CHAPTER

18

Economics

BORDER TO GOWRIE REVISED DRAFT ENVIRONMENTAL IMPACT STATEMENT

Inland Rail is a subsidiary of
Australian Rail Track Corporation

INLAND RAIL

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18. Economics

18.1 Introduction

This chapter addresses the 'economic' section of the Terms of Reference (ToR) inclusive of ToR item 11.141. Appendix A2: Terms of Reference Compliance Table provides a cross reference for each of the ToR against relevant sections in the Environmental Impact Statement (EIS).

An Economic Impact Assessment (EIA) has been prepared to identify potential economic impacts of the proposed Inland Rail—Border to Gowrie project (the Project) of the Inland Rail Program (Inland Rail). This EIA also addresses the additional information request from the Coordinator-General and the revised reference design.

The purpose of this chapter is to:

- Establish the existing economic environment, and local and regional context, to form the basis from which to measure the economic impacts
- Identify potential economic benefits and impacts on affected local and regional communities and businesses
- Assess the economic benefits of the Project, including the basis for their estimation through a detailed economic benefits assessment
- Assess the economic significance of the Project on the regional, State and national economies
- Evaluate the potential cumulative impacts on local and regional economies resulting from the construction and operation of related projects, including adjacent Inland Rail Program projects
- Outline commitments from the Australian Rail Track Corporation Ltd (ARTC) to enhance economic benefits, and to avoid, mitigate or manage adverse economic impacts.

18.1.1 Summary of relevant design changes

The Project design has been revised in response to engagement with key stakeholders, including landowners, communities, contractors, councils and State Government agencies. In addition, field-verified survey data has been collected and reviewed for design optimisation opportunities.

The key changes that are relevant to the EIA are:

- Program timing
- Project length
- Two non-resident workforce accommodation facilities (with third proposed in the Millmerran region) included in the temporary footprint
- Whetstone Material Distribution Centre (MDC).

See Chapter 5: Project Description for an overview of additional changes to the reference design.

18.1.2 Summary of relevant submissions

Submissions were received on the draft EIS that discussed matters related to the economic impacts of the Project. To respond to the submissions, the EIA has been updated to:

- Revise the baseline data to reflect current labour force data and findings
- Revise the economic analysis to include the impacts of COVID-19
- Revised impacts on intensive livestock operations
- Identify impacts associated with establishing the temporary Whetstone MDC and non-resident workforce accommodation facilities
- Revise impacts on tourism businesses during the construction and operation of the Project to reflect noise, amenity and land impacts
- Revise the cumulative economic assessment which includes all Queensland Inland Rail Program segments and two New South Wales segments (Narrabri to North Star and North Star to Border)
- Include a discussion of legacy benefits.

18.2 Impact assessment area

The Project traverses two local government areas (LGAs): Goondiwindi and Toowoomba. Combined, these LGA boundaries form the impact assessment area for assessing the local economic impacts of the Project, reflecting a local catchment for workers and economic activity. Also included within this assessment area is Toowoomba City, which is within the Toowoomba LGA.

For the regional impact analysis, the Project is located within the Darling Downs–Maranoa labour market region (Australian Bureau of Statistics (ABS) labour market boundaries of the Australian Statistical Geography Standard), which is defined as the regional economic catchment.

This EIA acknowledges the potential impacts of the Project on local residents, businesses and industry within the impact assessment area and regional economic catchment, in addition to the surrounding areas, particularly at the Project extent. This EIA also acknowledges the proximity of the Project to regional communities in northern NSW, particularly within the Moree Plains and Gwydir LGAs at the southern extent of the Project alignment.

The local impact assessment area and regional economic catchment are shown in Figure 18-1. It is important to note that from a spatial perspective, the geographic boundaries of the Darling Downs–Maranoa region do not capture the Toowoomba Urban Extent (the orange-shaded area in Figure 18-1). While the economic impact assessment that is based on the wider Darling Downs–Maranoa captures most of the Toowoomba LGA boundaries, potential impacts associated with the Toowoomba Urban Extent are not included in the analysis.

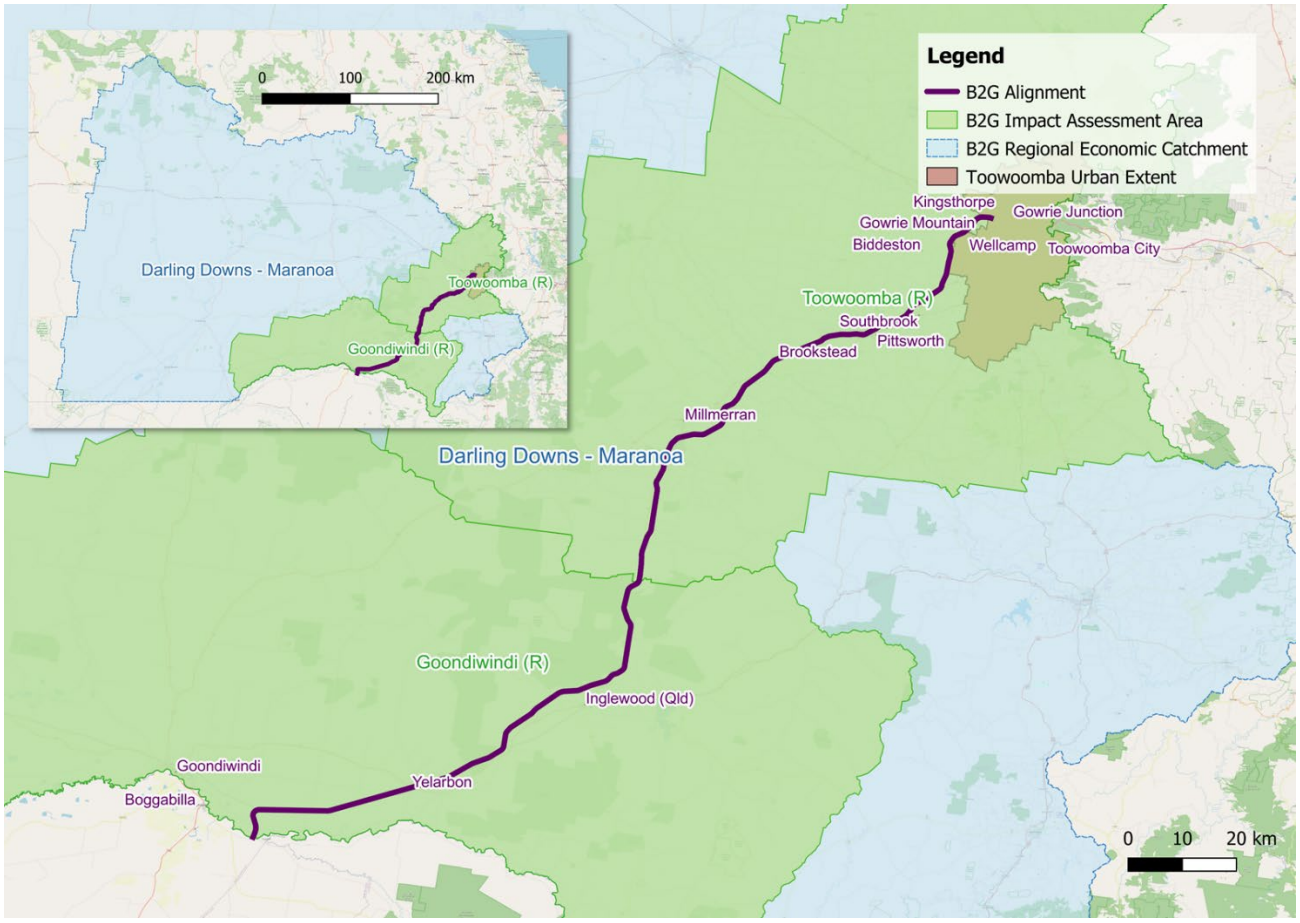

FIGURE 18-1 THE PROJECT IMPACT ASSESSMENT AREA AND REGIONAL ECONOMIC CATCHMENT

18.3 Methodology

The EIA has been developed according to the Coordinator-General's *Economic Impact Guidelines* (Office of Coordinator General, 2018). The approach adopted is consistent with recognised industry methods and represents a whole-of-life approach, comprising an evaluation of the economic impacts and benefits generated by the Project across both the construction and operational stages.

18.3.1 Existing economic environment

The existing economic environment section describes the local context and existing economic profile of the impact assessment area and provides a baseline for assessment of the potential economic impacts of the Project. The economic baseline includes key socio-economic characteristics and identifies existing economic activities in the impact assessment area.

This section has been developed based on data and information sourced from:

- Strategic economic development, transport and community plans for the impact assessment area and regional economic catchment (refer Section 1.3 in Appendix Y: Economic Impact Assessment)
- *ABS 2021 Census of Population and Housing*
- *ABS Regional Population Growth, 2019-20 (ABS, 2021c)*
- *Queensland Government Statistician's Office 2021 edition population projections*
- *Queensland Government Statistician's Office 2023 edition population estimates*
- *ABS, Labour Force Survey, Australia, June 2022 (ABS, 2022b)*
- *Australian Government's Small Area Labour Markets publication, September 2023 (National Skills Commission 2022)*
- Consultation with local businesses and industry, government agencies, peak bodies and the community undertaken by ARTC
- Tourism Research Australia.

18.3.1.1 Stakeholder consultation overview

ARTC has undertaken consultation with the community and stakeholders throughout the design process for the Project, including with local businesses. Community and stakeholder feedback has been considered by multi-disciplinary technical study teams as part of refining the Project's reference design and preparing the revised draft EIS. Consultation is ongoing and stakeholder engagement will continue as the Project progresses.

Key stakeholder groups relevant to the EIA who were consulted include:

- Australian Government stakeholders
- Queensland Government stakeholders
- Local government stakeholders
- Local community organisations including:
  - directly impacted landowners
  - indirectly impacted landowners
  - community action groups (Inner Downs Inland Rail Action Group and Millmerran Rail Group)
  - Community Consultative Committees (CCCs) (Inner Darling Downs and Southern Darling Downs)
  - business and industry groups (Toowoomba and Surat Basin Enterprise, Toowoomba Chamber of Commerce, Pittsworth Alliance, Goondiwindi Chamber of Commerce and Millmerran Commerce and Progress Association)
  - community groups (various)
  - community (general).
- Other key stakeholders, including:
  - emergency and health providers
  - utility service providers
  - gas, petroleum and energy asset owners
  - Indigenous groups and representatives
  - peak bodies

- education and training
- media.

For more detailed information on stakeholders consulted as part of the consultation process, please refer to Appendix E: Consultation Report.

Section 18.9 (Business and industry impacts) of this EIA summarises economic considerations raised during engagement with affected business owners and economic considerations raised by affected property owners. Economic related issues raised during engagement and where they have been addressed in the EIA are outlined in Table 18-1. Refer Appendix X: Social Impact Assessment for further details on the outcomes of community engagement.

TABLE 18-1 ECONOMIC RELATED ISSUES RAISED DURING STAKEHOLDER CONSULTATION

Economic related issues	Where addressed in this EIA
Impacts on cultural landscapes and local character	Section 18.9.2 Tourism industry
Impacts of property acquisition and property severance	Section 18.9.1 Agricultural industry Section 18.9.4 Local businesses
Impacts of changes to flood patterns on homes, farms and agricultural land	Section 18.9.1 Agricultural industry
Impacts on rural amenity	Section 18.9.2 Tourism industry Section 18.9.4 Local businesses
Changes to connectivity within and between properties	Section 18.9.1 Agricultural industry Section 18.9.4 Local businesses
Impact on local housing access, in the context of very low rental housing availability	Section 18.6.1 Direct employment (workforce impacts) Section 18.9.2 Tourism industry
Potential to draw skilled workers from local businesses and services, in the context of low unemployment rates	Section 18.6 Workforce impacts
The value of Project opportunities to local and regional businesses	Section 18.8 Regional economic impact analysis
Impacts of construction on groundwater access for farms and businesses	Section 18.9.1 Agricultural industry
The need for legacies which benefit local communities	Section 18.11 Legacy impacts

18.3.2 Economic benefits assessment

A large proportion of the benefits of the Inland Rail Program stem from improving the connection between producers and markets, through both domestic markets in cities and international markets through ports. As such, an incremental cost-benefit analysis (CBA) approach assessing each segment of the Inland Rail Program individually and in isolation from the whole Program will not capture the full impact that is expected to be delivered on completion of the entire Melbourne to Brisbane connection.

It is expected that the benefits of the Inland Rail Program will outweigh the sum of the individual projects.

For this EIA, there are two components to the assessment:

1. Evaluation of the likely benefits of the discrete Project (economic benefits assessment). This analysis assesses just those impacts that would be likely if freight operators were to respond to the completion of the individual Project.
2. Description of the economic performance measures calculated for the Inland Rail Program as a whole as per the *2015 Inland Rail Program Business Case*.

The approach to the economic benefits assessment draws on the existing literature and guidelines surrounding the use of CBA in the economic appraisal of infrastructure projects, including, but not limited to:

- Infrastructure Australia's *Assessment Framework* (Infrastructure Australia, 2021b)
- Queensland Government's *Project Assessment Framework* (PAF) guidance material (Infrastructure Australia, 2021b)
- Transport for New South Wales *Cost-Benefit Analysis Guide* (2019) (Transport for New South Wales, 2024) and *Economic Parameter Values* (2020) (Transport for New South Wales, 2020c) The *Australian Transport Assessment and Planning (ATAP) Guidelines*.

18.3.3 Regional impact analysis

A regional impact analysis has been undertaken to highlight the economic impacts of the Project on the regional, State and national economies using an equilibrium modelling framework. For this analysis, a computable general equilibrium (CGE) model has been developed to examine the flow-on impacts arising from the Project on the broader economy. These impacts have been modelled using KPMG-SD, a proprietary regional CGE model of the Australian economy developed and maintained by KPMG.

KPMG-SD is suited to quantifying the industry, regional and economy-wide impacts of major projects like the Inland Rail Program because it can capture the upstream and downstream linkages between a project's activities and the rest of the economy. KPMG-SD also provides estimates of employment supported through these investments, noting that estimates of employment produced by the model reflect the direct and indirect jobs generated across the economy.

As described above, the regional economy is represented by the Darling Downs–Maranoa labour market region.

Further details on the key modelling assumptions and inputs that underpin the regional economic assessment results are provided in Appendix Y.

18.3.4 Local economic impact assessment

The local economic impact assessment section describes potential economic impacts resulting from the Project on local businesses, industries and the community. This assessment has been developed based on:

- Consultation with the local community undertaken by ARTC (refer to Appendix E: Consultation Report for details on community consultation)
- Outcomes of the Social Impact Assessment (SIA) (refer to Appendix X: Social Impact Assessment) process to identify local and regional business capacity, aspirations and initiatives
- Outcomes of the Land Use and Tenure Assessment (refer to Chapter 8: Land Use and Tenure) to identify local and regional impacts on industry resulting from land-use changes.

18.3.5 Cumulative impact assessment

The cumulative economic impact assessment refers to the potential impact of cumulative stimulus to the economy resulting from a set of existing or planned projects within or adjacent to the impact assessment area.

In considering the cumulative impacts of the Project, it is necessary to identify the range of existing, planned and potential projects, within or adjacent to the impact assessment area, that may contribute to local and regional economic impacts. Cumulative impacts may result from the spatial and/or temporal interaction between these projects.

This cumulative impact assessment has two components:

1. Quantitative regional impact analysis of the construction of the Queensland portion of Inland Rail Program and two Inland Rail segments in northern New South Wales (NSW) that have an overlapping timeline with the construction of the Project—Narrabri to North Star and North Star to Border on the regional, State and national economies using an equilibrium modelling framework (using KPMG-SD)
2. Qualitative assessment of the cumulative impact of State-significant projects (that have been identified by ARTC as having a relationship to the Project—see Appendix Y: Economic Impact Assessment) on labour markets, the supply chain and local businesses.

18.3.6 Assumptions of the assessment methodology

The findings of this EIA are subject to the following assumptions:

- This assessment has not been prepared to inform financial or commercial decision-making processes. The sole purpose of the impact assessment is to meet the requirements of the Coordinator-General's Economic Impact Guidelines and address additional information requirements issued following the Coordinator-General's review of comments received during the public notification stage of the Project.
- Demand inputs to the economic benefits assessment have been sourced from the freight demand projections developed by ACIL Allen Consulting for the *Inland Rail Program Business Case* (ARTC, 2015a). These values have been apportioned, based on the information available, to represent freight movements that would benefit from the improved rail connectivity provided by the Project and represent those that are reasonably likely to make use of the segment as an independent project.

- Although other technical and economic data are expected as each project progresses through design development, the *Inland Rail Program Business Case*, endorsed by the Australian Government, is currently the most detailed assessment for the Inland Rail Program. For this reason, and in the interests of maintaining consistency, demand profiles for the Inland Rail segment economic impact assessments have been based on the *2015 Inland Rail Program Business Case*.
- This assessment assumes capital expenditure consistent with the ARTC budget reset completed in September 2020, which was the most up-to-date information available at the time of drafting this EIA. Revised capital expenditure figures include up-to-date costs of landowner compensation, land acquisition costs, offsets, grade separations, noise mitigation, realignments and design refinements. Revised capital expenditure figures have been escalated to 2022 prices for the purposes of this EIA.

18.4 Existing environment

The following section describes the key demographic and socio-economic characteristics of the impact assessment area, including the existing regional and local economic environment. Unless otherwise stated, all information contained within this section has been drawn from the ABS *2021 Census of Population and Housing* (ABS, 2021c).

The data is reflective of the changes in demographic, employment outcomes and market conditions resulting from the economic shock associated with COVID-19 in 2020 and 2021, and reflects current market conditions as at the time of drafting this EIA, including the consideration of pandemic-related stimulus project impacts on the labour market.

Further details of the socio-demographics of the impact assessment area are in Chapter 17: Social and Appendix Y: Economic Impact Assessment.

18.4.1 Labour market and employment

18.4.1.1 Employment by industry

As shown in Figure 18-2, the sectoral distribution of employment for local residents varies between the Goondiwindi and Toowoomba LGAs that form the impact assessment area, reflecting the diverse land use and the geographic distribution of the population across the two impacted LGAs.

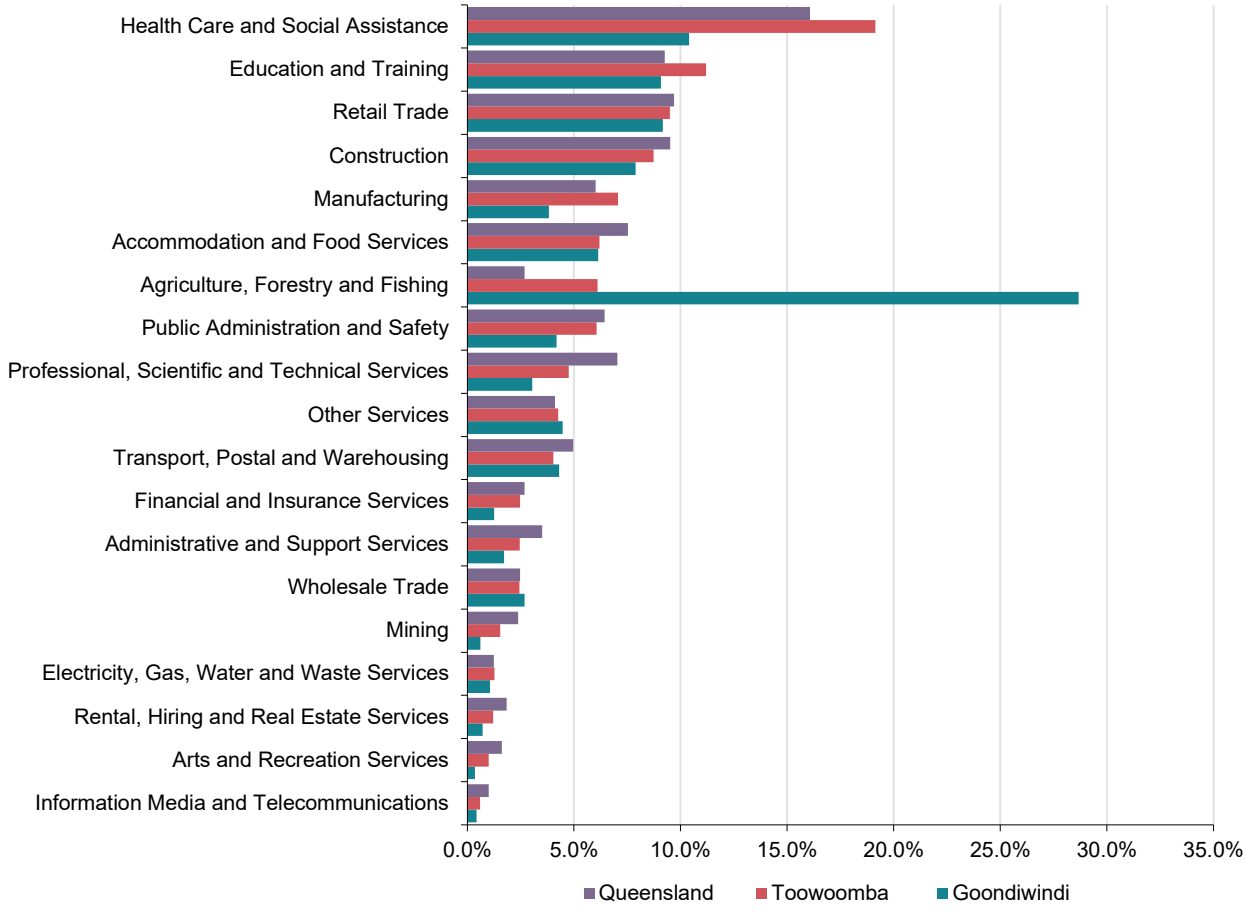

FIGURE 18-2 INDUSTRY OF EMPLOYMENT FOR THOSE LIVING WITHIN THE IMPACT ASSESSMENT AREA, 2021

Source: ABS 2021 Census of Population and Housing (excluding not applicable)

In Goondiwindi, the Agriculture, Forestry and Fishing industry employs over one-quarter of the working population (28.7 per cent). Within this industry, the primary source of employment is in Sheep, Beef and Grain Farming, employing 61.2 per cent of the Agriculture, Forestry and Fishing industry workers and 17.8 per cent of Goondiwindi's working population.

In Toowoomba, the largest proportion of workers are employed in service-based industries, such as Health Care and Social Assistance (19.1 per cent), Education and Training (11.2 per cent) and Retail Trade (9.5 per cent).

There are a number of residents within the impact assessment area employed in directly relevant industry sectors and occupations to support the construction of the Project. According to the 2021 Census, 8.7 per cent of the total workforce are employed in the Construction industry (7,049 workers), with the largest proportion of workers residing in Toowoomba (6,686 workers). Within the Construction industry, 10.9 per cent of local workers are employed in Heavy and Civil Engineering construction (766 workers). Across the broader Darling Downs–Maranoa region, 4,488 workers are employed in the Construction industry, with 16.4 per cent of the region's workers in Heavy and Civil Engineering construction (736 workers) and 58.2 per cent in Construction Services (2,614 workers).

18.4.1.2 Occupation

The impact assessment area's primary occupations of employment reflect the area's industry profile and distribution of employment across industries. At the broadest level, the area has a higher proportion of Managers, Machinery Operators and Drivers, and Labourers than the Queensland average (see Figure 18-3).

More specifically, within Goondiwindi, the largest proportion of workers are employed as Farmers and Farm Managers (12.4 per cent), followed by Farm, Forestry and Garden Workers (6.4 per cent). This reflects the area's industry strength in Agriculture, Forestry and Fishing. In Toowoomba, the largest proportion of workers are employed as Carers and Aides (7.6 per cent), Sales Assistants (6.3 per cent) and Health Professionals (6.2 per cent). Across the impact assessment area, 1,041 workers were employed as Construction Labourers or Mining Labourers (1.3 per cent). Figure 18-3 summarises the local workers' occupations in the impact assessment area.

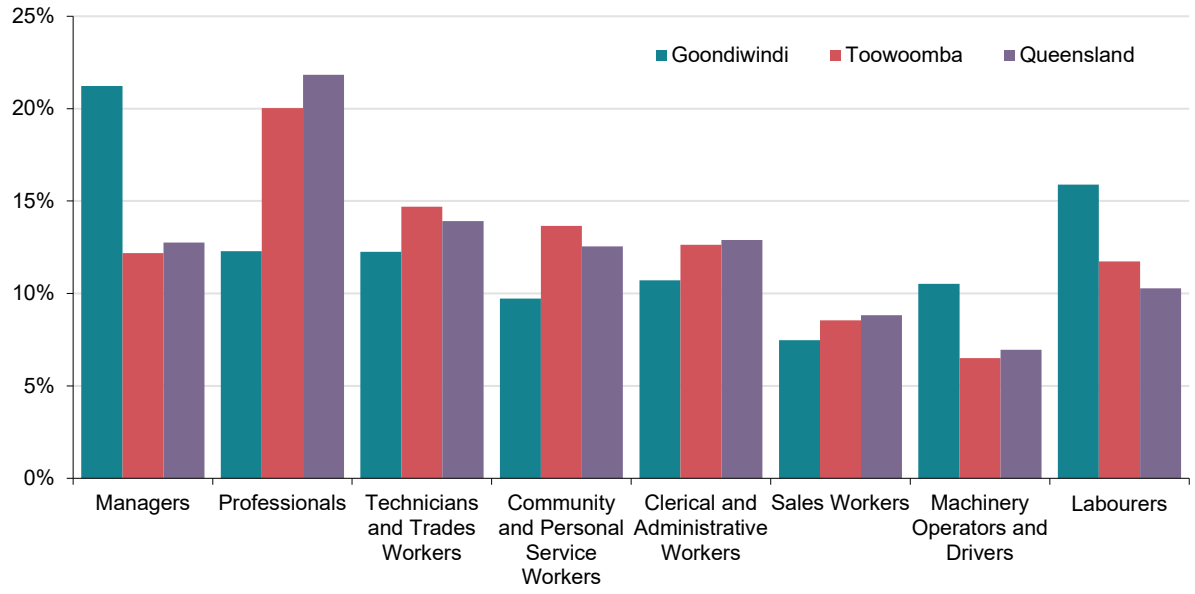

FIGURE 18-3 LOCAL WORKER'S OCCUPATION, BY PLACE OF USUAL RESIDENCE, IMPACT ASSESSMENT AREA, 2021

Source: ABS 2021 Census of Population and Housing (excluding not applicable)

18.4.1.3 Labour force

The most recent national unemployment statistics indicate that in June 2023, the unemployment rate was 2.9 per cent in the Darling Downs–Maranoa region, below the national and State historically low rates of 3.3 per cent and 3.7 per cent, respectively (ABS, 2023).

From March 2020, the COVID-19 global pandemic and public health crisis resulted in a significant reduction in income, a rise in unemployment, and disruptions in the transportation, service, and manufacturing industries. The impacts of the pandemic resulted in the unemployment rate in the Darling Downs–Maranoa region peaking at 6.8 per cent in the December 2021 quarter, a 2.2 percentage point increase from December 2020.

As the Australian economy continues to respond to the impacts of the COVID-19 pandemic, rising inflation, in part caused by labour tightness, has caused the Reserve Bank to increase interest rates. Continued and sustained increases in interest rates have the potential to deteriorate labour market conditions if the economy begins to decline. From this and as seen in Figure 18-4, current labour market conditions remain unpredictable.

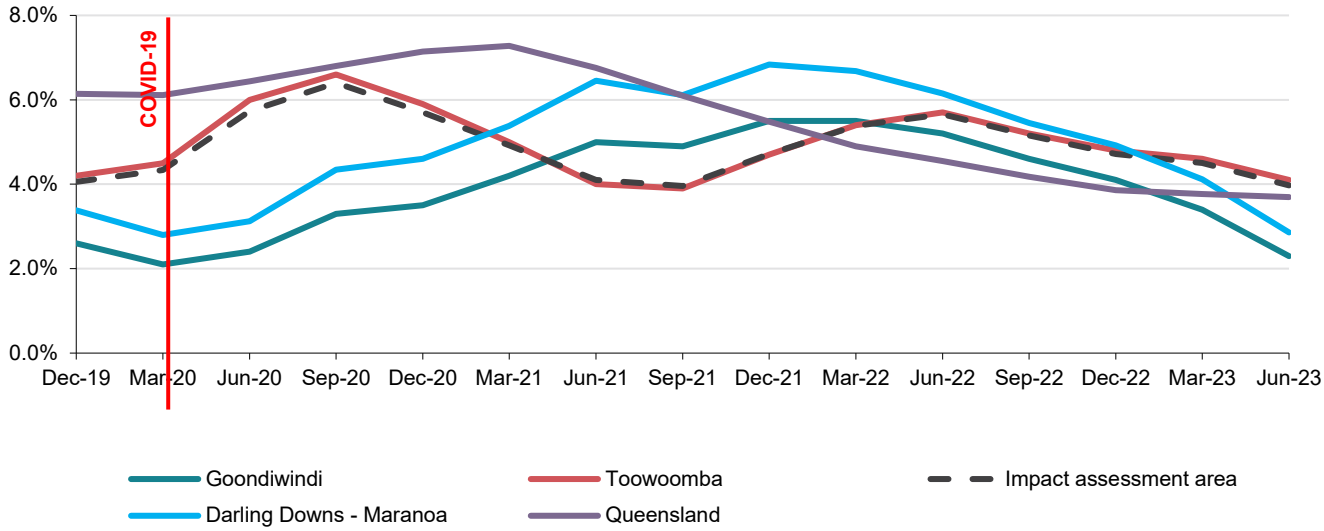

FIGURE 18-4 UNEMPLOYMENT RATES DURING THE COVID-19 PANDEMIC, SMOOTHED (NOTE 1)

Source: Jobs and Skills Australia 2023, Small Area Labour Markets (SALM), LGA data tables, June quarter 2023; ABS 2023, Labour Force, Australia, Detailed: Table 16. Labour force status by labour market region (ASGS) and sex, annual averages of the previous 12 months.

Note 1: Four quarters for LGAs, 12 months for regional economic catchment and Queensland.

The most recent detailed labour force statistics for LGAs reflect data from June 2023. It should be noted that the labour market is continuing to change in response to the changing economy and should continue to be assessed throughout the pre-construction activities and early works, detailed design, and construction works stages of the Project. For June 2023, the unemployment rate in the impact assessment area was 2.3 per cent in Goondiwindi LGA and 4.1 per cent in Toowoomba LGA. This is compared to an average unemployment rate over the past four quarters from June 2022 to June 2023 of 3.6 per cent for Goondiwindi and 4.7 per cent for Toowoomba. The regional economic catchment has an unemployment rate of 2.9 per cent in June 2023, significantly lower than the average 4.3 per cent over the past four quarters, as seen in Table 18-2 below.

TABLE 18-2 SUMMARY OF LABOUR FORCE CHARACTERISTICS, JUNE 2023, SMOOTHED[1]

Area	Labour force	Participation rate[2]	Unemployed persons	Unemployment rate	12-month unemployment rate average
Goondiwindi LGA	5,725	72.7%	130	2.3%	3.6%
Toowoomba LGA	89,393	62.2%	3,650	4.1%	4.7%
Impact assessment area	95,118	62.8%	3,780	4.0%	4.6%
Darling Downs–Maranoa region[3]	66,785	63.8%	1,968	2.9%	4.3%
Queensland	2,810,089	61.6%	107,832	3.7%	3.9%

Source: Jobs and Skills Australia 2023, Small Area Labour Markets (SALM), LGA data tables, June 2023; ABS 2023, Labour Force, Australia, Detailed: Table 16. Labour force status by labour market region (ASGS) and sex, annual averages of the previous 12 months.

Note 1: Four quarters for LGAs, 12 months for regional economic catchment and Queensland
Note 2: Participation rate for working-age population 15+ based on 2021 labour force and age data
Note 3: The Darling Downs–Maranoa labour market region does not capture the entire Toowoomba LGA, as shown in Figure 18-1

For the June 2023 quarter, the labour force participation rate across the impact assessment area (62.8 per cent) was higher than the Queensland labour force participation rate (61.6 per cent). This higher participation is more concentrated in Goondiwindi (72.7 per cent) than in Toowoomba (62.2 per cent).

18.4.1.4 Railway construction labour availability

Despite high demand for specialist construction workers over the past five years, railway track construction wage costs as a share of revenue have fallen to account for 23.3 per cent of railway track construction industry revenue in 2022–23. In comparison, wages in the broader construction industry account for only 18.6 per cent of revenue.

Industry employment in the railway track construction industry has more than doubled over the past five years, reflecting new competitors in the market attracted to major rail projects (Kelly, 2022a).

Record levels of activity are expected over 2023–24 in the railway track construction industry, off the back of landmark rail projects in most capital cities (e.g. Melbourne Metro, Sydney Metro, Canberra Metro, and Cross River Rail). While industry performance is expected to be high, a staged approach to project completion means the industry will experience substantial revenue volatility. Demand for railway construction labour is expected to be high over this time (Kelly, 2022b).

18.4.1.5 Indigenous labour force

According to the 2021 Census, the Indigenous population is inadequately represented in the impact assessment area's workforce, which is reflected in the high rates of Indigenous unemployment and low labour force participation.

Across the impact assessment area, approximately 12.9 per cent of the Indigenous population is unemployed (12.7 per cent in Toowoomba and 16.4 per cent in Goondiwindi). This has changed significantly since the previous Census (2016), wherein 18.6 per cent of the Indigenous population in the impact assessment area were unemployed (with the highest Indigenous unemployment rate in Toowoomba at 19.0 per cent).

The labour force participation rate for the Indigenous population in the impact assessment area was 65.6 per cent, compared to a total rate of 62.8 per cent.

18.4.1.6 Youth labour force

As shown in Table 18-3 below, youth (15 to 24 years) unemployment rates are high across the impact assessment area and regional economic catchment, more than double the total unemployment rate. In Toowoomba, the youth unemployment rate is more than double the total unemployment rate (10.3 per cent compared to a total unemployment rate of 4.1 per cent). In Darling Downs–Maranoa, the youth unemployment rate is 8.4 per cent, compared to a total unemployment rate of 2.9 per cent; however, compared to the previous Census (2016), youth unemployment rates in the region are lower. In 2016, the impact assessment area recorded a youth unemployment rate of 14.6 per cent, which has reduced to 10.2 per cent in 2021.

TABLE 18-3 YOUTH LABOUR FORCE, 2021

	Youth labour market (2021)			Total labour market (2023)		
	Unemployment rate	Unemployed persons	Participation rate	Unemployment rate	Unemployed persons	Participation rate (Note 1)
Goondiwindi	7.1%	52	68.0%	2.3%	130	72.7%
Toowoomba	10.3%	1539	68.1%	4.1%	3650	62.2%
Impact assessment area	10.2%	1591	68.1%	4.0%	3780	62.8%
Darling Downs–Maranoa region	8.4%	767	65.7%	2.9%	1968	63.8%

Source: ABS 2021, 2021 Census — Counting Persons, Place of Usual Residence (MB), LGA & SA4 (UR) by AGE5P — Age in Five Year Groups by LGA & SA (UR) by LFSP Labour Force Status; Small Area Labour Market (2023) Smoothed Labour Force, Smoothed Unemployment, Smoothed Unemployment Rate.

Note 1: 2021 Participation rate for working-age population 15+ based on 2021 labour force and age data.

Youth labour force participation rates are similar in Toowoomba and Goondiwindi (68.1 per cent and 68.0 per cent), compared to 65.7 per cent in the Darling Downs–Maranoa region. Lower levels of labour force participation indicate that a high proportion of young people are either not able to work or are not actively looking for work (for example students, or those who are voluntarily inactive). Across the impact assessment area, approximately two-thirds of young persons who are not in the labour force are studying full time (71.1 per cent across the impact assessment area, with 71.6 per cent in Toowoomba and 59.3 per cent in Goondiwindi). This indicates that, locally, there is limited capacity in the youth labour force, who may have the skills to be engaged in the Project. Local workforce participation programs may be required to support youth employment.

18.4.1.7 Household income

The distribution of the population by total household income level in the impact assessment area and regional economic catchment are compared in Table 18-4 below. As a measure of socio-economic disadvantage, household income levels reflect relative disadvantage across the impact assessment area and regional economic catchment compared to the State average. As outlined in the table, a higher proportion of households across the impact assessment area and regional economic catchment earn less than $500 per week compared to Queensland.

As seen in Table 18-4 below, the median weekly household income across the impact assessment area and regional economic catchment is lower than the State average ($1,402). Median weekly household income is highest

in Toowoomba and Goondiwindi at $1,461 and $1,394 per week, respectively, and lowest across the Darling Downs–Maranoa region at $1,280 per week.

TABLE 18-4 DISTRIBUTION OF POPULATION BY WEEKLY HOUSEHOLD INCOME, 2021 (NOTE 1)

Area	Weekly income			Median Income
	< $500	$500–$1,249	= or > $1,250	
Goondiwindi LGA	13.7%	34.6%	48.8%	$1,394
Toowoomba LGA	12.2%	35.2%	52.7%	$1,461
Darling Downs–Maranoa region	14.6%	37.0%	46.1%	$1,280
Queensland	10.9%	31.4%	57.3%	$1,675

Source: ABS 2021 Census of Population and Housing (ABS, 2021b)

Note 1: *This excludes all the following responses: negative, partial, and incomplete income declaration.*

18.4.2 Business and industry

18.4.2.1 Place of work for industry of employment

Place of work for industry of employment is used to analyse the sectoral distribution of jobs located within the impact assessment area. It captures all jobs located within the area that are filled by local residents and those who travel to the area for employment.

The impact assessment area is a place of work for approximately 79,479 persons (who live both within and outside the catchment area), which broadly reflects the number of jobs located within the impact assessment area. Industry by employment in the impact assessment area is shown in Figure 18-5.

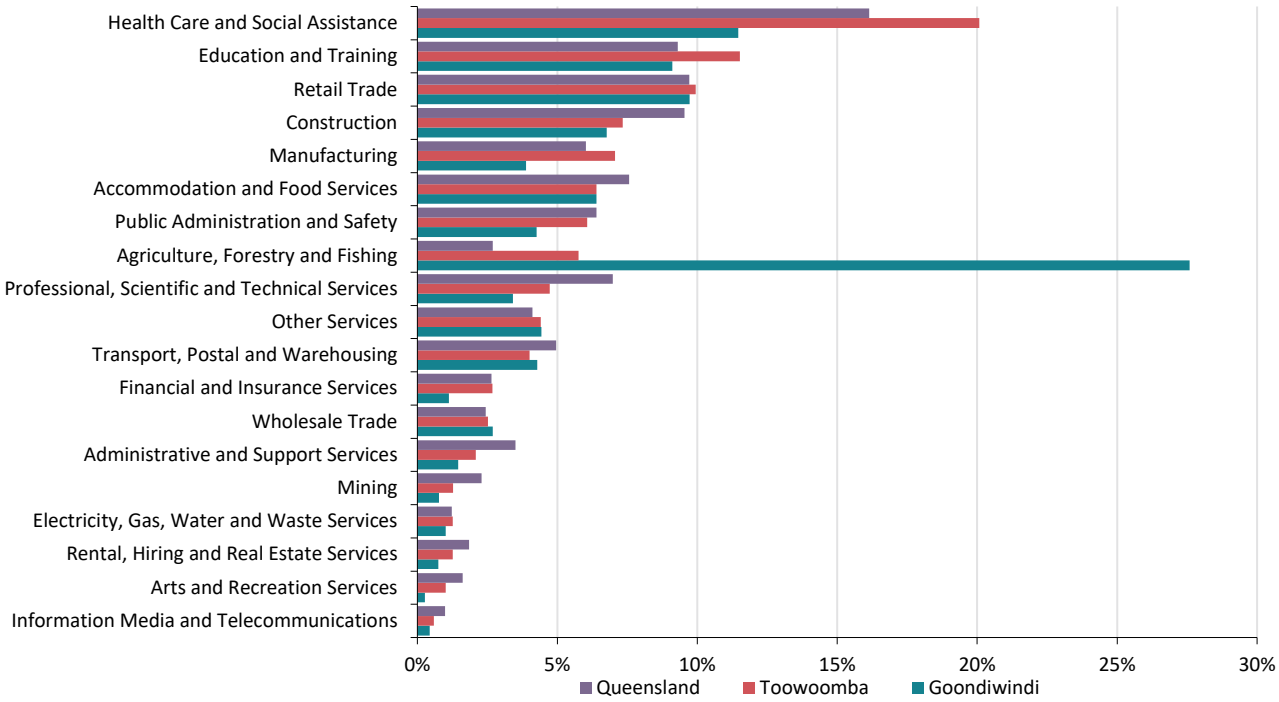

FIGURE 18-5 INDUSTRY BY EMPLOYMENT, IMPACT ASSESSMENT AREA, BY PLACE OF WORK, 2021

Source: ABS 2021 Census of Population and Housing (excluding not applicable) (ABS, 2021b)

Consistent with the impact assessment area's employment by industry, the sectoral distribution of jobs differs between Goondiwindi and Toowoomba.

Within Goondiwindi, Agriculture, Forestry and Fishing is the largest industry of employment, accounting for nearly one-third of all jobs in the area (1,251 jobs). Within this industry, most workers are employed in the Sheep, Beef Cattle and Grain Farming sector (806 persons), which is reflected in the local business and industry profile below (see Section 18.4.3).

The strength of the impact assessment area's agricultural sector highlights the importance of supply chain efficiency in supporting the area's economy. There are opportunities offered by the Project to improve the productivity of the

local industry by reducing the distance between dispersed agricultural activities to processing facilities and markets. These impacts are outlined in the economic benefits assessment (see Section 18.7).

The distribution of employment across industries in Toowoomba is more diverse. The highest proportion of jobs is in service-based industries such as Health Care and Social Assistance (20.1 per cent), Education and Training (11.5 per cent) and Retail Trade (9.9 per cent). These sectors are important in meeting the demand for local services from the local population.

While the Agriculture, Forestry and Fishing industry only represents 5.8 per cent of jobs in Toowoomba, the industry supports approximately 4,314 jobs, predominately in Sheep, Beef Cattle and Grain Farming.

18.4.3 Local businesses and industry

18.4.3.1 Agriculture industry

The Darling Downs–Maranoa region is one of Queensland's most fertile and productive agricultural areas, positioned on the western slopes of the Great Dividing Range and traversing the Condamine River catchment. The most common land use in the region is grazing modified pastures. Dry land and irrigated cropping, timber production, and intensive horticulture and animal production are also common production activities in the region (Australian Bureau of Agricultural and Resource Economics (ABARES), 2018). Accordingly, the agriculture industry offers significant export opportunities for the region, particularly for agricultural and livestock products.

In 2020–21, the gross value of agricultural production in the Darling Downs–Maranoa region was $3.59 billion, representing 24.7 per cent of the total gross value of agricultural production in Queensland ($14.6 billion). The region's agricultural sector is diverse, with the most valuable agricultural commodities being crops ($1.7 billion), and livestock slaughtered and other disposals ($1.6 billion) (ABS, 2021d).

The Darling Downs–Maranoa region contains one-quarter of all farm businesses in Queensland (4,413 recorded farms). The highest proportion of businesses are in beef cattle farming (49.3 per cent), followed by grain growing establishments (13.7 per cent) (ABARES, 2018).

At a local level, the total value of agricultural production in Goondiwindi is approximately $533.1 million. By value of production, crops represent over half of the major agricultural commodities produced in the region (63.9 per cent) (ABS, 2021d). The combination of biophysical attributes exhibited in this area (including slope and water-holding capacity) enables this region to support large areas of broadacre cropping, comprised mainly of cotton. The cotton industry in Goondiwindi is worth over $350 million (Goondiwindi Regional Council (GRC), 2019).

The Toowoomba region produces a wide range of agricultural products, including eggs, beef, horticultural products, grain, dairy products, and cotton. The total value of agricultural production in the region in 2020–21 was $1.1 billion. In 2019–20, agricultural exports from the region were valued at $757 million, and comprised 55.0 per cent of the region's total agricultural output, highlighting the region's strong export focus. Accordingly, the Toowoomba region is well placed to leverage its strengths in agriculture, and benefit from exporting its products to interstate and overseas markets (Toowoomba Regional Council (TRC, 2020b).

Across the impact assessment area, the largest proportion of businesses is in the Agriculture, Forestry and Fishing industries. This reflects the area's land use and inland location, with 889 businesses in Goondiwindi (45.7 per cent) and 3,532 businesses in Toowoomba (21.0 per cent) operating in this industry sector (ABS, 2022b).

Livestock operations and stock routes

As identified in Chapter 8: Land Use and Tenure, there are a number of current intensive livestock operations traversed by, or immediately adjacent to the Project:

- Aqualark Pty Ltd, Yarranbrook Whetstone—Cattle feedlot
- D M Fletcher, Bringalily—Cattle feedlot
- Russel Sydney & Kim Maree Stevens, Millwood—Cattle feedlot
- Cameron Pastoral Co. Pty Ltd., Yandilla—Piggery
- Smithfield Service Pty Ltd (Sapphire feedlot)—Cattle feedlot
- F J and F E Verdon—Cattle feedlot
- Fiona Elder and Simmon Booth—Cattle feedlot (400 m to the east of the Project footprint)
- Boondooma Country Pork Pty Ltd—Piggery (250 m to the east of the Project footprint)
- Doug Hall Poultry Pty Ltd—Poultry farm (1 km east of the of the Project footprint).

The Project also interfaces with stock routes at 11 locations. As described in Chapter 5: Project Description, the State stock route area networks are primarily used by the pastoral industry as:

- An alternative to transporting stock by rail or road

- Pasture for emergency agistment
- Long-term grazing.

18.4.3.2 Tourism industry

Tourism is a significant industry for the regional economic catchment. Southern Queensland Country is recognised as a popular tourist destination for visitors seeking to explore rural landscapes and attractions.

According to Tourism Research Australia, the four-year average (2016–2019) of total tourism expenditure in the Southern Queensland Country tourism region (previously referred to as The Darling Downs–Maranoa tourism region) was $1,380 million, which has been increasing, on average, over the past decade. The region received an average of over 6.2 million visitors, comprised of approximately 2.2 million domestic overnight visitors and 56,000 international visitors, with the remaining 4.0 million being domestic day visitors (Tourism Research Australia, 2018), as shown in Table 18-5 Tourism visitation and expenditure, four-year average 2016–2019[1] below.

TABLE 18-5 TOURISM VISITATION AND EXPENDITURE, FOUR-YEAR AVERAGE 2016–2019[1]

Four-year average 2016-2019	Domestic overnight visitors		International overnight		Domestic daytrip	
Area	**Visitors**	**Expenditure**	**Visitors**	**Expenditure**	**Visitors**	**Expenditure**
Goondiwindi	198,000	$58 m	3,000	$3 m	151,000	$40 m
Toowoomba	928,000	$352 m	28,000	$44 m	2,109,000	$289 m
Southern Queensland Country	2,195,000	$810 m	56,000	$93 m	4,014,000	$477 m

Source: Tourism Research Australia, LGA and Tourism Region Data Profiles, 2019

Note 1: 2016-2019 LGA Tourism data is the latest freely available for LGA-level data.

At a local level, Toowoomba received 3 million visitors annually, on average, between 2016 and 2019, the majority of which were domestic day visitors (2.1 million). The remainder were international visitors (28,000) and domestic overnight visitors (928,000). Expenditure by these visitors totalled $685 million, including local spending at the region's 1,651 recorded tourism businesses (Tourism Research Australia, 2019).

Goondiwindi received 352,000 visitors annually, on average, between 2016 and 2019, the majority of which were domestic overnight visitors (198,000). The remainder were international visitors (3,000) and domestic overnight visitors (151,000). Expenditure by these visitors totalled $101 million in 2019, through participation with 138 recorded tourism businesses. A high proportion of visitors travel through the area on driving holidays.

Southern Queensland Country, along with other tourism regions, visitors and expenditure figures declined sharply in 2020 due to the impact of COVID-19 on the economy and travel patterns. Domestic travel restrictions and international border restrictions limited the number of visitors to the region, with visitor numbers decreasing by 16.2 per cent (2018–19 to 2020–21). Similarly, visitor expenditure decreased by 13.2 per cent from 2018–19 to 2020–21. Tourism has increased since the peak of the decline caused by the COVID-19 pandemic although not to pre-pandemic levels (Tourism Research Australia, 2021).

18.4.3.3 Mineral resource and petroleum interests

There are four mineral or coal resource authorities and four applications for mineral or coal resource authorities within the Project footprint, as well as one mineral or resource authority within the impact assessment area for the Project.

The exploration permits include one for coal and one for minerals other than coal near Canning Creek, and three applications for geothermal permits near Yelarbon (lodged in May 2022), and between Southbrook and Gowrie (lodged in August 2022).

One mineral development licence (MDL) for coal near Bringalily and Domville. MDL 299 expired in December 2022 but a renewal has been lodged. A second mineral development licence (MDL 301) in the same vicinity expired in July 2022; however, was granted an extension until July 2024.

The mining lease permit ML 50151 and mining lease application (ML 700072) are associated with Commodore open cut mine near Clontarf and Domville. The mining lease (ML 700072) application was lodged in December 2021 and facilitates the proposed expansion of the mine through the conversion of MDL 301 and MDL 299.

There are two petroleum licenses within the Project footprint. These licenses are associated with the Moonie to Brisbane pipeline (PPL 1) at Southbrook and the Roma to Brisbane Pipeline (PPL 2) at Kingsthorpe.

18.4.3.4 Local business

Construction

There are a number of construction businesses located within the impact assessment area, with a total of 1,334 employing businesses (86 in Goondiwindi and 1,248 in Toowoomba) and a further 1,559 non-employing businesses across the area. These businesses are likely to be a significant source of services and equipment during the Project's construction. The supply of labour from these local businesses may be limited, with only 3 businesses in Goondiwindi and 33 businesses in Toowoomba employing more than 20 persons (ABS, 2021c).

As detailed in the SIA (see Appendix X: Social Impact Assessment), seven nearby quarries have been identified with the potential to supply the Project, including:

- Inglewood Quarry
- Captains Mountain Quarry
- Bland Quarries, Pittsworth
- Quarry Road Quarry
- Toowoomba Quarry
- Wellcamp Downs Quarry
- Toowoomba Wellcamp Quarry.

The Project will also require material sourced from borrow pits. Six potential borrow pit locations along the Project alignment between Goondiwindi and Millmerran have been identified as possibly suitable for the sourcing of structural fill.

All borrow pit locations are within the Darling Downs Regional Planning Area, with four borrow pit locations within the GRC jurisdiction and two borrow pit locations within the TRC jurisdiction (see Appendix AD: Borrow Pits: Supporting Technical Information).

Transport

While transport is not a significant industry within the impact assessment area, there are several large transport companies based in the impact assessment area and regional economic catchment, which may have the capacity to support the construction of the Project, including:

- Marshall Group, operating a number of aluminium trailers including B doubles and road trains to haul grain into feedlots in SEQ
- Frasers Livestock Transport, operating livestock transportation with more than 150 trailers of all configurations
- Woods Transport has a large fleet of vehicles travelling between Goondiwindi, Toowoomba, and the Port of Brisbane.

Toowoomba Enterprise Hub

The Toowoomba Enterprise Hub is located south-east of the Project, encompassing an internationally capable airport and a freight facility with more than 2,000 hectares (ha) of industrial land on the western outskirts of Toowoomba.

The Toowoomba Enterprise Hub is comprised of:

- Toowoomba Wellcamp Airport: Located approximately 15.5 km (kilometres) west of Toowoomba central business district (CBD), Wellcamp Airport supports interstate, intrastate and international connections for the Darling Downs, Granite Belt, Surat Basin and Southern Downs regions. Wellcamp Airport is a passenger and freight airport.
- Wellcamp Business Park: An airport-centred precinct with aviation, logistics, transport, corporate and mining services focus. The park is located approximately 17 km west of the Toowoomba CBD, and north of the Toowoomba Wellcamp Airport.
- The Witmack Industry Park: An industrial precinct offering large industrial land parcels, located close to transport infrastructure, including Warrego Highway, the Toowoomba Bypass and the Inland Rail Program.
- The Charlton Logistics Park: An industrial precinct for transport and logistics operators, located on the Warrego Highway, with easy access to the Toowoomba Bypass
- InterlinkSQ: A proposed major intermodal (rail and road) freight and logistics centre, north of the Warrego Highway. InterlinkSQ includes an Inland Port, Intermodal Terminal and port rail shuttle.

18.5 Inland Rail Program impacts

This EIA has focused on the specific economic impacts resulting from the construction and operation of the Project; however, the assessment acknowledges the role of the Project, and the remaining project segments, in collectively delivering the benefits of the Inland Rail Program. In its entirety, the Inland Rail Program will enhance Australia's existing national rail network and serve the interstate freight market. As per the *Inland Rail Program Business Case* (ARTC, 2015a), the anticipated economic impacts of the Inland Rail Program include:

- Lower prices for consumers as a result of lower inter-capital freight transport costs, which reduces the cost of living for households
- Positive direct net economic benefits are driven by improvements in freight productivity, reliability and availability, and benefits to the community from reduced environmental externalities, reduced road congestion and improved safety benefits. The Inland Rail Program is stated to be economically viable with a cost-benefit ratio of 1.02 at a 7 per cent discount rate (2.62 at a 4 per cent discount rate).
- Economic growth as increased profits (for industries and producers where inter-capital freight is an input or output) and incomes are multiplied through the economy. The Inland Rail Program is anticipated to deliver a net positive impact of $16 billion on Gross Domestic Product ($2015) over its 10-year construction period and 50 years of operation.
- Nationally, the Inland Rail Program is also expected to deliver an additional 16,000 jobs at the peak of construction, and an average of 700 additional jobs per annum during operation
- Enhanced competition between rail and road freight, by providing a credible transport alternative, which will drive further innovation and efficiency
- Potential to promote the expansion and development of freight precincts around Inland Rail terminals as a result of the benefits from co-location and clustering of industries (as a result of reduced transport costs to warehousing, economies of scale and knowledge-sharing opportunities).

Anticipated supply chain efficiencies

It is anticipated the Inland Rail Program will result in a shift away from alternative modes of transport towards freight rail, offering a more efficient solution for intrastate and interstate freight operators who will be able to avoid inland and coastal road networks and coastal rail networks. By offering increased freight speeds and carrying capacities, the Inland Rail Program offers opportunities to improve the productivity of local export industries such as agriculture, by making rail freight transportation more competitive. For large, heavy loads of products such as grain and cattle, industry will be able to get their product to market more quickly and efficiently. This may encourage additional expansion of these local industries.

See Section 18.9.1 for more information on supply chain benefits resulting from the Project.

Anticipated value chain efficiencies

The Inland Rail Program will enhance the attractiveness of the corridor as a location for investment in value-add operations including logistics, manufacturing and warehousing. Key examples could include grain storage facilities, cotton handling facilities, and regional airport expansions. The Inland Rail Program will also encourage the formation of supply chain hubs such as intermodal facilities. There are already several intermodal facilities being investigated because of the Inland Rail Program. In Queensland, there are a number of existing intermodal facilities, including Acacia Ridge, Bromelton and the Brisbane Multimodal Terminal at Port of Brisbane. Funding has been received through the Queensland Government's Job Fund for a new road and rail intermodal 'InterLinkSQ' located in Charlton in the Darling Downs region, which will promote increased productivity and jobs growth in the region. A new intermodal facility is also being investigated at Ebenezer as recommended by the Australian Government response to the Independent Review of Inland Rail (2023).

The construction of ancillary and complementary infrastructure such as intermodal terminals ensures the efficient connectivity of freight between transport modes, allowing better connectivity to ports, regional networks, capital cities, and other locations not reached by the Inland Rail alignment. This critical infrastructure will improve market access and could lead to the expansion of local agricultural businesses and industry, promoting employment and economic growth. These improvements will only be fully realised once investment in the Inland Rail intermodal facilities and other critical supply chain infrastructure is complete.

Refer to Section 18.9.4 for more information on specific value chain opportunities at the Toowoomba Enterprise Hub in Wellcamp.

18.6 Workforce impacts

18.6.1 Direct employment

The Project will result in a number of direct employment opportunities across the pre-construction activities and early works, construction works, and operations stages of the Project. These jobs have been estimated based on the indicative construction schedule and component activities. Table 18-6 below provides an overview of the employment needs across the different stages of the Project.

TABLE 18-6 EMPLOYMENT ACROSS PROJECT STAGES

Project stage	Description	Workforce needs
Pre-construction activities and early works, and construction works	Construction activities are undertaken by the contractor and include: ▸ Site set out and pegging within the Project footprint ▸ Establishment of laydown areas and compounds, including vehicle inspection/workshops, washdown facilities and temporary fencing as required ▸ Clearing—using dozers, chainsaws, excavators, trucks and similar equipment ▸ Establishment of erosion and sediment controls as per the approved Erosion and Sediment Control Plan ▸ Rail corridor works, including track works turnouts and crossing loops ▸ Road and road-rail interface works ▸ Rail maintenance access roads (RMAR) ▸ Bridge construction ▸ Fencing ▸ Signalling and communications ▸ Laydown, stockpile, and storage areas ▸ Ballast—supply, delivery and installation ▸ Concrete sleepers—supply, delivery and installation ▸ Utilities and services to support/service the Project ▸ Bulk earthworks—major cut-to-fill operations, including the winning of suitable construction material from sections of cut along the Project alignment or from borrow pits external to the site ▸ Permanent and temporary drainage controls, including culverts and longitudinal drainage ▸ Clean-up, landscaping, site restoration and rehabilitation ▸ The Whetstone MDC	The workforce required for Project construction is estimated to peak at 900 full-time equivalents (FTE) around week 80 of construction. There will be on average of 383 personnel deployed across the full construction period. Preliminary estimates indicate a workforce of between 10 to 15 personnel will be needed following Project construction. See Chapter 5: Project Description for further information. The core construction workforce will consist of professional staff, supervisors, trade workers and plant operators, with earthworks crews, bridge structure teams, and capping and trackwork crews working at different periods through the construction works stage. The construction workforce is expected to be drawn from SEQ, the Goondiwindi and Toowoomba LGAs, as well as from within northern NSW in the Moree Plains and Gwydir LGAs. The Toowoomba LGA has the largest proportion of workers employed in the construction industry across the impact assessment area (Section 18.4.1.1). The MDC will require an estimated 55 personnel during the establishment of the facility. In addition, the MDC will require approximately 76 personnel over a three-year period during the construction works stage. See Chapter 5: Project Description for further details
Operations	The railway will operate 24 hours a day, 365 days a year, on a variable schedule. A more detailed description of the workforce that is needed to operate Inland Rail can be found in Chapter 5: Project Description.	It is likely that some of the operational workforce will be drawn from the SIA study area. See Chapter 17: Social for further information.

Construction schedules assumed for the purposes of EIS technical assessments have been based on information available at the time of assessment and are subject to change.

18.6.1.1 Local employment

Overall, the Project has a significant opportunity to support local employment. At the time of construction, local employment is dependent on a number of factors, including labour market conditions, skills availability, and the existence of workforce training and participation programs to support local, Indigenous and youth employment.

The ability of the local economy to supply labour to the Project depends on the specific location of works along the alignment. At the southern extent of the Project alignment, workers may be drawn from the surrounding local and regional communities, including across the NSW State border. At the northern extent, labour supply is likely to be sourced locally within the Toowoomba region. Along the alignment, labour supply may be sourced from the local or broader economy due to the establishment of the proposed non-resident workforce accommodation facilities near Millmerran, Inglewood and Yelarbon.

While the risks of labour shortages are high, the deterioration in the Darling Downs–Maranoa labour market indicates opportunities for recruiting, training and re-skilling available workforces in the region to supply a portion of the workforce requirements of the Project. In a national and State context, however, the Project will be completed in a relatively tight labour market, particularly for specialist skilled jobs, which may impact the ability of the broader workforce to support the delivery of the Project.

ARTC has recently completed a procurement process for the Project's construction contract through ARTC's *Industry Participation Policy* that engages Australian manufacturers, suppliers, and service providers in the delivery of the Inland Rail Program. This process incentivises competitive bidding for local employment and procurement strategies. ARTC will engage with its contractors to set targets and performance measures for local employment, and will monitor contractors' progress towards sustainable employment opportunities.

To optimise local employment, the Project procurement process for the construction contract will incentivise contractors to maximise local benefits through enabling competitive bidding for local employment and procurement targets. During construction, the proportion of personnel to be drawn from the regional economic catchment will be determined by the contractor based on the availability of personnel across the range of occupations and trades. The contractor will be required to report on local employment outcomes and opportunities for training and employment.

The Project will underpin its planning with the minimum participation targets set by relevant Commonwealth and Queensland policy. Where policy benchmarks do not exist, minimum targets have been set with consideration for baseline labour and supply chain conditions, likely cumulative demand and competition for roles or supply at the time of Project construction, and key stakeholder inputs. The Project will drive outcomes toward aspirational or incentivised targets with contractors to exceed these minimum benchmarks.

The Project is committed to a minimum local employment target of 15 per cent and 11 per cent female participation target for the construction works stage. These targets have considered the baseline labour conditions, likely cumulative demand and competition for roles or supply at the time of Project construction, and input from key stakeholder consultation. More details related to local employment targets can be found in Chapter 17: Social and Appendix X: Social Impact Assessment.

ARTC will continue to engage with local stakeholders including councils, the Toowoomba Chamber of Commerce, and the Goondiwindi Chamber of Commerce to monitor labour draw. ARTC will implement corrective actions as necessary, such as recruitment advertising or specific training strategies aimed at skilled shortages. ARTC has partnered with GRC to facilitate the provision of a local employment roadmap and local employment portal for the Goondiwindi LGA, to increase the awareness of job and lifestyle opportunities in the Goondiwindi LGA, including jobs that will be available through Inland Rail.

ARTC has established the Inland Rail Skills Academy to help create opportunities for education, training, skills development, and employment for communities along the Inland Rail Program alignment. The Inland Rail Skills Academy includes a number of partnerships and programs, including undergraduate scholarships, science, technology, engineering, and maths (STEM) education, training programs, and a partnership between ARTC and the Australasian Railway Association. ARTC is working with Construction Skills Queensland (CSQ) to identify specific skills and labour shortages, to support ARTC's identification of priority areas for consideration as part of the Inland Rail Skills Academy programs.

Refer Appendix X: Social Impact Assessment for further information.

18.6.1.2 Indigenous participation

As identified in Appendix X: Social Impact Assessment, consultation with Bigambul Native Title Aboriginal Corporation (BNTAC), Western Wakka Wakka people and endorsed Aboriginal parties has indicated a strong interest in employment opportunities for Indigenous people, and emphasised the need for early engagement with Indigenous communities so that workers can be job ready. The SIA (Appendix X: Social Impact Assessment) has identified actions to support Indigenous employment through the Project. The actions outlined in the SIA have been informed by the ABS 2021 Census Indigenous labour force statistics. These are discussed below. In addition, the Whetstone MDC establishment will offer employment opportunities to Indigenous people supported by specific training partnerships.

ARTC undertook a skills survey with Bigambul young people as part of a September 2019 youth summit. The results indicate a keen interest in working as part of the Project on Country. It was noted that key skills and development needs, including obtaining licences and operators' certificates, and mentoring and peer support, should be provided to help Indigenous youth succeed in employment.

The Inland Rail's tender assessment criteria includes local and First Nations participation as a key element of all construction tender assessments. The minimum Indigenous procurement and employment participation targets, based on the *Commonwealth Indigenous Procurement Policy*, are based on a 3 per cent Indigenous procurement minimum and a 4 per cent minimum Indigenous employment participation rate by 2027–28.

ARTC has developed the Inland Rail *Indigenous Participation Plan* as the foundation of its commitments to Indigenous employment and training opportunities for Indigenous people. In addition, the *Industry Participation Policy* adopted by ARTC is committed to maximising opportunities for Indigenous businesses, and adheres to the *Indigenous Procurement Policy.*

ARTC will engage with its contractors to set targets and performance measures for Indigenous employment, and will monitor contractors' progress towards employment targets. Where policy benchmarks do not exist, the minimum Indigenous employment target is 4.0 per cent. In line with local employment strategies, ARTC will be required to report on employment and procurement outcomes monthly that will be shared publicly, and address further SIMP reporting requirements. In addition, an analysis of construction labour availability will be conducted prior to construction to support further refinement of recruitment and training strategies.

ARTC is also partnering with the Clontarf Foundation through the Inland Rail Skills Academy to provide funding to support the education, training and employment of Indigenous youth in communities along the Inland Rail Program alignment.

The SIMP (specifically, the Health and Community Wellbeing sub-plan) specifies that ARTC commits to ongoing engagement with Indigenous communities, families and Elders to support Indigenous employees, underpinned by a high level of coordination between contributing programs and agencies (see Appendix X: Social Impact Assessment).

18.6.1.3 Workforce housing

The construction workforce is expected to be drawn predominantly from SEQ, with some personnel sourced from nearby communities (including within northern NSW). To mitigate potential impacts on local housing access and short-term accommodation, and due to the distances that personnel would be required to travel from population centres to construction sites, the Project proposes three temporary non-resident workforce accommodation facilities. Two of the accommodation facilities have been proposed to be located in the vicinity of Yelarbon and Inglewood, with the third facility (not addressed in the revised draft EIS) proposed near Millmerran.

While it is likely that the non-resident workforce accommodation facilities would operate concurrently, they would not be fully occupied at the same time, as workers would move between facilities as construction proceeds along the alignment. Each facility will have a capacity to accommodate a minimum of 300 beds, which will be sufficient to collectively meet the peak workforce demand and an average occupancy outside the peak period of approximately 270 people per facility. Based on a range of criteria for assessing the location to establish the non-resident workforce accommodation facilities, the locations for the Yelarbon and Inglewood facilities have been identified:

- Cunningham Highway, Yelarbon (Lot 30 MH721)
- Millmerran–Inglewood Road, Inglewood (Lot 5 MH75).

The landowners for the two proposed properties have been consulted and each are receptive to having a non-resident workforce accommodation facility located on their property. The service life of the non-resident workforce accommodation sites will be restricted to the construction works stage for the Project. These accommodation sites will have the capacity to accommodate the additional 76 personnel required to operate the Whetstone MDC. Based on data from the Queensland Land Use Mapping Program, these locations have been contained to rural land used for grazing, native vegetation and cropping purposes.

A breakdown of the schedule and activities related to the construction of the two non-resident workforce accommodation sites can be found in Chapter 5: Project Description.

The location for the third Millmerran-based non-resident workforce accommodation facility has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran-based non-resident workforce accommodation facility will be undertaken during detailed design.

Project personnel will travel between their homes or temporary non-resident workforce accommodation facilities and worksites using passenger vehicles such as utilities and four-wheel drives. The contractor will consider the use of buses to transport workers between non-resident workforce accommodation facilities and worksites, depending on the number of personnel at different times and the distribution of crews between worksites. Temporary parking facilities for construction will be located within construction laydown areas, the rail corridor and within non-resident workforce accommodation facilities, with designated areas selected to minimise the potential for noise impacts. The provision of parking in each location will be sufficient to accommodate the number of vehicles associated with the maximum number of workers expected to use each area during peak occupancy. For more information, see Chapter 5: Project Description.

18.6.1.4 Changes to property and housing

A number of changes to property and housing could occur during construction as a result of the Project, including:

- Potential impacts to property prices due to noise, severance and visual amenity factors associated with the Project
- Increase in housing demand, in Millmerran, Pittsworth and Goondiwindi, with the potential to inflate rents and displace low-income rental households
- Impacts on local housing access, in the context of very low rental housing availability
- Additional stress on emergency support or housing support services as jobseekers visit local towns seeking Project work.

As identified in Appendix X: Social Impact Assessment, the implementation of temporary non-resident workforce accommodation facilities minimises the potential for Project personnel's housing demands to impact local housing access, and minimises demand for short-term accommodation, which could affect tourists' access to the region. The SIMP (specifically, the Housing and Accommodation sub-plan) specifies that construction contractors are to develop an Accommodation Management Plan for ARTC approval. This Accommodation Management Plan is intended to avoid, minimise and manage any potential impacts of the Project on property and housing.

18.6.1.5 Impacts on employment in other industries

Construction activity may draw existing staff or tradespeople away from local businesses or councils. The Project may also impact the availability of casual workers at harvest time if casual workers in the agricultural industry take up employment in the Project's construction instead. The SIA (refer Appendix X: Social Impact Assessment) states that this may be difficult to overcome with the relatively low level of unemployment in the impact assessment area; however, ARTC's training initiatives are expected to increase workforce skills and capacity, not just for the Inland Rail Program, but also for other industries, which may offset this impact. There is also potential for businesses in the SIA study area to benefit from Project supply opportunities, which may also offset any impacts of labour draw.

ARTC's key strategies to reduce labour draw include:

- Delivering training to increase the pool of skilled workers
- Orienting local businesses to Project opportunities and supporting business capacity building to enable businesses to upskill and/or build their workforces
- Monitoring of labour draw in cooperation with key stakeholders, such as local councils, enabling corrective action as required.

For more information, see Appendix X: Social Impact Assessment.

18.6.2 Indirect employment

The industrial and consumption effects of the Project will result in the creation of indirect jobs, both due to upstream and downstream linkages between the Project's activities and the rest of the economy, such as the stimulation of businesses further up the supply chain (e.g. manufacturers and suppliers of industry inputs), and the stimulation of activities downstream (e.g. through the provision of inputs to other sectors and the expenditure patterns of employees). The regional economic modelling results (see Section 18.8) indicate that indirect employment during the Project's construction will be generated in the Professional, Scientific and Technical Services, and Wholesale Trade sectors, reflecting the importance of these two sectors in the construction sector's supply chain.

18.7 Economic benefits assessment

The approach below reflects the three-step benefit assessment modelling process adopted for this EIA:

1. Define Base and Investment Cases: a clear articulation of the problem, investigation and definition of Base Case and Project Case options, and future demand drivers
2. Identify benefits: Identification of relevant economic, social and environmental benefits associated with impact groups, which can be measured for the Project
3. Monetise benefits: Quantification, monetisation and assessment of benefits over the Project appraisal period.

Economic benefits associated with increased efficiency in the construction and delivery of the Project, such as establishing the MDC in Whetstone to support Project construction, are not captured in this analysis.

Figure 18-6 outlines a typical CBA approach and its application to the assessment of the Project.

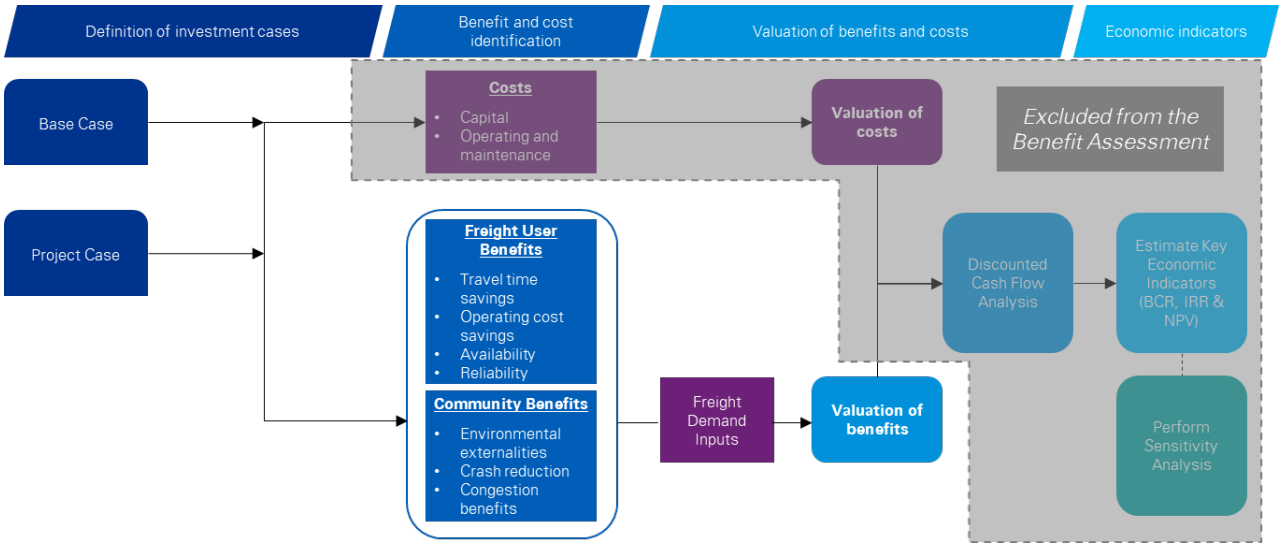

FIGURE 18-6 COST–BENEFIT ANALYSIS APPROACH AND THE ECONOMIC BENEFITS ASSESSMENT

Source: KPMG

The key difference between the complete CBA approach, and the economic benefits assessment approach adopted in this analysis, is the exclusion of costs. As a result, the estimation of economic indicators does not apply to this analysis; rather, the discounted present values of the benefits are the focus of the assessment.

18.7.1 Base Case and Project Case

The benefits assessment measures the incremental benefits derived by the Project, by defining two network performance scenarios:

- The **Base Case** adopted for this benefit assessment is a 'do nothing' scenario, where it is assumed that no other segments of the Inland Rail Program are progressed, and freight continues to be moved via either coastal rail or the road network
- The **Project Case** adopted for this benefit assessment is the Project. The economic benefits estimated as part of the analysis assess just those impacts that would be likely if freight operators were to respond to the completion of this individual project.

18.7.2 Benefit categories

The economic benefits assessment considers a range of benefit types, which have been categorised into two broad benefit streams:

- **Freight benefits**: These benefits include the changes in the cost to freight operators by switching mode from road to rail
- **Community benefits**: These benefits include the changes in costs to the community resulting from a reduction in delays on the road network, and other externalities, such as crash reductions and reduced environmental impacts.

Further details on the categories, inputs and assumptions of the economic benefits assessment are in Appendix Y: Economic Impact Assessment.

18.7.3 Economic benefits assessment results

The results of the economic benefits assessment estimate that the Project is expected to provide a total ($2022 present value terms) of $703.26 million in incremental benefits to the impact assessment area (at a 7 per cent discount rate). This consists of $539.91 million in freight benefits and $163.35 million in community benefits.

Observing the composition of benefits, the largest share of benefits for the Project is freight operating cost savings, representing approximately 46 per cent of the total benefits (at a 7 per cent discount rate). Freight benefits more broadly (including freight time travel savings, operating cost savings, as well as improved reliability and availability) represent approximately 77 per cent of the total projected benefits for the Project.

Reductions in environmental externalities (i.e. air pollution and greenhouse gas emissions) from reduced heavy vehicle kilometre travelled represents approximately 9 per cent of the total benefits (at the 7 per cent discount rate).

The full results of the economic benefits assessment are in Table 18-7.

TABLE 18-7 RESULTS OF THE ECONOMIC BENEFITS ASSESSMENT, PRESENT VALUE TERMS ($2022)

	Discount rate		
Benefits	**4%**	**7%**	**10%**
Freight benefits	**$1,081.25 m**	**$539.91 m**	**$311.35 m**
Travel time savings	$66.02 m	$33.96 m	$19.98 m
Operating cost savings	$606.86 m	$320.07 m	$192.98 m
Improved availability	$320.31 m	$144.86 m	$76.09 m
Improved reliability	$88.06 m	$41.03 m	$22.30 m
Community benefits	**$309.52 m**	**$163.35 m**	**$98.42 m**
Crash reduction	$42.25 m	$22.32 m	$13.47 m
Environmental externalities	$124.37 m	$65.53 m	$39.39 m
Road decongestion benefits	$142.90 m	$75.49 m	$45.56 m
Total benefits	**$1,390.77 m**	**$703.26 m**	**$409.77 m**

Source: KPMG

18.7.4 Cost–benefit analysis: Inland Rail Program Business Case

As already detailed, due to the nature of the incremental assessment approach adopted for this revised draft EIS, a Project-specific cost-benefit analysis (CBA) to assess the costs and benefits of the Project in isolation has not been undertaken. Findings from conducting a Project-specific CBA will not capture the full impact that is expected to be delivered on completion of Inland Rail. Instead, the results of the economic analysis undertaken for the *Inland Rail Program Business Case (2015)* are provided to illustrate the anticipated net economic impact of the Inland Rail Program on the community as a whole.

The results of this analysis, as presented in the *Inland Rail Program Business Case (2015)*, are in Table 18-8 below.

TABLE 18-8 ECONOMIC APPRAISAL RESULTS FOR INLAND RAIL ($2015)

	Net present value	Cost-benefit ratio
Present value at a 4% discount rate	$13,928 m	2.62
Present value at a 7% discount rate	$116.1 m	1.02

Source: Inland Rail Program Business Case (ARTC, 2015a)

The CBA results indicate that Inland Rail is estimated to be economically viable, with a cost-benefit ratio of 1.02 at a 7 per cent discount rate (2.62 at a 4 per cent discount rate). By beneficiary, inter-capital freight users account for 68 per cent of total benefits, followed by regional freight (16 per cent). A further 13 per cent of benefits accrue to the broader community.

Demand assessment estimates from the *2015 Inland Rail Program Business Case* indicated that Inland Rail could attract an approximate two million tonnes of agricultural freight from road to rail, particularly grain and cotton from New England and grain from the Darling Downs. Detailed information related to freight transition can be found in the key findings of the *2015 Inland Rail Program Business Case*.

Figure 18-7 provides an illustration of the changing market share of Melbourne to Brisbane intercapital freight from the 2013–14 financial year to the 2049–50 financial year with Inland Rail.

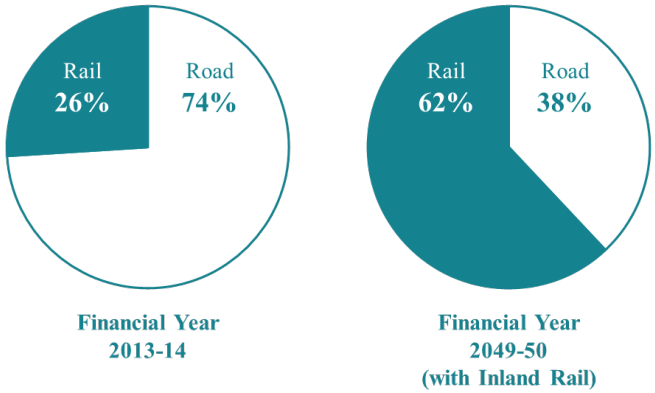

FIGURE 18-7 MARKET SHARE OF MELBOURNE TO BRISBANE INTERCAPITAL FREIGHT

Source: ARTC 2015 Inland Rail Program Business Case

18.8 Regional economic impact analysis

A regional economic impact analysis has been undertaken to highlight the economic impacts of the Project on the regional, State and national economies, using an equilibrium modelling framework. For this analysis, a CGE model (KPMG-SD) has been applied to examine the flow-on effects arising from the Project on the broader economy.

As described throughout this EIA, the regional economy is represented by the Darling Downs–Maranoa labour market region.

18.8.1 Key considerations

The direct and indirect economic impacts of the Project during the construction works stage are modelled using a version of KPMG's regional CGE model (KPMG-SD) configured to provide two snapshots of the structure and size of the economy for the Project:

- The first snapshot is the **baseline** representation of the economy. For the construction works stage, the baseline is a representation of the size and structure of the economy in the absence of the construction and development costs associated with the development of the Project.
- The second snapshot is a **revised** representation of the economy that includes the impacts of the Project. For the construction works stage, this revised snapshot is a representation of the economy during the period when the construction and development costs associated with the development of the Project are executed.

The key modelling assumptions and inputs that underpin the regional economic assessment results are provided in Appendix Y: Economic Impact Assessment. This representation of the economy in the model is contemporary and considers the most likely labour market conditions to prevail during Project construction. It reflects the impacts of COVID-19 and current market conditions, and incorporates labour market impacts related to pandemic-related stimulus projects.

In addition, the economic modelling was completed at a point in time before the Whetstone MDC was included in the Project. As such, to obtain consistency in estimating the cumulative impacts across the Queensland segments, the additional $36.5 million CAPEX has been excluded from the modelling analysis. The minor update to CAPEX will not materially impact the results.

18.8.2 Regional economic impact analysis results

The headline impacts of the Project on the Darling Downs–Maranoa region during the construction works stage are summarised in Table 18-9.

TABLE 18-9 SUMMARY OF THE DIRECT AND INDIRECT ECONOMIC IMPACTS OF THE PROJECT

	Additional real Gross Regional Product ($2021–22)	Additional direct and indirect jobs (Persons, annual average)
Darling Downs–Maranoa	$410 m	332
Rest of Queensland	$143 m	107
Rest of Australia	$26 m	-93

Source: KPMG

During the construction works stage, real Gross Regional Product (GRP) is projected to be $410 million higher than the baseline level for the Darling Downs–Maranoa region, $143 million for the remainder of Queensland, and $26 million for the remainder of Australia. It is estimated that, over the construction works stage, an additional 332 direct and indirect jobs will be generated on average each year for Darling Downs–Maranoa and 107 jobs for the rest of Queensland. To put this into context, an approximate average of 383 FTEs has been planned across the Project's construction works stage. The displacement of some economic activity in other Australian states is expected to result in total employment being lower than in the baseline by 93 jobs.

Figure 18-8 summarises the macroeconomic results for the Darling Downs–Maranoa region in the context of the rest of the Queensland and Australian economies. The simulation results indicate that the economic impacts of the Project during the construction works stage are concentrated in the Darling Downs–Maranoa region. Net exports, which include inter-regional and international exports and imports, are negatively impacted. The resources required to complete the construction of the Project are expected to be sourced locally and from interstate and overseas suppliers. At the local level, higher costs induce the cost-sensitive trade-exposed sectors to release resources to accommodate the investment demands of the Project. Where it is profitable to do so, businesses switch some of their productive capacity towards accommodating the demands associated with the Project and away from sales to other customers (e.g. to interstate and overseas customers).

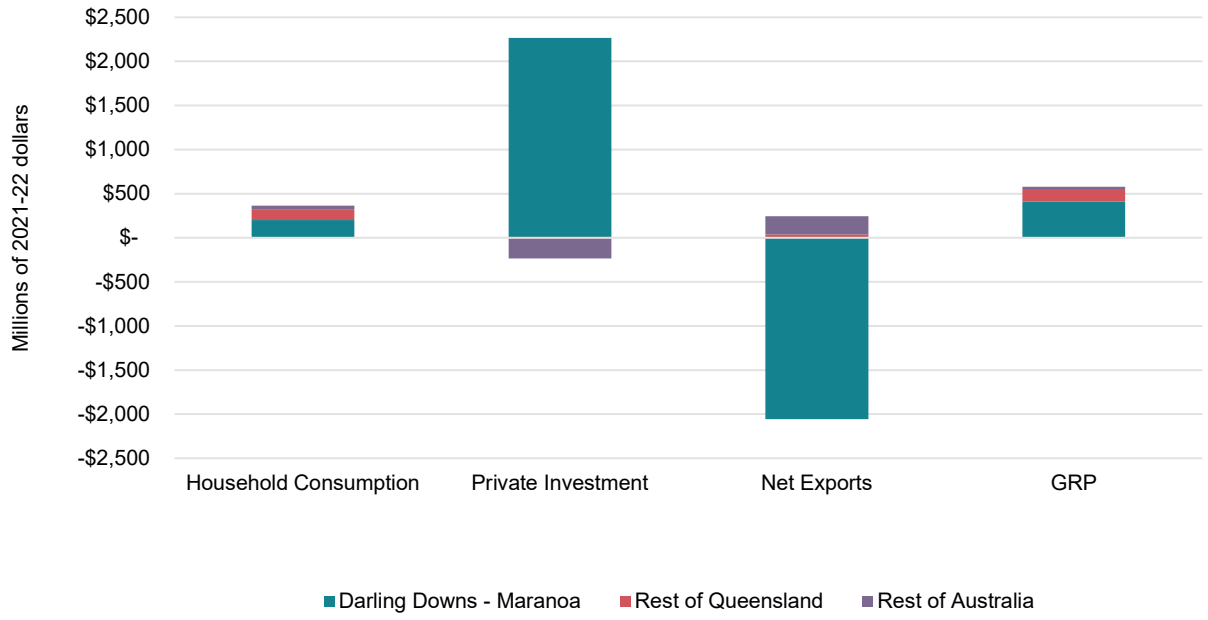

FIGURE 18-8 MACROECONOMIC RESULTS—CONSTRUCTION WORKS STAGE

Source: KPMG

Employment results at the industry level, reflecting the movement of workers between industries and regions, are presented in Figure 18-9. The increase in the demand for workers can be accommodated by drawing from the ranks of the unemployed (or under-employed) and displacing workers from existing jobs. With tightness anticipated in the labour markets during the construction works stage, the benefits from increased labour demand are primarily in the form of higher real wages, resulting in the movement of workers from one job to another. ARTC's strategies to reduce labour draw are discussed in Section 18.6.1.5.

The Construction sector, which benefits directly from the Project's construction and development costs, is anticipated to expand employment the most. The results also indicate the expansion of employment in the Professional, Scientific and Technical Services and Wholesale Trade sectors. This reflects the importance of these two sectors in the Construction sector's supply chain. The increase in demand for resources to complete the construction of the Project tends to increase resource costs. This has negative impacts on traditional cost-sensitive, trade-exposed sectors, such as Agriculture, Forestry and Fishing, Mining, and Manufacturing and on non-traditional trade-exposed sectors, such as Accommodation and Food Services and Education and Training. As a result, these sectors contract and release resources to construction-related sectors.

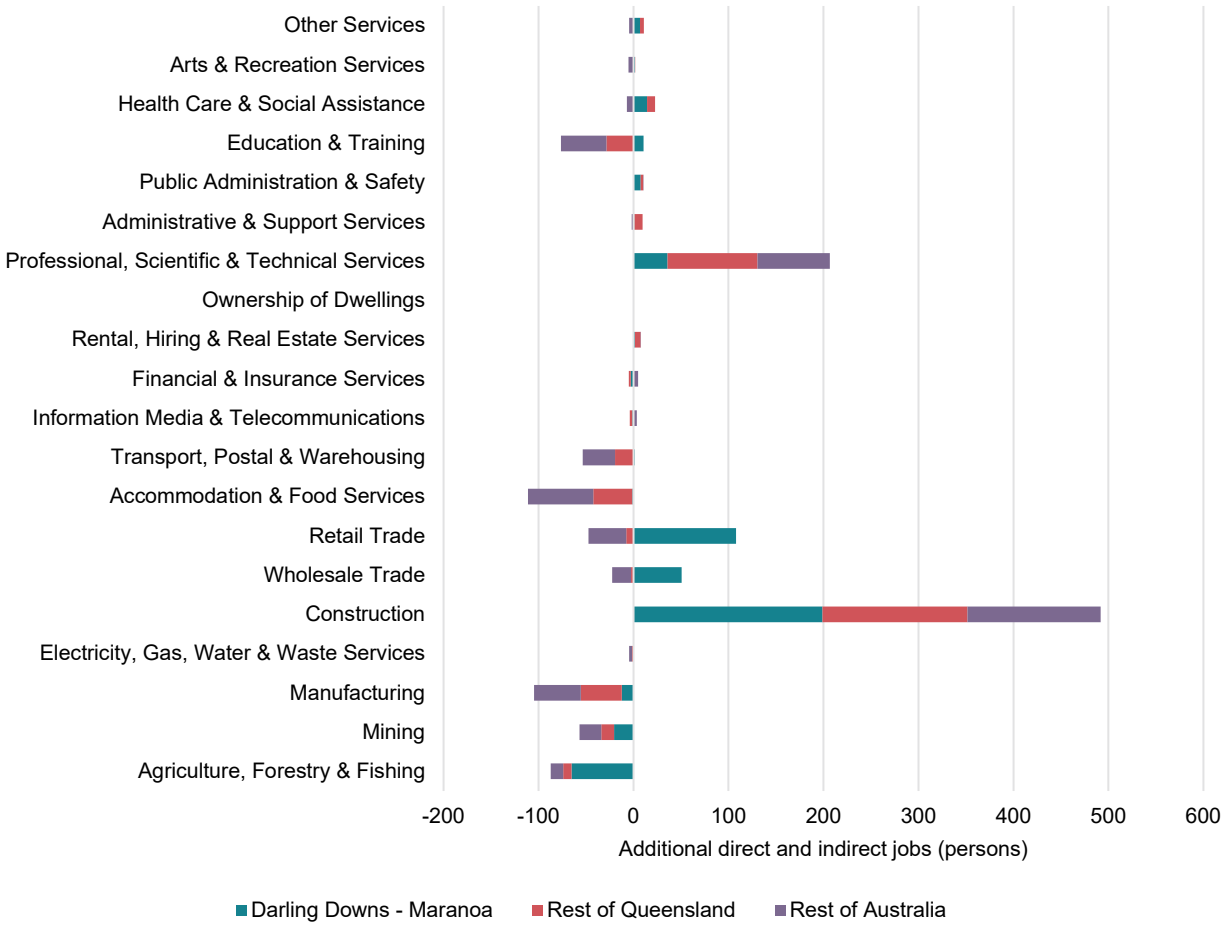

FIGURE 18-9 INDUSTRY EMPLOYMENT RESULTS: CONSTRUCTION WORKS STAGE

Source: KPMG analysis

18.8.3 Labour market conditions and impacts of tightness on regional economic benefits

Recent labour market statistics (ABS, 2022b) can be used to inform workforce capacity and capability within the local region. Labour market conditions in Darling Downs–Maranoa appear to have deteriorated since mid-2020, with the average annual unemployment rate rising from 2.8 per cent in May 2020 to 6.6 per cent in May 2022, well above the national and State levels of 4.4 per cent and 4.7 per cent, respectively. In contrast, the 12-month average participation rate has remained above national and State levels since late 2019 and was 67.2 per cent in May 2022 (ABS, 2022b). An upward trend in unemployment rates, coupled with sustained strength in labour supply, as evidenced by high participation rates compared to national and State levels, suggests a degree of capacity in Darling Downs–Maranoa's labour market. The ABS has identified that the labour force data for Darling Downs–Maranoa region may be statistically unreliable; therefore, it is important to consider labour market conditions in the broader State and national context. At the national level, the current (June 2022) unemployment rate is low, not seen since 1974, and the participation rate is high, at record levels. For Queensland, the unemployment rate is also at historically low levels and the participation rate is close to a record high.

If labour market conditions at the national and State levels remain in the recent range, the Project's construction works stage will be completed in the context of a relatively tight labour market, especially in the market for skilled labour relevant to the construction sector. There is a significant amount of infrastructure work in the pipeline, which is in addition to the work yet to be undertaken across other sectors, such as non-residential building construction, that compete for similar labour resources. According to Infrastructure Australia, there are currently 634 projects across transport, utilities, and building infrastructure. A total of 434 projects, or approximately two-thirds of these major public infrastructure pipeline projects, are scheduled to be completed in the next three years to 2025 (Infrastructure Australia, 2021a). The eastern states of NSW, Queensland, and Victoria will account for 87 per cent of major public project activity, with the majority of the upcoming projects involving infrastructure in energy and transport (Infrastructure Australia, 2021a).

Recent *Labour Force Survey* results indicate that, at the national level, the number of unemployed workers reporting that their last job was in construction has declined by 61.9 per cent from its peak of 65,900 in November 2020 to 25,100 in May 2022 (ABS, 2022b). Similarly, in Queensland, in May 2022, the number of unemployed workers whose last job was in construction dropped to 5,900, just over one-third of the level seen in November 2020 (ABS, 2022b). Job vacancy statistics also showed an increase in labour demand for the construction workforce as the ABS job vacancies in the construction sector has continued to rise, up by 33.4 per cent over the year to May 2022 (ABS, 2022b).

KPMG's central forecasts outline that economic growth will peak towards the end of 2022 and then ease back to a more moderate pace over the next few years. The unemployment rate is expected to pick up gradually over the next few years but remains at levels that are modest by historical standards. The key risk to KPMG's central case forecasts is that inflation, which is assumed to peak at around 7 per cent towards the end of 2022, is higher than we expect, in part due to labour market tightness. If this risk was to materialise, the Central Bank would need to raise interest rates more aggressively in a bid to bring inflation back within its target range, and this policy response would slow the economy more sharply than KPMG's central forecast and increase the chance of the economy falling into recession.

Thus, while the risks of labour shortages are high under KPMG's central case, labour market conditions could deteriorate rapidly over the next year if inflation in Australia and overseas necessitates Reserve Banks to aggressively increase interest rates. Noting the data limitations identified by the ABS, recent statistics suggest that there is deterioration in the Darling Downs–Maranoa labour market, which provides opportunities for recruiting, training and re-skilling available workforces in the region to supply a significant portion of the workforce requirements of the Project. The Project schedule may also be optimised to minimise market impact. The best estimates of prevailing trends in the Darling Downs–Maranoa labour market, and the ability of construction workers to mobilise to Project locations, suggest that the risks of labour market disruption can be reduced. It is important to recognise that labour market disruption is not necessarily a negative for the economy. As discussed in Section 18.8.2, increasing the demand for workers in a tight labour market scenario generates economic benefits through higher real wages to workers, which then leads to higher household consumption and living standards.

It is noted that there may be benefits from having additional infrastructure projects in the adjacent and surrounding areas around the same time as the Project. These benefits come in the form of lowered mobilisation costs and the ability to transfer labour experience and skills between projects, particularly those constructed in the period leading up to and the period following the Project's construction works stage.

Due to the dynamic nature of local and regional labour markets, ARTC has identified that an analysis of the likely availability of construction labour from the region will be undertaken prior to construction, to enable the refinement of local and regional recruitment and training strategies to maximise employment opportunities within local economies.

18.9 Business and industry impacts

18.9.1 Agriculture industry

The construction and operation of the Project have the potential to impact high-value farming operations and general agricultural uses across the impact assessment area. These potential impacts include:

- Loss of agricultural land
- Acquisition of land used for intensive livestock operations
- Disruption to access and infrastructure
- Disruption to stock and product movement
- Hydrology and periodic inundation
- Improvements in supply chain efficiency
- Noise.

These impacts may change the value of agricultural production in the region, due to changes in accessibility, connectivity and/or productivity. Consultation with landowners is ongoing to further determine potential impacts. Details on consultation undertaken for the Project are included in Appendix E: Consultation Report.

18.9.1.1 Loss of agricultural land

The Project will result in the sterilisation of productive agricultural land within the permanent footprint. Productive land that is mapped within the existing Southwestern System and Millmerran Branch Line rail corridors has been previously sterilised and has therefore been excluded from the information below. The Agricultural Land Class approach classifies a particular agricultural area based on land and soil information and is used for land audit purposes.

The approach comprises a four-tier hierarchy ranging from Class A (arable land) through to Class D (land that is unsuitable for agriculture). Class A land is suitable for a wide range of current and potential crops with few

limitations to production. Class B land is suitable for a narrow range of current and potential crops but is highly suitable for pastures. Important Agricultural Land (IAA) is a separate category used in agricultural land auditing and is defined as land that is strategically significant to the region or the State.

The scale of the total loss (within the permanent footprint) of productive agricultural land is anticipated to be low. A total of 1,524 ha of land within the permanent footprint (outside of existing rail and road corridors) that is classified as Class A (1,450 ha) or Class B (74 ha) agricultural land will be sterilised. These areas are primarily used for grazing and cropping, as well as some irrigated cropping and irrigated perennial horticulture uses. In addition, approximately 1,361 ha of land classified as IAA is within the permanent footprint.

Within the temporary footprint, there is approximately 598 ha of land classified as Class A agricultural land and 8 ha of Class B agricultural land, equating to a total of 606 ha of land that will be temporarily used during the construction works stage of the Project. These areas are primarily used for grazing activities. Approximately 391 ha of land within the temporary footprint is also within an IAA. The area of agricultural land impacted by the Project is identified in Table 18-10.

At a local government level, within Goondiwindi, the permanent footprint traverses 212 ha of Class A land (0.02 per cent) 6 ha of Class B land (0.02 per cent), and 106 ha of Border Region IAA land (0.01 per cent). Within Toowoomba, the permanent disturbance footprint traverses 1,238 ha of Class A land (0.17 per cent), 68 ha of Class B land (0.22 per cent) and 1,255 ha of Eastern Darling Downs IAA land (0.19 per cent).

TABLE 18-10 IMPACTED AGRICULTURAL LAND

Land classification	Goondiwindi LGA	Toowoomba LGA	Total
	Area of land (ha)	Area of land (ha)	Area of land (ha)
Permanent footprint			
Class A	212	1,238	1,450
Class B	6	68	74
Border Region IAA	106	0	106
Eastern Darling Downs IAA	0	1,255	1,255
Temporary footprint			
Class A	311	287	598
Class B	1	7	8
Border Region IAA	101	0	101
Eastern Darling Downs IAA	0	290	290

Overall, the permanent footprint will traverse approximately 0.07 per cent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020–21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was $1.62 billion. Accordingly, it is estimated that the Project could result in a loss of $1.2 million (value foregone) in gross agricultural production per year.

This value was estimated by calculating a proportion of productive agricultural land impacted (productive land area disturbed within Project footprint divided by total productive land in the Toowoomba and Goondiwindi LGAs) using the data contained in the table titled *Percentage of land type within Toowoomba LGA traversed by the Project footprint (outside of existing rail and road corridors)* in Chapter 8: Land Use and Tenure. The value of agricultural production in 2021–21 was multiplied by this proportion to understand the potential loss of agricultural value arising from the Project. This value is an indicative estimate only—it does not consider the value of individual commodities produced per lot or the value-add activities that contribute to the gross value of agricultural production in the region. An assessment of the composition of agricultural production by lot and commodity may be undertaken following detailed design. This value excluded land area that was already existing rail and road corridors.

18.9.1.2 Land acquisition

The permanent footprint will directly impact 495 lots and 33 easements. The temporary footprint will directly impact 86 lots and 9 easements. The permanent and temporary footprints are based on the revised reference design and the preliminary construction methodology, and are subject to change during detailed design. Additional land may also be acquired where necessary or by agreement with affected owners.

The permanent footprint consists of the following tenure types:

- Easements
- Freehold
- Land Act lease
- State forest
- Reserve
- State land.

Further discussion on the types and number of land tenures impacted is provided in Chapter 8: Land Use and Tenure.

Based on the *Queensland Collaborative Land Use and Management Program* (QCLUMP), the predominant land use for the majority of the impacted properties includes (but is not limited to):

- Production from relatively natural environments
- Production from dryland agriculture and plantation
- Conservation and natural environments
- Intensive uses
- Production from irrigated agriculture and plantations.

While the permanent footprint reflects the land acquired to accommodate permanent infrastructure components of the Project (e.g. road, earthworks, rail maintenance access roads, and drainage), properties acquired temporarily are affected during Project construction to support a range of construction-related activities (e.g. laydown areas, non-resident workforce accommodation facilities, and Whetstone MDC). Temporary disturbance to existing agricultural land will not result in a permanent loss of productive land. The temporarily acquired properties during construction will result in financial benefit from their use in accordance with the *Acquisition of Land Act 1967* (Qld) or subject to agreement with the landowner. Following construction, land used during construction will be rehabilitated in accordance with landowner agreement and the Rehabilitation and Landscaping Management plan in addition to location- and property-specific reinstatement commitments.

The temporary Whetstone MDC will be established on low-intensity agricultural land, approximately 18 km south-west of Inglewood and 59 km east of Goondiwindi in the Goondiwindi LGA. These land parcels are used predominantly for agricultural purposes, including irrigated cropping and cattle grazing. The MDC site will be progressively decommissioned as there will be no need for the MDC facility following Project construction. As such, any potential impacts to land use and tenure will be temporary in nature. The temporarily leased land will be returned to the rural landowner and the current low-intensity agricultural uses of the land will resume. More details related to the establishment of the MDC can be found in Appendix AD: Whetstone MDC: Supporting Technical Information.

The locations of the two temporary non-resident workforce accommodation facilities have been identified and included in the Project footprint. Based on data from QLUMP, these locations have been contained to rural land used for grazing, native vegetation and cropping purposes. The Yelarbon non-resident workforce accommodation facility will be located approximately 2.5 km northwest of Yelarbon, with access from the State-controlled Cunningham Highway. The Inglewood non-resident workforce accommodation facility will be located approximately 12 km northeast of Inglewood, with access from the State-controlled Millmerran–Inglewood Road. Following Project construction, opportunities for the beneficial re-use of the established workforce accommodation facilities will be investigated through consultation with local government and relevant stakeholders. If beneficial re-use of these facilities cannot be identified, the clean up, landscape and rehabilitation of the impacted land related to the decommissioning activities will occur in accordance with the policies, strategies and conditions outlined below:

- Inland Rail Environment and Sustainability Policy (see Appendix C: Corporate Policies)
- Inland Rail Landscape and Rehabilitation Strategy
- Rehabilitation and Landscaping Management plan (refer to Chapter 9: Land Resources)
- Any conditions of State and Commonwealth approvals.

The Project's land requirements are detailed in Chapter 8: Land Used and Tenure and Appendix F: Impacted Properties. The extent of various impacts to land will be confirmed during detailed design.

The Project footprint will be limited, where possible, while providing the necessary land to safely construct, operate and maintain the rail corridor. The revised Project reference design in response to ongoing consultation with key stakeholders includes updating the Project alignment to be closer to the road corridor, resolving short-stacking issues and minimising property impacts. The Millmerran Alternative Alignment has also been implemented to minimise direct impacts to highly intensive animal and agricultural industries, including avoidance of severing Class A, Class B and Important Agricultural Area. Detailed information related to agricultural land impacts across each land class can be found in Chapter 8: Land Use and Tenure. In addition, the changes in Project footprint will reduce adverse economic and social impacts by:

- Creating greater separation between a major Millmerran regional employer's main business infrastructure, and therefore, reducing potential impacts or risks
- Avoiding direct impacts to future planned infrastructure.

The Project footprint will be further refined during detailed design to ensure the permanent footprint traverses along, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of agricultural land. Impacts, such as severance or loss of land which may have the potential to impact the operations of agricultural businesses, will be considered by the DTMR in the terms of the acquisition agreements.

18.9.1.3 Acquisition of land used for livestock operations

Following initial public notification, the reference design for the Project has been revised to optimise the design and avoid direct impacts on intensive livestock operations, including feedlots, piggeries and poultry farms, where possible. The Project will result in partial or full acquisition of some properties and in these instances ARTC will continue to work with landowners.

Where acquisition is required, impacts such as severance of the land parcel, potential fragmentation of infrastructure and services, noise, vibration and lighting may affect the operations of these businesses, potentially resulting in the loss of employment for farmworkers and reduced economic activity. The extent of these impacts will be confirmed during detailed design.

ARTC will work with directly affected property owners to mitigate potential impacts on farm and business operations and develop cooperative strategies that will reduce impacts on productivity and connectivity, including the design of level crossings on private roads. In consultation with GRC, TRC and the Department of Resources (DoR), temporary and permanent access will be provided for use as stock routes. Where relevant prior to the construction works stage, property-specific measures will be implemented to address potential impacts on land use, property, access, water infrastructure or access.

18.9.1.4 Disruption to access and infrastructure

The Project may result in impacts on agricultural land outside of the permanent footprint. Where the Project footprint does not use existing rail corridors, the Project may sever or isolate parcels of agricultural land, limiting internal movements and reducing access to agricultural land. As detailed in Chapter 8: Land Use and Tenure, potential land severance may disrupt farm operations through impacts on essential farming infrastructure, services or access routes and cumulative impacts on loss of agricultural land.

Impacts on the economic viability of farming operations from potential disruptions to accessing land and farming infrastructure are landowner specific; as such, impacts related to disruption to access and infrastructure are not quantified in this assessment. The extent of these impacts will be confirmed during detailed design. ARTC will work with individual landowners to develop suitable solutions based on individual farm management practices.

Water access and infrastructure

The development of the Project may impede essential access to water, through impacts on drainage lines, diversions, and dams. The Project crosses a 12.5 km section of the Condamine River floodplain, which is heavily regulated in terms of water access, especially where the floodplain connects to the Murray-Darling Basin.

Landowners in this area have developed a land management system that maximises productivity by harvesting floodwaters to support the seasonal growth of crops. The Project has been designed to limit the disturbance to water access and infrastructure during both construction and operation.

Any disruption to water access has the potential to impact the viability of farming operations. There are registered bores located within the Project footprint as well as unregistered groundwater bores. It is anticipated that each of these bores will need to be decommissioned to enable the construction of the Project. Decommissioning of bores will be completed in accordance with the *Minimum Construction Requirements for Water Bores in Australia – Edition 4* (National Uniform Drillers Licensing Committee, (NUDLC), 2020). There are no impacts anticipated to groundwater outside of the Project footprint. Any disturbance to groundwater bores or irrigation infrastructure will be investigated and addressed in consultation with impacted landowners during detailed design. Refer Appendix U: Groundwater Technical Report for more information.

Various landowners have been forthcoming with offers to sell all or part of their licenced water entitlements to ARTC for use as construction water. ARTC has developed and is maintaining a register of private water entitlement holders who have made offers to the Project. ARTC will consult with the Department of Regional Development, Manufacturing and Water (DRDMW) to confirm that private water sources made available to the Project are lawful and appropriately licensed for the intended usage.

There are many approved Soil Conservation Plans along the alignment, authorised under the *Soil Conservation Act 1986* (Qld). ARTC will work with property owners to amend these plans, implement any necessary works as required and have them approved by the DoR to minimise impacts on soil and landowner operations.

Transport access and infrastructure

During construction, broader accessibility impacts due to changes in the surrounding road network may also affect local agricultural businesses. Roadworks, re-alignments and changes to travel distances may affect farming businesses through increases in travel times, resulting in increased operating costs. Level crossings and road diversions have been proposed based on a number of factors, to ensure accessibility to surrounding road networks is maintained. Where roads are permanently closed or re-routed, these impacts may continue once the Project is operational.

During the construction works stage of the Project, a number of level crossings and bridges will be constructed, posing potential constraints to road access and connectivity between properties. Stock and equipment movements will also be affected during this time; however, the impact will be temporary in nature. The proposed Whetstone MDC will have the capacity to receive the delivery of bulk track construction materials to support the construction and delivery of the Project. Encouraging the use of rail, the MDC will minimise heavy vehicle movement on the road network that would have occurred during Project construction; however, some disruptions to transport and infrastructure access could occur during the establishment of the MDC due to increased traffic along the Whetstone Access Road link and intersection with the Cunningham Highway. While some construction materials will be transported via rail, there will be some disruption to the road network from transporting other needed construction materials to the MDC site.

Disruptions to access during construction will be addressed through temporary diversions and onsite traffic management in consultation with the road managers, local community and landowners, where appropriate. Roads will only be closed permanently where the impact of diversions or consolidation is considered acceptable, or where the existing location is not considered safe and cannot reasonably be made safe. In consultation with landowners, an appropriate level of access will be maintained for agricultural businesses across and between properties affected by the Project. During construction, regular Project updates will be provided that forecast road works, road realignments and closures, and explain alternative routes to enable agricultural and other business operators to plan their travel with minimal disruptions.

Further details are provided in Chapter 20: Traffic, Transport and Access.

18.9.1.5 Disruption to stock movement

The Project footprint interfaces with stock routes at 11 locations, at Kildonan Road at Kurumbul, Rainbow Reserve and Eukabilla Road, South Kurumbul Road, Wondalli-Kurumbul Road and Yelarbon-Kurumbal Road, Yelarbon near Merton Road, East of Sawmill Road, Lovells Crossing Road, Millmerran-Inglewood Road (3 separate locations), Koorongarra-Andersons Road, Kooroongarra Road, and the Warrego Highway near Chamberlain Road. Further information on stock routes can be found in Chapter 5: Project Description.

Refinements to the Project design in response to public submissions have included a separate level crossing at Kildonan Road to maintain stock movements across the railway, the realignment of Eukabilla Road to avoid fragmentation of the route, an active level crossing at South Kurumbul Road and the re-alignment of the stock route at Yelarbon to provide continued connectivity.

Chapter 8: Land Use and Tenure identifies that there may be informal stock routes used to transfer stock to various grazing paddocks and holding yards. Consultation is ongoing with landowners to identify impacts, if any, on informal stock routes.

ARTC has worked with the GRC and the DoR to ensure the planning of the proposed Project alignment maintains the connectivity of stock routes.

18.9.1.6 Hydrology and periodic inundation

There are 18 defined watercourses within the impact assessment area are listed below:

- Macintyre River
- Macintyre Brook
- Canning Creek
- Pariagara Creek
- Cattle Creek

- Bringalily Creek
- Nicol Creek
- Back Creek unnamed tributary
- Back Creek
- Grasstree Creek
- Condamine River (main branch)
- Condamine River (north branch)
- Umbiram Creek unnamed tributary
- Half Mile Gully
- One Mile Gully
- Westbrook Creek
- Dry Creek
- Gowrie Creek.

The Inland Rail revised reference design includes cross-drainage structures in the form of bridges and culverts to maintain existing surface water flow paths and flood-flow distributions. The Project's design criteria objectives include avoidance of unacceptable increases in peak water levels, velocities and time of submergence.

The Project may necessitate localised modification of land management practices, including cropping regime, in response to confirmed afflux and time of inundation impacts. The extent of these impacts will be confirmed during detailed design. ARTC will work with landowners to develop suitable property-specific solutions based on land management practices.

Further details are provided in Chapter 13: Surface Water and Chapter 14: Flooding and Geomorphology.

18.9.1.7 Improvements in supply chain efficiency

Efficient supply chains support the regional and national capacity to enhance economic opportunities within local communities. The Project is a critical section in the broader Inland Rail Program, to create a more direct rail freight corridor, offering a more efficient solution for intra and interstate freight operators who will be able to avoid inland and coastal road and rail networks.

Specifically, the Project:

- Offers opportunities to improve the productivity of local export industries (such as agriculture)
- Improves freight transportation infrastructure between the eastern and western sides of the Great Dividing Range
- Has the potential to unlock the construction of ancillary and complementary infrastructure, which will improve market access and expand local agricultural businesses and industry (refer Transport Industry—Freight and Logistics in Section 18.9.4.2).

18.9.1.8 Noise

There is potential for construction and operational noise to impact livestock production; in particular, for poultry, cattle feedlots and piggery livestock. Increased noise levels may induce stress responses and impact on production capabilities of these animals. In response to public notification, ARTC has revised the Project footprint to avoid direct impacts on intensive livestock production. For more information on changes to noise during construction and operation refer to Chapter 16: Noise and Vibration.

Social Impact Assessment (Appendix X: Social Impact Assessment) identify management measures to mitigate local business and industry impacts, including those on livestock producing businesses. This includes engagement with businesses that may experience noise exceedances to develop and implement feasible and effective mitigation measures to reduce impacts.

18.9.2 Tourism industry

The Project has the potential to change local amenity and service capacity within the impact assessment area, during both construction (temporary) and operation (permanent). The Project also has the potential to change local amenity and service capacity within the impact assessment area, during both construction (temporary) and operation (permanent).

During construction, there is potential for road works, the visual impact of laydown areas, and the accommodation of non-residential workers to affect tourists' experience and travel times. In addition, noise impacts associated with the Whetstone MDC are expected to be experienced by tourism businesses within and around the nearby towns of Inglewood and Yelarbon. These impacts will be temporary while construction activities for the Project are

undertaken in particular areas. Mitigation measures, including the implementation of noise barriers and time restrictions, have been considered to minimise these potential impacts. A detailed overview of noise and vibration assessments and corresponding mitigation measures can be found in Chapter 16: Noise and Vibration, Appendix V: Noise and Vibration Assessment—Construction and Road Traffic and Appendix W: Noise and Vibration Assessment—Railway Operations.

As described in Appendix X: Social Impact Assessment, the Project requires the contractor to consult with tourism associations and accommodation providers in potentially impacted communities (Goondiwindi, Yelarbon, Inglewood, Millmerran, Pittsworth and Brookstead) to identify interest and capacity to accommodate Project personnel. Any usage of short-term accommodation for the Project will be monitored and peak occupancy periods will be avoided in construction scheduling. To mitigate potential impacts on local housing access and short-term accommodation, three temporary non-resident workforce accommodation sites have been proposed (located near Millmerran, Inglewood and Yelarbon). The provision of non-resident workforce accommodation facilities will reduce excessive demands on short-term tourism accommodation and support road safety by enabling the coordination of workforce transport to and from worksites.

Following construction, the buildings and infrastructure established for the non-resident workforce accommodation, or a component thereof, may be left for community use. This will be undertaken in consultation and agreement with key stakeholders, property owners and the relevant councils. This may enhance access to local facilities, with the potential to support tourism, such as in Millmerran. During the consultation undertaken by ARTC, the TRC identified the location of a non-resident workforce accommodation facility near Millmerran as having the potential to provide legacy benefits to support regional tourism. ARTC plans further consultation with TRC to identify the third non-resident workforce accommodation site.

During operation, there is potential for reduced scenic amenity due to the Project's location within the rural and regional landscape. Some stakeholders, including visitors to the area, will likely see the proposal as diminishing rural character while others will find interest in the proposal structure. According to Appendix X: Social Impact Assessment, this is not expected to have a significant impact on tourism visitation.

As described in Section 1.3 of Appendix Y: Economic Impact Assessment, GRC's latest visitor strategy seeks to implement key priority projects to support tourism growth in the region. It is not anticipated the Project will impede the implementation of these key projects. Tourism impacts in the Goondiwindi region are expected to be consistent with what is described above during the construction and operation of the Project.

18.9.3 Mineral resource and petroleum interests

According to Chapter 8: Land Use and Tenure, the revised reference design has been based on consultation with resource interest holders, and the location of the Project footprint has been determined to minimise the potential sterilisation of mineral and petroleum resources and to minimise the restriction of access to mineral resources or disruption to existing working mines. In some instances, mineral and petroleum resources could not be avoided by the Project footprint. The extent of the impact of the Project on current mineral resource permits, licences and leases will be confirmed during detailed design.

Where possible, the Project has been aligned to avoid or minimise sterilisation of mineral and petroleum resources; however, in some instances, mineral and petroleum resources could not be avoided by the Project footprint. ARTC will continue to consult with potentially impacted holders of leases, permits or licenses over mineral and petroleum resources through the detailed design and construction planning process to ensure that the Project and its construction activities are developed in a manner to minimise the extent of such impacts where possible. Where the Project may impact on deposits within the area, such as the Bringalily North, Bringalily South and Commodore coal deposits, consultation will be undertaken with the resource interest holders.

18.9.4 Local businesses

18.9.4.1 Construction materials

The Project will require a range of construction supplies, including borrow material (spoil, gravel or sand) and ballast material (crushed stone), pre-cast concrete, concrete sleepers, pre-built and panelled turnouts, steel, fencing, electrical components, fuel and consumables.

The impact of the Project on local businesses is likely to vary depending on the location along the Project alignment. Due to their scale and experience, businesses in Toowoomba are more likely to have the capacity and capability to support the construction of the Project compared to rural businesses along the Project alignment. The Project would provide a boost to businesses in Toowoomba, which experienced a slow-down following completion of the Toowoomba Bypass. Businesses across the SIA study area can benefit from direct involvement in the Project's construction (including the rail corridor and non-resident workforce accommodation).

Where required, small businesses will likely need to develop their capacity to ensure that they can competitively participate in the Project's supply chain. ARTC acknowledges that small businesses need time to upskill and prepare to tender for major projects. Through the Industry Participation Policy, ARTC has started preparing local businesses to tender for the Project and other major projects in the region. To achieve this, ARTC will provide full, fair and reasonable opportunity for capable and competitive Australian entities to bid for the supply of goods and services on the Project.

ARTC has confirmed that pre-cast concrete can be sourced within the Project region, ballast material can be sourced from local quarries and borrow pits, and other components, such as rehabilitation supplies and fencing, can be sourced within the Project Region. Inland Rail will source sleepers from Austrak, a Rockhampton manufacturer. Sleepers may also come from their Wagga facility, thereby increasing the current duration of their existing plant life. ARTC has also confirmed contracts with Liberty Primary Steel (located in Whyalla) to supply heavy-duty rail tracks and Vossloh Cogifer Australia to supply turnouts.

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. Further, ARTC has developed the *Inland Rail Sustainable Procurement Policy 2020 (ARTC, 2020c)* and *Industry Participation Policy 2021 (ARTC, 2021c)*, which will ensure that local, regional and Indigenous businesses will have opportunities to supply the Project.

The Project's SIMP (refer Chapter 17: Social) further specifies that construction contractors are required to identify potential cooperation or partnerships for the development of employment and business.

18.9.4.2 Transportation

The Project may provide opportunities for transport or logistics businesses in Goondiwindi and Toowoomba, and in other localities in the impact assessment area. Opportunities include transporting materials to laydown areas, and removing waste materials and recyclables from construction compounds and non-resident workforce accommodation facilities. Other opportunities include transporting a full spectrum of rail construction materials to the MDC.

Following construction, these opportunities for transport or logistics businesses have the potential to expand over the long term, particularly if a regional rail distribution point, rail-based warehousing or associated freight precincts are established on the Project alignment.

During operation, the anticipated mode shift from road freight to rail freight is likely to reduce the number of heavy vehicles travelling on the road network, with the potential to impact levels of trade for local transportation businesses. These impacts may be partially offset by the aforementioned opportunities for investment and increased activity in freight/logistics operations adjacent to the Project.

Freight and Logistics

As part of the Inland Rail Program, the Project has the potential to stimulate business and industry development at the Toowoomba Enterprise Hub in Wellcamp. By providing efficient transport access to intrastate and interstate markets, the Project has the potential to act as a catalyst for further private-sector investment in this area, particularly for freight and logistics operations. The further development of the Toowoomba Enterprise Hub has the potential to unlock greater economic activity in the region, such as by promoting greater international export opportunities via Wellcamp Airport.

18.9.4.3 Local service and supply businesses

The Project is likely to offer opportunities in secondary service and supply industries (such as retail, hospitality and other support services) for businesses close to the construction footprint and non-resident workforce accommodation. The expansion in construction activity has the potential to support additional temporary flow-on demand and additional spending by the construction workforce in the local community, which is likely to lead to increased trading levels for small businesses, such as food and beverage and other retail businesses in the impact assessment area. As described in Appendix X: Social Impact Assessment, consultation has shown local businesses are positive about opportunities in secondary service and supply industries.

Retail businesses in Millmerran, Inglewood and Goondiwindi have the potential to benefit from opportunities to supply materials and services to the Project's non-resident workforce accommodation. Some local retail businesses may also benefit from increased trade from workers residing in these non-resident workforce accommodation facilities. The establishment of the Whetstone MDC will provide opportunities for retail businesses in nearby towns, such as Yelarbon and Inglewood, to experience a positive impact from increased trade derived from the MDC workforce. The nearby towns, to the Whetstone MDC and non-residential workforce accommodation facilities, may experience temporary increases in population that could impact road safety or result in more non-local personnel in the area. An increase in the demand for construction labour may also contribute to shortages in specific trades and labour for some local service and supply businesses. More information related to labour demand, and business and industry impacts can be found in Appendix AE: Whetstone Material Distribution Centre: Supporting Technical Information.

As identified in Appendix X: Social Impact Assessment, some small businesses will likely need to scale up their current capacity if they wish to participate in the Project, particularly businesses in rural areas along the alignment.

Following Project approval, ARTC will identify potential cooperation or partnerships for the development of employment and business capacity in the impact assessment area (see Appendix X: Social Impact Assessment).

Telecommunications

The Project is planning telecommunications systems as part of construction requirements and ongoing safe rail operations. ARTC is working with telecommunications carrier network operators to provide services for construction site offices, non-resident workforce accommodation facilities and the railway corridor. While the focus will be on the provision of voice and high-speed data services in the vicinity of the rail corridor, there is the potential for telecommunications capacity and digital connectivity to be improved for landowners and residents close to the Project alignment.

While telecommunications expansions beyond the Project's requirements are not within the Project scope, the Inland Rail Program is committed to leaving a positive legacy in this regard and has actively advocated for its stakeholders by establishing a dedicated Telecommunications Working Group.

Noise and amenity

There is potential for noise to impact the amenity of businesses in the towns of Yelarbon, Brookstead, and Pittsworth, particularly retail and hospitality businesses, during the construction and operation of the Project.

As detailed in Chapter 16: Noise and vibration, businesses where amenity could be affected by operations noise include:

- Yelarbon Post Office (50 m south of the Project footprint)
- The Brookstead Store and Post Office, Brookstead (140 m north of the Project footprint)
- Two buildings with office usage in Brookstead
- One building with office usage in Yelarbon.

Short-term accommodation businesses are likely to experience some negative impacts as a result of increased noise during construction, which may result in loss of income. ARTC will consult with businesses in towns where construction noise could affect their amenity and consider their feedback in finalising plans for works near their businesses.

During construction, impacts will be managed through the implementation of the Noise and Vibration Management plan, developed as a component of the Construction Environmental Management Plan (refer Chapter 16: Noise and Vibration). Additionally, the Project includes an investigation of concept noise barriers a number of locations to mitigate predicted exceedances of operational rail noise criteria. Outside of these key townships, measures to suitably reduce railway noise impacts are expected to be limited to property controls such as architectural property treatments and upgrades to property fencing.

See Chapter 16: Noise and Vibration for further details regarding potential noise and vibration construction and operations impacts and mitigation measures. Appendix X: Social Impact Assessment identifies management measures to mitigate local business and industry impacts. These management measures include engagement with businesses that may experience noise exceedances to develop and implement feasible and effective mitigation measures to reduce impacts.

Land acquisition

The land acquisition process is to be undertaken by the Department of Transport and Main Roads (DTMR) as the Acquiring Authority. Based on ARTC's consultation with landowners, most of the landowners impacted by the Project are expected to be able to adjust operations and continue to operate their businesses. Consultation to date indicates that business operations (non-agricultural) where acquisition would result in the closure or relocation of the business or retirement of the business owner include:

- Two transport business: one near Pittsworth and a second near Southbrook
- Three grazing operations
- One cropping farm
- One welding business in Umbiram.

Additional information related to land acquisition and requirements for the Project is detailed in Appendix F: Impacted Properties. The extent of these impacts will be confirmed during detailed design with compensation to be provided in accordance with the *Acquisition of Land Act 1967* (Qld).

18.10 Cumulative impacts

The cumulative economic impact assessment refers to the potential impact of cumulative stimulus on the economy resulting from a set of existing or planned projects within or adjacent to the impact assessment area. Cumulative impacts may result from the spatial and/or temporal interaction between these projects.

For this EIA, the cumulative impact assessment has two components:

- **Inland Rail—Northern segments**

  A quantitative assessment of the cumulative macroeconomic impact of the Inland Rail Program on the economy, resulting from the construction of the Queensland segments of the Inland Rail Program.

  At the time of the EIA, five segments of the Inland Rail Program were in Queensland, including the Project, Gowrie to Helidon, Helidon to Calvert, Calvert to Kagaru, and Kagaru to Acacia Ridge and Bromelton. In addition to this, the assessment also includes the construction and development costs of two Inland Rail segments in NSW that (at the time of modelling) have an overlapping timeline with the construction of the Project—Narrabri to North Star and North Star to Border.

- **Broader cumulative assessment**

  A qualitative assessment of the cumulative impact of State-significant projects (that have been identified by ARTC as having a relationship to the Project) on local and regional labour markets, the supply chain and local businesses. More detail related to the broader cumulative assessment can be found in Appendix Y: Economic Impact Assessment.

The $36.5 CAPEX for constructing the Whetstone MDC represents 1.6 per cent of the total $2.2 billion CAPEX for the Project. As the economic modelling was done at a point in time prior to the inclusion of the Whetstone MDC in the Project, and the need for consistency in estimating the cumulative impacts across Queensland, the additional $36.5 million CAPEX has been excluded from the modelling analysis. The minor update to CAPEX will not materially impact the results.

18.10.1 Inland Rail—Northern segments

The construction works stages of the Queensland (Gowrie to Kagaru) and two NSW segments (Narrabri to North Star and North Star to Border) of the Inland Rail Program have been jointly simulated to analyse the cumulative economic impacts of these projects. Hereafter, these segments will be referred to as the northern segments. Table 18-11 summarises the cumulative macroeconomic impacts in the catchment regions of Queensland under the labour market assumptions that are believed to be most likely to materialise. The incremental economic impacts of the northern segments include an increase in real GDP of $1.5 billion (measured in 2022 dollars) and an increase in the average number of jobs over the period FY2023 to FY2030 of 548 jobs per year.

The Project is the only section of the Inland Rail Program that is located within the Darling Downs–Maranoa region. Construction activities related to this section will directly impact the Darling Downs–Maranoa economy. The remaining segments of the Inland Rail Program, which this assessment covers, will impact the Darling Downs–Maranoa economy indirectly.

The regional impact analysis discussed in Section 18.8 reported the results of simulations when the Project section was modelled in isolation. In that context, the direct and indirect incremental change to jobs in the Darling Downs–Maranoa economy was estimated to be 332 jobs per year. When all the northern segments are considered jointly, the incremental change to jobs (direct and indirect) in Darling Downs–Maranoa decreases marginally to 326 jobs per year during the Project's construction works stage (FY2024 to FY2028). The incremental change to jobs in Darling Downs–Maranoa peaks in 2026 at 559 jobs. As discussed in the regional impact analysis in the Section 18.8, the labour market conditions across regional economies in Queensland over the Inland Rail Program construction stage period are generally expected to be closer to a "tight" rather than "slack" characterisation. In a "tight" labour market, an increase in demand for labour is accommodated mainly through an increase in real wages, while in a "slack" labour market, an increase in labour demand is accommodated mainly by a decrease in the unemployment rate with little impact on real wages.

TABLE 18-11 SUMMARY OF QUEENSLAND-WIDE ECONOMIC IMPACTS OVER THE PERIOD FY23 TO FY30

	GRP/GDP ($m 2022)	Jobs (persons)		
		Average (annual)	Peak	Year of peak
Greater Brisbane	$626	277	1099	2026
Darling Downs–Maranoa	$425	191[1]	559	2026
Toowoomba	$1,089	658	1751	2027
Remainder of Queensland	-$90	-76	26	2025
Queensland	$2,050	1050	3244	2026
Remainder of Australia	-$552	-502	298	2025

	GRP/GDP ($m 2022)	Jobs (persons)		
Australia	$1,498	548	3177	2026

Source: KPMG

Note 1: This is the annual average of additional jobs over the period FY23-FY30, from when the first construction and development costs of all the Inland Rail segments included in the cumulative study (NS2B) are expected to be made to the last one (G2H).

18.10.2 Broader cumulative assessment

18.10.2.1 Interacting projects

There is a range of projects, within or adjacent to the impact assessment area, that may contribute to local and regional economic impacts. These projects are detailed in Table 18-12, with the potential cumulative impacts on the local and regional labour market, local businesses and supply chain also detailed.

The details provided in Table 18-12 reflect known information at the time of drafting this EIA. Further details on the cumulative impacts of the Project can be found in Chapter 23: Cumulative Impacts.

TABLE 18-12 CUMULATIVE PROJECTS AND NATURE OF POTENTIAL IMPACTS

Project and status	Nature of impact
North Star to Border—Inland Rail (approved)	▸ Potential labour draw from the regional economic catchment (peak 350 FTE during construction period) ▸ Potential draw on construction materials from the regional economic catchment ▸ Businesses within the catchment area (e.g. in Goondiwindi and Yelarbon) are likely to benefit from the Project as a result of increased local expenditure from construction personnel of the combined Inland Rail projects ▸ Potential impact on rental housing availability and affordability in Goondiwindi
Gowrie to Helidon—Inland Rail (Reference Design and EIS)	▸ Potential labour draw from the regional economic catchment (peak 596 FTE during construction period) ▸ Potential draw on construction materials from the regional economic catchment ▸ Businesses within the catchment area (e.g. in the Gowrie Junction area) are likely to benefit from the Project as a result of increased local expenditure from construction personnel of the combined Inland Rail projects ▸ Employment opportunities and regional development, in relation to the Toowoomba Enterprise Hub
Helidon to Calvert—Inland Rail (Reference design and EIS)	▸ Potential labour draw from the regional economic catchment (peak 410 FTE during construction period) ▸ Potential draw on construction materials from the regional economic catchment
Calvert to Kagaru—Inland Rail (Reference design and EIS)	▸ Potential labour draw in SEQ may reduce labour availability for more specialised roles (peak 536 FTE during the construction period) ▸ Potential regional development opportunities across SEQ's south-west industrial corridor and in the Western Gateway regional economic cluster
Cross River Rail (Construction commenced)	▸ Potential labour draw in SEQ may reduce labour availability for more specialised roles (1,500 direct and indirect FTE each year during construction)
South East Queensland Correctional Centre Precinct Stage 2	▸ Potential labour draw in SEQ may reduce labour availability for more specialised roles
Wellcamp Intermodal Terminal	▸ Potential labour draw in SEQ may reduce labour availability for more specialised roles
Wellcamp Entertainment Precinct	▸ Where construction schedules overlap, potential labour draw from the regional economic catchment
InterLinkSQ	▸ Potential labour draws in SEQ with continued development until Inland Rail is operational. May reduce labour availability for more specialised roles
Australia Pacific LNG Project	▸ Potential labour draw in SEQ with continued gas field development
Macintyre Windfarm	▸ Where construction schedules overlap, potential labour draw from the regional economic catchment
Sapphire Feedlot (Operational with plans for expansion)	▸ Where construction schedules overlap, potential labour draw from the regional economic catchment
Wyemo Piggery (Approved with conditions)	▸ Where construction schedules overlap, potential labour draw from the regional economic catchment
Bengalla Beef Feedlot (planning stage)	▸ Where construction schedules overlap, potential labour draw from the regional economic catchment

Project and status	Nature of impact
Goondiwindi Abattoir (Approved with conditions)	▸ Potential labour was drawn from the regional economic catchment
New Acland Coal Mine Stage 3	▸ Potential labour was drawn from the regional economic catchment
Wellcamp Business Park (Operational—subject to continuing construction and expansion)	▸ Requirement for civil construction labour, resulting in cumulative demand for skilled trades and civil construction labour; however, development is likely to be incremental over a longer period with relatively modest labour draw ▸ Potential regional development opportunities across SEQ's south-west industrial corridor and in the Western Gateway regional economic cluster
Witmack Industry Park & Charlton Logistics Park (Operational—subject to continuing construction and expansion)	▸ Requirement for civil construction labour, resulting in cumulative demand for skilled trades and civil construction labour; however, development is likely to be incremental over a longer period with relatively modest labour draw ▸ Potential regional development opportunities across SEQ's south-west industrial corridor and in the Western Gateway regional economic cluster
Asterion Medicinal Cannabis Facility	▸ Where construction schedules overlap, potential labour draw from the regional economic catchment

18.10.2.2 Cumulative labour market impacts

The concurrent construction of interacting projects has the potential to increase the demand for labour in the local and regional economy, particularly for workers with trade and construction skills/knowledge. The demand for construction workers within a similar timeframe will lead to cumulative demands on construction labour, not only within the local and regional economy, but also across Queensland, NSW and, potentially, nationally.

The results of the regional economic impact assessment indicate a deterioration in the Darling Downs–Maranoa labour market based on observations in recent statistics, and the Project schedule may also be optimised to minimise market impact. It is reasonable to assume that the regional labour market will have some capacity to supply a portion of the workforce requirements of the Project; however, these conditions may change in the context of cumulative labour market demand. Major infrastructure projects in the adjacent and surrounding areas, including those associated with the Inland Rail Program, have the potential to put some pressure on labour markets if scheduling results in cumulative and competing demand for trades and construction labour. However, the overall labour demands of the various infrastructure projects that are expected to be constructed were modest, and that scheduling could be optimised to minimise market impact. The best estimates of prevailing trends in the Darling Downs–Maranoa labour market, and the ability of construction workers to mobilise to Project locations, suggest that the risks of labour market disruption can be reduced.

There may be benefits from having additional infrastructure projects in the adjacent and surrounding areas around the same time as the Project. These benefits come in the form of lowered mobilisation costs, and the ability to transfer labour experience and skills between projects, particularly those constructed in the period leading up to, and the period following the Project's construction works stage.

18.10.2.3 Cumulative impacts on local businesses

The expansion in construction activity and regional employment (with a subsequent increase in temporary and non-resident population) has the potential to increase demand for a range of local infrastructure and services, including housing, health care, childcare and education. Further, spending on consumer-orientated products by the construction workforce has the potential to benefit local businesses by increasing their trading levels. Importantly, some businesses may need to scale up their current capacity to support cumulative demand, while also understanding the temporary nature of the construction period for the relevant projects and adjusting capacity accordingly.

18.10.2.4 Cumulative supply chain impacts

Cumulative supply chain impacts are likely to be realised where construction timeframes occur concurrently, and comparable material is required, e.g. in the adjacent Inland Rail projects. Opportunities to supply these projects may include the supply of fuels, equipment, borrow and quarried material. Where materials are sourced within the surrounding regions, increased local expenditure is likely to increase local and regional economic activity. The Project will seek opportunities to maximise efficiencies in obtaining supplies across Inland Rail Program segments and only source materials from commercial quarries currently in operation.

Should the demand for material surpass supply, resulting in a shortage of available material, input costs to the Project may increase (due to increased prices of materials) driving up the total construction cost, and negatively impacting the economic return of the Project.

18.11 Legacy impacts

There is the potential for the Project to provide long-term legacy benefits to local communities from Project investments that remain after the Project is constructed and operational. Legacy impacts have been identified through local consultation undertaken by ARTC. Further discussion on possible legacy benefits is addressed in Appendix X: Social Impact Assessment.

18.11.1 Local skills and business capacity

The Project's provision of training and employment opportunities, particularly for local and Indigenous businesses, will support local skills development, enabling ongoing opportunities for local workers in major projects beyond the construction of the Inland Rail Program. The Inland Rail Skills Academy is central to this, supporting skills and capability development for both construction and operation of major projects.

18.11.2 Road safety

Reduced freight truck movements on the local and State road networks will enhance road safety for the region over the long term. This will reduce the health, social and economic costs to the community associated with road incidences in the region. This has been quantified as crash cost savings, environmental externalities and road decongestion benefits in the economic assessment.

The Project will also improve the safety of road-rail interfaces on the existing brownfield rail corridor. The design has optimised the number of grade-separated crossings and active level crossings, reducing the risk of potential safety incidents and associated costs to the community.

18.11.3 Economic development

The operation of the Project as part of the broader Inland Rail Program will facilitate wider regional economic development, such as the establishment of intermodal facilities. This will benefit local businesses in the region and provide greater local employment opportunities for workers. The Toowoomba and Goondiwindi LGAs are well positioned to benefit from additional economic development arising from the Project due to existing transport and logistics industry hubs in the area.

18.11.4 Community projects

ARTC is considering opportunities that will deliver significant legacy benefits for communities across the Inland Rail Program, in addition to community projects that will be identified as part of the SIMP's Community Wellbeing Plan.

In particular, there is community interest in retaining laydown areas and/or infrastructure within non-resident accommodation facilities, so their value can be maintained by property owners, businesses, or community members. This will be determined as part of ongoing engagement with local stakeholders.

Additional community projects which may provide legacy benefits captured as part of consultation on the Health and Community Wellbeing Plan include:

- Creating a keeping place for Indigenous history, art and culture
- Naming rail sidings after Indigenous people
- Contributing to streetscape projects in Yelarbon
- Providing community facilities
- Capturing the opportunity for non-resident workforce accommodation facilities to augment long-term accommodation or housing supply
- Sponsoring expanded emergency health retrieval services
- Facilitating the development of town infrastructure (such as waste management, roads, and water access)
- Community values monitoring and planning resources.

18.11.5 Digital connectivity

ARTC is working with telecommunications carrier network operators to provide services for construction site offices, non-resident workforce accommodation facilities and ongoing safe rail operations as part of the Project. While the focus will be on the provision of voice and high-speed data services in the vicinity of the rail corridor, there is the potential for telecommunications capacity and digital connectivity to be improved for landowners and residents close to the Project alignment. Improved digital connectivity can provide greater access to information and markets improving the economic outcomes for both businesses and individuals.

While telecommunications expansions beyond the Project's requirements are not within the Project scope, feasibility studies into the augmentation of telecommunications along the Inland Rail Program alignment are being undertaken.

18.12 Impact management

The Project will result in a number of economic impacts, both positive and negative, which will be realised at a local and regional level, as shown in Table 18-13 below. A number of strategies to avoid, reduce or mitigate the negative economic impacts, and enhance and facilitate the capture of positive impacts (benefits), have been proposed by ARTC.

The reference design for the Project has been revised to optimise the design and minimise negative impacts. This includes avoiding direct impacts on intensive livestock operations.

A SIMP has been developed, which outlines how the Project will engage with communities and stakeholders, mitigate social impacts, enhance Project benefits for the impact assessment area and Project region, and monitor and report on the delivery and effectiveness of management measures.

Two SIMP sub-plans are directly relevant to the economic impacts identified and assessed in this EIA—Workforce Management and Local Business and Industry. A summary of the impacts and benefits identified in this EIA and mitigation measures within the SIMP are provided in Table 18-13. Further details of the SIMP mitigations can be found in the Appendix X: Social Impact Assessment.

TABLE 18-13 SOCIAL IMPACT MANAGEMENT PLAN

Impact / Benefit	Mitigation measures

Project employment
The Project has the potential to be a significant opportunity to support local employment, including Indigenous and youth employment opportunities.
	Workforce management measures:
	▸ Development of a Workforce Management Plan that includes a comprehensive employee induction program addressing, among other matters, a code of conduct for employees and contractors regarding behaviour, alcohol and drug use, cultural awareness and safety
	▸ The contractor will utilise the Inland Rail Skills Academy's programs to support meeting its commitments
	▸ The Project's recruitment strategy will provide equitable access to employment opportunities, and prioritise recruitment from Goondiwindi and Toowoomba LGAs
	▸ Minimum local employment targets will be negotiated and agreed between ARTC and the contractor. Minimum benchmarks guiding Project planning include:
	  ▸ an employment target of 15.0 per cent from within the SIA study area (comprising Toowoomba LGA and Goondiwindi LGA)
	  ▸ an Indigenous employment participation target of 4.0 per cent
	  ▸ workforce training target will exceed the 15.0 per cent core requirement set by the Queensland Government's Building and Construction Training
	  ▸ an 11.0 per cent female participation target during the construction works stage.
	▸ ARTC will endeavour to ensure that contractors seek to encourage employment, training and skills development opportunities by:
	  ▸ identifying the skills required for the building, construction, equipment and services fabrication and supply, maintenance, operation and support to the Inland Rail Program
	  ▸ Arranging timely training, and qualification arrangements to meet the needs of skills development to support all stages of the Project
	  ▸ Ensuring that training and qualification systems meet the requirements of the National Standards Framework.
	▸ The Project will:
	  ▸ work with key partners to link training and development programs with other projects and local industries to provide the greatest regional benefit
	  ▸ provide a clear and efficient process for people to seek information about employment opportunities and register their interest in the Inland Rail Program
	  ▸ work with Indigenous communities, industry and government agencies to support the design and delivery of training and development programs, to improve local capacity where this is needed
	  ▸ work with schools and local training providers to provide appropriate training, including science, technology, engineering, and mathematics initiatives and scholarship for students from potentially impacted communities
	  ▸ work with the Australian Government to provide long-term outcomes through training, mentoring and other support programs.
	▸ ARTC will investigate and implement best industry practices with respect to construction personnel, including journey management and the potential for shared driving arrangements.

Impact / Benefit	Mitigation measures

Local business and industry participation
The Project will have significant construction materials and service requirements that may provide local businesses with the opportunity to supply the Project.
	Local business and industry participation measures:
	▸ Development and implementation of an AIP Plan focusing on opportunities for involvement by local businesses in the construction and operation of the Project that involves:
	  ▸ identifying businesses within 125 km of the Project with potential capacity to supply the construction works stage
	  ▸ engagement with local businesses to identify opportunities to develop and promote local business participation
	▸ Engagement with the Department of Employment, Small Business and Training and Department of Housing, Local Government, Planning and Public Works to develop business capacity building strategies
	▸ ARTC will continue to engage with Toowoomba and Surat Basin Enterprise, chambers of commerce and local business groups/associations
	▸ ARTC will consider providing the Local Content Report to the Australian Industry and Skills Committee when developed
	▸ Implementation of ARTC's Sustainable Procurement Policy
	▸ Indigenous participation and local participation are included as key elements of construction tender assessments
	▸ ARTC will work with government stakeholders 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.
	▸ Link training and development programs with other projects and local industries to provide the greatest regional benefit.

Source: Chapter 17: Social and Appendix X: Social Impact Assessment

There are a number of economic impacts identified within this EIA that relate to agricultural properties and businesses. Where these impacts cannot be avoided, a range of measures has been proposed to carefully manage and mitigate these impacts. For example, measures include working with individual landowners to develop suitable solutions based on individual farm management practices and rehabilitating land in consultation with landowners. Further details are provided in Chapter 8: Land Use and Tenure.

18.13 Conclusions

A detailed EIA has been undertaken for the Project section of the Inland Rail Program.

Inland Rail impacts

This EIA has focused on the specific economic impacts resulting from the construction and operation of the Project in response to the EIS ToR and to address additional information requests from the Coordinator-General; however, the assessment acknowledges the role of the Project, and the remaining project segments, in collectively delivering the benefits of the Inland Rail Program. In its entirety, Inland Rail will enhance Australia's existing national rail network and serve the interstate freight market. As per the *Inland Rail Program Business Case* (ARTC, 2015a), key economic impacts of the Inland Rail Program include:

- Lower prices for consumers as a result of lower inter-capital freight transport costs, which reduces the cost of living for households
- Positive direct net economic benefits are driven by improvements in freight productivity, reliability and availability, and benefits to the community from reduced environmental externalities, reduced road congestion and improved safety benefits. Inland Rail is stated to be economically viable with a benefit-cost ratio of 1.02 at a 7 per cent discount rate (2.62 at a 4 per cent discount rate).
- Economic growth is increased profits (for industries and producers where inter-capital freight is an input or output) and incomes are multiplied through the economy. The Inland Rail Program is anticipated to deliver a net positive impact of $16 billion on Gross Domestic Product ($2015) over its 10-year construction period and 50 years of operation.
- Nationally, the Inland Rail Program is also expected to deliver an additional 16,000 jobs at the peak of construction, and an average of 700 additional jobs per annum during operation
- Enhanced competition between rail and road freight, by providing a credible transport alternative, which will drive further innovation and efficiency

- Potential to promote the expansion and development of freight precincts around Inland Rail terminals as a result of the benefits from co-location and clustering of industries (as a result of reduced transport costs to warehousing, economies of scale and knowledge-sharing opportunities).

Economic benefits assessment

The economic benefits assessment estimates that the Project is expected to provide a total of $703.26 million ($2022 present value terms) in incremental benefits (at a 7 per cent discount rate) to society. These benefits result from improvements in freight productivity, reliability and availability, and benefits to the community from crash reductions, reduced environmental externalities and road decongestion benefits.

Regional economic impact assessment

The Project will promote regional economic growth across the Darling Downs–Maranoa region. During the construction works stage, real GRP is projected to be $410 million higher than the baseline level for Darling Downs–Maranoa. The Project is also expected to deliver an additional 332 jobs (direct and indirect) per year over the construction period.

While the risks of labour shortages are high, the deterioration in the Darling Downs–Maranoa labour market observed in recent statistics indicates opportunities for recruiting, training and re-skilling available workforces in the region to supply a portion of the workforce requirements of the Project. In a national and State context, however, the Project will be completed in a relatively tight labour market, particularly for specialist skilled jobs, which may impact the ability of the broader workforce to support the delivery of the Project.

If inflation in Australia and overseas necessitates Central Banks to aggressively increase interest rates, labour market conditions could deteriorate rapidly. The best estimates of prevailing trends in the Darling Downs–Maranoa labour market, and the ability of construction workers to mobilise to Project locations, suggest that the risks of labour market disruption can be reduced.

Cumulative regional impact analysis

The incremental economic impacts of the Queensland segments include the incremental economic impacts of the northern segments of the Inland Rail Program (Queensland segments and two NSW segments—Narrabri to North Star and North Star to Border) include an increase in real GDP of Australia of $1.5 billion (measured in 2022 dollars) and an increase in the average number of jobs over the period FY2023 to FY2030 of 548 jobs per year.

The regional impact analysis discussed in Section 18.8 was based on simulations when the Project section was modelled in isolation. In that context, the direct and indirect increment to jobs in the Darling Downs–Maranoa economy was estimated to be 332 jobs per year. When all the northern segments are considered jointly, the increment in jobs (direct and indirect) in Darling Downs–Maranoa decreases marginally to 326 jobs per year during the Project construction works stage (FY2024 to FY2028). The increment to jobs in Darling Downs–Maranoa peaks in 2026 at 559 jobs. As discussed in the regional impact analysis, the labour market conditions across regional Queensland, over the Inland Rail Program construction period, are generally expected to be closer to a “tight” rather than “slack” characterisation. In a “tight” labour market, an increase in demand for labour is accommodated mainly through an increase in real wages while, in a “slack” labour market, an increase in labour demand is accommodated mainly by a decrease in the unemployment rate, with little impact on real wages.

The expansion in construction activity and regional employment is also likely to increase demand for a range of local infrastructure and services, including in the construction supply chain and for local retail and hospitality businesses.

Local and regional employment, business and industry impacts

At a local level, the Project will support regional economic development through opportunities for local and regional employment, businesses and industries:

- The Project offers opportunities to encourage, develop and grow Indigenous, local, and regional businesses through the supply of resources and materials for the construction and operation of the Project (e.g., borrow and ballast materials, fencing, electrical installation (excluding rail systems) and instrumentation, rehabilitation and landscaping, and transportation).
- The Project offers opportunities in secondary service and supply industries (such as retail, hospitality and other support services) for businesses in close proximity to the construction footprint (including opportunities to supply the three proposed non-resident workforce accommodation facilities in the vicinity of Millmerran, Inglewood and Yelarbon, and cleaning and maintenance of construction and accommodation facilities). The expansion in construction activity is also likely to support additional temporary flow-on demand and additional spending by the construction workforce in the local community.

- As part of the Inland Rail Program, the Project has the potential to stimulate business and industry development at the Toowoomba Enterprise Hub in Wellcamp. By providing efficient transport access to intrastate and interstate markets, the Project has the potential to act as a catalyst for further private-sector investment in this area, particularly for freight and logistics operations. The further development of the Toowoomba Enterprise Hub has the potential to unlock greater economic activity in the region, such as by promoting greater international export opportunities via Wellcamp Airport.

The Project has been designed to minimise impacts on local business and industry; however, the Project may result in the disruption of the agriculture and tourism industries through:

- The loss of agricultural land (through disturbance, acquisition, or sterilisation of the permanent footprint), disruption to farm management, or changes in accessibility or connectivity to the market. This may negatively impact the productive capacity and total economic value-add from the local agricultural industry. Based on the proportion of productive agricultural land lost, it is estimated that the Project could result in a loss of $1.2 million (value foregone) in gross agricultural production per year. ARTC will work with individual landowners to develop suitable management solutions, based on individual farm management practices, to mitigate and manage the direct impacts on individual farm properties.
- Changes to the amenity of, or connectivity to, local landscape attractions. Appendix X: Social Impact Assessment concludes that a significant decrease in visitation as a result of this impact is unlikely. ARTC will work with tourism associations to ensure that generalised impacts on tourism values are reduced wherever possible.

Impact management

ARTC is committed to enhancing the economic benefits of the proposal while avoiding, mitigating or managing any adverse economic impacts. Accordingly, there is a range of actions that ARTC will undertake to manage the social and socio-economic impacts of the Project and enhance Project benefits and opportunities.