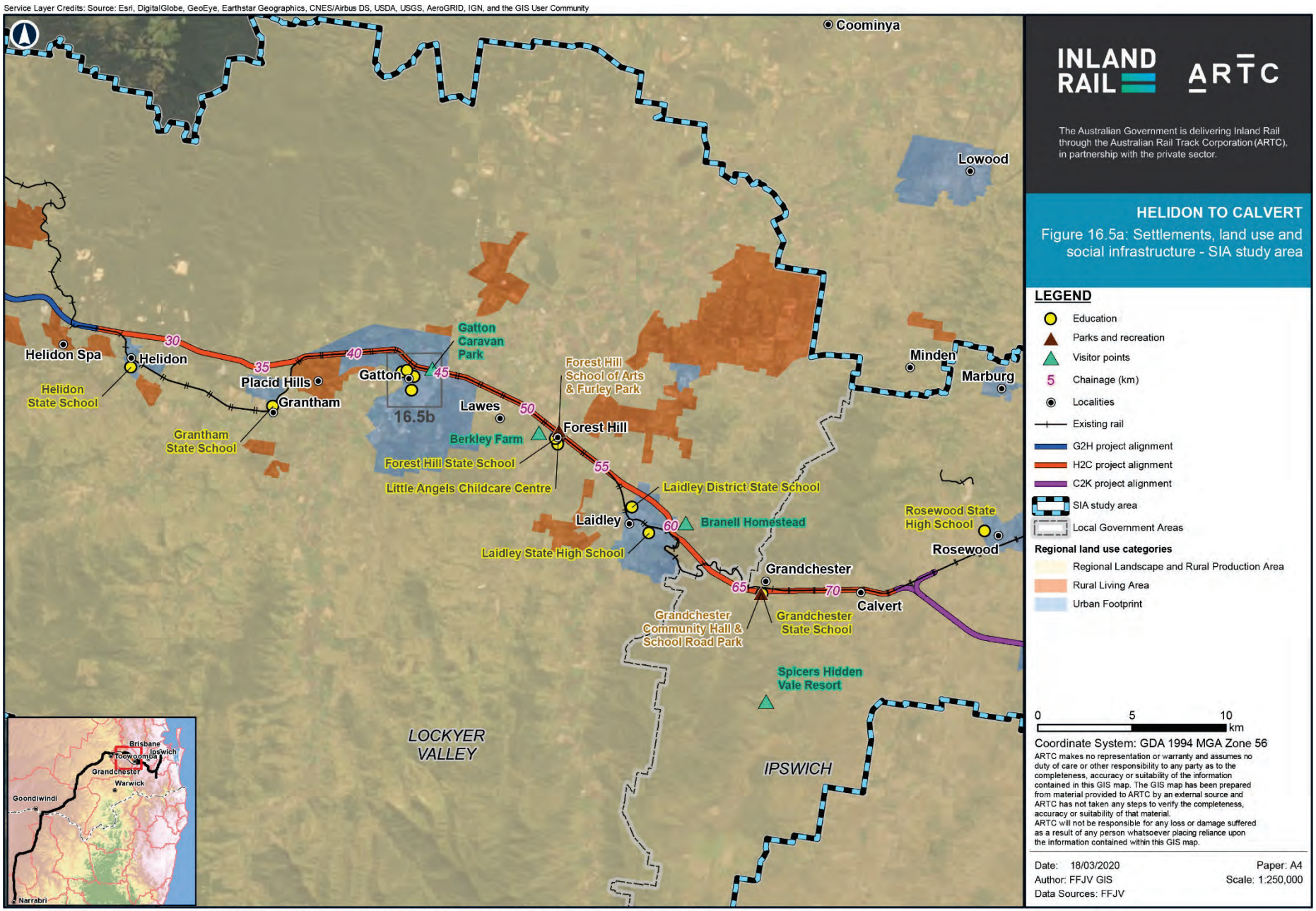
Full acquisition of properties is likely to result in the relocation of affected landowners. Where partial acquisition of land would occur, and the landowner wishes to retain ownership, ARTC has worked with landowners to maintain access to their property and mitigate impacts on its operation e.g. adding a culvert to facilitate movement of cattle.

Of the freehold properties owned by DTMR that would be impacted, a total of 14 have been acquired by DTMR during or prior to the EIS process (as part of early acquisition processes associated with the Gowrie to Grandchester future State transport corridor), of which approximately 7 are currently tenanted (located in Helidon, Gatton and Laidley) and would need to be vacated.

Together, the Project could lead to the relocation of approximately 26 households from the EIS investigation corridor (comprising 19 privately owned households and 7 households owned by DTMR), and potentially from local communities if they are unable to find a suitable property or chose to move to another area. There may also be potential for a small number of land acquisitions to mitigate unacceptable operational noise impacts, however the need for these acquisitions has not yet been determined.

Changes to the environment near the Project have potential to affect community values such as community cohesion, connectivity and sense of place. Community members were also concerned about the potential for the Project to change flooding risks or affect property values.

The Project's potential impacts to community and stakeholder values are summarised in Table 16.16, with further detail provided in Appendix Q: Social Impact Assessment Technical Report. The settlements, land use and selected social infrastructure relevant to the Project is shown on Figure 16.5a and Figure16.5b.



Map by: LCT/IW Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20202130942_SIA\330-EAP-202002130942_ARTC_Figure_16.5a_SettlementsLandUseAndSocialInfrastructure.mxd Date: 27/03/2020 11:51

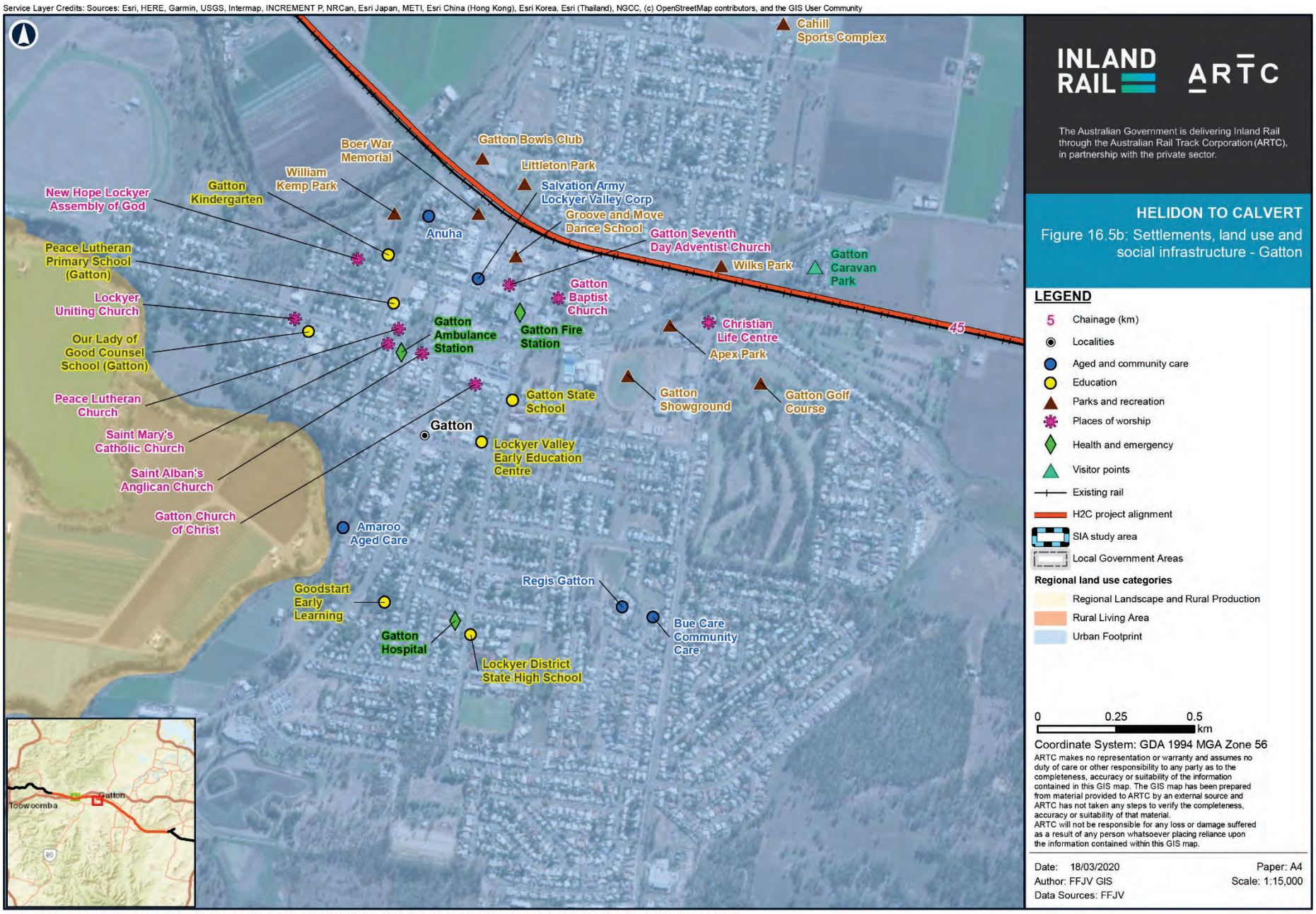

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Cahill Sports Complex
Gatton Bowls Club
Boer War Memorial
Littleton Park
William Kemp Park
Salvation Army Lockyer Valley Corp
Gatton Kindergarten
New Hope Lockyer Assembly of God
Groove and Move Dance School
Anuha
Gatton Seventh Day Adventist Church
Peace Lutheran Primary School (Gatton)
Wilks Park
Gatton Caravan Park
Gatton Baptist Church
Lockyer Uniting Church
Gatton Ambulance Station
Gatton Fire Station
Christian Life Centre
Our Lady of Good Counsel School (Gatton)
Apex Park
45
Gatton Showground
Gatton Golf Course
Peace Lutheran Church
Gatton State School
Gatton
Saint Mary's Catholic Church
Lockyer Valley Early Education Centre
Saint Alban's Anglican Church
Gatton Church of Christ
Amaroo Aged Care
Regis Gatton
Goodstart Early Learning
Bue Care Community Care
Gatton Hospital
Lockyer District State High School
Toowoomba
Gatton
80
INLAND RAIL
ARTC
The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.
HELIDON TO CALVERT
Figure 16.5b: Settlements, land use and social infrastructure - Gatton
LEGEND
5 Chainage (km)
Localities
Aged and community care
Education
Parks and recreation
Places of worship
Health and emergency
Visitor points
Existing rail
H2C project alignment
SIA study area
Local Government Areas
Regional land use categories
Regional Landscape and Rural Production
Rural Living Area
Urban Footprint
0 0.25 0.5 km
Coordinate System: GDA 1994 MGA Zone 56
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TABLE 16.16: POTENTIAL IMPACTS TO COMMUNITIES AND STAKEHOLDERS

Impact area	Delivery phase	Potential impacts
Population and demographic change	Construction	The Project may contribute to a small increase in the daytime population of the Project region during construction, but it is unlikely to result in a significant change to the Project region's population or demographic profile during either construction or operation.
Native title	Construction and operation	The disturbance footprint intersects land and watercourses within the Yuggera Ugarapul People's claim area, which may be subject to Native Title rights.
Property acquisition	Construction and operation	Freehold properties which would be partially or wholly acquired for the Project include 113 properties that are not within an existing or protected rail corridor of which 104 are private lots. ARTC consultation with landowners indicates that at least 19 houses on private properties are likely to be wholly acquired. The relocation of seven households that are currently renting properties from DTMR within the EIS investigation corridor is also required. Consequently, property acquisitions and the displacement of tenants are likely to lead to the relocation of approximately 26 households, with potential for a small and as-yet undetermined number of additional acquisitions due to potential intolerable impacts. The final number will be confirmed during detailed design. Farming paddocks and infrastructure will be affected by the Project, with direct impacts on dams, fences, and paddocks, and potential for disruption of cross-corridor movements. Construction will require temporary use of land for construction purposes, including laydown areas, earthworks, access tracks and road works and may be occupied temporarily in accordance with the AL Act or may be leased or licensed from landowners.
Disadvantage	Construction	The Project may affect the amenity and connectivity of properties within and near the disturbance footprint, and there is also potential for property acquisitions to displace households with limited socio-economic resources. Local households and businesses have been affected by the prolonged drought, which has reduced their financial and emotional resources to cope with change.
Amenity	Construction and operation	Potential impacts on amenity during construction may include construction noise, vibration impacts, dust and/or construction traffic and roadworks on local roads. Potential impacts during operation may include railway noise and changes to scenic character.
	Construction	Impacts resulting from track construction would be temporary as works move along the corridor. Noise would result from earthworks, laydown areas, construction of structures such as bridges, drainage works, rail civil works and road civil works. The noise and vibration assessment (refer Appendix O: Noise and Vibration (Construction, fixed infrastructure and operational road noise) Technical Report) identified very large numbers of sensitive receptors that would experience exceedances during both standard and non-standard working hours, e.g. 1,496 receptors where noise from earthworks may exceed the upper noise limits during standard hours, while the activity is occurring near sensitive receptors. This may potentially impact on the amenity and liveability of homes while noise impacts are occurring. Night works, if conducted, were predicted to cause noise that may exceed sleep disturbance criteria; however, track possessions, deliveries to construction sites, tunnelling and transport of spoil are the only currently proposed night works. Construction noise would affect up to 26 community buildings, 8 medical facilities and up to 19 educational facilities (early years education and schools) including in Helidon, Gatton, Forest Hill, Laidley and Grandchester. Construction traffic noise is also predicted to exceed the criteria for 10 road sections (seven roads).

Impact area	Delivery phase	Potential impacts
Amenity (continued)	Construction (continued)	Ground-borne noise due to tunnelling using a roadheader has been predicted to exceed the ground-borne 'dwellings–standard hours' noise criteria for 29 sensitive receptors and could exceed the 'dwellings–non-standard hours' criteria for 39 sensitive receptors, while tunnelling is occurring near sensitive receptors. Chapter 15: Noise and vibration, provides a detailed assessment of noise and vibration impacts. Particulate matter deposited as dust has the potential for nuisance impacts if not correctly managed, as detailed in Chapter 12: Air quality. While impacts resulting from track construction would be temporary, impacts from laydown areas and bridge construction sites have the potential to impact on amenity for extended periods, through increased traffic, noise, increased dust or temporary impacts on scenic character. Approximately 32 laydown areas would be required. Residents living on roads from which laydown areas are accessed would experience increased heavy and commuter traffic between the laydown sites and the rail corridor. Tunnel construction laydown areas are likely to be visible from the surrounding ridges (e.g. Range Crescent). The Project requires 31 new bridge structures for which construction will involve earthworks, piling, formwork, cement pouring and track construction, which may result in noise impacts for nearby dwellings or businesses. Vibratory rollers and plant such as piling rigs and hydraulic hammers for bridge construction may also result in perceptible vibration impacts at some sensitive receptors. Assessment of potential vibration impacts is detailed in Chapter 15: Noise and vibration.
	Operation	A review of feasible and practicable noise mitigation measures has been triggered at approximately 285 sensitive receptors at Project opening (2026) and an additional 30 sensitive receptors at 2040. The assessment of operational noise indicates that for year 1 of the operations, of the 285 sensitive receptors triggering the assessment criteria, 142 were within the 1 dB(A) to 3 dB(A) range; 48 were within the 3 dB(A) to 5 dB(A) range; 61 were within the 5 dB(A) to 10 dB(A) range; and, 34 were greater than 10 dB(A). The highest prediction was noted to be up to 17dB(A) above the night-time assessment criteria. Ground-borne noise is also possible within approximately 50 m of the Project, and while likely to be masked by airborne noise, Chapter 15: Noise and vibration notes that this will need to be reviewed during the detailed design phase to verify any future requirements to mitigate ground-borne noise. Noise and vibration mitigation measures for the Project follow the hierarchy of noise control options, i.e. control of noise and vibration at source, controlling the pathway for noise to reach the receptors, and control of noise impacts at the receptors. The assessment of operational noise and vibration proposes consideration of concept noise barriers where there are groups of affected receptors (noting that this will not be feasible for isolated, individual properties). The results of the air quality assessment indicate that compliance with air quality goals has been predicted for key pollutants of concern. ARTC will require rail service operators to apply suitable controls to coal services, to prevent the potential release of coal dust (refer Appendix K: Air Quality Technical Report).
	Construction and operation	Town centres are integral to amenity and quality life in local communities, with shops, schools, churches, community centres, recreational facilities and parks clustered for convenience and mutual support. Residential dwellings, businesses and community facilities closest to the Project have the most potential to experience amenity impacts. Impacts on town centre amenity within Helidon, Gatton, Forest Hill, Laidley, Grantham, Grandchester and Calvert are discussed in Appendix Q: Social Impact Assessment Technical Report.

Impact area	Delivery phase	Potential impacts
Connectivity	Construction	During construction, private access to individual properties may be temporarily disrupted where land is required temporarily for construction purposes, including road re-alignments. Access to all homes would be maintained but may be disrupted for short periods while road works interact with driveways and access roads.
		Where the Project crosses main roads and highways, grade separations (an overpass or underpass) have been proposed to ensure the Project will not result in a permanent disruption to traffic. Construction of bridges and level crossings on public roads will require detours and cause temporary traffic delays during the construction period.
	Operation	Active level crossings would be provided on: ▸ Connors Road, between Helidon and Grantham ▸ Jamiesons Road, west of Gatton ▸ Dodt Road, Forest Hill ▸ Glenore Grove Road, Forest Hill ▸ Neumann Road, between Grandchester and Calvert ▸ Grandchester Mount Mort Road, Grandchester ▸ Calvert Station Road, Calvert. During operations, level crossings will result in periodic disruptions to traffic, with delays of approximately two minutes anticipated. It is estimated that the operation of Inland Rail will involve an annual average of about 33 train services per day in 2026. This is likely to increase up to approximately 47 train services per day in 2040 (both directions).
	Construction and operation	Where it has been determined that a road–rail interface point is unable to provide for a grade separation or active level crossing, an alternative access route has been proposed. The methodology to determine viable alternative access routes is dependent on the type of interface being consolidated, including existing formed public roads, private access tracks and farm tracks. The Project would require closure of some unformed private roads that interface with the disturbance footprint, which is likely to impact on connectivity across and between rural properties.
Traffic	Construction	Appendix U: Traffic Impact Assessment Technical Report provides a detailed profile of transport links in the Project region. This assessment notes that from a high-level review of public transport data, proposed construction traffic routes may coincide with cycle routes within the Queensland Principal Cycle Network Plans. Appendix U: Traffic Impact Assessment Technical Report notes that the presence of pedestrian and cycle routes should be considered in the preparation of final construction routes during the design and construction phases of the Project, in agreement with the relevant local government. School bus services were not expected to be substantially impacted from an operational and service reliability perspective as a result of Project-generated traffic during construction; however, Chapter 23: Draft Outline Environmental Management Plan, notes the need for consideration to limiting construction traffic on school bus routes during pick-up and set-down times on school days and, alternatively, appropriate school bus infrastructure could be installed. The Project's construction will produce spoil from cuts and the tunnel. As part of the detailed design and construction phases, there will be opportunities to optimise the use and placement of spoil material between adjacent Inland Rail projects, however excess spoil which can't be re-used in this Project or adjoining projects will be transported to other sites using the local road network, with the intention to maximise use of the State-controlled road network. The transport of spoil may increase traffic volumes on key routes with potential to affect levels of service or traffic safety. Further assessment of traffic and transport impacts as a result of spoil transport will be undertaken during the detailed design phase and will consider the potential for impacts on other road users. Further discussion of spoil management is provided in Appendix V: Spoil Management Strategy and Appendix U: Traffic Impact Assessment Technical Report.

Impact area	Delivery phase	Potential impacts
Community cohesion	Construction and operation	Property acquisitions are likely to lead to the relocation of up to approximately 26 households from the EIS investigation corridor, and potentially from local communities if they are unable to find a suitable property or chose to move to another area, which may affect the cohesion of neighbourhood and community networks. There is also potential for conflict about the Project to harm community cohesion. Severance between properties and changes to road networks as a result of the Project may cause at least short-term damage to community cohesion in rural localities where properties would be acquired.
Local character and sense of place	Construction	Consultation with Yuggera Ugarapul People identified their concerns about the disturbance to the landscape and potential for wildlife to be affected, which would cause stress and may affect their sense of place. The assessment of non-Indigenous heritage values and impacts identified 42 areas of interest within the cultural heritage study area (which included the permanent operational and temporary construction disturbance footprint, plus 50 m on either side). The Project has committed to staying within the West Moreton System rail corridor through Forest Hill, Grandchester and Gatton to avoid impacting on heritage places near the corridor, which include war memorials, hotels and railway stations. Assessment of the potential for impacts on visual amenity and landscapes is detailed in Appendix H: Landscape and Visual Impact Assessment Technical Report, which found that impacts on the character of rural residential areas due to localised vegetation removal, cuts and embankment and road and creek bridges were generally assessed as moderate. Notwithstanding, the removal of dwellings and vegetation from within the corridor and the presence of laydown areas, increased traffic, lighting near construction sites and construction noise are likely to affect enjoyment of and connection to local environments.
	Operations	In Gatton, Forest Hill and Calvert the alignment follows the West Moreton System rail corridor and is considered consistent with the current landscape character. However, residents in Forest Hill and Calvert will experience close views towards the alignment. Collectively, changes to views, vistas, the noise environment and local connectivity will affect rural character in potentially impacted communities, with Gatton, Forest Hill, Grandchester and rural residential areas most affected.
	Construction and operation	Noise impacts may also affect sense of place, which is strongly related to the peaceful rural and natural environments.
Flooding	Construction and operation	The hydrologic and flooding assessment has demonstrated that the Project is predicted to result in impacts on the existing flooding regime that generally comply with the flood impact objectives, with localised areas (generally agricultural land or local roadways) along the Project alignment where these limits are slightly exceeded. Best practice flood risk management, including sensitivity testing, has been applied in developing the Project design to minimise risk to life, property, infrastructure, the community and environment. This has included consideration of flood risk for properties and businesses, including in and around Grantham, Gatton, Forest Hill, Laidley, Grandchester and Calvert. Appendix M: Hydrology and Flooding Technical Report provides an assessment of the potential for increased flooding risks to affect road access. The assessment predicted only minor changes to the duration of inundation for Dodt Road and Hall Road, with negligible impacts on the amenity of the roadways. The potential for the Project to change flood behaviour has been assessed in Chapter 13: Surface water and hydrology.

Impact area	Delivery phase	Potential impacts
Property values	Construction and operation	Some directly impacted property owners are concerned that property values would be affected by land severance, disruption to water supplies or amenity impacts. Compensation for directly affected landowners may include compensation for the loss of legal interest in land, costs related to purchase of replacement comparable land and removal and relocation of assets and infrastructure. Where only part of a land parcel is acquired, compensation for the severance of the resumed land and the impact on the remaining land may also apply. Property owners near the disturbance footprint are concerned that property values could be affected by e.g. noise impacts, changes to views or perceived or actual increases in flooding risk when the Project is operational. According to Elliott (2008), property prices are determined by a combination of the property's actual utility (i.e. use and amenity) and buyer's perceptions about the environmental impacts of infrastructure. Property values may be affected by a mix of factors related to the Project, including direct impacts on land and infrastructure (which will be addressed through commercial agreements between ARTC and landowners) or impacts on amenity (e.g. increased traffic or dust during construction, or noise during operation). Impacts would be differential depending on potential buyers' perceptions about impacts as well as the actual impacts (such as rail noise levels). Values may also be affected by factors which are unrelated to the Project. Consultation participants cited anecdotal evidence that property prices were decreasing in local towns as a result of uncertainty about Project impacts. Research for the SIA did not identify negative impacts on property prices. Assessment of the likelihood and magnitude of change to property values is not possible given the individual circumstances of particular properties, other market drivers and the variability of Project impacts in different locations.
Wildlife	Construction and operation	The Project's potential impacts on terrestrial and aquatic ecology are assessed in detail in Appendix I: Terrestrial and Aquatic Ecology Technical Report, which describes the potential to impact on flora and fauna (predominantly during the construction phase) e.g. through habitat loss, change, or fragmentation, injury to fauna, displacement of flora and fauna by weed and pest species, noise, or barrier effects (i.e. changing fauna's movement patterns). The Project alignment will be fenced with three- or four-strand barbed wire fence where the alignment occurs within the West Moreton System rail corridor, reflecting the largely agricultural land use and providing a barrier between the rail line, people and animals. Fauna fencing and fauna crossings to facilitate safe and effective movement of fauna will be provided where a risk of population fragmentation occurs (refer Chapter 6: Project description). Vegetation within the alignment will also be removed in these areas to ensure that fauna is not encouraged into the active track area. Where there is a high presence of Koala movements within an area, fauna fencing will need to be designed as koala fencing.

16.10.2 Workforce impacts and benefits

Construction is planned to commence in 2021 and be completed in 2026. The size and composition of the construction workforce will vary depending on the construction activities being undertaken and the staging strategy adopted. The core construction workforce will consist of professional staff, supervisors, trades workers and plant operators, with earthworks crews, bridge structure teams, capping and track-works crews working at different periods though the construction phase.

The construction workforce will require an average of approximately 250 personnel during the first year, building to a peak of 410 FTE personnel early in Year 2 of construction. Over the full construction period. It is expected that the Project will require an average of approximately 190 personnel per year.

The SIA study area's construction industry workers numbered approximately 8,356 people in 2016, of whom 1,307 people (15.6 per cent of the total) lived in the Lockyer Valley LGA and 7,049 people (84.3 per cent of the total) lived in the Ipswich LGA. Construction industry employment grew by approximately one percentage point in each LGA in the ten years to 2016, when it represented 8.4 per cent of the Ipswich LGA's workforce and 8.3 per cent in the Lockyer Valley LGA.

At the June quarter 2019, the unemployment rate in the Ipswich LGA was 6.9 per cent, and in the Lockyer Valley 5.7 per cent (DJSB, 2019) following decreases over the preceding three years of 0.9 percentage points in the Ipswich LGA and 1.4 percentage points in the Lockyer Valley LGA. This represented 7,616 unemployed people in the Ipswich LGA and 4,096 unemployed people in the Toowoomba LGA, for a total of 11,712 people, some of whom would be interested in Project employment.

As noted in Section 16.8.3.4, the number of Ipswich LGA residents receiving Jobseeker or Youth Allowance had increased to 18,485 people in June 2020, while the number of Lockyer Valley residents receiving these benefits had increased to 2,940 people (id.profile, 2020). While some Youth Allowance recipients are studying or training and not yet seeking work, the number of recipients increased dramatically between March and June 2020, with an increase of 62.1 per cent in the Ipswich LGA and an increase of 54.5 per cent in the Lockyer Valley LGA, largely due to economic contraction resulting from COVID-19 restrictions.

Collectively, skilled construction industry workers and unemployed workers represent a significant regional pool of existing skilled labour and other workers who can be trained for construction work on the Project. The Project will also have access to construction personnel within a daily driving distance in adjacent LGAs. On this basis, difficulties accessing adequate labour for construction are not expected.

As the construction workforce is expected to be drawn primarily from communities within the Project region and nearby LGAs, employment benefits would extend to construction industry workers across the broader region. However, there may be shortages in specific trades (such as specialist welders), which could be exacerbated by Project construction. The availability of long periods of employment in Project construction is likely to be a strong positive opportunity for those personnel and their families.

ARTC is establishing the Inland Rail Skills Academy to facilitate local training, employment and procurement opportunities. The Inland Rail Skills Academy will cooperate with stakeholders to develop and implement training and development partnerships which will equip local jobseekers for jobs in Project construction.

The Contractor will also implement training and apprenticeship programs in accordance with its workforce management plan, which will be developed during the detailed design phase and approved by ARTC prior to construction.

Training pathways and creation of opportunities for the development of skilled local and Indigenous workers through the Project's construction and operation will be achieved by working with:

- Schools and local training providers, to provide appropriate training
- Indigenous community networks, to encourage applications and increase the number of Indigenous people applying for jobs
- Partners such as DESBT, DITRDC, CSQ and universities, to link training and development programs with other projects and local industries to provide the greatest regional benefit
- Training opportunities provided as part of the Inland Rail Skills Academy will strengthen workforce capacity for both Project construction and Project operation.

Potential impacts and benefits relating to Project employment are summarised in Table 16.17.

TABLE 16.17: POTENTIAL IMPACTS AND BENEFITS TO THE WORKFORCE

Impact area	Delivery phase	Potential impacts
Employment opportunities	Construction	Employment opportunities would extend to up to 410 workers across the Project region and nearby LGAs and would be available to both experienced construction industry workers and people who are currently unemployed. ARTC has clear commitments to employment from within the SIA study area and has developed training and recruitment strategies, as well as contractual requirements of the contractor, to ensure that the maximum local benefit is derived from Project employment.
Training and development	Construction	The Project's construction phase represents an important source of potential training and career pathway development for young people in the Project region. ARTC's Inland Rail Skills Academy will help to ensure that young people and Indigenous people in the Project region have the opportunity for skills training which will equip them for the construction industry and will be transferrable to future major projects. It will also result in the legacy of an increase in the skilled labour force in the Project region.
Workforce management	Construction	Construction personnel will be working in close proximity to homes and businesses, on 10-hour daily shifts. Worker activity may contribute to noise impacts where work is proceeding close to homes and may also cause concerns regarding safety or privacy.
Operations employment	Operations	Once operational, a workforce of approximately 15–20 personnel is expected for the Project's operation. This is likely to include a mix of local personnel, mobile crews moving between sections of Inland Rail (e.g. for major track and ballast maintenance) some of whom may be from the proposal region, and personnel based in operations centres.
Impacts on employment in other industries	Construction and operations	The Project is likely to acquire or sever grazing and cropping properties which may impact on the availability of agricultural employment. Impacts on the amenity of tourism attractions may impact their visitation and trading levels, with potential for impacts on their capacity to offer employment.

16.10.3 Housing and accommodation

The Project has potential to impact on the settlement pattern, housing and short-term accommodation, including seasonal worker accommodation, within the SIA study area.

Gatton and Laidley are the main growth centres in the SIA study area, with future residential areas in each centre likely to be affected by the Project. Tracts of the urban footprint defined by ShapingSEQ for these towns would be dissected by the alignment.

The urban footprint at Helidon may be impacted if development of remaining rural residential blocks adjacent to the alignment is limited by their attractiveness.

Further development of Calvert may also be constrained. Other settlements are also proximate to the alignment, but as they are already largely developed, the settlement pattern there is unlikely to be altered (e.g. Forest Hill, Placid Hills and Grandchester).

Property acquisitions would result in very small decreases in the populations of neighbourhoods. There is a possibility that displaced residents may relocate elsewhere within the region, and in the context of a combined SIA study area population of more than 200,000 people, population change at the regional level would be negligible.

With a portion of the construction workforce to be sourced from nearby communities, and the remainder expected to be drawn from with a safe daily driving distance (as determined by the Project's construction contractor), the daytime population of the EIS investigation corridor could increase by an average of up to 190 people during the construction period, with a consequent increase in the number of males given that men comprise the majority of construction workforces. This would not cause any noticeable change to the population composition. No other impacts on the population are expected.

With a requirement for approximately 15–20 personnel during operations and as some personnel would be drawn from surrounding communities, no significant population change is expected as a result of the Project's operational workforce.

Within towns and built up areas, the Project is primarily located within the West Moreton System rail corridor, minimising direct effects on residential properties. However, land acquisitions and the requirement for removal of DTMR-owned dwellings within the EIS investigation corridor may require the relocation of up to 26 households in the EIS investigation corridor.

New homes for up to 26 households would be required as a result. New demand for housing would be unlikely to impact housing affordability, increasing demand on the SIA study area's housing supply by less than 0.1 per cent.

Approximately seven households who are renting DTMR-owned properties within the EIS investigation corridor would need to relocate. There is potential for these DTMR tenants to include low income households and Indigenous families who typically have less housing security due to lower median incomes and a higher reliance on rental dwellings than for non-Indigenous households.

There is a possibility that a small number of workers would require accommodation, particularly if cumulative demands on the labour force from multiple projects require the employment of personnel from regions outside of daily driving distance. Construction workers are highly mobile and few would be likely to move their families to the Project region during the construction phase, especially as the peak construction period would last for a short time. However, there is potential for a small number of personnel to require either family housing or shared housing. If 10 per cent of the average workforce required accommodation in the Project region, and assuming each worker required one house each, this would result in the need for up to 19 houses or units. This demand would likely be spread across the Ipswich, Toowoomba and Lockyer Valley LGAs and with approximately 641 rental dwellings available between the potentially impacted communities and the central postcodes of Ipswich and Toowoomba in January 2020, this level of demand would be indiscernible in the regional context. While larger centres are likely to be preferred over smaller communities due to the level of amenity available, if demand of this order was concentrated in potentially impacted communities, it would be equivalent to approximately 14.5 per cent of the rental dwellings available as at January 2020, with potential to increase competition for local dwellings and the possibility of upward pressure on rental costs.

In the event that 20 per cent of the average construction workforce required housing locally, and assuming each worker required one dwelling each, up to 38 rental dwellings would be required which would equate to less than 6 per cent of the rental dwellings available in January 2020 between the Ipswich central, Toowoomba central and potentially impacted communities postcodes. This level of demand is unlikely to result in competition for local housing or an increase in rental costs.

The Grantham Farmworkers Lodge is located approximately 900 m south of the Project alignment at Ch 37.0 km. The Project is not expected to impact on this facility e.g. through noise or dust. The Homestyle Lodge is located in Laidley North approximately 400 m south of the Project alignment. There is potential for one of the Homestyle Lodge's buildings to be affected by operational noise. During the detailed design phase, the Homestyle Lodge owners will be advised that there is potential for noise exceedance during construction and invited to work with the Project regarding any management measures to manage noise impacts at this property.

The Project is also located adjacent to the Gatton Caravan Park's southern boundary at Ch 44.4 km and would involve land acquisition within the caravan park, as well as extensive works to the caravan park's western boundary to accommodate the Eastern Drive road over rail bridge and road widening, and to the southern boundary to accommodate the rail corridor. Consultation with the caravan park indicates that the park operates at up to full capacity from around March/April to around December/January , with people turned away during peak picking seasons.

ARTC estimates that acquisition of approximately 1.5 hectares (approximately 15 per cent) within the caravan park may be required. Based on the Project reference design maps provided, the caravan park's owner has indicated that this would result in the loss of approximately 22 caravan and cabin sites, with the possibility that an internal road may need to be re-aligned, resulting in the loss of a further six sites, or up to 28 sites in total. Project road works may also require relocation of the caravan park's primary access road from Eastern Drive.

The loss of 28 sites (assuming capacity for two people per site) would be equivalent to a reduction in the caravan park's overall current capacity of 56 people or 15 per cent. The Project may also require acquisition of land planned for future development within the caravan park which would affect a planned 33 sites and result in a reduction in future total capacity of up to 28 per cent.

A reduction in the capacity of the caravan park would result in have the following impacts:

- Decreased availability of accommodation to service the local agricultural industry
- Potential reduction in trade for nearby businesses (e.g. a bike shop, laundromat and service station).

SIA consultation with the caravan park's owner and manager, LVRC and DEPW will continue during the remainder of 2020, to seek further baseline data and inputs on measures which could reduce impacts on the park and its customers.

Potential impacts relating to housing and accommodation are summarised in Table 16.18.

TABLE 16.18: POTENTIAL IMPACTS TO HOUSING AND ACCOMMODATION

Impact area	Delivery phase	Potential impacts
Settlement pattern	Construction and operation	Much of the Project will be contained with West Moreton System rail corridor, avoiding direct impacts on the settlement pattern. Gatton and Laidley are the main growth centres in the SIA study area, with future residential areas in each likely to be impacted by the Project. The urban footprint at Helidon would also be impacted, resulting in likely changes to future residential development there. Further development of Calvert may also be constrained. Other settlements are also proximate to the alignment, but as they are already largely developed, the settlement pattern there is unlikely to be altered (e.g. Forest Hill, Placid Hills and Grandchester).
Housing access	Construction and operation	Up to 26 households, equating to approximately 70 people, may need to relocate from the EIS investigation corridor resulting in population loss at the local (neighbourhood) level. There may be some temporary impacts on housing demand as people relocate from within in the Project area; however, this is likely to be dispersed across the Project region and is unlikely to cause a discernible increase in housing costs.
		Residents who would need to relocate from within the disturbance footprint potentially include up to seven households who are renting DTMR properties. ARTC will provide information to DTMR and DEPW to assist their response to tenants' needs.
		In the event that 26 new dwellings rental dwellings were required by Project personnel, new demand for housing would be unlikely to impact housing affordability, increasing demand on the SIA study area's housing supply by less than 0.1 per cent.
Short-term accommodation	Construction	In the event that 10 per cent of the Project's peak workforce required short term accommodation for a period during the construction phase, this would see a requirement for 41 rooms, with demand likely to be experienced in the Lockyer Valley, Ipswich and Toowoomba LGAs. The Project's Accommodation Management Plan will include strategies to reduce any competition with tourists, while enabling local accommodation providers to benefit from any Project requirements for short-term accommodation. There is potential for short-term construction noise (including from adjacent Inland Rail projects) to temporarily affect the amenity of accommodation options (refer Chapter 15: Noise and vibration).
Gatton Caravan Park	Construction	During construction, roadworks, embankments and structure for the Eastern Drive crossing would be located on the caravan park's boundary to the west. Works would also occur on the caravan park's southern boundary to upgrade the West Moreton System rail corridor, and a laydown area would be located on the rail corridor to the east. The amenity of the caravan park would be reduced due to construction noise, the visibility of construction works on three sides, interruptions to vehicle and pedestrian access, and potentially dust. Land acquisition could lead to the loss of 22–28 sites which would be equivalent to a reduction in the caravan park's overall current capacity of 56 people or 15 per cent. The Project may also require acquisition of land planned for future development within the caravan park.
	Operation	During operations, the Project would result in an increase in the number of train movements, and an increase in the size and length of trains using the rail line, with a consequent increase in the frequency of rail noise. Noise triggers are expected to be exceeded and could potentially be minimised by noise transmission control options, which would be designed in consultation with the caravan park owner and LVRC.

16.10.4 Health and wellbeing

A community's health and wellbeing is shaped by the complex interplay of personal, social, economic, and environmental influences. A safe environment, adequate income, meaningful social roles, secure housing, higher levels of education and social support are all associated with better health.

Uncertainty and fears about Project impacts are likely to cause stress and contribute to anxiety. While most people can cope well with a level of stress, there is potential for stress related to the Project to affect the health of some people, particularly those who live in proximity to the SIA study area or would be displaced as the result of land acquisition for the Project. Stress and anxiety related to environmental change is also likely to be present in the surrounding communities.

Safety risks associated with the Project's operation include derailments, level crossing accidents with road-based vehicles, accidents associated with pedestrian and cyclist crossings, and railway-based suicide. ARTC will apply best practice design and management measures to mitigate community safety impacts and will develop tailored rail safety awareness programs for nearby communities.

Physical health and environmental qualities may also play a part in affecting the community's health and wellbeing. Key considerations with regard to the Project that may affect the health and wellbeing of residents include noise and vibration, air quality, water quality, land contamination, flooding, and waste management.

Potential impacts to health and wellbeing are outlined in Table 16.19.

TABLE 16.19: POTENTIAL IMPACTS TO HEALTH AND WELLBEING

Impact area	Delivery phase	Potential impacts
Education, childcare and community facilities	Construction	The Project's construction will impact on the amenity of community facilities including schools, churches, community halls and parks, with the most significant impacts likely in Gatton, Forest Hill and Grandchester. The noise and vibration assessment (refer Appendix O: Noise and Vibration (construction, fixed infrastructure and operational road noise) Technical Report) predicts that construction noise would affect up to 26 community buildings, 8 medical facilities (including hospital and general practitioners/allied health clinics) and up to 19 educational facilities (early years education centres and schools). There is potential for construction noise, if not mitigated, to affect the learning environment of local schools. ARTC has consulted with the DET with respect to potential noise exceedances at schools and will address the Department's Learning Environment Guidelines with respect to mitigation of noise impacts on schools. This may include e.g. fencing upgrades or mechanical ventilation to enable windows to be kept closed if construction noise is affecting students. Grandchester State School may require substantial works to mitigate Project impacts given its location within approximately 200 m of the disturbance footprint and the potential for impacts including construction noise, dust and disruption to connectivity between the school and town during construction of the level crossing on Grandchester Mount Mort Road. There is potential for construction traffic including heavy vehicles to use the Grandchester Mount Mort Road, which is used by families and children to access the school. There are a number of other community facilities that may be affected by construction noise and traffic as detailed in Appendix Q: Social Impact Assessment Technical Report. During the detailed design stage, ARTC will consult with the owners/managers of facilities including Queensland Health, Department of Education, private schools, childcare centres, health facilities, churches and other potentially affected facilities in order to explain the potential for noise exceedances and identify feasible measures which would reduce the impacts of construction noise on facility owners and users. As the majority of the construction workforce is expected to be drawn from the local labour pool (within a one-hour drive), the Project is not expected to generate increased demands on existing education, childcare and or other community facilities during construction.

Impact area	Delivery phase	Potential impacts
Education, childcare and community facilities (continued)	Operation	The potential for rail noise to affect churches or schools was raised in consultation. Assessment of the Project's potential noise and vibration impacts during operation (Appendix P: Operational Railway Noise and Vibration Technical Report) found that the predicted noise levels potentially trigger an investigation of noise mitigation at up to 13 non-residential sensitive receptors (in 2040): **Education facilities (schools and school care)** ▸ Forest Hill State School, Forest Hill ▸ Free Range Kids (child care), Laidley ▸ Laidley District State School, Laidley ▸ Little Angels (child care), Forest Hill ▸ Grandchester School, Grandchester **Religious facilities (churches)** ▸ Christian Life Centre, Gatton ▸ New Hope Church, Gatton ▸ Peace Lutheran Primary School, Gatton ▸ St Mary's Catholic Church, Gatton ▸ Peace Lutheran Primary School, Gatton ▸ Forest Hill Presbyterian Church, Forest Hill ▸ Laidley Baptist Church, Laidley ▸ St Peter's Catholic Church, Grandchester This will require a review of feasible and reasonable noise mitigation options for each of the potentially affected facilities. Consultation with schools (refer Appendix Q: Social Impact Assessment Technical Report) indicates some school and early learning centre buildings are of considerable age (50 to 100 years) and may require at-property treatments (e.g. acoustic treatments or air conditioning) to mitigate noise. ARTC will also advise train service operators of the location of the war memorials and request that train service providers are considerate of these locations during Anzac Day and Remembrance Day services. Short traffic delays are anticipated during operations on roads which would have level crossings installed which would include delays for outreach service providers (such as Home and Community Care, community nurses and Meals on Wheels) when trains are passing by.
Health and community support services	Construction and operation	West Moreton Hospital and Health Services (West Moreton HHS) provides a range of health services across potentially impacted communities, and have advised that health resources are limited, with community mental health services still experiencing demand for support from people affected traumatised by the 2011 floods. As construction personnel are expected to be primarily home-based and would access health services in their home communities, significant demands on local health and community services are not expected. ARTC will consult with the West Moreton HHS in the pre-construction phase to plan for anticipated health service needs and will provide advance notice of its construction workforce ramp-up to Queensland Health and the Primary Health Networks (PHN). To avoid placing additional demand on local health services, the Project will employ paramedics to service key construction sites. Consultation has identified a concern regarding the effects of construction activities and construction traffic on access to the Gatton Hospital, on William Street Gatton. The hospital is approximately 1.3 km south of the Project near Ch 43.6 km so would not experience any direct impacts such as noise, vibration or dust. Exacerbation of current access issues is not expected. However, the Project will consult with Queensland Health during the detailed design phase to consider any localised traffic issues which will be addressed as part of the Traffic Management Plan (TMP). In consultation with the PHN, ARTC will extend the mental health partnership to include provision of emotional and practical support to assist residents (landowners and tenants) whose homes would be removed from the disturbance footprint.

Impact area	Delivery phase	Potential impacts
Police and emergency services	Construction	Emergency services are provided from police, ambulance and fire stations based in Helidon, Gatton, Laidley and Rosewood, with additional fire stations at Woodlea, Forest Hill, Grantham and Blenheim. Large scale emergency responses are coordinated from Ipswich. Local services report being stretched, partially as the result by population growth occurring at Ripley Valley and Rosewood. The construction workforce would see a minimal redistribution of the 'daytime' population in the SIA study area but may lead to an increase in demand for traffic policing on roads used to access the EIS investigation corridor. Early planning and clear, regular communication would be needed to ensure that service providers are well briefed on the nature of incidents that may be occur, enabling them to plan ahead for the additional resources needed. It is expected that accessibility for emergency services will be impeded during construction at crossing construction sites and when encountering heavy haulage and large load vehicles on roads. This is a matter of significant concern for community members. The Project will establish regular communications with QPS, QAS and Queensland Fire and Emergency Services (QFES), to notify them in advance of planned road closures/interruptions and large load movements so that they can plan for alternate access routes when needed. Residents in rural and rural residential areas were concerned that Project works would interrupt local connectivity to fire trails and access tracks used to defend homes and properties from fires during construction or operation. The increase in the number of construction vehicles and oversize machinery along the construction corridor has the potential to impact the existing fire trails within the vicinity of these locations, reducing access for bushfire response. Construction may also introduce traffic on public roads which could impact on landowner evacuation during emergency incidents (e.g. bushfire) or on emergency vehicles' response times. Proposed mitigation measures are provided in Chapter 20: Hazard and risk.
	Operation	During operations, accessibility and response times for emergency services would be impeded by the likelihood of encountering passing trains at level crossings. ARTC will facilitate QPS, QAS and QFES access to a schedule of train movements and provide information about alternative access points to reduce the likelihood that emergency response vehicles will be delayed at level crossings. The operational workforce would not create any significant population increase and is therefore unlikely to result in any increased demand for local health services. However, any road/rail accidents associated with derailments, level crossing accidents, rail load loss, hazardous goods spills or other major incident would place significant demands on health and emergency services resources.
Recreational facilities	Construction and operation	Sites that would be significantly impacted during construction and operation, affecting the level and quality of their use, include School Road Reserve and adjacent recreational grounds in Grandchester, Apex Park in Gatton, Gatton Bowls Club, Littleton Park, Forest Hill Recreation Reserve, Furley Park and Move and Groove Dance School in Gatton. During the detailed design process, ARTC will consult with the LVRC and ICC to identify measures to reduce potential impacts on the amenity of or access to recreational facilities, which may include design refinements e.g. footpath connections and measures to offset impacts on facilities e.g. investment in parks. The Project's TMP will include a particular a focus on pedestrian and cycle safety for residents accessing parks and recreational facilities.

Impact area	Delivery phase	Potential impacts
Health and environmental qualities	Construction	Assessment of the potential for dust and/or diesel emissions to affect air quality is detailed in Appendix K: Air Quality Technical Report. The Project goals for air quality are based on protecting health and wellbeing, health and biodiversity of ecosystems. As noted in Appendix K: Air Quality Technical Report, dust has the potential for nuisance impacts if not correctly managed, however no potential health impacts were predicted. An Air Quality and Dust Management Sub-plan will be developed as part of the Construction Environmental Management Plan (CEMP), which complies with the conditions of approved, relevant regulatory requirements and industry guidelines. Assessment of the potential for construction noise or vibration levels that would disturb human comfort for residents near the EIS investigation corridor (Appendix O: Noise and Vibration (construction, fixed infrastructure and operational road noise) Technical Report) indicates that there is potential for construction noise to affect areas near the Project. Construction noise or vibration may affect enjoyment of daytime activities, or cause sleep disturbance.
	Construction and operation	Consultation participants in the Lockyer Valley raised the potential for the existing fire ant issues to be exacerbated by construction activities or rail transport. EIS Appendix I: Terrestrial and Aquatic Ecology Technical Report notes that the Project will traverse areas contained within red imported fire ant biosecurity zone 2; therefore, there will be restrictions around the movement of materials that could spread the fire ants. A Biosecurity Management Plan will be developed for the Project and will include requirements for pre-clearing surveys to determine the risk of pest such as fire ants being present, and development of measures to prevent the spread of fire ants.
	Operation	Assessment of the potential for noise and vibration impacts during operation of the Project is presented in Appendix P: Operational Railway Noise and Vibration Technical Report. The Project's operation will result in noise levels that could affect the amenity of up to 285 receptors where noise levels would trigger the investigation of noise mitigation in 2026. This includes potential triggers of night time noise goals for which may affect the ability to sleep and may affect residents' wellbeing. Sensitive receptors located within 50 m of the alignment, or 160 m of the tunnel, may experience ground-borne vibration from railway operations. Forecast worst case air quality impacts are predicted to be below the Project goals at the nearest sensitive receptors. There will be proactive community consultation where undertaking operational works (such as major maintenance works) with potential for adverse air quality impacts. Investigation into the deposition of dust emissions at sensitive receptor locations showed that predicted pollutant water concentrations would be significantly lower than *Australian Drinking Water Guidelines*.
Mental health	Construction	The Project will require property resumptions, commencing prior to the construction period. Uncertainty about the property resumption process and future living arrangement is a considerable source of stress and anxiety for some people whose homes would be acquired. Residents living adjacent to the disturbance footprint are also experiencing stress about the potential for construction or operational noise to affect the amenity or value of their properties. Other potential sources of frustration and anxiety within the community may include travel delays, or concern about particulate emissions. There is potential for noise and vibration disturbances to cause stress and anxiety for residents near construction sites, particularly if those sites require extended periods of activity.
	Construction and operation	Local communities have been highly sensitised to the impacts of flooding as a result of floods that caused the deaths of community members and the destruction of towns, homes and farms. Therefore, concern about the Project's potential to change or increase flood impacts is also a considerable source of anxiety for many community members.

Impact area	Delivery phase	Potential impacts
Mental health (continued)	Operation	Long wait times at level crossings, particularly if under time pressure, with research indicating that traffic delays may increase blood pressure and heart rate and may have consequences for the long-term health of individuals (Morant, 2015).
Safety	Construction	The location of work sites and laydown areas near private homes might cause anxiety about personal and property safety for some residents living adjacent to the Project. ARTC will require the construction contractor to provide and implement a Workforce Code of Conduct. The Project's draft Outline Environmental Management Plan (draft Outline EMP) (refer Chapter 23: Draft Outline Environmental Management Plan) also includes strategies to mitigate noise resulting from construction activities.
Traffic safety	Construction	Impacts on traffic during construction may include: ▸ Deterioration of road surfaces due to truck weights (which is addressed as part of ARTC agreements with the relevant road authorities) ▸ Safety issues associated with fatigued or inattentive commuters ▸ Disruption of school bus and other public transportation.
	Operation	Potential impacts on traffic safety during operations include: ▸ Disruption to familiar travel routes due to road re-alignments and delays at level crossings ▸ An increased risk of road accidents (discussed in Chapter 19: Traffic, transport and access, which notes that increases in traffic associated with the Project is likely to increase vehicle exposure at rail crossings) ▸ Heightened risk exposure for young males, young drivers, school children, older pedestrians and people with disabilities in crossing the rail corridor.

16.10.5 Business and industry

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

The Project encounters agricultural land that is predominantly used for irrigated seasonal horticulture and grazing on pasture and native vegetation. Some of those areas are designated as having particular agricultural significance as Class A or Class B agricultural land or Important Agricultural Area (IAA).

Key issues of concern identified by agricultural businesses included:

- Concerns about the potential for proposed land acquisition to affect the viability of farms and farm infrastructure, including dams, greenhouses and irrigation infrastructure
- Concern about changes to access across the corridor to affect agricultural businesses' traffic movements
- Concern about flood risk for downstream infrastructure impacts and potential for loss of topsoil in a flood event due to additional drainage
- Potential to modify the area's hydrology which could change flood risks and/or ability of properties to capture surface water.

The predominate land uses of properties within the permanent operational disturbance footprint include grazing modified pasture, grazing native vegetation, irrigated horticulture i.e. cropping, residential, and manufacturing and industrial purposes. Land parcels within the disturbance footprint also include lots used for services, easements, minimal uses and land in transition.

Of the 86 lots where the predominant land use is grazing, 18 are land lease or State land, and the remaining properties are freehold. Of all grazing properties, approximately:

- 27 properties would have less than 1 ha affected
- 39 properties would have between 1 ha and 5 ha affected
- 15 properties would have between 5 and 10 ha affected
- Five properties would have between 10 and 20 ha affected.

Indicative percentages of the land areas required within grazing properties range from less than 0.1 per cent to 100 per cent for eight lots, including seven lands lease properties and one freehold property (refer Appendix G: Directly Impacted Properties).

Properties' individual circumstances (such as specific land uses within the property that are affected and the extent of severance) will determine the significance of land take or and severance, however it could be assumed that more substantial impacts on properties' use or productivity would generally occur with larger percentages of land required.

Impacts on cropping and grazing operations would include:

- Severance of landholdings and intrusion on pastures and paddocks, potentially leading to reduced productivity or viability of land parcels and/or businesses
- Intrusion on property infrastructure, including outbuildings and irrigation plant and equipment
- Impacts on on-farm movements and the ability to move machinery, stock and supplies across the corridor, and the location of level crossings on private roads
- Effects on water access, drainage or storage dams
- Dissection of rural residential properties with small scale agricultural production rendering land unfit for future farming use.

Water bores are an important source of water for farmers, graziers and some residential properties. Assessment of the Project's potential effects on groundwater (Appendix N: Groundwater Technical Report) found that, based on a search of the Department of Natural Resources Mines and Energy (DNRME) (now the Department of Resources) groundwater database, a total of 510 groundwater bores were identified within 1 km of the Project alignment, of which 384 bores are designated as 'functional'. The assessment found that some of these bores have the potential to be damaged or lost during construction, or to become inaccessible during construction or operation. Consultation will continue with affected bore owners to identify mitigation or 'make good' arrangement (i.e. replacement of the water source) where/as required.

Construction of crossings and road realignments on private land may disrupt on-farm connectivity and property operations. Delays in transportation to market may arise where the alignment intersects with arterial roads such as the Warrego Highway, depending on the extent of works and the degree to which traffic flow could be maintained, potentially impacting market access and transportation costs.

There is one identified stock route reserve located to the south of the alignment at Calvert, adjacent to Bourkes Road West (outside of the disturbance footprint). This stock route reserve of approximately 2.02 ha has a classification of minor and unused. In addition to the stock route reserve, 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.

The Project also passes though the commercial centres of Gatton and Forest Hill. The Project follows the West Moreton System rail corridor through Gatton, running roughly parallel to Hickey Street to the north (a residential area) and Crescent Street to the south. Businesses in Crescent Street and Eastern Drive are likely to experience construction noise, disruption to business access and potentially operational noise. Within the town centre, a wide range of business operate, including supermarkets, specialty shops, cafes, banks, and service businesses such as hairdressing, insurance, printing, employment, council, government and travel services. There is potential for audible construction noise in the Gatton town centre, and a likelihood that traffic access would be disrupted due to the construction of the rail corridor, Eastern Drive Bridge and the active level crossing at William Street. Road access to all businesses will be maintained during construction works, but changes to the road network and the environment of the town centre may affect customer patronage.

In Forest Hill, businesses that may be affected by construction noise, dust, traffic disruption, and potentially by operational noise, primarily in the Victoria Street/Gordon Street area, include the Lockyer Hotel, Forest Hill Hotel, cafes, shops and services. The amenity of the community market in Furley Park is also likely to be affected by noise during construction and operation. The combined effects of construction noise, dust, traffic disruption, potential traffic queuing and parking problems in Forest Hill, and the change to the town's quiet, historic character during construction, may discourage customers and clients from using businesses in town.

Regarding tourism, the Lockyer Valley and Ipswich local governments and communities have a strong focus on tourism development including nature-based/ecotourism, food/wine trails, adventure experiences and farm visits and stays.

The likely impacts on tourism businesses during construction are as follows:

- The amenity of the Lockyer Hotel and Forest Hill Hotel in Forest Hill is likely to be affected by noise and for the Lockyer Hotel, changes to property access and parking arrangements
- The Royal Hotel and Commercial Hotel in Gatton are likely to experience noise and a change to the scenic amenity of the surroundings
- Construction noise, increased traffic and traffic disruption would impact on the quiet rural character and ease of movement in the Forest Hill and Gatton town centres, which host a range of cafes and specialty shops that contribute to tourism trade
- Road and pedestrian access to the Gatton showgrounds may be disrupted while works are occurring on Spencer Street/Eastern Drive, and there is potential for construction noise to be audible within the showgrounds while works are occurring in this area

- Laidley Cultural Centre may experience construction noise and changes to the character of views to its south and interruptions to access while the crossing of Laidley Plainlands road is constructed
- The scenic amenity of Grandchester may be affected by construction works in the rail corridor
- There is potential for road works, bridge construction and the visual impact of laydown areas to affect tourists' experience and travel times.

These impacts will be temporary while construction activities are undertaken in particular areas, but some impacts (such as laydown areas affecting local character and bridgeworks) may extend over longer periods.

Inland Rail is committed to providing full, fair and reasonable opportunities for capable local businesses to compete and participate in the Project's supply chain. ARTC is also committed to ensuring that Indigenous businesses, including those located in the Project region, are identified and supported to participate in the Project's supply chain.

The Project is likely to support future industries associated within regional hubs such as the Bromelton State Development Area and the InterLinkSQ logistics hub at Wellcamp, with potential to support the establishment of large businesses, which will be a source of long-term employment for SIA study area residents, and may catalyse further regional development with the growth of associated businesses within and connected to the regional hubs. The Project will also improve access to and from regional markets, and is likely to catalyse development within these areas, particularly in relation to rail dependent industries and support industries associated with transport, freight handling, warehousing and logistics.

The Project's local supply arrangements will provide an opportunity to develop and grow businesses in the Project region. The expansion in construction activity would support additional flow-on demand and additional spending by the construction workforce, and therefore business trading levels in the region.

Potential impacts on businesses and industries during construction are outlined in Table 16.20.

TABLE 16.20: POTENTIAL IMPACTS TO BUSINESS AND INDUSTRY

Impact area	Delivery phase	Potential impacts
Disruption of local businesses	Construction	During the construction phase the amenity or access of agricultural businesses near the disturbance footprint could be directly affected by the Project. Consultation with businesses will continue to explain the land resumption process and/or the result of EIS studies in noise and dust, as relevant, and work with property owners to reduce the potential for impacts on the amenity and productivity of businesses during construction.
Agriculture	Construction and operation	There is potential for the Project to directly affect high value farming elements (cattle yards, dams, severance affecting cattle grazing movements or dam access) and general agricultural uses. Impacts on agricultural properties could include interruption of access to dams or bores, demolition of stock holding pens, dissection of large agricultural properties that could reduce effective yield, machinery movements, drainage or irrigation design. No formally designated stock routes are located on the Project. One stock route is located to the south of the Project near Western Creek; however, it is not traversed by the disturbance footprints. It is likely informal stock movement routes will be severed.
Tourism	Construction and operation	Impacts to businesses and facilities that are part of the tourism industry located near the Project will primarily be temporary while construction activities are undertaken in particular areas, but some impacts (such as laydown areas affecting local character and bridgeworks) may extend over longer periods. The Project will consult with the LVRC, and with the owners of hotels and businesses in Forest Hill and Gatton to refine mitigation measures (including communication mechanisms, dust controls, noise mitigation measures and traffic management) to reduce impacts on their amenity and the attractiveness of the Gatton and Forest Hill town centres during construction. Once operational, some visitors will see the Project as diminishing the rural character and views to the Lockyer Valley, but others will find interest in Project structures. There is also potential for waiting times at level crossings to delay tourists, however traffic delays due to rail crossings and road intersections are a common occurrence and are unlikely to be a significant deterrent for visitors.

Impact area	Delivery phase	Potential impacts
Local supply opportunities	Construction and operation	The Project is likely to provide significant opportunities for local and regional businesses to participate in its supply chain e.g. pre-cast concrete may be sourced from Ipswich, ballast material will be sourced from local quarries, and other major components such as fencing may be sourced within the Project region. Project construction will also require a range of services which may be sourced from within the Project region. The potential for cooperation with other major projects which may be under construction (e.g. the Remondis Waste to Energy Facility, GWIZ or InterlinkSQ) to provide information to businesses about a range of projects and their supply requirements was also identified in consultation with DSDTI (now DSDILGP), and has been identified as an action in Section 16.11.6.
Facilitation of industrial development	Operation	The Project would link the rest of Inland Rail via connections to the G2H and C2K projects. There is potential for significant business growth and diversification to result, with consequent benefits for the employment of residents in the Lockyer Valley, Ipswich and adjoining LGAs.

16.11 Social Impact Management Plan

This framework for mitigation of social impacts and enhancement of Project benefits and aims to:

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

The SIMP includes:

- Information about:
  - SIMP implementation
  - Inland Rail's social performance program
  - The adequacy of proposed management measures
  - How stakeholder input has been considered in the SIMP
  - Engagement with Councils
  - Links to local and state planning
- five action plans:
  - Community and Stakeholder Engagement (refer Section16.11.2)
  - Workforce Management (refer Section 16.11.3)
  - Housing and Accommodation (refer Section 16.11.4)
  - Health and Community Wellbeing (refer Section 16.11.5)
  - Local Business and Industry (refer Section 16.11.6).

Each action plan includes:

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

At the completion of the construction phase, ARTC will develop a SIMP for the operational phase, incorporating ARTC's operational procedures for Inland Rail and including community and stakeholder engagement as detailed in Section 16.11.2.1.

16.11.1 Stakeholder inputs to mitigation measures

Stakeholders made a range of suggestions and recommendations regarding actions to be considered to mitigate adverse Project impacts or maximise Project benefits. Stakeholder suggestions about mitigation and enhancement strategies are provided in Table 16.21, which demonstrates how suggestions and recommendations have been addressed.

TABLE 16.21: STAKEHOLDER INPUTS ON SOCIAL IMPACT MITIGATION AND ENHANCEMENT

Issue	Suggested mitigation measures	How addressed
Indigenous values	▸ Involvement of Traditional Owners in cultural awareness training for contractors	▸ A CHMP has been developed and signed with the Yuggera Ugarapul People ▸ Cultural awareness training for Project personnel will be developed and implemented in cooperation with Traditional Owners.
	▸ Keep consulting with Traditional Owners to maximise opportunities for Indigenous people to benefit from the Project involvement	▸ ARTC's Indigenous Participation Advisor is working with Traditional Owner groups and local communities to support their consideration of employment and business opportunities.
	▸ Facilitate access to EIS for Traditional Owner groups	▸ ARTC will ensure advice on access to the EIS is provided to Traditional Owner groups, invite them to discuss EIS findings and facilitate assistance with development of a submission on the EIS if requested.
Agricultural properties	▸ Strong view that the alignment should not go through the Lockyer Valley ▸ Change the alignment to and minimise agricultural land severance	▸ Where possible the Project has been located within the existing protected rail and road corridors to limit severance of agricultural properties ▸ ARTC has consulted with landowners about their requirements in relation to water access, road usage, private crossing requirements, hydrology, existing infrastructure and land use. This information was considered in the design process where possible to minimise impacts ▸ ARTC is working with landowners to ensure that a satisfactory level of access between adjoining properties is maintained, and to identify actions which will minimise or offset changes to farm management, property access or water access that affect their properties.
Property values	▸ Compensation for any loss of property values ▸ Early acquisitions requested	▸ ARTC is unable to compensate for any loss (perceived or actual) of property value ▸ The Project will employ a suite of environmental management measures as outlined in Chapter 23: Draft Outline Environmental Management Plan (draft Outline EMP) to reduce impacts on amenity and therefore the potential for impacts on property values ▸ Land acquisition agreements developed by the Constructing Authority will address compensation for direct impacts on properties ▸ ARTC will advise the Constructing Authority of landowners' wishes in relation to acquisitions ▸ DTMR has undertaken thirteen acquisitions during the EIS process ▸ Support for mitigation of impacts on affected landowners is addressed in Section 16.11.2)

Issue	Suggested mitigation measures	How addressed
Amenity	▸ Implement vibration, noise and dust control mitigations ▸ Assess potential changes in amenity ▸ Project alignment to avoid impacts as much as practicable	▸ The Project has been located within the existing protected rail corridors where possible to minimise potential land use conflicts and fragmentation ▸ The Project EIS includes detailed strategies addressing mitigation of impacts on air quality and the noise environment and exposure to vibration (Chapter 23: Draft Outline Environmental Management Plan) ▸ The Project will manage environmental impacts in accordance with its approval conditions to minimise impacts on amenity ▸ The Project will work with stakeholders to minimise impacts ▸ Measures to support mitigation of impacts on amenity are provided in Appendix Q: Social Impact Assessment Technical Report.
Character	▸ Avoid impacts on the cultural heritage and character values of Grandchester, Forest Hill and Gatton ▸ Address visual impacts through design and aesthetic treatments ▸ Construction planning will consider scenic values which support amenity and tourism ▸ Provide planting to cuts and embankments to reduce their visual impacts	▸ The Project has been confined to the rail corridor where it passes through local towns to avoid direct impacts on heritage places such as hotels, rail stations, halls and war memorials in local towns ▸ Appendix H: Landscape and Visual Impact Assessment Technical Report and Chapter 23: Draft Outline Environmental Management Plan, provide detailed mitigation measures for impacts on visual amenity and landscape values ▸ Plantings to cuts and embankments will be considered as part of the Project's landscaping strategy in the detailed design phase. Safety design standards and the sustainability of planting will need to be considered.
	▸ Ongoing engagement with ICC and LVRC regarding place making, community facility investments and economic development	▸ Initiatives to support the amenity and liveability of local towns and rural localities will be identified through engagement with local governments and communities during the detailed design phase and implemented during construction ▸ ARTC has committed to ongoing engagement with ICC and LVRC to develop detailed strategies to address social impacts.
Employment opportunities	▸ Make sure local people can access Project employment ▸ Workforce strategy to include job opportunities for local residents ▸ Potential for local employment for maintenance and operations of potential sidings and planned future intermodal developments	▸ The construction contract will include specification of the construction contractor's goals for employment of people from within the Project region ▸ ARTC is working with government stakeholders, CSQ and education and training providers to identify education and training pathways for local residents to equip them for jobs in Project construction and operations ▸ ARTC will provide a clear and efficient process for people to seek information about employment opportunities and register their interest in Inland Rail ▸ ARTC has established the Inland Rail Skills Academy to support workforce training and development for the construction and operational phases ▸ ARTC is working with the two local governments' Regional Skills Investment Strategy (RSIS) coordinators to align skills training programs with community and local industry priorities ▸ Decisions regarding the location of maintenance hubs are not within the scope of the Project.

Issue	Suggested mitigation measures	How addressed
Local business	▸ Ensure businesses who would be affected by construction works are kept updated ▸ Ensure that local businesses are supported to participate in the supply chain ▸ Support the capacity of local contractors and suppliers to service the Project	▸ The Project will inform and consult business stakeholders about Project impacts as the detailed design and construction planning process progresses ▸ ARTC will implement its Australian Industry Participation (AIP) Plan to ensure local and Indigenous businesses and social enterprises are provided full, fair and reasonable opportunity to participate in the supply of goods and services on Inland Rail ▸ ARTC will implement its Sustainable Procurement Policy to ensure Project supply opportunities are available to local businesses ▸ ARTC is working with stakeholders to identify local and regional businesses with potential capacity to supply the Project and to develop capacity building initiatives ▸ The Project will maintain communication with businesses and business organisations to update them on Project timeframes, supply requirements and capacity building programs ▸ Business capacity building programs will be offered through the Inland Rail Skills Academy.
Indigenous training, employment and business participation	▸ Ensure local Indigenous people have access to training and employment opportunities, including young people and mature jobseekers ▸ Employ an Indigenous mentor for construction personnel ▸ Require contractors to employ Yuggera Ugarapul People in Project construction as part of contracts	▸ ARTC is in regular consultation with Traditional Owners. This will continue during the detailed design phase, with a particular focus on business and employment opportunities. ▸ ARTC is working with Traditional Owner groups to support community members' readiness for employment (refer Section 8.3 of Appendix Q: Social Impact Assessment Technical Report) ▸ ARTC will require the construction contractor to specify and meet Indigenous training and employment goals.
	▸ Opportunity for Traditional Owners to talk with government agencies that will be involved in Inland Rail projects	▸ The Project will continue to engage with traditional owner groups to provide access to information about business and skills requirements ▸ Project personnel will include Indigenous mentors to support Indigenous workers ▸ Indigenous training and employment are addressed in Section 8.3 of Appendix Q: Social Impact Assessment Technical Report ▸ ARTC has coordinated a meeting between Yuggera Ugarapul People and DSDSATSIP and will work with both organisations to address shared goals.

Issue	Suggested mitigation measures	How addressed
Community wellbeing and safety	▸ Ensure residents are supported through the process of changes relating to Inland Rail ▸ Ensure community members have access to open and transparent consultation to reduce uncertainties causing stress ▸ Invest in long-term community amenity, improving community connectivity and safety ▸ Need to ensure that people with English as second language are considered in road safety campaigns	▸ ARTC is undertaking a comprehensive engagement program as part of the EIS process (refer Appendix C: Consultation Report) ▸ ARTC has initiated a mental health partnership to assist community members who are feeling stress or anxiety related to the Project ▸ The construction contractor will initiate a Community Reference Group (CRG) that will be maintained throughout construction, with future need for the CRG to be agreed with CRG members and the OCG following the conclusion of construction. The Project will maintain continued engagement with landowners throughout the detailed design, construction and operational phases ▸ ARTC will maintain engagement with Queensland Education, LVRC, ICC, DCHDE and Queensland Health with respect to impacts on social infrastructure ▸ ARTC's Community Donations and Sponsorship program accepts applications for community facility upgrades ▸ Communication strategies about road and pedestrian safety will include a focus on people with English as a second language.
Health and emergency services	▸ Early and regular engagement with QFES, QPS, QAS, State Emergency Services (SES) and disaster management coordinators to develop cooperative management measures ▸ Workforce health care needs be planned for in advance in consultation with Queensland Health to inform health service planning ▸ Cooperate with police and emergency services to reduce the potential for emergency vehicle access delays	▸ The Project will consult and cooperate with emergency services (refer Section 8.5 of Appendix Q: Social Impact Assessment Technical Report) ▸ ARTC is working with QPS, QAS, QFES and local disaster management coordinators as part of hazard and risk management planning ▸ During the detailed design phase, ARTC will work with QAS to confirm and implement alternative vehicle access points during construction and operation ▸ Emergency access has been addressed during the Project reference design process ▸ The Project will consult with Queensland Health, QPS, QAS and QFES regarding the workforce ramp-up and any specific anticipated demands on hospitals.
Housing and accommodation	▸ Accommodation plan required for construction workforce to manage potential cumulative impacts on local short-term accommodation	▸ The construction contractor will provide an Accommodation Management Plan (AMP) for ARTC's approval (refer Section 8.4 of Appendix Q: Social Impact Assessment Technical Report) ▸ ARTC will monitor the delivery and effectiveness of the AMP and require the construction contractor to undertake corrective action if strains on housing or accommodation are identified.
Public transport	▸ Include provision for passenger rail inclusion as part of the Project design	▸ The rail corridor will have space for any future provision of passenger rail transport by the Queensland Government.

16.11.2 Community and stakeholder engagement

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

16.11.2.1 Community and Stakeholder Engagement Plan

A Community and Stakeholder Engagement Plan is provided as part of the SIMP (refer Appendix Q: Social Impact Assessment Technical Report Section 8.2). The purpose of the Community and Stakeholder Engagement Plan is to guide and monitor engagement activities during the detailed design, pre-construction and construction phases, and support mitigation and adaptive management of impacts including:

- Disruptions to the use, amenity or access of private properties during construction, by providing guidance for engagement with directly affected landowners and nearby residents
- Stress and the potential to exacerbate disadvantage, by enabling continuity of engagement between the EIS and land acquisition process, access to support if required, and ongoing engagement with affected landowners
- Impacts on amenity, connectivity and cohesion, by ensuring that community members and other stakeholders have access to information and communication channels which help them understand the nature, duration and effect of Project works, and how to resolve issues as they arise
- Concerns about property values, by sharing information about environmental impacts and management measures.

The key stakeholders addressed by the engagement plan include:

- Landholders in and near the disturbance footprint
- Residents, community organisations and businesses in potentially impacted communities including towns and rural localities
- Traditional Owners and other Indigenous community members
- LVRC and ICC
- PHNs and community service organisations
- Government agencies including Queensland Health, QPS, QAS, QFES, Department of Education, DESBT, DSDILGP, DSDSATSIP, DCHDE and DITRDC.

Key elements of the Community and Stakeholder Engagement Plan are described below.

16.11.2.2 Pre-approval engagement

Inland Rail is committed to supporting stakeholder awareness of the draft EIS and encouraging community members to participate in the draft EIS submission process conducted by DSDILGP. During the draft EIS display period, ARTC will communicate the findings of the draft EIS and support the submission process by undertaking the following activities:

- Providing information about the public submission period and submission requirements on ARTC's website and via social media posts, including a link to the Office of the Coordinator-General website where the EIS is available
- Producing and distributing a newsletter to publicise the release of the draft EIS, providing information on the public submission process and how to make submissions
- Emailing key stakeholders registered on the Project's database about the draft EIS and submission period
- Distribution of the Office of Coordinator-General's 'Have your say' factsheets for public consultation
- Conducting agency briefings, CCC meetings and community information sessions to present findings of the draft EIS.

Inland Rail personnel will also meet with LVRC and ICC to discuss the draft EIS findings including proposed management measures outlined in the draft SIMP and seek further inputs on community initiatives which should be considered as part of the Project's Community Wellbeing Plan (refer Section 16.11.5).

Following completion of the public display period, all stakeholder and community feedback will be reviewed and addressed in the final EIS documentation.

The decision by the Coordinator-General about whether to approve the Project will be made public via the DSDILGP and ARTC Inland Rail websites.

16.11.2.3 Post-approval engagement

During the detailed design, pre-construction and construction phases, the Project will use the following communication tools:

- Provision of regular updates about the progress and status of the Project by ARTC through the Inland Rail website
- Notification letters and/or email updates prior to works being undertaken e.g. prior to commencement of construction, piling, blasting, disruption of residential, business or public access, disruption of utility service, changes in traffic or transport network conditions, road closures and diversions, or modification of pedestrian routes, cycleways, train stations or bus stops
- Public notices regarding matters such as changes to traffic conditions and high impact work or work packages, based on predictive noise, dust and/or vibration modelling
- The availability of a Project representative by phone 24/7
- A free call telephone line
- Factsheets addressing specific works, impacts or changes to conditions
- Website and SMS updates
- Road/rail safety campaigns addressing the operations phase.

16.11.2.4 Community reference group

The construction contractor will facilitate the operation of Community Reference Groups during the construction phase. The CRGs will replace the CCC established for the EIS phase.

CRGs may be formed on a Project basis (e.g. one each for H2C, G2H and C2K projects) or on a locality basis (e.g. one in the Lockyer Valley LGA and one in the Ipswich LGA). This will be finalised once the delivery contract has been awarded.

The CRGs will meet regularly until completion of construction to enable representation of community issues to ARTC and facilitate community review of the effectiveness of SIMP measures. The CRGs will:

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

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

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

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

16.11.2.5 Community Liaison Officer

Community liaison staff will be provided during the construction period to:

- Support communication between the construction contractor, nearby landowners, community members and other stakeholders
- Undertake engagement to support implementation of partnerships and community initiatives
- Provide information to the wider community in relation to construction programming, the nature of construction work, and impact mitigation measures
- Establish and maintain a process for receiving, recording and responding to complaints in relation to construction issues
- Facilitate provision of information to the wider community in relation to construction programming, the nature of construction work, and impact mitigation measures.

Depending on the contractor's community and stakeholder engagement plans, one or more Community Liaison Officers may be provided, which will be determined by the Project during the detailed design phase.

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

16.11.2.6 Community Relations Monitor

ARTC will engage an independent, appropriately skilled and experienced entity as the Community Relations Monitor for the duration of the construction phase.

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

- Provide monthly reports on community issues emerging from the construction and commissioning activities in relation to the Project conditions, the CEMP, complaints, monitoring and community relations

- Communicate with ARTC and the Environmental Monitor with regard to the SIMP, community consultation strategies and community concerns
- Review complaints procedures and the resolution of complaints and corrective action reporting to assess performance of the service provider's implementation of the SIMP and CEMP
- Facilitate discussions between the ARTC and the contractor and affected entities about mitigation measures as required by either the ARTC or affected entity
- Provide advice to the Environmental Monitor in relation to complaints.

16.11.2.7 Complaints management

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

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

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

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

The Complaint Management Handling Procedure includes the following steps:

- Acknowledge: On receiving a complaint, ARTC Inland Rail staff will take reasonable steps to ensure that the complaint is properly understood and seek clarification or additional information from the complainant where required. ARTC Inland Rail will report the complaint and forward it to the relevant area for appropriate action or information. Where sufficient stakeholder contact details have been provided, all complaints will receive formal written acknowledgment of complaint receipt within two business days
- Assessment: A preliminary assessment of the complaint will be conducted to determine whether the complaint is one that ARTC can resolve, or needs to be referred to another appropriate agency or party (for example a local council or government agency)
- Planning: Complaints that are straightforward can often be resolved on first contact. If this is not the case and the complaint requires investigation, a planning process will be undertaken to identify what is to be investigated, the steps involved in investigation, the remedy the complainant is seeking and other possible remedies
- Investigation: ARTC will conduct an investigation into the complaint, based on the principles of impartiality, confidentiality and transparency
- Response: The progress of the complaint will be monitored and communicated to the complainant, until the outcome has been communicated to the complainant
- Follow-up: Complainants will be offered the opportunity to seek review of how their complaint was handled and resolved. If a complainant is dissatisfied with an investigator's findings or decision, a review will be carried out by an ARTC officer who has not been involved in the matter. If the complainant is still dissatisfied with the outcome, they will be advised of independent review bodies or mediation mechanisms that are available.

ARTC Inland Rail will regularly monitor the quality and effectiveness of the complaints management system and revise relevant components where appropriate, based on feedback from internal and external sources.

ARTC's stakeholder management system will be used to record details of complaints and their resolution for issues analysis and reporting purposes.

16.11.2.8 Engagement measures

The community and stakeholder engagement actions outlined in Table 16.22 include details of the following engagement strategies to be employed during the Project's detailed design, pre-construction and construction phases:

- Engagement with directly affected landholders to confirm mitigation of property-specific impacts, and with residents living near the Project footprint to enable them to understand potential impacts on household amenity and how to resolve any emerging issues with the Project
- Provision of information and engagement opportunities (including one or more CRGs) for residents of potentially affected communities
- Cooperation with Traditional Owners and Indigenous community members to support cultural heritage management and enable their access to Project employment and business supply opportunities
- Engagement and cooperation with LVRC and ICC in the adaptive management of environmental and social impacts including management measures for impacts on community facilities, amenity, sense of place and community cohesion

- Engagement with businesses that may be negatively affected to optimise and monitor impact management measures, and actions to increase local businesses' opportunities for involvement in Project supply arrangements
- Engagement with Government agencies and community organisations to confirm the detail of mitigation measures for impacts on social infrastructure and implement cooperative arrangements.

The Community and Stakeholder Engagement Plan will be reviewed annually in consultation with the CRGs during the construction phase and updated as required.

TABLE 16.22: COMMUNITY AND STAKEHOLDER ENGAGEMENT

Community and stakeholder engagement measures

Stakeholders	**Landholders and tenants in and near the Project footprint i.e. within 1 km**
Strategy	▸ Engage with directly affected landholders to confirm mitigation of property-specific impacts, and with residents living near the Project footprint, to enable them to understand potential impacts on household amenity and how to resolve any emerging issues with the Project
Impacts addressed	▸ Disruption of property use and amenity ▸ Impacts on property access, access to water or connectivity ▸ Potential exacerbation of disadvantage ▸ Uncertainty and stress
Timing	**Actions**
Detailed design phase	▸ Maintain the availability of the EIS, information about EIS approval conditions, and information about ARTC's compliance with conditions on the Project's website, to reduce the likelihood of negative perceptions about the amenity of properties or near the disturbance footprint
	▸ Meet with the owners of directly affected and adjacent properties to confirm property-specific measures to be implemented during pre-construction or construction as relevant, including as relevant: ▸ Property access arrangements ▸ Appropriate access and egress solutions incorporated into the detailed design to enable movements across the rail corridor ▸ Changes to road access ▸ Surface water diversion ▸ Any noise mitigation measures where these are triggered ▸ Impacts on agricultural uses including farm infrastructure ▸ Communication protocols
	▸ Implement ARTC's or the Constructing Authority's Early Acquisition Policy where landowners meet the Policy's provisions for hardship
	▸ Communicate the need for consideration of landowners' specific circumstances to the Constructing Authority and the Contractor, including any hardship circumstances (with landowners' permission), property access arrangements, reparation of property infrastructure and 'make good' arrangements for any impacts on water infrastructure
	▸ In consultation with the Constructing Authority and affected landholders, confirm mitigation arrangements for direct impacts on groundwater bores
	▸ Provide a Community Liaison Officer to work closely with residents whose properties will be acquired and affected DTMR tenants to reduce stress related to uncertainty about impacts and the timing of acquisition
	▸ Communicate with all residents adjacent to and within 250 m of laydown areas and bridge construction sites in urban areas, and within 500 m in rural areas and above the tunnel construction areas to: ▸ Advise them of the measures provided in the Draft Outline EMP ▸ Provide advance advice of the construction schedule and sequence (e.g. how long specific activities will take) ▸ Describe the nature and causes of noise and vibration, and how impacts will be mitigated ▸ Identify any specific household concerns e.g. the presence of children or seniors who may be affected by noise, dust or change to property access, which need to be considered in implementation of environmental management measures

Community and stakeholder engagement measures	
Detailed design phase (continued)	▸ Consult with residents, landowners and business adjoining locations where concept rail noise barriers are being considered to seek input/feedback on the design of any final noise barriers
	▸ Initiate and maintain communication and co-operation with local landowners during flood alert and recovery periods
	▸ Provide appropriate information and assistance to landholders during the land resumption process to reduce uncertainties and support their adaptation to changes, including: ▸ Through consultation, identify households where property severance or other changes to amenity may cause distress to residents, ensure their access to communication and complaints mechanisms, and provide referral to support services where required ▸ In consultation with the PHNs, extend the mental health partnership to include provision of services to assist residents (landholders and tenants) whose homes would be removed from the corridor to access alternative accommodation and support services ▸ With due regard to privacy and confidentiality, provide consultation data regarding households who may require assistance to find affordable housing to DTMR and DCHDE, to enable a collaborative response and reduce consultation fatigue ▸ Maintain quarterly communication with residents whose properties would be acquired (or as agreed) to keep them updated and ensure their concerns are considered in developing the CEMP
	▸ Maintain consultation with directly impacted landowners to ensure the impacts of land acquisition are minimised where possible, and that the needs and views of affected landowners are taken into account in the CEMP
	▸ Ensure a focus on protecting residents' amenity in the Project's CEMP and Noise and Vibration Management Sub-plan (NVSP), referencing specific measures and SIMP recommendations where relevant
	▸ Meet with people whose properties may experience noise exceedances, to ensure the potential for impacts on amenity is clearly explained, and where relevant, to obtain residents' inputs to the development of property-specific mitigation strategies
	▸ Provide information to communities about how noise, dust and traffic delays from the Project will be minimised, and consider community feedback about the effectiveness of measures in reviewing the CEMP
	▸ Ensure that the Project's communications about air quality management include information about tunnel ventilation and air quality outcomes
	▸ Establish and maintain consultation with potentially impacted communities, including: ▸ The CRG/s ▸ Regular engagement with landowners who are adjacent to the rail corridor and areas used for construction ▸ Advance notices and regular updates to directly affected landowners (where they remain on their properties) and households adjacent to the Project footprint, regarding construction programs, impacts and mitigation measures ▸ Regular (at least quarterly) updates to potentially impacted communities in a form which is accessible to people without internet access ▸ Updates to the Project's webpage and other locally available communication materials to include the Project's SIMP, quarterly construction updates including detailed explanations of upcoming activities, workforce ramp-up and stakeholder engagement mechanisms ▸ Complaints and feedback mechanisms ▸ Ongoing driver and community safety education ▸ Promotion of the Project's communication channels, engagement mechanisms and complaints process
Pre-construction phase	▸ Implement (as relevant to the pre-construction phase) agreements with landholders affected by property acquisition, temporary or permanent use of land or noise exceedances regarding property-specific measures (as outlined in the detailed design phase actions)
	▸ Establish and promote the complaints management handling procedure
	▸ Communicate the Project's land access protocols, construction hours, Code of Conduct and complaints mechanism to residents and businesses adjoining the temporary construction disturbance footprint

Community and stakeholder engagement measures	
Pre-construction phase (continued)	▸ In advance of the commencement of pre-construction works, provide information to landholders, Councils, Traditional Owners and local communities about: ▸▸ The construction program and activities ▸▸ The timing, duration and predicted impacts of the works with regard to homes, businesses and community facilities ▸▸ The predicted effects of construction works on road, rail and pedestrian and cycle network operations ▸▸ How to contact the Project ▸▸ The complaints management system
	▸ Consult via letter and through individual means as requested with all households adjacent to and within 250 m of laydown areas and bridge construction sites, and above the tunnel construction areas to: ▸▸ Provide advance warning of the construction schedule and sequence (e.g. how long specific activities will take), and any disruptions to access or services ▸▸ Describe the nature and causes of noise and vibration, and how noise and vibration will be mitigated ▸▸ Advise on how long construction work will be heard or seen for each property ▸ Provide 24-hour contact details for construction managers
	▸ Establish a blasting timetable through stakeholder consultation e.g. blasts times negotiated with surrounding sensitive receptors
	▸ Notify directly affected and adjacent landholders, residents, businesses, Councils and other stakeholders before pre-construction work starts in their vicinity and provide regular updates on construction activities and progress, through signage, the local media and other forms of communication such as emails and letters
	▸ Maintain regular engagement with landholders who are adjacent to the rail corridor and areas used for construction to share information and identify any issues arising during pre-construction activities, including access to email correspondence, a free-call line and meetings on request
	▸ Provide advance notice e.g. email. letter, SMS or public notices of any significant dust generating activities
Construction phase	▸ Provide monthly advance notices and updates to directly affected landholders (where they remain in local communities) and landholders adjacent to the temporary construction footprint regarding construction activities, impacts and mitigation measures
	▸ Implement (as relevant to the construction phase) agreements with landholders affected by property acquisition, temporary or permanent use of land or noise exceedances regarding property-specific measures
	▸ Communicate the Project's land access protocols, construction hours, Code of Conduct and complaints mechanism to residents adjoining the disturbance footprint, and provide 24 hour/7-day contact details for Project representative
	▸ Receive and consider feedback from landowners and the CRG in relation to the effectiveness of social and environmental impact management measures
	▸ Consider and address any potential for coincidence of works that could have cumulative impacts in Calvert or Helidon in Project communication strategies
	▸ Maintain regular engagement with directly affected and landholders who are adjacent to the temporary disturbance footprint to enable identification of any issues arising and enable adaptive management of impacts such as property access by Project personnel, disruptions to property accesses, construction noise or dust
	▸ Initiate and maintain communication and co-operation with local landholders during flood alert and recovery periods to support readiness and cooperation
	▸ Engage an independent, appropriately skilled and experienced entity as the Community Relations Monitor
	▸ Provide access to the Community Relations Monitor and Community Liaison Officer and promote their availability through Project communications such as newsletters, websites, fact sheets and emails

Community and stakeholder engagement measures

Stakeholders	**Other residents and businesses in potentially impacted communities**
Strategy	▸ Provision of community information and engagement opportunities (including one or more CRGs) for residents of potentially affected communities
Impacts addressed	▸ Impacts on the amenity and character of rural areas due to construction works ▸ Disruptions to the traffic network ▸ Community safety ▸ Employment and business opportunities ▸ Impacts on community cohesion
Timing	**Actions**
Detailed design phase	▸ Establish the CRG (refer Appendix Q: Social Impact Assessment Technical Report, Section 8.2.5)
	▸ Establish consultative arrangements (e.g. newsletters, project email, 24-hour contact details for construction representative) that are accessible and promoted to all residents within 1 km of the Project alignment and in all potentially impacted communities, including a complaints resolution procedure
	▸ Ensure Project communications are accessible to people without internet access, people with low levels of education and people with limited skills in English via promotion and use of a telephone interpretation service (to continue until the end of construction)
	▸ Provide information to the community about how noise and dust from the Project's construction and operation will be minimised e.g. via a fact sheet
	▸ Provide respectful and inclusive communication strategies about Project impacts on hydrology, flooding risks and mitigation, recognising that many local communities are still traumatised by the 2011 floods
Pre-construction and construction phase	▸ Communicate with residents who would have close views to the Project including tunnel buildings to explain the Project's construction program operational procedures and management measures relevant to their specific concern
	▸ A Community Liaison Officer will be provided, and contact details made available in all potentially impacted communities
	▸ Provide and promote a complaints and feedback mechanism accessible to all local stakeholders, including the ability to resolve complaints regarding construction works or workforce behaviour
	▸ Develop an incident notification and reporting process, including providing information to the community if an environmental incident occurs
	▸ Provide a clear and efficient process for local people to seek information about employment opportunities and register their interest including via employment portals and through local employment agencies
	▸ Update the Project's webpage and other locally available communication materials to include the Project's CEMP and SIMP, quarterly construction updates, detailed explanations of upcoming activities, workforce ramp-up and stakeholder engagement mechanisms, and complaints and feedback mechanisms, and annual SIMP reports when available
	▸ Provide information which is accessible to those without internet access regarding the construction timeframe and activities, employment opportunities and how to express interest in employment, contracting or supply opportunities
	▸ Prior to construction works which may result in noise impacts, provide sufficient information to sensitive receptors identified in the Noise and Vibration Sub-plan, as well as residents within at least 2 km of the disturbance footprint and other relevant stakeholders, to enable them to understand the likely nature, extent and duration of noise and vibration impacts during construction

Community and stakeholder engagement measures	
Construction phase	▸ Maintain employment of Community Liaison Officer/s
	▸ Maintain the Project's CRG throughout the construction phase
	▸ Maintain communication and engagement strategies initiated during pre-construction, including: ▸ Landowner liaison ▸ Regular (at least quarterly) Project updates to potentially affected communities. Including the construction schedule and impacts that may be experienced e.g. noise or traffic disruption, and how the Project is mitigating those impacts ▸ Traffic and road safety updates ▸ Ongoing driver and community safety education ▸ Notices and updates to LVRC, ICC, DTMR and DET (in relation to impacts on school bus routes) ▸ Promotion of the Project's communication channels, engagement mechanisms and complaints process
	▸ Provide regular (at least quarterly) updates to potentially impacted communities including detailed explanations of upcoming activities, workforce ramp-up and stakeholder engagement mechanisms
	▸ Update the Project's webpage and locally available communication materials to include: ▸ The Project's EIS, draft Outline EMP, CEMP and SIMP ▸ Quarterly construction updates, including detailed explanations of upcoming activities, workforce ramp-up, employment opportunities, stakeholder engagement mechanisms ▸ SIMP monitoring and review reports
	▸ Develop a travel demand management community information campaign to inform the public on the proposed construction works and potential effect on local road networks, to allow them to plan their travel
	▸ Maintain publicly available information (via websites, fact sheets and project updates) and availability of feedback mechanisms including phone, email and web-based facilities regarding: ▸ The construction schedule ▸ Impacts that may be experienced e.g. noise or traffic disruption, and how the Project is mitigating those impacts ▸ Road safety measures ▸ How to communicate with the Project and the contractor ▸ 24 hour/7-day contact details for Project representatives
	▸ Maintain provision of the Community Relations Monitor
	▸ Implement communication strategies to ensure stakeholders know about construction traffic routes, peak construction periods, the Project's workforce conduct policies, and how to contact Project personnel in the event of any concerns regarding safety during construction
	▸ Implement a travel demand management community information campaign for the construction phase
	▸ Ahead of the operational phase: ▸ Provide timely and well-targeted information about potential traffic delays during Project operations, including an indicative schedule of freight train movements, and strategies that ARTC employs to reduce traffic delays ▸ Develop a traffic safety education program which has a clear focus on interactions between the rail corridor, roads and other access tracks, and interactions with rural roads and rural traffic ▸ Renew contact with schools in the SIA study area prior to operations commencing, to identify any concerns regarding travel delays, and any strategies which could feasibly be applied to reduce inconvenience or other impacts of traffic delays at level crossings

Community and stakeholder engagement measures

Stakeholders:	**Traditional Owners and other Indigenous community members**
Strategy	▸ Cooperation with Traditional Owners and Indigenous community members to support cultural heritage management and enable their access to Project employment and business supply opportunities
Impacts addressed	▸ Impacts on cultural landscapes ▸ Training and employment opportunities ▸ Business opportunities
Timing	**Actions**
Detailed design phase	▸ ARTC's Indigenous Participation Advisor is working with Traditional Owner groups and local communities to support their consideration of Project opportunities, which will continue during the detailed design phase, with a particular focus on business and employment opportunities
	▸ Continue meeting with Yuggera Ugarapul People to enable opportunities to provide input regarding cultural values for consideration in the detailed design
	▸ Plan with Yuggera Ugarapul People for cultural awareness tours for Project personnel including respect for cultural landscape features and cultural heritage sites (in progress during the EIS phase)
	▸ Implement a 'vehicle wrap' program which will commission local Indigenous artists to provide designs for Project vehicles
	▸ Commission local Indigenous artists to produce art works for ARTC offices in the Project region
	▸ Consult with Yuggera Ugarapul People, CSQ, DSDSASTIP, training providers, LVRC and ICC to identify potential opportunities for early skilling programs for Indigenous worker (in progress during the EIS phase)
	▸ Encourage Yuggera Ugarapul People to express their interest in the Indigenous Ranger program to DES
	▸ Enable meetings between Yuggera Ugarapul People board representatives and the Contractor, once appointed, regarding cultural heritage management, cultural awareness, training, targeted training initiatives, mentorship for Indigenous workers, business supply opportunities, and any need for capacity building with Indigenous businesses
	▸ Communicate with Traditional Owner groups regarding the range of business opportunities which will be available during construction, the availability of Indigenous businesses to participate and the types of capacity building programs that Indigenous businesses may need to prepare for involvement in the Project supply chain
	▸ Work with Traditional Owner groups to identify existing business capacity within their communities and help them to identify business capacity building programs to be supported by ARTC, DSDSASTIP and/or DITRDC, to be continued during pre-construction and if required, construction phases
Pre-construction phase	▸ Involve Yuggera Ugarapul People in cultural heritage surveys for any proposed new quarry sites
	▸ Indigenous cultural heritage values and Project impacts to these values will be managed under approved CHMP. ARTC will continue regular engagement with Yuggera Ugarapul People to enable opportunities to provide input regarding cultural values
	▸ Implement Indigenous business capacity building programs in cooperation with DSDILGP, DSDSATSIP and Traditional Owners
	▸ Implement Inland Rail Skills Academy programs (in cooperation with CSQ others as identified in future Project phases) targeting Indigenous training and development for construction works, cross-over skills (to other projects or industries) and business readiness to supply the Project

Community and stakeholder engagement measures	
Construction phase	▸ In cooperation with Yuggera Ugarapul People, provide cultural awareness training in relation to Yuggera Ugarapul people's values, workplace diversity and cultural heritage management requirements to Project personnel
	▸ Continue to engage with Yuggera Ugarapul People to provide access to information about business and skills requirements and the availability of targeted programs for training and business development
	▸ Maintain regular cooperation with Yuggera Ugarapul People in accordance with the terms of the CHMP
	▸ Continue engagement and training programs with Indigenous community members to ensure operational roles are considered by Indigenous people
	▸ Continue to cooperate with DESBT, DITRDC and local and Indigenous businesses to: ▸ Build businesses' capacity to participate in the Project's supply chain through business development, mentoring and pre-qualification projects ▸ Support Indigenous businesses to ensure they are prepared for and provided with opportunities to participate
Stakeholders:	**LVRC and ICC**
Strategy	▸ Cooperation with LVRC and ICC in the adaptive management of environmental and social impacts including management measures for impacts on community facilities, amenity, sense of place and community cohesion
Impacts addressed	▸ Impacts on amenity and local character, including noise ▸ Social opportunities ▸ Training opportunities ▸ Community wellbeing ▸ Connectivity ▸ Traffic safety
Timing	**Actions**
Detailed design phase	▸ Meet with LVRC and ICC to agree the program and approach for engagement
	▸ Meet with the LVRC and ICC to: ▸ Review the EIS findings ▸ Agree the program for engagement during the detailed design phase, including issues to be discussed and the program for discussion (e.g. water use, waste management, road network management and social impact management) and Council departments that will be involved
	▸ Seek Council advice on minimising the impacts of roadworks on residents and tourists
	▸ Where possible, incorporate Council advice on minimising the impacts of roadworks on residents and tourists in construction planning
	▸ Include consideration of the use of identified cycle routes within the Queensland (PCNP) by construction traffic in the TMP
	▸ Continue consultation with LVRC and ICC to: ▸ Plan and implement engagement with community members regarding Project works and social programs to address impacts on rural character and town amenity ▸ Identify partnerships and initiatives to reduce or offset impacts on the character and amenity of local towns, with Gatton, Forest Hill and Grandchester as a key focus ▸ Confirm mitigation measures for Council assets ▸ Confirm alignment of Project initiatives with Regional Skills Initiatives Strategy projects ▸ Agree on the form of specific mitigation triggered by noise exceedances or changes to access to Council-owned facilities (refer Appendix Q: Social Impact Assessment Technical Report, Section 8.5) ▸ Identify and prioritise Project investments in local communities to strengthen local social networks and provide opportunities for people to meet and participate in community activities and events ▸ Identify emerging community needs (e.g. COVID-19 community recovery and activation of community organisations to support cohesion) which could be addressed through targeted funding to community organisations in each LGA ▸ Incorporate initiatives, projects and priorities identified in the Community Wellbeing Plan (refer Appendix Q: Social Impact Assessment Technical Report, Section 8.5).

Community and stakeholder engagement measures	
Detailed design phase (continued)	▸ Communicate with ICC and LVRC about EIS results of relevance to rail operations (e.g. noise impacts and road network operation) to support their consideration of any development control measures required to protect the amenity and liveability of residents in areas which are planned for future urban growth
	▸ Consult with ICC and LVRC to identify issues which should be addressed in the AMP
	▸ In consultation with the two Councils, prepare a Community Wellbeing Plan to provide a framework for cooperation with key stakeholders to implement mitigation measures addressing impacts on quality of life as the result of potential Project impacts (refer Appendix Q: Social Impact Assessment Technical Report, Section 8.6.5)
	▸ Progress discussions with LVRC with respect to: ▸ Gatton, i.e. measures to support pedestrian connectivity within the town centre, protect and enhance the amenity of residents, businesses and community facilities, which may include investment in community facilities and/or parks, and offset the loss of Apex Park ▸ Forest Hill i.e. support for a local area planning process to identify challenges to the sustainability of businesses and the amenity of community facilities, measures to support town centre businesses, and measures to enhance the amenity of community facilities during the construction process
	▸ Progress discussions with ICC with respect to Grandchester, including measures to protect the town's scenic character during construction, enhancements to community facilities, and offset for severance of the School Park Reserve
	▸ In finalising plans for landscape design, consult with LVRC, ICC and residents and business owners in Gatton, Forest Hill and Grandchester to seek and consider their feedback
Pre-construction phase	▸ Provide advice to Councils about construction traffic routes, and seek feedback in TMP finalisation
	▸ Meet with ICC and LVRC to advise the schedule and program for pre-construction, including: ▸ When and where specific works would occur ▸ The timing for commencement of works in road reserves and utility corridors ▸ The schedule for implementation for traffic detours
	▸ Provide an update to ICC and LVRC on the implementation of the Community Wellbeing Plan and AMP, and seek their feedback
Construction phase	▸ Meet with ICC and LVRC at least six monthly to: ▸ Review progress with the Community Wellbeing Plan and seek their feedback on the progress of community initiatives ▸ Coordinate the implementation of initiatives shared between the Project and Councils e.g. place-making, training or tourism marketing initiatives ▸ Seek Council inputs into monitoring the effectiveness of the AMP ▸ Identify partnership opportunities to maximise social opportunities, including support for existing and/or additional community events ▸ Seek Council's feedback and inputs regarding the effectiveness of the Project's community and stakeholder engagement strategies ▸ Provide advance notice of the works schedule including the construction program, potential impacts of construction works, road closures and traffic diversions, disruption to pathway networks, and work in utility corridors ▸ Monitor the effectiveness of management measures addressing road safety and road network management issues ▸ Discuss other issues and any need for corrective actions as they arise
	▸ Continue consultation with local Councils and DTMR to ensure road safety concerns and road network management issues are addressed
	▸ Implement the partnerships and initiatives agreed with LVRC, ICC and local communities during the detailed design phase, including:
	▸ In cooperation with Councils, implement initiatives and agreements established in previous phases to mitigate impacts on the amenity and character of towns
	▸ Provide information which could assist Councils with the development of planning controls which reduce residential exposure to rail noise
	▸ Invite Council's review of annual SIMP reports and participation in annual SIMP reviews

Community and stakeholder engagement measures

Stakeholders:	**Government and community service organisations**
Strategy	▸ Engagement with Government agencies and community organisations to confirm the detail of mitigation measures for impacts on social infrastructure and develop and implement cooperative arrangements.
Impacts and benefits addressed	▸ Stress, anxiety and mental health ▸ Demands on social infrastructure ▸ Community safety (e.g. traffic safety and emergency service capacity) ▸ Contribution to quality of life and community wellbeing
Timing	**Actions**
Detailed design phase	▸ Provide an update on Project design, EIS findings and the construction program to Department of Education, Queensland Health, DCHDE, QPS, QAS and QFES

	▸ Meet with the Department of Education and all schools identified in the engagement process to:
	  ▸ Describe the construction schedule and the nature of road-rail interface treatments
	  ▸ Identify any concerns regarding changes to road access which may affect students' routes to school or any impacts on road or pedestrian safety, and include relevant actions and accountabilities in the Construction Management TMP
	  ▸ Provide a Project update and explain how construction traffic will be managed
	  ▸ Confirm all relevant school bus services and contact details for their operators, and consult school bus operators about measures to be included in the TMP, including consideration to limiting construction traffic on school bus routes during pick-up and set-down times on school days
	  ▸ Identify any specific considerations (e.g. off-campus activities) which should be considered in the Project's TMP
	  ▸ Confirm Project contact details for the contractor

	▸ Meet with Government agencies to confirm the detail of mitigation measures for impacts on social infrastructure and joint response arrangements with:
	  ▸ Department of Education e.g. with respect to safety measures for construction traffic routes (as above) using school access routes
	  ▸ Queensland Health, e.g. forecasting the workforce ramp-up and agreeing the schedule for communication with the Project
	  ▸ QPS, QAS and QFES, e.g. seeking input to the Emergency Response Plan and progressing agreements for cooperation on emergency responses
	  ▸ DSDSATSIP, e.g. in regard to emerging community needs (e.g. COVID-19 community recovery and monitoring of demands for community support services)
	  ▸ DCHDE, to ensure that they are aware of any support needed by DTMR tenants and have an opportunity to provide input to the AMP

	▸ When the detailed design including road network changes and construction traffic routes are confirmed with DTMR and the two Councils, undertake consultation with all relevant bus operators identified through consultation with Department of Education/DTMR to identify any concerns regarding changes to school bus routes or traffic management, and identify any issues which need to be considered as part of the Project's TMP, e.g. limiting construction traffic on school bus routes during pick-up and set-down times

	▸ Cooperate with DESBT, Department of Education, local high schools and training providers, to:
	  ▸ Develop training pathways for employment in Project construction and operation
	  ▸ Identify young people and groups of young people who could be supported to access training for potential employment in the Project's operations

	▸ Engage proactively with Queensland Health and QPS to ensure they are well informed about the Project and are aware of any additional resources that may be available through the Project to support mental health in affected communities
	▸ Consult QFES in detailing the mitigation measures regarding fire trails, firefighting and a cooperative response to any fire risks affecting the EIS investigation corridor

Community and stakeholder engagement measures	
Detailed design phase (continued)	▸ Confirm arrangements with QPS, QAS and QFES to ensure effective communication and cooperation throughout the construction phase, including measures to mitigate impacts on emergency service response times during construction and operation (e.g. direct communication with construction managers)
	▸ Continue cooperation with DITRDC, DSDSASTIP and CSQ to develop training programs to be delivered through the Inland Rail Skills Academy to equip local people for Project employment
	▸ Maintain mental health partnerships with the Darling Downs and West Moreton PHN and the Brisbane South PHN to support these residents and others who may experience stress and anxiety in relation to the Project and regularly review the resources available and the adequacy of services in relation to Project-related demands on mental health services
Pre-construction phase	▸ Communicate with Queensland Health to ensure hospital and health services are aware of the construction program and workforce ramp up to enable planning for any minor upgrades to services which may be required.
	▸ Ensure all Queensland Government agencies are registered as stakeholders to receive Project updates, fact sheets and newsletters
	▸ Meet with the QPS, QFES and QAS to update advice on the Project's workforce ramp-up, changes to the road network review co-operative arrangements and ensure any safety or service access issues are identified and addressed
	▸ Through consultation with DSDSATSIP prior to construction commencing, and annually during construction, identify any Project-related increase in demand for community services, and if stresses on services are identified, participate in a cooperative response to community needs between DSDSATSIP, ARTC and community organisations
	▸ Consult with Department of Education to confirm their comfort with TMP measures regarding schools in Rosewood and Peak Crossing
	▸ Communicate with all schools, health facilities and community halls and centres in the potentially impacted communities regarding the construction program, and provide regular updates about road closures and roadworks
	▸ Prior to the commencement of Project operations, engage with the PHNs and Queensland Health to gauge the need for any ongoing support for mental health services during the operational period.
	▸ Provide information on train schedules which would help emergency services responders to navigate access arrangements during operations
	▸ Develop tailored and targeted rail and road safety programs for delivery during construction to local schools and communities in the Project region
Construction	▸ Meet with DSDSATSIP prior to construction commencing, and annually during construction, to identify any Project-related increase in demand for community services, and if stresses on services are identified, participate in a cooperative response to community needs between DSDSATSIP, ARTC and community organisations
	▸ Meet with Department of Education, QPS, QFES, QAS, SES and Queensland Health to provide an update on the construction program, road network disruptions, the TMP, anticipated impacts and community engagement mechanisms, and confirm the schedule for meetings with agencies during for the construction phase
	▸ Provide regular (at least six monthly) updates to the Department of Education, QPS, QAS, QFES, SES and Queensland Health on the workforce ramp-up, schedule and location for construction activities, and changes to the road network, and seek feedback on traffic management
	▸ Meet with DCHDE to monitor the effectiveness of the AMP, to a schedule agreed with DCHDE
	▸ Develop a protocol between ARTC and emergency service providers, defining appropriate and coordinated responses and communication in the event of emergencies during operations
	▸ ARTC will establish arrangements with QPS, QAS and QFES to enable cooperative responses to any incidents e.g. rail accidents, road-rail or suicides during rail operation and investigate the need for joint training and response exercises to build capacity for Project-associated incident management during operation

Community and stakeholder engagement measures

Stakeholders:	**Businesses in the SIA study area**
Strategy	▸ Engagement with businesses that may be negatively affected to optimise and monitor impact management measures, and increase local businesses' opportunities for involvement in Project supply arrangements
Impacts addressed	▸ Impacts on nearby event/tourism businesses ▸ Impacts on agricultural businesses ▸ Opportunities to supply the Project
Timing	**Actions**
Detailed design phase	▸ Hold a workshop or other forum with local Chambers of Commerce, DSDILGP, DSDSASTIP and DESBT to discuss gaps in local business' capacity to work with major projects, e.g. safety management, environmental compliance, working with construction management companies, or specific skills, and discuss and confirm responsibilities for capacity building programs, which may include business forums such as 'Meet the Buyer' or 'Procurement Opportunity updates, skills development workshops or training courses
	▸ Liaise with the following stakeholders to locate specific business capacities of relevance to the Project's supply chain for inclusion in the Project's register of potential suppliers: ▸ DITRDC ▸ RDA ▸ ICC ▸ LVRC ▸ Chambers of Commerce in the Ipswich and Lockyer Valley LGAs
	▸ Communicate with agricultural landholders in and adjacent to the Project footprint, in writing, and via meetings on request, to: ▸ Describe the construction schedule and the nature and location of works ▸ Explain the land resumption process to landholders whose properties would be acquired and provide contact details for the Constructing Authority ▸ Explain the result of EIS studies on noise and dust, as relevant to specific holdings or businesses ▸ Describe measures to be considered in the detailed design, construction methodology or CEMP to minimise impacts on the movement of stock and produce, water access, or infrastructure/equipment on agricultural properties and seek feedback ▸ Describe measures which ensure an appropriate level of access is maintained for agricultural businesses across and between properties directly affected by the Project ▸ Propose a schedule for meetings between directly affected landholders and the Project during the pre-construction and construction phases
	▸ Consult (via a business forum or workshop) with tourism-related businesses (e.g. wineries, accommodation facilities, hotels, farm stays, restaurants, cafes and specialty shops) located within 5 km of the Project to: ▸ Explain the Draft Outline Environmental Management Plan TMP and CEMP provisions and accept feedback on measures of relevance to tourism and related businesses ▸ Identify any additional, feasible strategies which would reduce or offset impacts on connectivity or businesses' amenity during construction and/or operation for inclusion in the CMP or TMP ▸ Discuss support for the promotion of local tourism ▸ Share information about opportunities for businesses to supply the Project
	▸ Work with RDA, DSDILGP, DSDSASTIP, ICC, LVRC, the Ipswich Chamber of Commerce, and Lockyer Valley Chamber of Commerce and Industry to encourage relevant supply chain development, especially for Indigenous businesses, including the delivery of workshops and/or online training with businesses aimed at building their capacity for involvement in major project construction and associated services and projects, including communication of pre-qualification requirements

Community and stakeholder engagement measures	
Detailed design phase (continued)	▸ In developing the AMP, consult with the Lockyer Valley Tourism Association and the Ipswich Tourism Operators Network to confirm peak demand periods (noting these may change from year to year in response to major event schedules) and seasonal demands on tourism accommodation, to minimise the potential for the impacts of Project works to affect major events and avoid Project use of accommodation which may displace tourists or event visitors
	▸ Establish consultative arrangements with Lockyer Valley Chamber of Commerce and Industry and Ipswich Chambers of Commerce to support monitoring of any issues identified in relation to labour draw
Pre-construction phase	▸ Cooperate with tourism business owners, Lockyer Valley Tourism Association, Ipswich Tourism Operators Network, ICC and LVRC, to develop and implement a strategy to mitigate impacts on tourism values, which may include support for promotional and marketing campaigns during the construction period and/or support for placemaking projects
	▸ Facilitate the delivery of workshops with businesses including Indigenous businesses aimed at building their capacity for involvement in major project construction and associated services, in Lockyer Valley and Ipswich locations
	▸ Provide regular updates via emails to local and regional businesses to ensure they have access to current information about the Project
	▸ In consultation with landholders, ensure an appropriate level of access is maintained for agricultural businesses across and between properties affected by the Project, and to the roads which link them to markets during the pre-construction period
Construction phase	▸ Maintain regular engagement with landholders and business owners adjacent to the temporary disturbance footprint (at least quarterly during the first year of construction or as agreed with landholders) to monitor the effectiveness of environmental and social impact mitigation measures
	▸ Implement business capacity building programs agreed with RDA, DSDILGP, DSDSASTIP, ICC, LVRC, Ipswich Chamber of Commerce and Lockyer Valley Chamber of Commerce in the detailed design phase, as part of the Inland Rail Skills Academy
	▸ Provide regular Project updates which forecast road works, road realignments and closures, and explain alternative routes, to businesses, agricultural landholders and potentially impacted communities (including residents of rural localities)
	▸ Implement measures agreed with Lockyer Valley Tourism Association, Ipswich Tourist Operators Network and the Ipswich and Lockyer Valley Regional Councils to mitigate impacts on tourism during the construction stage
	▸ Through the Project's CRG, provide feedback to community members on the implementation of proposed measures to reduce the visual impact of rail infrastructure during operation, and seek their feedback
	▸ Promote Government services and programs which are available to businesses considering investment in projects related to Inland Rail

16.11.3 Workforce management

One of ARTC's primary aim is to maximise employment opportunities for residents within the Project region, by:

- Facilitating skills development opportunities through the Inland Rail Skills Academy to build regional capacity in construction and rail operation
- Building partnerships with training providers to strengthen workforce skills in the Project region, and reduce the potential for cumulative impacts to draw labour and skills from other businesses
- Requiring the contractor to employ locally, and to implement workforce training and diversity strategies.

The Australian Jobs Act defines 'local' as including Australian entities. To maximise the Project's benefits in the Project region, ARTC has adopted the following hierarchy for workforce and industry participation strategies:

- Project Area: LGAs which the alignment directly passes through (Ipswich and Lockyer Valley LGAs)
- Region: LGAs outside the Project Area, but within 125 km radius of the Project Area
- Rest of Queensland: All of the State of Queensland other than the Project Area and Region
- Rest of Australia: All of Australia other than Queensland.

The construction contractors will be required to detail the following which will form a key part of the tender evaluation:

- Targets (numbers and percentages) for employment and workforce development by location (i.e. Project Area/LGA) and demographic (e.g. youth and Indigenous employment)
- Training strategies for the construction phase
- Strategies for recruitment and training of personnel from the Scenic Rim and Ipswich LGAs
- Workforce health and safety strategies
- Workforce Code of Conduct.

Table 16.23 summarises workforce management and development objectives, outcomes and actions that will maximise the employment of people from the Project region and Indigenous people in the Project's construction workforce, increase the skills profile of the Project region's labour force, manage workforce behaviour, and minimise impacts on other businesses.

Actions undertaken during the construction phase will also address development of capacity of the local and regional workforce for employment in the operational phase. Management of the Project's operational workforce will be in accordance with training and employment strategies established ARTC and/or the construction contractor.

TABLE 16.23: WORKFORCE MANAGEMENT—CONSTRUCTION

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

Workforce management measures

ARTC Commitments	▸ Require contractors and operators to seek workers from within the SIA study area
	▸ Ensure people in potentially impacted communities have opportunities to access training-related to Project requirements
	▸ Identify and communicate to training partners the skills required in construction, operation and maintenance of Inland Rail
	▸ Endeavor to ensure that the construction contractor encourages employment, training and skills development opportunities by:
	  ▸ Identifying the skills required in the building, construction, equipment and services fabrication and supply, maintenance, operation and support to Inland Rail, for its design, construction, operational and maintenance phases
	  ▸ Arranging timely training and qualification arrangements to meet the needs of skills development to support all phases of Inland Rail
	  ▸ Ensuring that training and qualification systems meet the requirements of the National Standards Framework
	▸ Work closely with local Indigenous communities, DSDILGP, DESBT and DSDSATSIP to strengthen community members' capacity for employment, support the design and delivery of training and development programs and encourage applications for Project-related jobs from Indigenous people
	▸ Provide a clear and efficient process for people to seek information about employment opportunities and register their interest
	▸ Work with key partners to link training and development programs with other projects and local industries to provide the greatest regional benefit
	▸ Work with schools and local training providers to provide appropriate training including STEM initiatives and scholarship for students from potentially impacted communities
	▸ Use of multiple platforms to advertise job opportunities and promote the availability of employment Expression of Interest forms through community forums, newsletters and Inland Rail websites. Work with Queensland Government and Australian Government departments to provide long-term outcomes through training, mentoring and other support programs
	▸ Provide a workplace that is inclusive and values the contributions of Aboriginal and Torres Strait Islander employees.

Measures—detailed design phase	**Local employment**
	▸ Work with CSQ to identify the availability of skills in the Project region and potential shortages in trades and professions that will be required for construction of Inland Rail projects, to inform the development of Inland Rail training and development programs (in progress)
	▸ The construction contractor to develop a workforce management plan to optimise employment of people from the Project region, including:
	  ▸ Proposed strategies for recruitment and training of personnel from the Project region
	  ▸ Training and apprenticeship goals
	  ▸ Youth, female and Indigenous employment goals
	  ▸ Workforce health and safety strategies
	  ▸ Workforce code of conduct and management policies
	  ▸ Local employment register.

Workforce management measures

Measures—detailed design phase (continued)	**Training and development** ▸ Consult with employment support and training providers in the SIA study area to identify people with relevant qualifications, experience and aptitudes, and identify and address gaps in their readiness for work as part of the Project's construction phase ▸ Continue to consult with DESBT to identify opportunities to align Inland Rail's workforce training and development initiatives with the Queensland Government's jobs, skills and workforce diversity programs ▸ Continue to consult with ICC and LVRC Regional Skills Investment Strategy (RSIS) coordinators and economic development teams to identify opportunities to align Inland Rail's workforce training and development initiatives with RSIS projects in the SIA study area, including cross-over skills between construction training and RSIS priorities, and utilisation of the SQW program ▸ Work with DITRDC, DSDSATSIP, Department of Education, Registered Training Organisations and CSQ to develop training programs to be delivered through the Inland Rail Skills Academy to equip local people for employment in Project construction and operation ▸ Commence implementation of Inland Rail Skills Academy programs. **Indigenous employment** ▸ Work with Yuggera Ugarapul People, DSDSATSIP and Indigenous training and employment service providers to develop employment and training strategies for Indigenous job seekers to be delivered through the Inland Rail Skills Academy ▸ Consult local state high schools to identify Indigenous young people who may be interested in Inland Rail training and employment opportunities and support their access to training ▸ Require contractors to specify and meet Indigenous employment goals ▸ Facilitate a meeting between Yuggera Ugarapul People and DSDSATSIP to discuss the Project and assistance available for business capacity and training programs (complete) ▸ Consult with Yuggera Ugarapul People, CSQ, DSDSATSIP and training providers, ICC and LVRC to identify potential opportunities for early skilling programs for Indigenous workers and implement the Indigenous 'skills for rail' training program with ICC ▸ Enable meetings between Yuggera Ugarapul People and the Contractor to discuss targeted initiatives such as training and mentorship for Indigenous workers. **Employment in other industries** ▸ Work with agricultural and other business owners to refine design and construction planning measures aimed at minimising any impacts on productivity or employment (refer Section 8.6 of Appendix Q: Social Impact Assessment Technical Report) ▸ Implement measures agreed with directly affected and adjacent landholders to reduce potential impacts on farm productivity which may otherwise affect the availability of agricultural employment ▸ Consult with LVRC and businesses in Gatton and Forest Hill regarding CEMP and TMP measures that address impacts on pedestrian and vehicular access to businesses and refine measures in response to their feedback. **Workforce behaviour** ▸ The Contractor to develop a workforce code of conduct aligned with ARTC's expectations ▸ Review the construction contractor's workforce code of conduct to ensure it reflects SIMP commitments regarding respectful and positive behaviours by Project personnel.

Workforce management measures

Measures—pre-construction phase	**Local employment** ▸ The workforce management plan will be implemented by the construction contractor and its delivery monitored by ARTC ▸ Provide information to Project region residents (including those without internet access) regarding the construction timeframe, employment opportunities and how to express interest in employment, contracting or supply opportunities ▸ Consult with employment support and training providers to identify local people with relevant qualifications and experience, and develop training strategies to address gaps in their readiness for work as part of the Project's construction phase ▸ Establish a Local Employment Register to track and monitor participation in construction employment by people from the SIA study area, including identification of Indigenous personnel, with their agreement. **Training and development** ▸ In response to CSQ analysis of labour and skills availability, refine local and regional recruitment and training strategies ▸ In partnership with DITRDC and Inland Rail Skills Academy, deliver training programs which equip local and Indigenous people for construction and operational employment ▸ Implement training and development initiatives as part of the Inland Rail Skills Academy that will increase workforce skills applicable to other industries in the region e.g. agriculture ▸ Implement Indigenous training and skills development programs agreed with traditional owner groups as part of the Inland Rail Skills Academy and/or as part of the construction contractor's delivery plans. ▸ The construction contractor will develop and implement training and apprenticeship programs in accordance with its workforce management plan, which will be approved by ARTC. **Workforce behaviour** ▸ Require all Project personnel to comply with the construction contractor's approved Workforce Code of Conduct, complemented by complaints mechanisms that ensure fast and effective resolution to any issues experienced ▸ Implement authorisation procedures and means of identification for personnel accessing private property.
Measures—construction phase	**Local and Indigenous employment** ▸ Use (and require construction contractor to use) multiple platforms to advertise job opportunities, and promote the availability of employment, including Expression of Interest forms, community forums, newsletters and websites ▸ Monitor delivery of the construction contractor's workforce management plan, including requirements for the construction contractor to report on employment participation and initiatives for Indigenous people, women, people under 25 years and residents from the Project region, and require corrective actions (e.g. improved local training and recruitment strategies) if targets are not being met ▸ Require Contractor to maintain a Local Employment Register ▸ Implement Indigenous training and skills development programs agreed with traditional owner groups as part of the Inland Rail Skills Academy and/or as part of the construction contractor's delivery plans ▸ Ensure local businesses are aware of Project opportunities.

Workforce management measures	
Measures—construction phase (continued)	**Training and development** ▸ Implementation of Inland Rail Skills Academy partnerships and programs including programs agreed with Councils that align with RSIS priorities and support SQW programs ▸ Continue to implement training programs and partnerships to equip local and Indigenous people for construction employment as part of the Inland Rail Skills Academy and/or as part of the Contractor's delivery plans ▸ Consult with high schools and training providers in the SIA study area to identify training pathways and develop programs that will support local people to obtain employment in the Project's operations ▸ Consult with QR about potential for a partnership to support training programs that equip local people for employment in Project operations. **Employment in other industries** ▸ Monitor Inland Rail projects' workforce ramp-up and the proportion of Project personnel drawn from within the Project region ▸ Consult with local governments and Chambers of Commerce regarding any pressures they identify on local labour availability ▸ Monitor baseline data on vacancies in the tourism and agricultural sectors annually ▸ If the Project is contributing to cumulative pressures on labour availability, ARTC will engage with the construction contractor to refine the Project's recruitment and training strategies ▸ Maintain support for training programs that equip local people for construction employment. **Workforce management** ▸ Require all Project personnel to comply with the construction contractor's approved workforce Code of Conduct, complemented by complaints mechanisms that ensure fast and effective resolution to any issues experienced ▸ Require the contractor to report on implementation of and compliance with the Code of Conduct ▸ Implement authorisation procedures and means of identification for personnel accessing private property.

16.11.4 Housing and accommodation

ARTC has developed program-wide accommodation principles for use when developing, selecting and deploying accommodation solutions, to support three desired outcomes:

- Accommodation solutions minimise negative social and economic impacts to potentially impacted communities
- Potentially impacted communities are consulted on accommodation solutions prior to them being decided
- Accommodation solutions contribute social and economic value to potentially impacted communities.

ARTC will require the construction contractor to provide an Accommodation Management Plan (AMP) for ARTC's approval. The AMP will provide details of how non-local workers will be accommodated, and how ARTC's program-wide accommodation principles will be addressed.

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

Objectives, outcomes and measures that will support achievement of ARTC's accommodation principles are outlined in Table 16.24.

TABLE 16.24: HOUSING AND ACCOMMODATION

Housing and accommodation measures	
Objective	▸ Avoid impacts on access to housing and accommodation in the Project region ▸ Manage workforce accommodation demands to avoid displacement of tourists from accommodation in the Ipswich and Lockyer Valley LGAs ▸ Minimise potential for impacts on property values due to impacts on amenity or perceptions about Project impacts ▸ Accommodation providers in the Project region benefit from any project requirements for workforce accommodation
Outcomes	▸ Rental housing vacancy rates are not affected by Project demands ▸ DTMR tenants who would relocate are supported to find suitable housing ▸ Access to seasonal workers' accommodation is maintained ▸ Tourists and event visitors are not displaced from tourism accommodation due to Project demands ▸ Inland Rail projects' cumulative demands for housing and accommodation are monitored, and management measures put in place if cumulative impacts appear likely
ARTC Commitments	▸ ARTC will require the contractor to provide an AMP which addresses Inland Rail's program-wide accommodation principles ▸ Accommodation solutions contribute social and economic value to potentially impacted communities ▸ The Project will seek to maximise local employment to limit any demands on housing and accommodation in the Project region ▸ ARTC will implement is program-wide accommodation principles for the Project ▸ ARTC will require the Contractor to provide, implement and report on an Accommodation Management Plan ▸ If monitoring data indicates a decrease in rental vacancy rates or the availability of short-term accommodation to tourists in the Project region to which the Project is contributing, ARTC will require refinement of the AMP to minimise negative social impacts to potentially impacted communities ▸ ARTC will not seek to register new vacant residential lots as part of the Project, and will communicate ICC concerns on this issue to the Constructing Authority

Measures—detailed design phase	**Affordable housing access**
	▸ Work with DTMR and DCHDE to develop and implement a joint work program between DTMR/DCHDE and ARTC/the Contractor to support DTMR tenants and landowners who would need to relocate (refer Appendix Q: Social Impact Assessment Technical Report, Section 8.4.1)
	▸ Consult with ICC and LVRC to discuss the scope of the AMP and identify any issues which will need to be considered in planning for workforce accommodation
	▸ Require, review and approve the Contractor's AMP
	▸ Communicate with ICC and LVRC about EIS results of relevance to rail operations (e.g. noise impacts and road network operation) to support their consideration of any development control measures required to protect the amenity and liveability of residents in areas which are planned for future urban growth
	Impacts on access to housing or short term accommodation
	▸ The contractor will provide an AMP which will include:
	  ▸ Alignment with ARTC's program-wide accommodation principles
	  ▸ Identification of the number of personnel who could require short term accommodation or temporary housing and the duration of need
	  ▸ The results of consultation with Councils, short-term accommodation providers in the Project region and peak tourism associations in the Project region. This consultation will consider the likely availability of accommodation at the time the construction workforce is planned to commence and peak
	  ▸ Accommodation solutions identified in consultation with ICC, LVRC and tourism networks

Housing and accommodation measures

Measures—detailed design phase [continued]

- Measures to avoid impacts on the availability of rental housing and short term accommodation including a short-term accommodation register which identifies accommodation options in the Ipswich, Lockyer Valley and Toowoomba LGAs with sufficient capacity and peak occupancy periods (i.e. high tourist periods) and would be developed in consultation with the two Councils and accommodation providers
- Measures to avoid impacts on low income households including avoiding use of caravan parks and mobile home parks in the Project region
- Measures to enable local accommodation providers to benefit from Project accommodation arrangements
- Mechanisms to monitor:
  - the number and percentage of the Project's workforce requiring accommodation
  - the type of accommodation being used
  - the number of people being accommodated in the Project region each month
  - rental vacancy rates in potentially impacted communities
  - any strains on local rental housing stock or short term accommodation providers' capacity to service tourists

- Engage with the Lockyer Hotel and Forest Hill Hotel in Forest Hill, and the Royal Hotel and Commercial Hotel in Gatton, to:
  - Identify the need for property-specific mitigation measures to minimise noise and dust impacts on amenity and ensure vehicle and pedestrian access to the hotels is maintained during construction
  - Identify their capacity to accommodate Project personnel if accommodation is required
  - Monitor Project demands to ensure the hotels' tourist trade is not crowded out by workforce demands

Property values

- Consider landowners' feedback regarding mitigation of impacts on properties in the development of the detailed design and CEMP
- Compensation for acquisition of legal interests in property will be provided in accordance with the AL Act
- Provide early advice and sufficient detail about volumetric tenure and tunnelling works to landowners with properties directly above the Little Liverpool Range tunnel and establish communication between them and the Contractor when necessary

Seasonal workers' accommodation

- Engage with the Gatton Caravan Park's owner to discuss the detailed design and confirm the schedule for implementation of management measures agreed as part of the caravan park social impact assessment to address:
  - Noise e.g. through temporary hoardings, and locating noisy plant and car parking areas as far as possible from the accommodation units
  - Dust e.g. additional dust suppression measures if dust generation is affecting the caravan park
  - Impacts on scenic amenity e.g. using hoardings to screen construction works from the park, or landscaping
  - Pedestrian and cycle access e.g. through creation of a temporary pathway during construction
  - Vehicle access e.g. through relocating the park's entry
  - Design for transmission noise control (if required and agreed) to reduce operational noise impacts on the caravan park
  - Land acquisition which could decrease the park's capacity
- Confirm management measures which will avoid or minimise impacts on affordable accommodation capacity within Gatton Caravan Park for commencement where possible during the detailed design phase
- Consult with the owner of the Homestyle Lodge in Gatton to identify any mitigation measures required in respect to potential noise exceedances during operation

Housing and accommodation measures

Measures—pre-construction phase	**Housing and accommodation access**
	- The Contractor will implement the AMP as relevant to the pre-construction phase
	- The Contractor will review and if necessary, update the number of non-local personnel that are expected to be required over the duration of the construction period
	- The AMP will include monitoring mechanisms to identify any strains on local rental housing stock, including consultation with Council, and short-term accommodation providers' capacity to service tourists, as indicated by consultation with local tourism associations
	- ARTC will monitor the implementation of the AMP and report on the outcomes to ARTC quarterly
	- If any strains on housing or accommodation as a result of the Project are identified, ARTC will work with the contractor to refine the AMP which may include alternative training, recruitment or accommodation strategies
	Seasonal workers' accommodation
	- Implement mitigation measures to reduce construction impacts on Gatton Caravan Park and potential construction noise exceedances on the Homestyle Lodge, as relevant to the pre-construction phase
	- If partial acquisition within the Gatton Caravan Park is confirmed, progress implementation of measures (e.g. land swap to allow park expansion, reconfiguration and redevelopment of the Caravan Park to increase capacity, or partnership with alternative short-term accommodation providers) to minimise the loss of capacity of affordable accommodation
	- If it is agreed that full acquisition of the Gatton Caravan Park is required:
	  - Cooperate with the caravan park's owner to identify alternative sites for the caravan park in the Gatton area or nearby
	  - Provide funding to Laidley Crisis Care and Accommodation (or alternative housing support) to assist any long-term residents to obtain alternative accommodation
	  - Provide information to nearby businesses which may be dependent on park visitors' trade (e.g. the laundromat, bike repair shop and the BP service station) regarding the timing and extent of any reduction in capacity or loss of the caravan park
	  - Provide information to enable alternative accommodation providers (e.g. Grantham Farmworkers Lodge) to progress expansion plans, at the discretion of the relevant accommodation providers
	  - Provide information to farms and agribusinesses regarding any loss of accommodation within the caravan park, and accommodation alternatives for seasonal workers
	  - Initiate measures (e.g. land swap to enable relocation of the caravan park or partnership with short term accommodation providers) to mitigate the loss of affordable accommodation
	Property values
	- Cooperate with landowners (as per Appendix Q: Social Impact Assessment Technical Report, Section 8.2.7) to reduce impacts on the amenity of directly affected and adjacent properties
	- Communicate ARTC's commitments to environmental management, and EIS approval conditions, to local and regional community members, to reduce the likelihood of negative perceptions about the amenity of properties in or near the EIS investigation corridor
	Avoid creation of new lots
	- In finalising property acquisition and subdivision arrangements, ARTC will not seek to register new residential lots

Housing and accommodation measures	

Measures—construction phase	**Housing and accommodation availability**
	▸ The Contractor will implement the AMP, which will include:
	  ▸ Minimising the use of rental housing in potentially impacted communities
	  ▸ Monitoring the number of people being accommodated in the Project region each month and the type of accommodation being used
	  ▸ Monitoring cumulative demands on short-term accommodation to avoid displacing visitors to major events or during seasonal peaks, including consultation with accommodation providers and Councils
	  ▸ Avoiding use of caravan parks and mobile home parks in the Project region
	▸ ARTC will monitor the implementation and outcomes of the AMP to identify any strains on:
	  ▸ Local rental housing stock (as indicated by trends in rental vacancy rates in the relevant postcodes)
	  ▸ Short-term accommodation providers' capacity to service tourists, as indicated by consultation with local tourism associations
	▸ ARTC will monitor the cumulative accommodation/housing demands of Inland Rail projects. If any strains on rental housing availability or short-term accommodation are identified, ARTC will work with the Contractor to refine the AMP
	▸ The delivery and outcomes of the AMP will be reported as part of the Project's SIMP reports.
	Seasonal workers' accommodation
	▸ Implement mitigation measures to reduce construction impacts on Gatton Caravan Park and potential construction noise exceedances on the Homestyle Lodge
	▸ Implement measures identified as necessary during the construction phase to maintain the availability of seasonal worker accommodation in the Lockyer Valley
	▸ Implement the noise mitigation measures agreed with respect to operational noise with respect to Gatton Caravan Park

16.11.5 Health and community wellbeing

The Project's EIS period has involved stress and anxiety for some stakeholders, and there is potential for property acquisitions, concerns about amenity and environmental changes to affect community wellbeing in areas closest to the Project.

The Project will contribute to Inland Rail's social and economic benefits, which will be experienced at local, regional and national levels. The benefits of employment and local business participation in the supply chain are also likely to be experienced by some residents of nearby communities.

ARTC has established the Inland Rail Community Sponsorships and Donations Program. The purpose of the funding program is to support non-profit organisations, community groups, Aboriginal land councils, traditional owner groups, and local government entities with projects, events, and activities that will help achieve community and regional prosperity and sustainability. Eligible groups can apply for amounts between $1,000 and $4,000 for one-off, short-term projects or activities with a focus on the priority areas of culture, safety, environment, recreation and entrepreneurism.

During the pre-approval and post-approval periods, ARTC will continue to engage with local stakeholders including LVRC, ICC, Queensland Health, landholders, community groups and local service providers, to identify cooperative actions to be implemented during the construction phase to address emerging or changing community needs and manage and enhance community health and wellbeing (refer Appendix Q: Social Impact Assessment Technical Report).

During the detailed design phase, the Project will prepare a Community Wellbeing Plan to provide a framework for cooperation with key stakeholders to implement mitigation measures addressing impacts on quality of life as the result of Project impacts on amenity, character, cohesion or connectivity. The Plan will include:

- Initiatives to upgrade community facilities
- Placemaking initiatives to offset impacts on local character e.g., interpretive signage, treatment of temporary hoardings, park or streetscape upgrades, and/or supporting rural localities and towns to upgrade their entrance statements
- Providing funding through partnerships with SSRC and ICC for initiatives which strengthen sense of place e.g. park development or streetscape improvements

- Projects which support community cohesion and resilience, e.g. community events, arts and cultural programs, or skills training for volunteers and community organisations
- Supplementation of local services to address any increase in demand for individual and community support services as a result of the Project
- Cooperation with QAS, QPS, QFES, SES and Local Disaster Management Groups with respect to day-to-day demands on police and emergency services, and emergency response and recovery arrangements
- Consultative arrangements with key stakeholders to support implementation and monitoring
- Responsibilities for implementation.

Implementation of the Community Wellbeing Plan will commence during the pre-construction phase and be maintained during the construction phase. Progress on the implementation of the Community Wellbeing Plan will be reported to the CRG at each meeting, and annual monitoring of the Plan's outcomes will be included as part of the annual review of the SIMP.

Table 16.25 provides management measures that are designed to mitigate impacts on community health and wellbeing.

TABLE 16.25: HEALTH AND WELLBEING

Health and wellbeing measures	
Objectives	▸ Avoid and minimise impacts which may affect community wellbeing including mental health ▸ Mitigate potential impacts on health and emergency services ▸ Mitigate impacts on the amenity of schools, community facilities and parks
Outcomes	▸ Changes in the amenity of residential properties and community facilities and the potential for noise to disturb sleep are minimised in accordance with the Project's approval conditions and where relevant, agreements with affected property owners ▸ Vulnerable residents who need to relocate are supported to adapt to changes ▸ Mental health and community support services are accessible to people in potentially impacted communities and are adequate to any increased demand resulting from the Project ▸ Impacts on the amenity of community facilities are minimised ▸ Provision of information on workforce ramp-up and the construction program enables Government agencies to plan for increased demands for health, police and emergency services ▸ The wellbeing of residents in the Project region is supported by access to community programs and events which enable community participation and Project cooperation in initiatives to support community wellbeing
ARTC Commitments	▸ Maintain a focus on creating a safe environment for all and supporting community wellbeing during the changes that Inland Rail will bring ▸ Identify impacts and opportunities that have the potential to impact community wellbeing and, in consultation with the local community, develop appropriate programs or initiatives to address these impacts and opportunities ▸ Implement ARTC's Community Sponsorship and Donation Program ▸ Identify opportunities and develop programs to improve safety outcomes for local communities ▸ Continue a mental health partnership with an appropriate provider at a program level, which will include a tailored focus on potentially impacted communities ▸ Ensure ongoing engagement with Indigenous communities, families and Elders to support Indigenous employees, underpinned by a high level of coordination between contributing programs and agencies

Health and wellbeing measures

Measures—detailed design phase

Mental health

- In cooperation with Yuggera Ugarapul People, conduct cultural awareness tours for Project teams to build awareness and knowledge of cultural significant aspects of the local area
- Ensure a detailed focus on protecting residents' amenity in the Project's CEMP, referencing property-specific interface agreements and draft Outline EMP and SIMP recommendations where relevant
- Provide community liaison staff to:
  - Develop partnerships with DTMR/DCHDE and/or community organisations who can assist displaced residents to access alternative accommodation and support services
  - Work with residents whose properties would be acquired to provide Project information, ensure their concerns are considered in Project planning, and provide referral to support services where required
  - Identify households where environmental changes, property severance or other impacts may cause distress to residents, ensure their access to communication and complaints mechanisms, and provide referral to support services where required
  - Ensure a coordinated response between ARTC, Queensland Health and local health service providers in relation to mental health issues in potentially impacted communities

Community wellbeing

- Consult with DSDSATSIP to identify any Project-related stresses on local services, to enable a cooperative response to Project-related community needs between DSDSATSIP, ARTC and community organisations
- Develop a Community Wellbeing Plan in consultation with LVRC, ICC, DSDSATSIP, PHNs and Queensland Health (refer Appendix Q: Social Impact Assessment Technical Report, Section 8.5.2)
- Conduct meetings or workshops with community organisations and outreach services based in Ipswich, Toowoomba and Lockyer Valley regarding:
  - Changes to the road network and amenity of community facilities during construction
  - Measures to support increased service capacity if consultations with community organisations and DSDSATSIP indicates Project-related demands or Project impacts are impacting on service capacity
  - Community investment priorities and initiatives
- Develop an incident notification and reporting process, including providing information to the community

Community facilities

- Engage with Department of Education, school principals (public and private) and P&Cs in Calvert, Gatton, Forest Hill, Grandchester and Laidley to:
  - Explain the EIS findings and identify any concerns regarding changes to bus routes, pedestrian routes, construction traffic routes, road access or the amenity of schools and grounds
  - Outline the construction schedule and the nature of road-rail interface treatments
  - Confirm all relevant school bus services and contact details for their operators, in order to provide appropriate information to school bus operators to allow them to minimise bus timetable disruptions and potentially improve coordination of timetables
  - Identify any specific considerations (e.g. off-campus activities) to will be considered in the Project's CEMP
  - Identify traffic and pedestrian safety measures including provision of a safe pedestrian access between the town of Grandchester and the school and management measures applying to construction traffic
  - Refine the CEMP, RUMP and TMP provisions as relevant to schools and school bus routes e.g. avoidance of school access routes during peak transport/drop off/pick up periods
  - Identify the location of planned new schools which may need to be consideration in the CEMP
- Engage with Department of Education to agree mitigation measures (e.g. mechanical ventilation and/or or fencing upgrades) to avoid operational noise exceedances at the Forest Hill State School and Grandchester State School
- Engage with the LVRC, ICC and the owners/managers of all community facilities (e.g. churches, childcare centres, aged and disability services and recreational facilities) identified in Section 16.10.3 to:

Measures—detailed design phase [continued]	▸ Explain the EIS findings on construction and operational noise and seek facility managers' feedback on how noise or access disruptions could affect facility operation ▸ Identify facilities' specific needs (e.g. Department of Education and Queensland Health policies and guidelines, church service and memorial event times when impacts need to be minimised and community events schedules) ▸ Identify any feasible measures which will reduce the impacts of construction noise or impediments to car/pedestrian access ▸ Identify community facility upgrades which ARTC could support to offset impacts on amenity and access during the construction phase ▸ Plan for the implementation of mitigation measures for noise and access impacts during the pre-construction and construction phases ▸ Investigate the opportunity to secure additional surface water storage for the Golf Club as part of the Project's detailed design ▸ Include consideration of the Gatton Bowls' Club's access requirements as part of the detailed design i.e. provision of alternative road access arrangements if required, and provision of alternative parking spaces if the QR land was no longer available. **Health and emergency services** ▸ Advise the Darling Downs West Moreton HHS regarding the workforce ramp-up to enable them to plan for any anticipated changes to health service needs ▸ Consult with Darling Downs West Moreton HHS regarding any specific traffic management measures required to minimise the potential for traffic congestion to affect Gatton Hospital's access e.g. minimising Project traffic in town during school drop-off and pick up times ▸ Engage with QPS, QAS QFES, Lockyer Valley and Ipswich SES Disaster Management coordinators to enable cooperation including: ▸ Consultation on the Project's emergency response plan and procedures ▸ Development of emergency response protocols ▸ Provision of information about dangerous goods transport e.g. in the rail tunnel ▸ Planning for orientation of QPS, QAS and QFES personnel to the Project and key construction sites ▸ Development of measures which mitigate impacts on emergency service response times during construction and operation ▸ Confirm cooperative response to any fire risks affecting the EIS investigation corridor ▸ Ensure access routes are communicated and agreed, including alternative routes during extreme events such as during flooding or bushfires
Measures—pre-construction phase	**Mental health** ▸ Implement actions agreed in property acquisition and access arrangements ▸ Consult with landowners and residents who may experience construction noise exceedances to confirm mitigation ▸ Fund provision of locally-based community development programs to work with residents in and near the EIS investigation corridor and in potentially impacted communities, to: ▸ Build their capacity to cope with Project-related changes to connectivity, sense of place or community cohesion. ▸ Position local businesses to participate in the Project's supply chain ▸ Identify and implement community events, activities, networks and services ▸ To reduce anxieties about flood risks, ARTC will: ▸ Continue to work with landowners concerned with hydrology and flooding throughout the detailed design, construction and operational phases of the Project ▸ Continue to work with directly impacted landowners affected by the alignment throughout the detailed design, construction and operational phases of the Project ▸ Continue to work with local Councils, and State departments with responsibility for flood prevention and management. **Community wellbeing** ▸ Implement the Community Wellbeing Plan as relevant to the pre-construction phase.

Health and wellbeing measures

Measures—pre-construction phase [continued]

Community facilities and services

- Implement mitigation measures agreed with community facilities' managing authorities during the pre-construction phase
- Update advice on workforce ramp-up to QPS, QAS, QFES and Queensland Health
- Consult with DCHDE to identify any existing service shortfalls and monitor any increases in service demands resulting from the Project, to enable cooperative solutions to address any strain on services resulting from the Project
- Implement the partnerships and initiatives agreed with LVRC, ICC and local communities during the detailed design phase, as relevant to the pre-construction phase, including:
  - Modifications and/or enhancements to community facilities/parks
  - Initiatives to reduce or offset impacts on the character and amenity of local towns
- Promote the Inland Rail Community Sponsorships and Donations Program to local communities

Community safety

- Continue to work with landowners concerned with hydrology and flooding, local Councils, State departments and local flood specialists in the development of flood mitigation design and/or management measures
- Engage with the Lockyer Multicultural Association regarding any need to translate or otherwise directly communicate ARTC's safety information to residents with low English proficiency, and/or or short-term residents with a lack of familiarity with rail networks
- Ensure safety awareness program provides clear and appropriate information about rail, pedestrian and cycle safety to children, young people, people with disability, people without internet access and people with limited or no English skills
- Maintain regular engagement with the Department of Education and all schools in Calvert, Gatton, Forest Hill, Grandchester and Laidley to provide updates on the construction schedule and roadworks, and confirm Project contact details for the construction period
- Commence implementation of communication strategies to:
  - Ensure stakeholders know about the Project's construction traffic routes and the location of Project construction sites where traffic delays may occur
  - Communicate the Project's road safety management measures
  - Promote safe driving behaviour
  - Promote the Project's workforce conduct policies, and how to contact the Project staff in the event of any concern
- Require the Contractor to ensure that specific advice is provided to construction personnel and transport operators regarding roads to be used, the standard of driving behaviour required, fatigue management, and the sanctions for driving behaviour that is not in accordance with the Project's standards in the Workforce Code of Conduct

Health and emergency services

- Provide early advice to Queensland Health, QPS, QAS and QFES on the Project's workforce ramp-up and offer site orientation for local police
- Require contractors to have adequately trained first aid/paramedic staff to assist in the promotion of workplace health, wellness and safety, and treatment of personnel's minor injuries and health issues
- Maintain engagement and cooperative measures as agreed during the detailed design/pre-construction phases

Measures—construction phase

Mental health

- Provide timely information about environmental changes such as demolition of dwellings within the EIS investigation corridor, road re-alignments and activities which will cause noise
- Provide additional support for mental health services if the PHN identifies Project-related need for increased mental health services
- Fund provision of agreed community development programs to address impacts on community facilities
- Implement partnerships with ICC and LVRC (refer Appendix Q: Social Impact Assessment Technical Report, Sections 8.5.3 and 8.5.4)
- Provide support for provision of increased mental health services if the Darling Downs and West Moreton PHN identifies the need in relation to Project impacts

Measures—construction phase [continued]

Community wellbeing

- Provide support for Lifeline's Community Connection program to help build community cohesion and resilience, for a term agreed with the PHNs and Lifeline
- Implement the Community Wellbeing Plan
- Monitor the implementation and effectiveness of the Community Wellbeing Plan
- Review and where necessary revise measures included in the Community Wellbeing Plan in response to monitoring of its effectiveness, which will include consultation with ICC, LVRC, PHNs and the Project's CRG

Community facilities and services

- Implement mitigation agreed with community facilities' managing authorities
- Update advice on workforce ramp-up to QPS, QAS, QFES and Queensland Health
- Promote the Inland Rail Community Sponsorships and Donations Program to local communities
- Consult with DCHDE on an annual basis to identify any Project-related stresses on local services, to enable a cooperative response to Project-related community needs between DCHDE, ARTC and community organisations
- Maintain support for community or government organisations that are providing support services for directly affected households

Health and emergency services

- Employ paramedics to service Project construction sites
- Hold regular meetings with Queensland Health, QPS, QAS and QFES services to update advice on the Project's workforce ramp-up, review co-operative arrangements, provide advice on major equipment movements, and ensure any safety or service access issues are identified and addressed
- Develop a protocol between ARTC/Contractor and emergency service providers, defining appropriate and coordinated responses and communication in the event of emergencies during operations
- Provide regular notifications to QPS, QAS, QFES and SES of changes to the road network and of construction activities prior to construction commencing Develop joint training and response exercises with QPS, QAS and QFES to build capacity for Project-associated incident management

Community safety

- Implement workforce fatigue management procedures including in relation to travel
- Implement communication strategies to ensure stakeholders know about construction traffic routes, peak construction periods, the Project's workforce conduct policies, and how to contact Project personnel in the event of any concerns during construction
- Require Contractor to implement mitigation measures with respect to managing impacts on amenity, privacy and community values (e.g. Code of Conduct and management of noise)
- Monitor the Contractor's implementation of the Workforce Code of Conduct and require revisions to workforce management measures if community complaints identify any safety or noise issues related to Project personnel
- Ensure safety awareness program provides clear and appropriate information about rail, pedestrian and cycle safety to children, young people, people with disability, people without internet access and people with limited or no English skills
- Implement an Operations Communication and Education Plan prior to the commencement of operations to provide information about Inland Rail operations and safety. This will include general community information and education, and targeted rail and road safety programs for delivery to:
  - Local schools and childcare centres
  - UQ Gatton Campus
  - Seasonal workers
  - Seniors and people with disability
  - Communities in the SIA study area.

16.11.6 Local business and industry participation

This section addresses impacts on nearby businesses, grazing properties and tourism, and describes ARTC's commitments to ensuring that local and regional businesses benefit from the Project.

The Project's alignment avoids direct impacts on local business centres. Businesses that are near the footprint where amenity could be affected, or road access disrupted during construction include agricultural and tourism businesses.

ARTC is working with directly affected landholders to develop and implement property-specific measures to mitigate impacts on properties and will also work with stakeholders to develop strategies to address any potential impacts on tourism visitation during construction.

ARTC is committed to providing full, fair and reasonable opportunities for capable local and Indigenous businesses to compete and participate in the Project's supply chain.

The Inland Rail Program is subject to the Australian Jobs Act 2013 (Cth) requirement to develop an Australian Industry Participation (AIP) Plan. This plan identifies how ARTC and its supply chain will provide Australian entities with full, fair and reasonable opportunity to bid for the supply of key goods or services and is discussed further in Appendix Q: Social Impact Assessment Technical Report.

ARTC is working with Government agencies and local business groups to develop partnerships and programs for local business capacity building and is committed to ensuring that local and Indigenous businesses, including those located in the Project region, are identified and supported to engage in the Project's supply chain. Inland Rail will include local and Indigenous content criteria and clauses in Project procurement processes and contract documents. The Project will report on supplier participation including for businesses within the Lockyer Valley and Ipswich LGAs and businesses located within 125 km of the Project. Indigenous business participation will also be tracked and reported as part of the SIMP annual review report.

Inland Rail will also implement its Sustainable Procurement Policy for the Project, providing details on opportunities, outcomes and strategies for local and Indigenous business participation in the Project's construction and operations phases.

Table 16.26 provides the objectives, outcomes, recommendations and management measures for mitigation of impacts on businesses, and measures for ensuring local and Indigenous business participation in the Project.

TABLE 16.26: LOCAL BUSINESS AND INDUSTRY

Local business and industry participation measures	
Objective	▸ Minimise impacts on farming, agribusinesses, tourism businesses and businesses in town centres ▸ Create local business awareness about supply opportunities and registration and contracting processes for the Project and build relationships with local businesses to support their involvement in the Project ▸ Provide a framework to ensure that local, regional and Indigenous businesses are provided full, fair and reasonable opportunity to participate in the supply of goods and services on Inland Rail, and integrate this framework into construction tender requirements and contracts
Outcomes	▸ Impacts on businesses including farms and grazing operations are minimised through the implementation of measures outlined in EIS Chapter 23: Draft Outline Environmental Management Plan in cooperation with landowners and business owners ▸ Businesses in the SIA study area benefit from supply opportunities ▸ The Project engages Indigenous businesses in its construction phase and supports Indigenous businesses to develop capacities for supply to the Project's operation and/or other construction projects ▸ Impacts on tourism visitation are minimised ▸ Any cumulative labour draw impacts on local business are identified to enable refinements to recruitment or training strategies

Local business and industry participation measures

ARTC commitments	▸ Inland Rail's AIP Plan and Sustainable Procurement Policy will be implemented for the Project
	▸ The Project will support Indigenous businesses to ensure they are prepared for and provided with opportunities to participate
	▸ Indigenous participation and local participation will be included as key elements of construction tender assessments and ARTC work closely with contractors to achieve agreed outcomes
	▸ The Project will maintain access to services and businesses during construction. Where alternative access arrangements are required, these will be developed in consultation with relevant landowners/occupants
	▸ ARTC will work with key partners to link training and development programs with other projects and local industries to provide the greatest regional benefit
	▸ ARTC will work with DESBT, DITRDC, DSDSATSIP and local and Indigenous businesses to:
	  ▸ Build businesses' capacity to participate in the Project's supply chain through business development, mentoring and pre-qualification projects
	  ▸ Support Indigenous businesses to ensure they are prepared for and provided with opportunities to participate
	  ▸ Provide a clear and efficient process for businesses to seek information about opportunities and register their interest
	▸ Work with key partners to link training and development programs with other projects and local industries to provide the greatest regional benefit

Measures—detailed design phase	**Farms and grazing operations**
	▸ Complete property-specific interface agreements and work with directly affected landowners to develop cooperative strategies which will reduce impacts on grazing, cropping businesses or other agribusinesses, which may include, as relevant:
	  ▸ Property access and communication protocols
	  ▸ Design measures to mitigate impacts on groundwater bores, fences, stock/product movements or water access
	  ▸ Surface and/or groundwater management
	  ▸ Erosion control
	  ▸ Noise and vibration mitigation
	  ▸ Weed and pest management
	▸ In consultation with landowners adjacent to the disturbance footprint, ensure an appropriate level of access is maintained for agricultural businesses across and between properties affected by the Project, and to the roads which link them to markets
	▸ Consult with directly affected farm owners and graziers to identify the need for rural adjustment services (e.g. as facilitated by cooperation with the Queensland Rural and Industry Development Authority to be provided to affected landowners)
	▸ Provide community liaison staff with local knowledge to work with landowners who are directly affected by or adjacent to the disturbance footprint to address property-specific impacts and where necessary, referral to services which can assist their adjustment to new circumstances.
	Town centre businesses
	▸ With the detailed design as a basis, consult with town centre businesses and tourism businesses to develop a shared understanding of how the Project will affect local businesses and agree measures as appropriate which may include:
	  ▸ Signage to ensure residents and visitors know how to move safely around town while construction works are occurring
	  ▸ The design of pedestrian and cycle access paths
	  ▸ Promotional strategies to offset loss of business trade due to roadworks and/or noise impacts.
	▸ Undertake one-on-one consultation with each business where noise exceedances would be experienced to assist in designing property-specific noise mitigation measures.
	▸ Consult with each business that is adjacent to the footprint to take account of their specific needs for access and operation, including consideration of the needs of transport-related operations, agricultural operations and town-based businesses
	▸ Consult with the Project's CRG, local Chambers of Commerce, tourism associations and tourism service providers in the Ipswich and Lockyer Valley LGAs to:

Local business and industry participation measures

Measures—detailed design phase [continued]

- Explain draft Outline EMP and CEMP provisions and accept feedback on measures of relevance to tourism, farming and other businesses
- Identify any additional, feasible strategies which would reduce or offset impacts on connectivity or businesses' amenity during construction and/or operation
- Continue to consult with businesses subject to potential land acquisition processes and work with business operators to reduce the potential for impacts on their amenity and access

Tourism

- When the Project's detailed design is confirmed, consult with ICC, LVRC and tourism-related businesses (including accommodation facilities, farms, restaurants, cafes and specialty shops) located within 5 km of the Project to facilitate a shared understanding of how impacts resulting from road works, changes to the road network or noise may affect businesses
- Engage with the owners of hotels in Forest Hill and Gatton, to identify and implement mitigation (including communication mechanisms, dust controls and noise mitigation measures) to reduce impacts on the hotels' amenity during construction
- Consult with the Gatton Show Society as part of detailed design planning for the Spencer Street/Eastern Drive overpass, to confirm peak event times and access requirements, and consider this where possible in the construction methodology to reduce impacts on event patrons.
- Develop measures, working with tourism associations and the ICC and LVRC, to ensure that the impacts on the amenity of businesses and traffic disruptions on key local tourist routes are reduced wherever possible, for incorporation in the CEMP

Local supply opportunities

- Liaise with the following stakeholders to locate specific business capacities of relevance to the Project's supply chain:
  - DITRDC
  - RDA
  - Chambers of Commerce/Industry in the Ipswich and Lockyer Valley LGAs
- Work with DSDILGP to deliver 'Working with Major Projects" (or similar) workshops across the Project region
- Deliver supplier briefings as part of the tendering process
- Conduct supplier "Meet and Greet" sessions with shortlisted companies to enable them to meet with potential contractors and exchange information
- Complete a scan of Indigenous businesses in SEQ which could service the Project and develop an Indigenous business register which can be used by Contractors and Project operators
- Communicate pre-qualification requirements to businesses in the Ipswich and Lockyer Valley LGAs to allow local and regional businesses to achieve the relevant requirements
- Communicate with Traditional Owner groups regarding the range of business opportunities which will be available during construction, the availability of Indigenous businesses to participate and the types of capacity building programs that Indigenous businesses may need to prepare for involvement in the Project supply chain

Measures—detailed design phase (continued)

Farms and grazing operations

- Maintain regular engagement with landowners and other business owners adjacent to the temporary construction disturbance footprint (at least quarterly during the first year of construction or as agreed with landowners) to monitor the effectiveness of environmental and social impact mitigation measures
- Provide regular Project updates which forecast road works, road realignments and closures, and explain alternative routes
- Continue engagement with property owners regarding management of direct impacts on properties and mitigation of potential impacts.

Town centre businesses

- Implement measures identified in consultation with businesses near the disturbance footprint to reduce impacts on their amenity or road access, as relevant to the pre-construction period
- Maintain regular engagement with town centre businesses and the Lockyer Valley Chamber of Commerce and Industry to evaluate the effectiveness of mitigation measures and initiate any corrective actions that are indicated.

Tourism

- Work with Councils, Chambers of Commerce, tourism associations and tourism service providers in potentially impacted communities to implement the initiatives identified in the detailed design phase
- Work with the Lockyer Valley Tourism Association, the Lockyer Valley Chamber of Commerce and interested businesses to support their monitoring of visitation levels and develop and fund marketing or business capacity development strategies during the construction period and the first two years of operation.

Local supply opportunities

- Implement the AIP Plan as relevant to the pre-construction phase
- Work with Traditional Owner groups to identify existing business capacity within the Yuggera Ugarapul communities, and help them to identify business capacity building programs to be supported by ARTC, DSDSATSIP and/or DITRDC
- Deliver capacity building programs including:
  - Working with supplier advocates to promote supply opportunities and identify capable local suppliers
  - Hosting and/or participating in supplier briefing and networking events
  - Training and mentoring support that builds business capability
  - Support to enable businesses to understand the requirements of supplying to Inland Rail
  - Providing formal feedback to unsuccessful suppliers
- Work with the Ipswich and Lockyer Valley Chambers of Commerce, to encourage relevant supply chain development for local and Indigenous businesses
- Provide updates to local and regional businesses to ensure they have access to current information about the Project
- Communicate pre-qualification requirements to businesses in the Project region to allow local and regional businesses to achieve the relevant requirements
- Facilitate the delivery of workshops with businesses aimed at building their capacity for involvement in major project construction and associated services
- Encourage tenderers for construction contracts to set appropriate targets and/or incentives to use local and Indigenous businesses
- Consult with DESBT, DSDSATSIP, ICC, LVRC and Chambers of Commerce, to encourage relevant supply chain development, especially for Indigenous businesses
- Provide local business briefings to promote supply opportunities ahead of the construction phase
- Encourage tenderers for construction contracts to set appropriate targets and/or incentives to use local and Indigenous businesses.

Local business and industry participation measures	
Measures—pre-construction phase	**Impacts on farms** ▸ Maintain regular engagement with landowners and other business owners adjacent to the temporary construction disturbance footprint (at least quarterly during the first year of construction or as agreed with landowners) to monitor the effectiveness of environmental and social impact mitigation measures ▸ Provide regular Project updates which forecast road works, road realignments and closures, and explain alternative routes. **Town centre and tourism businesses** ▸ Provide support for local marketing and/or business development initiatives ▸ Engage with businesses affected by Project construction works on a regular basis (e.g. quarterly) to monitor the effectiveness of environmental management measures and institute corrective actions (e.g. modification of environmental or traffic management measures) if required ▸ Work with the Lockyer Valley Tourism Association and the Ipswich Tourist Association to support their monitoring of visitation levels and promotional and marketing campaigns during the construction period and the first two years of operation. **Local supply opportunities** ▸ Implement the AIP Plan and report on compliance with the AIP Plan, including participation of businesses from the SIA study area in the Project's supply chain ▸ Implement the Project's Sustainable Procurement Policy to maximise local industry opportunities during the construction phase ▸ Implement capacity building strategies identified in cooperation with stakeholders during the detail design and pre-construction stages ▸ Promote Government services and programs which are available to businesses considering investment in projects related to Inland Rail ▸ Ensure information about Project supply opportunities during the Project's operation are provided on the Inland Rail portal.
Measures—construction phase	▸ Minimise impacts on farming, agribusinesses, tourism businesses and businesses in town centres ▸ Create local business awareness about supply opportunities and registration and contracting processes for the Project and build relationships with local businesses to support their involvement in the Project ▸ Provide a framework to ensure that local, regional and Indigenous businesses are provided full, fair and reasonable opportunity' to participate in the supply of goods and services on Inland Rail, and integrate this framework into construction tender requirements and contracts.

16.11.7 SIMP monitoring, reporting and review

The purpose of SIMP monitoring is to:

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

The monitoring framework for community and stakeholder engagement is provided as part of the Community and Stakeholder Engagement Plan in Appendix Q: Social Impact Assessment Technical Report, Section 8.2. The monitoring framework provided in Table 16.27 outlines for each SIMP action plan:

- Impacts addressed
- Desired outcomes
- Performance measures
- Monitoring mechanisms and data sources, including stakeholder engagement in monitoring
- Monitoring frequency during construction.

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

ARTC is committed to publicly reporting social performance outcomes and will release quarterly snapshot reports outlining employment and business participation achieved by the Project. Monitoring updates on delivery of the SIMP will be reported at each CRG meeting (as available) and will be considered in the reviews of the SIMP.

During construction, the SIMP will be reviewed annually and, where necessary, updated based on monitoring results, including stakeholder feedback. This will include a process for reviewing all social impact management and benefit enhancement measures to assess whether they are still appropriate, and whether any new issues or initiatives have emerged that will be included in ongoing mitigation and/or monitoring. A report on the annual SIMP review will be provided to the OCG and to the Project's CRG.

A review of the SIMP and its implementation will be undertaken by an independent third party by the end of year one of construction and prior to commissioning the Project, and will include consultation with local governments, landowners, community members and Queensland Government agencies. The independent SIMP reviews will identify the SIMP's effectiveness, and any changes required to ensure ongoing effectiveness.

The monitoring program will be reviewed prior to operations, revised to recognise the completion of construction, and implemented as relevant for the operations phase.

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

The monitoring program will be reviewed prior to operations, and then implemented for operations, and revised if necessary, in year three of operations.

Proposed roles for Councils in SIMP implementation and monitoring include:

- Involvement in the development of the Community Wellbeing Plan and the draft AMP
- Cooperation in joint initiatives with ARTC
- Requests for provision of feedback six-monthly during construction on:
  - The results of initiatives to offset impacts on amenity, character and cohesion
  - Any Project use of housing or short term accommodation
  - Local procurement outcomes
- Review of annual SIMP reports
- Participation in annual SIMP reviews
- Participation in independent review of the SIMP at the end of Year 1, prior to commissioning and during Year 3 of operations.

Proposed roles for CRG members in monitoring include:

- Receiving reports on SIMP implementation at each CRG meeting, and on AMP implementation on a six-monthly basis, for their feedback
- Providing feedback on the effectiveness of community and stakeholder engagement measures at each CRG meeting
- Receiving and providing feedback on annual SIMP reports
- Participation in annual SIMP reviews.

TABLE 16.27: SOCIAL MONITORING FRAMEWORK

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

Impacts/benefits addressed	Outcomes	Performance measures	Mechanisms	Monitoring frequency
	▸ Impacts on agricultural and tourism employment opportunities are minimised	▸ Management measures for agricultural properties are implemented in accordance with agreements with landowners ▸ Job vacancies data does not show any upward trend in tourism occupation vacancies or downward trend in agricultural industry vacancies attributable to the Project	▸ Construction contractor engagement with landowners to monitor the effectiveness of management measures ▸ Construction contractor engagement with Lockyer Valley Tourism Association and South-western South Queensland Country Tourism to monitor tourism visitation ▸ Regional Australia Institute Regional Jobs vacancies annual data report	▸ Six-monthly during construction — landowner engagement ▸ Annually during construction — Regional Jobs vacancies and liaison with Tourism associations
Housing and accommodation				
▸ Potential for cumulative demands to impact on housing access and affordability ▸ Potential to displace tourists or community event visitors from tourist accommodation	▸ Rental housing vacancy rates are not affected by Project demands	▸ No displacement of local residents from housing due to Project-related increases in housing demand	▸ Consultation with real estate agents in potentially impacted communities ▸ Consultation with Laidley Crisis Care and Accommodation ▸ Pricefinder/SQMResearch data on rental vacancy rates and rental price trends ▸ ARTC will monitor the effectiveness of the AMP, in consultation with DEPW, ICC and SRRC, including requests for provision of Councils' feedback regarding any housing/accommodation use	▸ Quarterly during construction
	▸ DTMR tenants who would relocate are supported to find suitable housing	▸ All DTMR tenants within the disturbance footprint have access to support to relocate and re-establish social networks	▸ Joint work package with DTMR/DEPW, potentially involving Laidley Crisis Care and Accommodation and/or Lifeline	▸ Monthly during detailed design/pre-construction phase, or until all tenants are resettled
	▸ Access to seasonal workers' accommodation is maintained	▸ The current level of availability of seasonal workers' accommodation in the Lockyer Valley LGA is maintained ▸ The Project implements mitigation measures to address any adverse impact to seasonal workers' accommodation	▸ Consultation with LVRC and Lockyer Valley Growers to monitor availability of seasonal workers accommodation ▸ Monitor the number of accommodation units available to seasonal workers in Gatton Caravan Park, Homestyle Lodge (Laidley) and Grantham Farmworkers Lodge	▸ Quarterly during pre-construction and the first two years of construction

Impacts/benefits addressed	Outcomes	Performance measures	Mechanisms	Monitoring frequency
	▸ Tourists and event visitors are not displaced from tourism accommodation due to Project demands	▸ Hotel/motel operators report adequate capacity for tourist trade in the Project region	▸ Consultation with tourism accommodation providers to identity occupancy baseline at commencement of construction, and to monitor and enable management of any potential to displace tourists	▸ Six monthly during construction
	▸ Accommodation providers in the Project region benefit from any Project requirements for workforce accommodation	▸ Workforce accommodation solutions include accommodation providers in the Project region	▸ Accommodation register	▸ Accommodation providers in the Project region benefit from any Project requirements for workforce accommodation
	▸ Inland Rail projects' cumulative demands for housing in the Project region are monitored, and strategies put in place if cumulative impacts appear likely	▸ The construction contractor has a coordinated approach to monitoring and mitigating the demands of Inland Rail projects on housing and accommodation and will enable corrective action if strains on housing or accommodation are identified	▸ Consultation with DEPW, LVRC and ICC to seek input to evaluation of cumulative impacts ▸ Pricefinder/SQMResearch data on rental vacancy rates and rental price trends	▸ Quarterly during construction
Community health and wellbeing				
▸ Impacts of noise on lifestyles/sleep ▸ Increased demands for health, community support and/or emergency services	▸ Changes in the amenity of residential properties and community facilities and the potential for noise to disturb sleep are minimised in accordance with the Project's approval conditions and where relevant, agreements with affected property owners	▸ Number of complaints about noise and dust issues	▸ CRG feedback ▸ Complaints register	▸ Quarterly during construction

Impacts/benefits addressed	Outcomes	Performance measures	Mechanisms	Monitoring frequency
▸ Impacts on mental health through stress and anxiety related to the Project ▸ Impacts on community/traffic safety, or emergency vehicle responses ▸ Community benefits for participation in Project employment, supply chain or community initiatives supported by the Project	▸ Vulnerable residents who could be affected by relocation, construction noise or dust are supported to adapt to changes	▸ Landowners and tenants in and adjacent to the disturbance footprint agree they have access to timely Project information and an established Project contact ▸ All residents who would need to relocate from the disturbance footprint have access to support if required	▸ Community Relations Monitor ▸ CRG feedback ▸ ARTC/PHN records of support services provided to relocating residents ▸ Results of cooperative monitoring of service demands with DCHDE	▸ Six monthly during construction
	▸ Mental health and community support services are accessible to people in potentially impacted communities and are adequate to any increased demand resulting from the Project	▸ Number of people from potentially impacted communities accessing mental health service provided by ARTC-PHN partnership ▸ Increased ARTC support for mental health/community support services if consultation with the PHN or Queensland Health identifies the need to supplement existing services provided through the mental health partnership with PHN	▸ With the PHN, ARTC will monitor mental health service uptake in potentially impacted communities ▸ ARTC or the construction contractor will consult with DCHDE in identifying any Project-related stress on community services and organisations in the Project region, to enable cooperative responses if required e.g. increased funding support ▸ CRG, LVRC and ICC feedback on the benefits of community projects funded	▸ Quarterly during construction —with PHN ▸ Annually during construction —with DCHDE and CRG
	▸ Impacts on the amenity of community facilities are minimised	▸ Community facilities and parks affected by land acquisition, noise exceedances or changes to connectivity (such as path networks) maintain their availability of community activities, events and networks and are supported to enhance their amenity and/or functionality	▸ CRG feedback ▸ Department of Education feedback on school amenity ▸ Agreements with community facilities e.g. interface agreements where required ▸ Community donations and sponsorship records	▸ Six-monthly during construction
	▸ Provision of information on workforce ramp-up and the construction program enables Government agencies to plan for increased demands for health, police and emergency services	▸ Queensland Health, QPS, QAS and QFES confirm that ARTC's advice on workforce ramp-up and cooperative arrangements are adequate to support planned responses, including measures to manage any changes to emergency vehicle response rates	▸ ARTC or construction contractor will consult regularly, to a schedule agreed with Queensland Health, QPS, QAS and QFES ▸ Requests for provision of Councils' feedback regarding community needs six-monthly during construction	▸ Quarterly during the first two years of construction

Impacts/benefits addressed	Outcomes	Performance measures	Mechanisms	Monitoring frequency
	▸ The wellbeing of residents in the Project region is supported by access to community programs and events which enable community participation	▸ Number, financial value and outcome measures for community partnerships and programs in potentially impacted communities ▸ Community donations and sponsorship-funded projects provide demonstrated benefits for local community members	▸ Monitoring of delivery and effectiveness of Community Wellbeing Plan ▸ Records of ARTC and Contractor partnerships with community and government organisations ▸ Record of ARTC sponsorships and donations ▸ Funded organisations reports on outcomes of projects funded by the Project ▸ Requests for provision of Council feedback six monthly during construction on the results of initiatives to offset impacts on amenity, character and cohesion	▸ Six-monthly during construction
Local business and industry				
▸ Impacts on agricultural operations ▸ Potential deterrence of tourists ▸ Local and Indigenous business opportunities ▸ Draw of labour from local businesses	▸ Impacts on businesses, including farms and grazing operations, are minimised through the implementation of measures outlined in the draft Outline EMP, in cooperation with landowners and business owners	▸ Ongoing engagement with directly affected landowners and business owners supports effective mitigation and, where necessary, adaptive management of impacts on farms, businesses and grazing operations	▸ Construction contractor will engage with landowners (to schedules agreed with landowners) to monitor the effectiveness of management measures relevant to on-property or road access impacts	▸ Annually during construction
	▸ Businesses in the Project region benefit from supply opportunities	▸ Demonstrated alignment of major contracts and contractors to the AIP Plan goals and ARTC's Sustainable Procurement Policy ▸ Number and value of contracts with businesses located in the Lockyer Valley and Ipswich LGAs as a percentage of all supply contracts for the Project ▸ Percentage of expenditure in the Project region compared to overall annual Project expenditure for construction	▸ Project's Local Regional and Indigenous Supplier register ▸ AIP Plan reports ▸ Requests for provision of Council feedback on local procurement outcomes	▸ Annually during construction

Impacts/benefits addressed	Outcomes	Performance measures	Mechanisms	Monitoring frequency
	▸ The Project engages Indigenous businesses in its construction phase and supports Indigenous businesses to develop capacities for supply to the Project's operation and/or other construction projects	▸ Number and value of contracts with Indigenous businesses in the Lockyer Valley and Ipswich LGAs, as a percentage of all supply contracts for the Project	▸ Construction contractor's supplier register and procurement records will identify involvement of Indigenous businesses to enable reporting	▸ Quarterly during construction
	▸ Impacts on tourism visitation are minimised	▸ Project impacts e.g. roadworks or changes to scenic character are mitigated in accordance with the Draft Outline EMP	▸ Establish baseline information on tourism visitation (Lockyer Valley LGA and Ipswich IGA) ▸ Contractor engagement with Lockyer Valley Tourism Association and Ipswich Chamber of Commerce to monitor any decreases in visitation established as attributable to the Project, to enable corrective actions	▸ Annually during construction
	▸ Any cumulative labour draw impacts on local business are identified to enable refinements to recruitment or training strategies	▸ ARTC monitors labour draw from local business and initiates corrective actions to recruitment and training strategies if labour draw is identified as affecting local businesses	▸ The Project will consult with LVRC, ICC, DESBT and Chambers of Commerce in the Project region regarding any pressures they identify on local labour/skills availability, to enable refinement of recruitment and training strategies if local labour shortages are identified	▸ Six-monthly during construction

16.12 Impact assessment

This section summarises the significance of social impacts and benefits for local communities and stakeholders in the SIA study area. It considers the:

- Likelihood that social impacts and benefits will occur
- Consequence of social impacts and benefits for those affected
- Potential risk of impacts to social conditions (such as residential amenity or access to services) and the significance of community benefits, prior to the application of management measures as detailed in Section 16.11.
- Risk of residual impacts after mitigation measures are applied.

Table 16.28 provides the social risk assessment ratings, which consider the likelihood and consequence of impacts and benefits.

The likelihood of social impacts and opportunities occurring has been assessed with reference to the social baseline (e.g. findings regarding community vulnerabilities), stakeholder inputs and EIS technical findings.

'Consequence', as defined in Table 16.29, has been assessed based on how the social impact may be experienced by the relevant stakeholders, considering:

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

TABLE 16.28: RISK ASSESSMENT RATINGS

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

Significance of Social Impact Ratings				
Low	Moderate	High	Extreme	Project benefits and opportunities

Source: NSW DP&E 2017

TABLE 16.29: CONSEQUENCE CRITERIA

Rating	Impact (-)	Benefit (+)
Minimal	Local, small-scale, easily reversible change on social characteristics, or the values of the community, or communities/stakeholders can easily adapt or cope with change	Local small-scale opportunities emanating from the Project that the community can readily pursue and capitalise on
Minor	Short-term (1–3 years) recoverable changes to social characteristics and values of the community or stakeholders, or the communities/stakeholders have substantial capacity to adapt and cope with change	Short-term opportunities emanating from the Project
Moderate	Medium-term (4–10 years) recoverable changes to social characteristics and values of the community or stakeholders, or the communities/stakeholders have some capacity to adapt and cope with change	Medium-term opportunities emanating from the Project
Major	Long-term (more than 10 years) recoverable changes to social characteristics and values of the of the community or stakeholders, or the communities/stakeholders have limited capacity to adapt and cope with change	Long-term opportunities emanating from the Project
Catastrophic	Irreversible changes to social characteristics and values of the community or stakeholders, or the communities/stakeholders have no capacity to adapt and cope with change	N/A

Source: Adapted from Department State Development, Infrastructure and Planning's *Social impact assessment guideline*, July 2013

Table 16.30 summarises:

- Potential social impacts and benefits as a result of the Project
- Potentially affected or benefitted stakeholders
- Preliminary evaluation of the significance of potential impacts and benefits, after considering recommendations
- Project-specific management measures (noting further detail is provided in Section 16.11)
- An evaluation of residual significance, in consideration of Project-specific management measures.

The significance of the social impact or benefit has been viewed from the perspective of those expected to be affected, based on stakeholder input provided during consultation, and in consideration of the outcomes of impact assessment for this SIA and other EIS studies.

Community adaptation to social impacts such as changes to connectivity, community cohesion or amenity may take some time. Evaluation of residual significance (after Project-specific mitigation measures are applied) has assumed:

- A timeframe of up to five years from commencement of construction during which community members and networks will generally adapt to environmental and social changes
- That the Project-specific mitigation measures (as refined with stakeholders and in response to social monitoring data) will be effective in reducing the level of impacts experienced.

Symbols used include:

- **+ve** denoting positive impact
- -ve denoting negative impact.

Project phases are shown as:

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

TABLE 16.30: IMPACT ASSESSMENT SUMMARY

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Communities and stakeholders							
Indigenous values	Native title rights may exist and be affected on seven land parcels identified as Reserve or State land. Where the Project is outside the West Moreton System rail corridor, it may affect cultural landscapes and Indigenous people's feelings of connection to the landscape.	C&O	-ve	Yuggera Ugarapul People	B4	▸ Consultative processes associated with the extinguishment of native title ▸ CHMP addressing impacts on cultural heritage values ▸ Cultural awareness program developed with Yuggera Ugarapul People for delivery to Project personnel	B3
Land acquisition and use of DTMR properties	Full acquisition of freehold properties equivalent to an estimated 19 houses is required, and the tenants and former owners of 7 properties owned by DTMR would need to relocate, for a total estimated 26 households that would need to relocate from within the disturbance footprint. This would result in stress and anxiety for affected residents, and disruption of their lifestyles and social networks. Partial acquisition of private properties will also be required, which may result in property severance, including impacts on agricultural land (see Business and Industry within this table).	C	-ve	Directly affected landowners and tenants	A3	▸ Compensation in accordance with AL Act ▸ Property-specific agreements that address impacts on properties' use and amenity ▸ Funding for mental health and community support services that support local residents ▸ Joint working arrangements to support DTMR tenants	A2
Construction noise	Assessment of construction noise impacts indicates that there is potential for noise to exceed Project criteria for a large number of receptors e.g. up to 1,496 receptors that could be affected by earthworks while the activity is occurring nearby. This would impact the amenity of dwellings in the EIS investigation corridor. There is potential for effects on quality of life as a result, including decreased enjoyment of outdoor activities. While noise impacts from track construction would be transitory as works move along the corridor, construction noise and traffic noise related to bridge construction sites and laydown areas could affect the amenity of nearby properties for extended periods. Ground-borne noise is possible within approximately 50 m of the Project but is likely to be masked by airborne noise.	C	-ve	Nearby landowners, residents, businesses and community facilities	A4	▸ Mitigation measures provided in Draft Outline EMP—Noise and vibration, air quality, traffic management ▸ Residents within 2 km of the disturbance footprint and other relevant stakeholders will be provided with sufficient information to enable them to understand the likely nature, extent and duration of noise and vibration impacts ▸ Consultation with landowners adjacent to rail corridor, bridge construction sites and laydown areas to identify particular sensitivities (such as trauma relating to flooding events) and potential mitigation for consideration in CEMP ▸ Ongoing engagement with residents affected by construction noise to enable adaptive management ▸ Complaints process	A3

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Blasting	Blasting would be required in five locations. Any noise or vibration resulting from blasting would be short-term but may cause concern to residents.	C	-ve	Nearby residents	B3	▸ Management measures outlined in Draft Outline EMP, including establishing a blasting timetable through consultation with surrounding sensitive receptors	B2
Tunnel construction—noise and vibration	Tunnelling under homes would result in vibration. If vibration is perceptible to residents, it is likely to result in a minor short-term nuisance. Ground-borne noise due to tunnelling using a roadheader has been predicted to exceed the ground-borne 'Dwellings—Standard hours' noise criteria for 29 sensitive receptors and could exceed the 'Dwellings—Non-standard hours' criteria for 39 sensitive receptors, while tunnelling is occurring near sensitive receptors. This may also result in a minor short-term nuisance.	C	-ve	Nearby residents and those above the tunnelling area	B2	▸ Management measures provided in Draft Outline EMP are expected to minimise the potential for vibration and ground-borne noise to cause annoyance to nearby residents, and to avoid damage to structures	B1
Operational noise	Assessment of the Project's potential noise impacts during operation indicates that noise levels will trigger a review of feasible and practicable noise mitigation measures at approximately 285 sensitive receptors at Project opening (2026) and an additional 30 sensitive receptors at 2040. Noise exceedances are likely, due to operation affecting the amenity of homes and community facilities. Noise may be experienced by nearby residents as intrusive, regardless of regulatory compliance.	O	-ve	Adjacent landowners, business owners and tenants	A3	▸ Mitigation measures provided in Draft Outline EMP—Noise and vibration ▸ Property-specific mitigation where triggers are validated ▸ Appendix P: Operational Noise and Vibration Technical Report notes that further analysis of design and engineering factors to determine the location, extent and height of the concept noise barriers will be required ▸ Complaints process	A2
Dust	Clearing, earthworks, traffic on unsealed roads and construction activities could result in dust nuisance for nearby properties.	C	-ve	Adjacent landowners, business owners and tenants	B3	▸ Mitigation measures provided in Draft Outline EMP—Air quality ▸ Complaints process	B2
	Air quality assessment (Appendix K: Air Quality Technical Report) indicates that the Project's operation poses a low risk of air quality impacts after recommended mitigation are implemented.	O	-ve	Residents living near rail corridor, including the Little Liverpool tunnel	C3	▸ Mitigation measures provided in Draft Outline EMP—Air quality ▸ Requirement for veneering of coal transport wagons (consistent with the current use of coal trains on the West Moreton System rail corridor) ▸ Community information about air quality assessment results ▸ Complaints process	C2

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Town centre amenity	The amenity of Gatton, Forest Hill and Grandchester will be impacted by construction works and laydown areas, which will introduce noise, traffic disruption, dust and changes to local character. Impacts on connectivity to Helidon, Laidley and Calvert may also occur during the construction of rail crossings.	C	-ve	Residents and businesses in Gatton, Forest Hill, Grandchester, Helidon, Laidley and Calvert, Councils of LVRC and ICC	A4	▸ Detailed strategies outlined in Draft Outline EMP—Noise and vibration, traffic management and visual amenity ▸ Support for community initiatives to build resilience and community participation in potentially impacted communities ▸ Partnerships with LVRC and ICC, and with local communities, to mitigate amenity and connectivity impacts ▸ Complaints process	A3
	During operations, the Project would result in an increase in the number and size of trains, increasing the frequency of rail noise in town centres, and interrupting north–south movements across town in Gatton, Forest Hill and Grandchester.	O	-ve	Residents, businesses, customers and visitors	A3	▸ Partnership with LVRC, ICC and local communities to mitigate amenity and connectivity impacts ▸ Local area planning partnerships, as agreed, with LVRC and ICC ▸ Complaints process	A2
	Combined impacts of rail construction on amenity of surrounding rural landowners and the towns of Calvert and Helidon respectively if works coincide.	C	-ve	Calvert and Helidon residents	C3	▸ Project communication strategies will address any potential for coincidence of works that could have cumulative impacts	C2
Rural residential amenity	Noise from construction activities may affect the amenity of rural residential dwellings in Helidon, Helidon Spa, Laidley North, Plainlands and Calvert while construction works are near homes.	C	-ve	Residents in rural residential areas in Helidon's north and east, Helidon Spa, Placid Hills, Laidley North and Calvert	B3	▸ Consult with adjacent landowners to identify particular sensitivities and potential mitigation for consideration in CEMP, including noise mitigation where triggered ▸ Mitigation measures provided Draft Outline EMP—Noise and vibration ▸ Complaints process	B2
	Rail noise and changes to views from homes may detract from the enjoyment of rural residential dwellings near the Project.	O	-ve	Residents as above	A4	▸ Mitigation measures provided in Draft Outline EMP—Noise and vibration ▸ Consult with landowners regarding potential mitigation which could reduce impacts on visual amenity ▸ Complaints process	A3

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Local character /sense of place	Construction works and sites will detract from the quiet rural character of towns and rural areas, resulting in community sadness about the changes, though temporary. Impacts on cultural heritage places would be minimal, but the removal of houses and farm buildings from within the disturbance footprint may be experienced as a loss of local character.	C	-ve	Residents, landowners and visitors	B3	▸ Engage with LVRC, ICC and local community groups in all potentially impacted communities to identify works and social programs that will address impacts on rural character and identity ▸ Provide financial support for local planning and facility upgrade initiatives that will improve social amenity (e.g. access to and quality of parks and community facilities)	B2
	Construction works including the laydown area would affect the character and connectivity of Grandchester while works are occurring there, potentially affecting sense of place and tourism visitation.	C	-ve	Grandchester residents and businesses, ICC	A3	▸ Engagement with ICC and Grandchester community to review traffic and visual amenity management measures for the construction period, and identify and implement measures to offset impacts on character	A2
	The views of residents to the north of Helidon and Grantham, Laidley's east and north and Grandchester's south will be affected by the Project. Residents who can see the tunnel portals or control centre buildings may experience them as a detraction from the landscape. In combination, the Project's visual amenity impacts and rail noise are likely to be experienced as a detraction from the character of Gatton, Forest Hill and Grandchester, with some impacts on the urban fringes of Helidon, Laidley, Grantham and Calvert, and may affect the quiet rural town identity or residents' sense of place.	O	-ve	Residents, landowners and visitors, LVRC, ICC	B4	▸ Communication with residents who have views to the Project, including tunnel buildings, to explain the Project's construction program, operational procedures and management measures relevant to their specific concerns ▸ Mental health partnership ▸ Initiatives agreed with LVRC, ICC and community groups to support community initiatives to mitigate impacts on the character of towns	B3
Community cohesion	Community cohesion could be reduced through displacement of residents, intensification of the rail corridor as a physical barrier within and between communities, impacts on the amenity or accessibility of community facilities, or community conflict about the Project.	C&O	-ve	Residents and community organisations, LVRC, ICC	B3	▸ Social investment in community projects that strengthen cohesion and funding for community development projects	B2

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Disadvantage	Some residents with limited resources may be displaced due to property acquisitions or removal of DTMR-owned houses, or affected by construction noise, potentially exposing them to further disadvantage.	C	-ve	Residents in and near EIS investigation corridor	C3	▸ Meeting with directly affected landowners and tenants, to identify their specific needs and concerns, and refer them to services that can support them during the relocation process ▸ Employment of engagement staff with local knowledge to work with directly affected landowners and DTMR tenants ▸ Funding for community support services that can assist residents with the relocation process	C2
Connectivity	Temporary interruptions to property access and traffic delays are likely on a number of roads during construction due to construction activities and traffic, road realignments and road closures, impacting on school bus services, and accessibility for people travelling by motor vehicle, bicycle and on foot. Property accesses will also be interrupted.	C	-ve	Residents, businesses service providers and visitors QPS, QFES, QAS, LVRC, ICC, DTMR	A3	▸ Ongoing engagement with residents whose property access would be affected, and alternative property accesses provided where required ▸ Regular project updates that forecast road works, road realignments and closures, and explain alternative routes ▸ Community education strategy focused on safety during the construction period	A2
	Road closures would result in small increases in travel times and minor inconveniences to road users, with no major disruptions to connectivity anticipated.	C&O	-ve	Road users, LVRC, ICC	A3	▸ Alternative access provided	A2
	The closure of Gaul Street in Gatton and road network changes in Forest Hill would result in reductions in traffic connectivity; however, alternate crossings are available within 500 m of the road closures and pedestrian connectivity would be maintained in both locations.	C&O	-ve	Gatton residents and businesses LVRC	A3	▸ Reconstruction of Gatton Railway Pedestrian overbridge ▸ Provision of level crossings for pedestrians, cycles and motor scooters at Hunt Street and Gaul street	A2
	Level crossings on public roads will result in disruptions to traffic, up to a maximum of 33 times per day at 2026, with a delay of approximately two minutes. Trains of 3.6 km may operate from 2040, with up to 46 train services per day which could result in more frequent and longer traffic delays.	O	-ve	Residents, businesses service providers, QPS, QFES, QAS,	A3	▸ Provision of train schedules relevant to crossings ▸ Access to information on train schedules provided to police and emergency services	A2
	There is potential for a cumulative increase in traffic volumes during construction if multiple projects are constructed in the same timeframe.	C	-ve	LVRC, ICC, DTMR, motorists	C3	▸ TMP provisions for Inland Rail projects	C2

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Workforce							
Training and development	The construction phase represents an important source of training and career development for young people and Indigenous people in the SIA study area. The Project will offer employment opportunities for people who are disadvantaged in the labour market, including young people and Indigenous people.	C	**+ve**	Local residents experiencing unemployment and their families		▸ Indigenous training partnerships and employment pathways ▸ Inland Rail Skills Academy ▸ Partnerships with Department of Education, local schools and training providers to provide job readiness and skills training to people in potentially impacted communities	B4
Construction employment	Employment for up to 410 personnel and an average of 190 personnel during 2021–2026 will benefit construction industry personnel in the SIA study area and adjacent LGAs.	C	**+ve**	SIA study area residents seeking employment and their families	A2	▸ Locally targeted training and recruitment strategies ▸ Requirement for contractors to target and report on employment of people in the SIA study area ▸ Local Employment Register ▸ Promotion of Project supply opportunities to businesses in the SIA study area	A3
Operational employment	A workforce of approximately 15–20 personnel is expected for the Project's operation, with potential for local residents to obtain long-term employment.	O	**+ve**	SIA study area residents seeking employment and their families	B1	▸ Partnerships to identify training pathways and programs for people in the SIA study area	B2
	As part of Inland Rail, the Project would facilitate complementary private investments, which may contribute to long-term employment opportunities in the SIA study area.	O	**+ve**	Residents	C2	▸ Business capacity building training strategies ▸ Workforce skills development strategies	C3

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Impacts on employment in other industries	Project demands, or cumulative labour demands may result in shortages in specific trades.	C	-ve	Local residents and businesses	B3	▸ Partnerships to identify training pathways and programs for local people	B2
	Acquisition or severance of farms and/or impacts on connectivity to markets may affect productivity and the availability of employment on farms.	C&O	-ve	Local workers in the agriculture sectors	C3	▸ Compensation for loss of legal interest in land according to the AL Act provisions ▸ Engagement with landowners to reduce impacts through the detailed design process ▸ Mitigation of Project impacts on farm infrastructure and water access ▸ Consultation with landowners regarding implementation of mitigation measures outlined in the draft Outline EMP	C2
	Impacts on the rural character and amenity of town centres may reduce tourism visitation and trading levels, and related employment opportunities.	C	-ve	LVRC, ICC, Lockyer Valley Tourism Association, Southern South Queensland Country Tourism	B3	▸ Consultation with tourism-related businesses during the detailed design phase to develop a detailed understanding of how construction works may affect the amenity of or connectivity to tourism attractions, and development of mitigation measures to address impacts ▸ Partnership with tourism associations to develop projects to mitigate any impacts on tourism visitation	B2
	There is potential for coincidental construction of multiple infrastructure projects to affect the availability of construction labour and/or cause labour to be drawn from other industries.	C	-ve	Businesses and service providers in the SIA study area	C3	▸ Workforce skills development strategies ▸ Monitoring of Inland Rail projects' cumulative demands for construction labour, and adaptive management measures if required	C2
Workforce impacts on community values	Workforce behaviour may contribute to concerns about privacy or safety, or to amenity impacts (e.g. noise).	C	-ve	Residents in or near the EIS investigation corridor	B3	▸ Workforce Code of Conduct ▸ Complaints management handling procedure	C2

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Housing and accommodation							
Settlement pattern	The disturbance footprint may affect vacant land near Helidon designated for Urban Residential land supply, future growth areas in Gatton and Laidley, and vacant lots within the Valley Vista Estate.	C&O	-ve	LVRC, ICC	A2	▸ Provide information that could assist local governments with the development of planning controls to reduce residential exposure to rail noise ▸ Negotiate compensation for acquisition of land in accordance with the AL Act	B1
Population change	Acquisition of private properties and the requirement for use of DTMR properties is likely to displace an estimated 26 households, potentially resulting in a small population loss (approximately 70 people) at the local level. Changes to the regional population would be negligible.	C	-ve	Residents of properties to be acquired/removed	A3	▸ Facilitation of support for people who will need to relocate	A2
Property values and plans	Concern about property values being negatively affected by the Project is causing stress and anxiety and may continue to cause anxiety for some residents in or near the EIS investigation corridor.	C&O	-ve	Landowners near the rail corridor	B4	▸ Mitigation measures provided in Draft Outline EMP—Noise and vibration, air quality, traffic management, visual amenity ▸ Clear information about environmental management and approval conditions provided to landowners and local communities	B3
Short-term accommodation	Demand for short-term accommodation will be welcomed by accommodation providers but will need to be managed to avoid displacing other accommodation users.	C	-ve	Hotel/motel and serviced unit owners Tourists, business travellers and visitors to community events	C3	▸ Accommodation Management Plan ▸ Consultation with short-term accommodation providers to identify their capacity to accommodate personnel if required, and minimise impacts on other visitation during peak seasonal and event-related needs ▸ Monitoring of Inland Rail projects' cumulative demands on short-term accommodation	C2
	There is potential for impacts on the amenity of accommodation provided at hotels in Gatton and Forest Hill, affecting their occupancy and potentially the owners' livelihoods.	C&O	-ve	Hoteliers in Gatton and Forest Hill, hotel staff	B3	▸ Work with the hotel owners to identify mitigation measures to reduce impacts on the amenity of their properties ▸ Construction contractors requested to encourage personnel requiring accommodation to seek hotel accommodation in Forest Hill and Gatton, and in other centres in the SIA study area, and/or Ipswich/Toowoomba	B2

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Affordable housing and accommodation	The Project's construction would require the removal of up to 26 houses in the EIS investigation corridor, including six DTMR properties, which are tenanted and provide affordable housing.	C	-ve	DTMR tenants, DTMR, DEPW		▸ Partnership with DEPW/Laidley Crisis Care Accommodation to provide support to households needing to relocate	
	Noise, visual and access impacts on Gatton Caravan Park will occur during construction, and noise impacts may occur during operation.	C&O	-ve	Caravan park owner, agricultural businesses, seasonal workers		▸ Consultation with caravan park owner to discuss and implement noise and dust mitigation measures ▸ If necessary, relocate access to the caravan park from Eastern Drive	
	Acquisition of land within the Gatton Caravan Park is expected to be required, with potential for a reduction in its current capacity of approximately 15 per cent, and a reduction in future planned total capacity of up to 28 per cent. This would result in a reduction in the availability of affordable accommodation for seasonal farm workers in Gatton. Amenity impacts are also likely during construction, and without noise mitigation, during operation. Full acquisition is unlikely but would be determined by the Constructing Authority in cooperation with the caravan park's owner, after gazettal of the rail corridor.	C&O	-ve	Caravan park owner, agricultural businesses, seasonal workers		▸ Cooperation with the caravan park's owner to identify alternative sites for the caravan park in the Gatton area or nearby if full acquisition was required ▸ Provision of information to the Grantham Farmworkers Lodge to enable the Lodge to consider its plans for expansion ▸ Provision of information to nearby businesses that may be dependent on park visitors' trade regarding the timing and extent of any reduction in capacity or loss of the caravan park ▸ Provision of advice to farms and agribusinesses regarding accommodation alternatives for seasonal workers	
Cumulative housing demand	The coincidence of several major Projects' construction phases has potential to strain the capacity of the SIA study area's construction labour force, with a cumulative increase in numbers of non-local personnel seeking housing, and consequent impacts on rental housing availability.	C	-ve	Low income households Residents and service providers		▸ Local training and recruitment strategies ▸ Business capacity development ▸ Monitoring of the results of the Project's AMP and Inland Rail projects' cumulative demands on local housing, to identify the need for any adaptive management e.g. revision of the AMP	

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Health and wellbeing							
Impacts on community facilities	Up to 26 community buildings, 8 medical facilities and up to 19 educational facilities (early years education centres and schools) would experience construction noise. During operations, there may be potential triggering of investigation of noise mitigation at up to 13 non-residential sensitive receptors (in 2040). If not mitigated, impacts due to construction and operation may affect the sensitive receptors' amenity or use, and could affect the learning environment of schools, childcare centres and the UQ campus in Gatton. This could affect quality of life and community cohesion. Recreational facilities would also experience noise exposure to construction noise which may affect their use.	C	-ve	Residents in potentially impacted communities, facility owners and users, LVRC, ICC	A4	▸ Engagement with facility owners/managers to develop mitigation to avoid, minimise or offset impacts on the amenity of facilities	B3
	Grandchester State School would experience disrupted pedestrian access during construction, construction noise, operational noise, and community concerns about pedestrian safety. This could reduce enrolment numbers and the school's resources, and with a small enrolment, could affect the school's viability over time. There is also potential for noise impacts during construction and operation at Forest Hill State School to affect the school's learning environment.	C&O	-ve	Grandchester State School and community Forest Hill State School and community Education Queensland	B3	▸ Engagement with Education Queensland to develop mitigation to avoid, minimise or offset impacts on Grandchester State School ▸ Implementation of agreed mitigation measures to avoid exceedance of operational noise criteria at Grandchester State School and Forest Hill State School	B2
	In Gatton, Forest Hill and Grandchester, pedestrian and vehicular access between residents and community facilities on opposite sides of the Project will be interrupted. Disruption to school access routes, travel time and school bus scheduling is expected due to road realignment and construction activities, including rail–road crossing construction.	C	-ve	Residents, school communities and Education Queensland Childcare centre owners, school bus services	A3	▸ Consultation with Education Queensland, the management authorities of private schools, childcare centres and UQ Gatton to develop and implement mitigation measures addressing impacts on connectivity, for inclusion in the CEMP	B2
	There is potential to disrupt access to the Helidon to Ravensbourne Trail circuit along Seventeen Mile Road during construction.	C	-ve	Trail users, LVRC	C3	▸ Detailed design and construction planning will include consideration of the maintenance of access to the Helidon to Ravensbourne Trail if it is expected to be affected	C2

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Impacts on community facilities (continued)	Increased frequency of audible rail noise for schools and kindergartens in Gatton, Grandchester, Forest Hill and Laidley may distract students.	O	-ve	School communities and Education Queensland	C3	▸ Evaluation of noise modelling result with Department of Education, private school owners and childcare and kindergarten owners to identify the need for any further mitigation	C2
	Facilities that would be impacted by land requirements, noise and/or traffic access disruption include: ▸ School Road Reserve and Grandchester Community Hall ▸ Apex Park, Gatton ▸ Wilks Park, Gatton ▸ Gatton Bowls Club and Littleton Park, Gatton ▸ Gatton Showground ▸ Forest Hill Recreation Reserve, Community Hall and Furley Park.	C	-ve	LVRC, ICC, Park and facility users	B3	▸ Investment in the amenity, accessibility and quality of community facilities in impacted communities ▸ LVRC and ICC partnerships to identify opportunities to enhance parks to compensate for loss of park land	B2
	Periodic noise from passing trains may impact on the amenity of Furley Park, Grandchester Community Hall, Forest Hill Community Hall, Wilks Park and the Move and Groove Dance School.	O	-ve	Park and facility users, community organisations	B3	▸ Investment in the amenity, accessibility and quality of community facilities in impacted communities	B2
	There are community concerns about the potential for risks to pedestrian safety for children and seniors at level crossings.	O	-ve	School communities, seniors and other community members	B4	▸ Rail, pedestrian and traffic safety education campaign, including targeted communications for school, kindergarten and childcare centre communities	C3
Churches	There is a potential for the Christian Life Centre in Gatton to be adversely impacted by the Project, dependent on detailed design and consultation with the church, which may potentially displace this congregation. There is also potential for construction noise exceedances or disruptions to local roads to affect the amenity of or access to churches in Helidon, Gatton, Forest Hill, and Grandchester, which may affect their use.	C	-ve	Church leaders and congregations	B3	▸ Mitigation measures provided in Draft Outline EMP—Noise and vibration, air quality, traffic management ▸ Engagement with Christian Life Centre in Gatton to identify management options (if/as required) ▸ Engagement with leaders of other churches potentially affected by noise, regarding mitigation measures to reduce impacts, and implementation of agreed mitigation measures	B2

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Churches (continued)	There is potential for operational noise exceedances to affect the amenity and use of churches.	O	-ve	Christian Life Centre and New Hope Church in Gatton, Laidley Baptist Church in Laidley, St. Peter's Catholic Church in Grandchester	B3	▸ Mitigation measures provided in Draft Outline EMP—Noise and vibration ▸ Engagement with leaders of noise-affected churches to identify and implement mitigation measures	B2
Health and community support services	Increased stress and anxiety are likely to require an increase in community support and mental health services.	C	-ve	Residents. Community and government agencies	A3	▸ Funding for community organisations to provide emotional and practical support ▸ Delivery of ARTC's mental health partnership program in the SIA study area	
	Construction personnel may require occasional access to local health services for treatment of injuries.	C	-ve	Darling Downs and West Moreton HHS, local health services	C3	▸ Prior advice and updates to Darling Downs and West Moreton HHS on workforce ramp-up and the nature of injuries, which may be experienced by rail construction personnel	C2
	Project-related traffic in Gatton may worsen the current congestion, which inhibits access to the hospital during peak school traffic hours.	C	-ve	Gatton Hospital, QAS and hospital patients and visitors, hospital staff	C4	▸ Consult with Darling Downs and West Moreton HHS to identify the potential for Project impacts on hospital access and include mitigation in the CEMP	C2
Police and emergency services	The Project would result in increased demands on police services in relation to the need for traffic policing, traffic control assistance, oversized vehicles escorts, liaison with the Project e.g. in relation to thefts, and community policing with respect to community stress or conflict. Protests against major projects are also a significant drain on police resources.	C	-ve	QPS, QAS, QFES	A3	▸ Early and close cooperation with QPS to develop cooperative arrangements ▸ Regular liaison to monitor and address issues affecting community or traffic safety	A2
	The Project may increase the risk of road/rail accidents, potentially creating additional demand on health and emergency services. Responses to any major incidents would place a significant demand on police and emergency resources.	O	-ve	QPS, QAS, QFES, State Emergency Service (SES)	C5	▸ Cooperation with QPS, QAS, SES and QFES to agree emergency response protocols ▸ Regular liaison to monitor and address issues affecting community or traffic safety	C3
	Residents are concerned that Project works would interrupt the connectivity of fire trails and access tracks.	C&O	-ve	QFES, rural fire brigades, rural residents	C3	▸ Consultation with the QFES and local rural fire brigades to identify the location of access tracks, and measures required to ensure continued access	D3

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Police and emergency services (continued)	Accessibility for emergency services will be delayed at road crossing and road re-alignment construction sites, and when encountering oversized vehicles on roads. During operations, emergency vehicles will be delayed at level crossings when encountering a passing train, increasing response times.	C&O	-ve	Ambulance, police and fire service providers, residents and landowners	A4	▸ Development of communication protocols supporting Project responses (such as provision of alternative access across the rail corridor) and enabling services to plan around interruptions	A3
Physical health and environment	The assessment of rail noise determined that there were up to 285 individual receptors where the predicted noise levels were above the adopted trigger levels, requiring investigation of mitigation measures for these properties. If not mitigated, operational rail noise may impact on the health and wellbeing of households where noise and/or vibration would exceed adopted thresholds.	O	-ve	Residents and businesses near the EIS investigation corridor	C4	▸ Mitigation measures provided in Draft Outline EMP—Noise and vibration, and may include at property treatment, air conditioning, transmission control or other dwelling/property modifications, to be confirmed in the detailed design phase	D4
	Rail noise within adopted trigger levels may cause stress or other health issues for people who are sensitive to noise or opposed to the Project's location.	O	-ve	Residents and businesses near the EIS investigation corridor	B4	▸ Complaints mechanism ▸ Local or State Government review of current land use planning controls in affected areas may be required	B3
	Some residents are anxious about potential risks to human health from diesel emissions and/or coal dust. Air quality assessment indicates that the Project's operation poses a low risk of human health impacts after mitigation measures are implemented, however residents are likely to remain concerned about potential air quality impacts, including in relation to the operation of the Little Liverpool tunnel.	O	-ve	Residents living near rail corridor, including the Little Liverpool tunnel	C3	▸ Mitigation measures provided in Draft Outline EMP—Air quality ▸ Requirement for mitigation to coal transport wagons ▸ Community information about tunnel operation and ventilation ▸ Community information about air quality assessment results ▸ Complaints process	C2
	Dwellings are located near crossing loops in Helidon, Gatton, Laidley and Calvert, leading to concern about noise impacts and diesel emissions. Noise modelling and air quality assessment indicates that the Project could operate with no adverse health effects.	O	-ve	Residents near crossing loops	C3	▸ Measures provided in Draft Outline EMP—Air quality, noise and vibration	D2

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Mental health	The Project is likely to affect local residents' mental health through stress and anxiety relating to property acquisitions, concern for the safety of vulnerable community members, fears about noise and vibration impacts, and/or visual impacts impacting on sense of place.	C&O	-ve	Residents and business owners in potentially impacted towns, rural residential areas and agricultural landowners	B4	▸ Transparent and accessible information about the property acquisition process and Project impacts ▸ Ongoing engagement with landowners who are adjacent to the corridor throughout construction ▸ Mental health partnerships	B3
	Concerns about the Project's potential to exacerbate flooding is contributing to stress and anxiety in the potentially impacted communities.	C&O	-ve	Residents in potentially impacted towns, rural residential areas and rural properties	C3	▸ Ongoing engagement with community members regarding the results of the Project's flooding and hydrology assessment during the detailed design phase ▸ Measures provided in Draft Outline EMP—Hydrology	C2
	The Project would provide construction employment opportunities for SIA study area residents, potentially supporting mental health. During operation, personnel may include SIA study area residents with access to long-term employment.	C&O	**+ve**	Residents, especially jobseekers	A2	▸ Local training and development pathway programs	A3
	The Project would increase the opportunity for rail-based suicide. This would be heightened in communities where trauma levels are high (such as in disadvantaged communities).	O	-ve	Residents who are vulnerable to mental health issues, emergency responders, mental health service providers, Darling Downs and West Moreton HHS	C5	▸ Restricting access to the rail line ▸ Mental health partnership program including suicide prevention ▸ Telephone-based support service	D5

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Community safety	The location of work sites and laydown areas near private homes may engender anxiety about perceived personal and property safety.	C	-ve	Residents near the alignment and laydown areas	B2	▸ Identification of local values incorporated in ARTC's workforce Code of Conduct for all personnel ▸ Agreements with residents for property access are articulated in the requirements for the Contractor	C2
Traffic safety	Large and over-size vehicles and increased traffic may increase the risk of road accidents and demands on emergency services.	C	-ve	Road users QPS, QFES, QAS, LVRC, ICC, DTMR	B3	▸ Measures in the Draft Outline EMP—Traffic management ▸ Community safety programs with a focus on traffic safety during construction	B2
Road–rail safety	Collisions between trains and motorists, cyclists and pedestrians may occur.	O	-ve	Motorists, cyclists and pedestrians, QPS, QFES, QAS, LVRC, ICC, DTMR	C5	▸ ARTC's community safety programs will include a focus on safety relating to pedestrian, stock and vehicle interactions with the rail corridor	D5
Hazards	Incidents related to dangerous goods transport, trespass, pedestrian and community safety, interface with live trains, derailment and impediments to emergency access are possible.	C&O	-ve	Residents, motorists, QPS, QFES, QAS)	C5	▸ Measures in the Draft Outline EMP—Hazard mitigation to be applied throughout the Project's life	D5

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Business and industry							
Agricultural businesses	The Project will have direct impacts on grazing and cropping properties, including loss of productive land, impacts on property infrastructure and connectivity, and potential to affect ease of property management and maintenance. Analysis of land take indicates that one freehold grazing property and one freehold horticultural property would be fully acquired, and additional agricultural properties may be fully acquired depending on the results of ongoing consultation with landowners.	C&O	-ve	Agricultural producers	A3	▸ Consultation with landowners to develop property-specific interface agreements where relevant ▸ Compensation in accordance with the AL Act and/or lease and licensing agreements ▸ Property-specific cross-corridor access arrangements ▸ Landowner liaison staff with local knowledge ▸ Make-good arrangements where required for loss or dewatering of bores	
	The safety of cattle and horses may be impacted if stock wander on to the rail line.	C&O	-ve	Graziers and other stock owners		▸ Property-specific agreements regarding fencing and stock movements	
Town centre businesses	Construction would result in noise and traffic disruption impacts on the Gatton and Forest Hill town centres, affecting the amenity of businesses and potentially deterring local customers and visitors. Some businesses in Gatton and Forest Hill are likely to be significantly affected by construction noise, dust, and access disruptions. The amenity of the Furley Park community market is also likely to be affected. A number of businesses near the corridor would also be exposed to rail noise impacts.	C&O	-ve	Business owners and staff, customers	A4	▸ Measures in the Draft Outline EMP—Noise and vibration, traffic, air quality ▸ Work with business operators to reduce the potential for impacts on their amenity and access ▸ Require Contractors to use businesses in impacted communities in their supply chain ▸ Business capacity building strategies	B3
	The closure of Gaul Street in Gatton will reduce connectivity to the town centre. Changes to the road network in Forest Hill to accommodate the Project would also result in reduced traffic on Victoria Road, potentially affecting trade levels.	C&O	-ve	Business owners and staff, customers	A3	▸ Close consultation with local businesses to refine mitigation measures and develop marketing or business capacity development strategies	A2
Impacts on labour access	There is potential for cumulative demands for labour to draw tradespeople and professional staff from within local communities, affecting the availability of tradespeople and other personnel.	C	-ve	Businesses and residents	C3	▸ Local training and employment pathway programs ▸ Business capacity building strategies	C2

Impact area	Impact description	Phase	Nature (+ve/-ve)	Stakeholders affected	Prelim. risk	Project-specific strategies	Residual risk
Impacts on tourism businesses	Impacts on tourism businesses would include impacts on the amenity of the hotels, cafes and speciality shops in Forest Hill and Gatton, and potential for road works and construction sites to affect tourists' experience. Some visitors will see the Project as diminishing the rural character and views to the Lockyer Valley, but others will find interest in Project structures.	C&O	-ve	Business owners and staff, customers	B3	▸ Consult with tourism associations and local governments to develop a strategy to ensure that generalised impacts on tourism values are reduced wherever possible ▸ Work with the Lockyer Valley Tourism Association and the Ipswich Tourist Association to support their promotional and marketing campaigns	B2
Facilitation of industrial development	The Project facilitates the growth of industries associated with logistics and freight terminal hubs, supporting the establishment of businesses that will be a source of long-term employment for SIA study area residents.	O	**+ve**	Businesses in the SIA study area, job seekers		▸ None required	
Local supply opportunities	The Project will provide opportunities for local and regional businesses to participate in its supply chain. It is also likely that businesses would benefit from increased trade from the construction workforce.	C	**+ve**	Local businesses		▸ AIP Plan	A3
	The operational phase would offer service and supply contracts over the long-term and could involve businesses in the SIA study area.	O	**+ve**	Local businesses		▸ AIP Plan	B4

16.13 Cumulative impacts

Cumulative impacts for social aspects of the Project are presented in Chapter 22: Cumulative impacts, and are divided into local, regional, State and national impacts.

16.13.1 Local impacts

The local area of influence for assessment of cumulative social impacts has been defined as including the EIS investigation corridor and a buffer of approximately 5 km from the Project, on the basis that this is the area were the physical interface of multiple projects, and the potential for noise and connectivity issues, is most likely to have a material impact.

Social impacts may occur where the effects of the Project combine with those of other major projects to affect:

- Connectivity between properties and amenity in the Project areas in relation to G2H and C2K
- Employment opportunity and regional development, in relation to the Bromelton SDA
- Access to skilled labour, in relation to the combined impacts of all projects on construction labour availability during years 1–2, and potentially in year 5 in relation to the other Inland Rail projects.

Projects that have a large workforce drawn from outside the region but staying locally, may combine to impact on health services, social infrastructure, housing stocks, perceptions of community safety and other community qualities. The Project is unlikely to make a large contribution to this, as the majority of the construction workforce is expected to be drawn from the existing labour force within the region, returning home each night. There is, however, potential for cumulative labour demands in the SIA study area to require non-local workers to service the Project's construction, which could lead to demands for short-term or rental accommodation.

The Gatton West Industrial Zone would have only been expected to have 13–14 construction personnel and in the order of 36–37 operations personnel, so the potential cumulative impacts of this project are not significant.

The Remondis Waste to Energy Facility is planned for construction in 2021-2023 on a site located approximately 40 km north-east of the Project. Information on this Project's construction traffic routes is not available to provide any indications of potential cumulative impacts on connectivity.

There is also potential for the coincidence of major works affecting roads (e.g. for C2K, G2H, the Cunningham Highway–Yamanto Interchange and Ipswich Motorway Upgrade) to affect travel times and cause driver frustration in the EIS investigation corridor and wider region. This is also unquantifiable but, if it eventuates, it will need to be considered in relation to driver safety and emergency services access.

16.13.2 Regional impacts

The Project and a number of other projects would draw construction labour from SEQ. If the three Queensland Inland Rail projects were to be constructed simultaneously, they may require a total labour force of some 1,500 to 2,000 people. In the context of SEQ's large construction and trades labour force, this is unlikely to cause a significant adverse impact on other industries' access to labour. However, if multiple projects are constructed in the same timeframe as the Project, there may be a significant draw on trades and construction labour in the SIA study area.

If the coincidence of several major projects' construction phases strains the capacity of the construction labour force in the region, this may lead to a requirement for large numbers of non-local personnel to stay locally, with consequent cumulative impacts on housing and social infrastructure (particularly health and emergency services). The populations of both LGAs are expected to experience population growth over the next 5 to 10 years, so demand for additional labour may be partially or wholly met by this growth.

The Project also has potential to catalyse the positive impacts of industrial development by attracting rail-dependent industry to locations such as Ebenezer and at Wellcamp and facilitating development of intermodal freight facilities such as the InterLinkSQ hub. Also, by providing a strategic link between Inland Rail and the interstate railway line, the Project has the potential to contribute to attracting rail-dependent industries to the region. There is therefore potential for significant positive cumulative employment opportunities in the SIA study area.

16.13.3 State and national impacts

The Project is part of Inland Rail's 13 Projects. The Inland Rail Business Case (ARTC, 2015a) anticipates that an anticipated additional 16,000 jobs will be required program-wide at the peak of construction, with an average of 800 jobs per annum over the 10–year construction period. An average of 700 additional jobs per annum, program-wide, is anticipated over 100 years of operation. The 10–year delivery schedule would support economic activity in the regions and create regional jobs in Queensland, NSW and Victoria during both construction and operations.

The expansion in the construction sector would support additional flow on demand through the construction industry supply chain, and additional spending on consumer-orientated products by the construction workforce in the local area.

The associated supply of construction materials, the development of associated external infrastructure and complementary services, will require additional workforce beyond those directly associated with Inland Rail, stimulating jobs and growth in the region (ARTC, 2017b).

There is also potential for the cumulative impacts of projects, including Cross River Rail, Brisbane Metro, other major infrastructure projects, and coal mines (such as the Carmichael Coal Mine and Rail Project) to require significant construction workforces within a similar timeframe, leading to cumulative demands on construction labour across Queensland and NSW, and potentially nationally. There are multiple uncertainties in relation to timing of these projects, so a quantitative assessment has not been attempted. However, there is potential for the labour force to be drawn from other industries, including agriculture, police and emergency services, and the range of businesses dependent on construction-related skills and labour.

16.14 Conclusions

This section summarises the outcomes of the SIA, the residual social impacts and Project benefits and discusses distributional equity (the effect of differing impacts across groups, areas and time).

16.14.1 Distributional equity

As for all major projects located near communities, negative impacts are more likely to be experienced by those living closest.

The Project will require extensive construction works and has potential for impacts on directly affected landowners, adjacent landowners, other residents, farms, businesses and community and government services.

Distributional equity considerations for the Project include:

- An estimated 26 households within the disturbance footprint would need to relocate to enable the Project's construction, including approximately seven tenants in DTMR-owned affordable housing
- Gatton, Forest Hill and Grandchester would experience impacts on the amenity of their towns due to construction and longer-term intensification of the rail corridor and increased movement of freight
- The amenity of rural residential areas in the Lockyer Valley and on the urban fringes of Helidon, Grantham, Laidley and Calvert may be affected during construction
- The Project travels near areas with potential for social disadvantage, where particular care will be needed to support residents through the changes resulting from the Project
- The operations and management of farms and agribusinesses could be affected while landowners adjust to land acquisition impacts
- Residents living near the disturbance footprint would experience noise, travel delays and changes to local character during construction
- The Project would involve a significant freight route through rural areas with potential for rail noise to affect amenity in proximity to the rail corridor.

Project benefits are likely to accrue at the local and regional levels during construction, in relation to employment of residents and involvement of businesses in the SIA study area.

Adaptation to the Project's operation is likely to take time, and there is potential for Project operations to have long-term effects on amenity (primarily through rail noise) and connectivity near the rail corridor.

In applying the consequence criteria shown in Table 16.29, assessment of residual risks acknowledged that some construction impacts may occur throughout the duration of the construction period of approximately four years, and that it may take time for residents to adjust to changes resulting from the Project. With a design life of 100 years, the Project's operational impacts and benefits may be experienced for the long term.

Communities in the SIA study area have experienced a long period of severe drought, with effects on mental health and financial wellbeing, community resilience and business vitality. It is therefore particularly important that the Project's impacts are minimised and benefits for local communities are maximised.

The Project is part of Inland Rail, a larger project that will make a strong contribution to regional, State and national development for the long term. Potential Project benefits and opportunities include:

- The construction phase represents an important source of training and career development for residents in the SIA study area
- Employment for up to 410 personnel will benefit construction industry personnel in the SIA study area and adjacent LGAs, including people who are disadvantaged in the labour market
- Opportunities for local and regional businesses to participate in the Project's supply chain during construction, and the likelihood of increased trade from construction workforce expenditure
- Long-term service and supply contracts during the operation (benefit to businesses in the area)
- Facilitation of the growth of industries associated with logistics and freight terminal hubs, and improved accessibility to markets for businesses in the region.

16.14.2 Residual risks

Residual risks to social values were identified in Table 16.30. In applying the consequence criteria shown in Table 16.29, assessment of residual risks acknowledged that some construction impacts may occur throughout the duration of the construction period of approximately four years, and that it may take time for residents to adjust to changes resulting from the Project. With a design life of 100 years, the Project's operational impacts and benefits may be experienced for the long term.

Residual risks of 'moderate' or 'major' consequence are summarised in Table 16.31, along with measures to address the residual risks.

As for other rail lines in Australia, the increased risk of road/rail accidents and potential to enable rail suicide are long-term risks with possible catastrophic consequences (i.e. fatalities).

TABLE 16.31: RESIDUAL IMPACTS OF MODERATE OR MAJOR CONSEQUENCE

Impact area	Residual impact	Measures to address residual impacts
Community values	The Project will introduce additional linear infrastructure to the landscape, contributing to impacts on Indigenous people's feeling of connection with Country.	Engagement will be maintained with the Yuggera Ugarapul People as the Traditional Owners of Country in which the Project is located, to ensure their awareness of Project works and operations, and the Project's awareness of cultural values and community aspirations. Engagement with Traditional Owners may identify projects or initiatives to strengthen their connection to Country and/or community recognition of their connection to Country.
	Construction noise would be mitigated in accordance with approval conditions but may be intrusive on the amenity of homes, outdoor spaces and community facilities. This would be temporary as works move along the corridor but would last for longer periods near bridge and laydown areas.	The Project will communicate with landowners within 500 m of laydown and bridge construction sites and monitor complaints from residents in these areas. If complaints indicate that impacts are affecting households' wellbeing, corrective actions will be implemented as part of the CEMP.
	The amenity of Gatton, Forest Hill and Grandchester will be impacted by construction works.	The Project will provide support for community initiatives to build resilience and community participation in potentially impacted communities.
	Operational noise exceedances would be mitigated in accordance with measures outlined in Chapter 23: Draft Outline Environmental Management Plan but may be experienced by nearby residents as intrusive or stressful.	If complaints about rail noise indicate that the Project is causing unacceptable noise levels, ARTC will investigate and implement measures to address the cause of concern.
	Impacts on landscapes and visual amenity would be mitigated in accordance with approval conditions but distress about changes to the character of Gatton, Forest Hill and Grandchester and/or the impact of elevated structures or embankments on the scenic character may continue during operations.	Initiatives will be agreed with LVRC, ICC and community groups to support community initiatives to mitigate impacts on the character of towns. The Project will establish engagement mechanisms with tourism business and networks to enable any specific impacts on tourism visitation to be identified, to enable any corrective actions required as part of communication strategies (e.g. regarding road travel and the construction schedule). Engagement planned as part of the detailed design phase may identify additional initiatives to support tourism in the Project region.
Housing and accommodation	Gatton Caravan Park's operations may be impacted. This could result in the loss of an important source of affordable accommodation.	The Project is engaging with the caravan park owner to discuss and implement measures to reduce impacts on amenity and capacity. The Project will cooperate with stakeholders to reduce the impact of loss of accommodation if this occurs.

Impact area	Residual impact	Measures to address residual impacts
Community wellbeing	Community, educational and recreational facilities would experience construction noise that, if not mitigated, may affect their amenity or use, and affect quality of life and community cohesion.	The Project will engage with facility owners/managers to develop mitigation to avoid, minimise or offset impacts on the amenity of facilities and adaptive management of impacts.
	During operations, any accidents associated with derailments, in-tunnel incidents such as fire, rail load loss, hazardous goods spills or other major incidents would place significant demands on health and emergency services resources.	Measures to address hazards and risks to safety are provided in Chapter 23: Draft Outline Environmental Management Plan. The Project will continue its cooperation with QPS, QAS and QFES during operations to monitor and mitigate any hazards or risks to safety.
	There are community concerns about the potential for risks to pedestrian safety for children and seniors at level crossings.	ARTC will deliver ongoing safety education campaigns targeting children, seniors and motorists in local communities.
	The Project may increase the risk of road/rail accidents, potentially creating additional demand on health and emergency services.	The Project will maintain cooperation with QPS, QAS and QFES to agree emergency response protocols, along with regular liaison to monitor and address issues affecting community or traffic safety.
	Accessibility for emergency services may be delayed by road works or construction traffic. During operations, emergency vehicles will be delayed at level crossings when encountering a passing train, increasing response times.	The Project will develop communication protocols supporting Project responses (such as provision of alternative access across the rail corridor) and enabling services to plan around interruptions.
	The Project is likely to affect local residents' mental health through stress and anxiety relating to property acquisitions, concern for safety and fears about impacts on amenity and sense of place.	The Project will maintain ongoing engagement with landowners who are adjacent to the disturbance footprint throughout construction. The Project will monitor the adequacy of services supported through the mental health partnership and increase resources if this need is indicated by monitoring data.
Safety	Incidents related to dangerous goods transport, trespass, pedestrian and community safety, derailments and impediments to emergency access are possible and could affect community safety.	Arrangements with QPS, QAS and QFES will enable cooperative responses to any incidents and monitoring of any specific safety risks to enable corrective action if required.
	Large and over-size vehicles, laydown and bridge construction sites and increased traffic may increase the risk of road accidents and demands on emergency services.	The Contractor will monitor the occurrence of traffic accidents related to construction activities or construction traffic in cooperation with QPS. If monitoring data indicate that traffic safety is declining as a result of the Project, the TMP will be revised to include corrective actions.
	The Project would provide increased opportunity for rail-based suicide for vulnerable people.	Prior to operations, engage with the PHN and Queensland Health to gauge the need for any ongoing support for mental health services during the operational period. Arrangements with QPS, QAS and QFES will enable cooperative responses to any incidents and monitoring of any specific safety risks to enable corrective action.
Business and industry	Construction would result in impacts on the amenity of the hotels, cafes and speciality shops in Forest Hill and Gatton, and there is potential for road works and sites to affect tourists' experience.	The Project will consult with tourism associations and councils to develop a strategy, to ensure that generalised impacts on tourism values are reduced wherever possible.