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Appendices

Appendix A – Environmental Impact Assessment Practice Note – Socio-Economic assessment

Executive summary

The proposal

Australian Rail Track Corporation Ltd (ARTC) is seeking approval to construct and operate the Parkes to Narromine section of Inland Rail ('the proposal').

The proposal would involve upgrading the existing rail line between Parkes and Narromine, including new crossing loops, some track realignment and replacement of culverts. The proposal also includes a new north to west connection between Inland Rail and the Broken Hill line (Parkes north west connection). Ancillary works will include upgrading, closing or consolidating level crossings, upgrading signalling and communications, establishing new fencing or upgrading existing fencing along the existing rail corridor, and relocating/protecting services and utilities.

This report

The proposal would result in both socio-economic benefits and impacts during the construction and operation periods. This social impact assessment (SIA) report identifies these benefits and impacts and recommends a range of best practice management and mitigation measures.

Benefits and impacts

Key social benefits would potentially include:

- Increased employment opportunities through demand for construction and operation workforce and business opportunities through demand for goods and services mainly during construction phase.
- Potential of reduced freight road traffic along regional and local roads as freight would be transported by rail during operation.

Adverse social impacts would include:

- Impacts on properties and landholders due to property acquisition and land access required during construction.
- Perceived or real anti-social behaviour of single, male, non-resident construction workers
 may be a concern for local communities. Anti-social behaviour has the potential to
 increase crime and adversely affect community perceptions of safety.
- Amenity impacts due to changes in noise levels, air quality, views and landscape during construction and operation are expected to be experienced by residents close to the proposal site especially at Parkes and Peak Hill and would reduce with increasing distance from the proposal.
- Impacts on community access and connectivity. However, given the proposal is located outside the larger towns of Narromine and Parkes, and to the west of Peak Hill, overall impacts on community access and connectivity during construction and operation are expected to be minor. Any potential traffic diversions or delays are expected to be experienced by very few community members.

Recommendations

It is recommended that the following measures be implemented to mitigate the potential socioeconomic impacts of the proposal:

- Development and implementation of a local business and industry procurement plan that would include opportunities for local procurement and suppliers.
- Development and implementation of a workforce management plan to manage local and regional sourcing of the workforce and workers code of conduct.
- Development of individual property management agreements to manage potential construction impacts on landholders, where relevant.
- Development of a workforce housing and accommodation plan and consultation with accommodation providers and councils to manage accommodation availability.
- Development of a traffic, transport and access management sub-plan as part of the CEMP, in consultation with relevant stakeholders.
- Development and implementation of a safety awareness program to educate the community regarding safety around trains.
- Ongoing stakeholder engagement during detailed design, construction and operation.

1. Introduction

1.1 Overview

The Australian Government has committed to delivering a significant piece of national transport infrastructure by constructing a high performance and direct interstate freight rail corridor. The Inland Rail programme (Inland Rail) involves the design and construction of a new inland rail connection, about 1,700 kilometres long, between Melbourne and Brisbane, via central-west New South Wales (NSW) and Toowoomba in Queensland. Inland Rail would enhance Australia's existing national rail network and serve the interstate freight market.

Australian Rail Track Corporation Ltd (ARTC) has sought approval to construct and operate the proposal.

The proposal requires approval from the NSW Minister for Planning under Part 5.1 of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act) and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

This report has been prepared by GHD Pty Ltd (GHD) as part of the environmental impact statement (EIS) for the proposal. The EIS has been prepared to accompany the application for approval of the proposal, and address the environmental assessment requirements of the Secretary of the Department of Planning and Environment (the SEARs), issued on 8 November 2016 and the terms of the assessment bilateral agreement between the Commonwealth and the State of New South Wales under the EPBC Act.

1.2 The proposal

1.2.1 Location

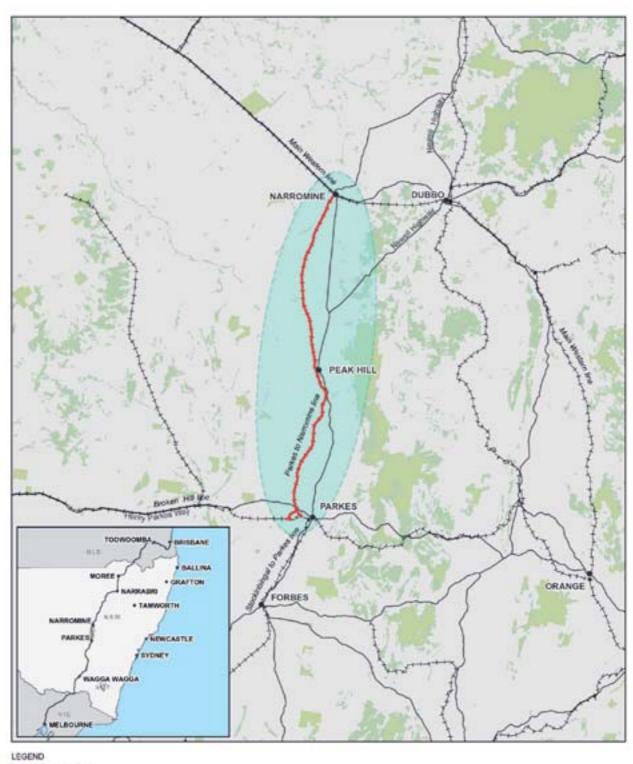
The proposal is generally located in the existing rail corridor between the towns of Parkes and Narromine, via Peak Hill. In addition, a new connection to the Broken Hill rail line ('the Parkes north west connection') is proposed outside the existing rail corridor at the southern end of the proposal site near Parkes. The location of the proposal is shown in Figure 1-1.

1.2.2 Key features

The key features of the proposal involve:

- Upgrading the track, track formation, and culverts within the existing rail corridor for a distance of 106 kilometres between Parkes and Narromine
- Realigning the track where required within the existing rail corridor to minimise the radius of tight curves
- Providing three new crossing loops within the existing rail corridor, at Goonumbla, Peak Hill, and Timjelly
- Providing a 5.3 new kilometre long rail connection to the Broken Hill Line to the west of Parkes ('the Parkes north west connection'), including a road bridge over the existing rail corridor at Brolgan Road ('the Brolgan Road overbridge').

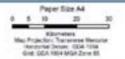
The key features of the proposal are shown in Figure 1-2.



Proposal site

Proposal location

Main roads





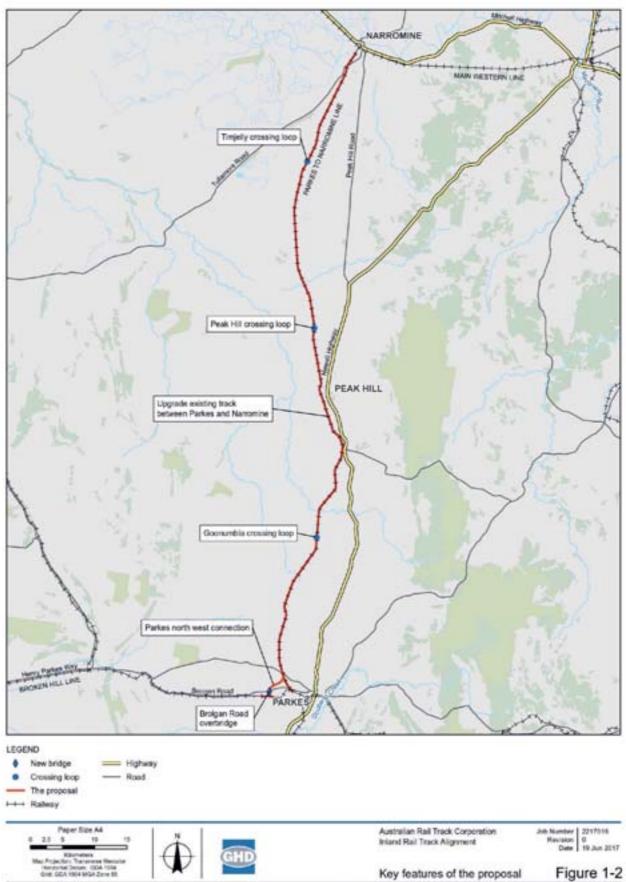
Australian Rail Track Corporation Inland Rail Track Alignment

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Location of the proposal

Figure 1-1

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Ancillary work would include works to level crossings, signalling and communications, signage and fencing, and services and utilities.

Further information on the proposal is provided in the EIS.

1.2.3 Timing

Subject to approval of the proposal, construction is planned to start in early to mid 2018, and is expected to take about 18 months. Existing train operations along the Parkes to Narromine line would continue prior to, during, and following construction. Inland Rail as a whole would be operational once all 13 sections are complete, which is estimated to be in 2025.

1.2.4 Operation

Prior to the opening of Inland Rail as a whole, the proposal would be used by existing rail traffic, which includes trains carrying grain and ore at an average rate of about four trains per day. It is estimated that the operation of Inland Rail would involve an annual average of about 8.5 trains per day in 2025, increasing to 15 trains per day in 2040. The trains would be a mix of grain, intermodal (freight), and other general transport trains.

1.3 Purpose and scope of this report

This report documents the process and outcomes of the socio-economic impact assessment (SIA) of the proposal. It addresses the socio-economic specific requirements of the SEARs, which requires (item 14) the proponent to 'assess social and economic impacts in accordance with the current guidelines'. The socio-economic impact assessment was undertaken in accordance with the guidance provided by the *Environmental Planning and Impact Assessment Practice Note: Socio-economic Assessment* (Roads and Maritime, 2013) (copy provided in Appendix A).

Specifically, this assessment:

- Establishes a social baseline for the social area of influence of the proposal, to understand the existing environment and form the basis to measure change or impacts.
- Identifies and assesses potential social and economic benefits and issues/impacts that may arise as a result of the construction and operation of the proposal.
- Proposes measures to avoid, minimise or mitigate the impacts and enhance the benefits.

1.4 Structure of this report

The structure of the report is as follows:

- Chapter 1 provides an introduction to the report.
- Chapter 2 describes the methodology and the policy and legislative context for the assessment.
- Chapter 3 describes the existing social and economic conditions of the social area of influence of the proposal.
- Chapter 4 identifies and describes the potential social impacts arising from the construction and operation of the proposal.
- Chapter 5 outlines the impact mitigation and management measures for the identified impacts.
- Chapter 6 provides a conclusion to the report.

2. Assessment methodology and policy context

2.1 Methodology

2.1.1 Overall approach

The SEARs require the SIA to be undertaken in accordance with *Environmental Impact Assessment Practice Note – Socio-economic Assessment* (Roads and Maritime, 2013) ('the Practice Note').

According to the Practice Note, the overall concerns of the SIA are mainly related to the following social indicators:

- How people live, work, play and interact with one another on a daily basis.
- How people move about their area for personal or business purposes.
- People's culture, including shared beliefs, customs and values, attachment to land and places, and sense of belonging.
- People's community, including the level of community cohesion, local character and sense of place.
- People's access to and use of community services, facilities and social networks.
- People's physical and psychological health and wellbeing, including stress levels, happiness and sense of security.
- People's fears and aspirations, including perceptions about safety and their fears about, and aspirations for, the future of their community.
- People's assets, such as property, housing or business.
- People's personal or business income and expenses.
- Employment, including location, availability and types of employment and labour force availability.
- People's environment, including the quality of the air and water people use, the level of hazard or risk, dust and noise they are exposed to and their physical safety.

It is acknowledged that the list above provides a generic overview of social indicators to be considered, however only those social indicators identified in the scoping and risk assessment for this SIA are deliberated further in this report through Sections 3, 4 and 5.

2.1.2 Detailed methodology

The tasks involved in the SIA are described below.

Identification of the social study area

The socio-economic benefits and impacts are often not contained within the proposal boundaries. Various factors are considered while determining the social area of influence. They include, but are not limited to:

- Areas that may experience adverse impacts from the proposal such as noise, dust and visual changes.
- Areas that may experience land use changes.

Areas that may potentially supply goods and services and workforce to the proposal.

To capture the socio-economic influences of the proposal the social study area was defined as:

- Proposal site includes the area shown in Figure 1-1, which is predominantly within the existing rail corridor.
- Social study area this includes the local government areas (LGA) of Parkes and Narromine which are traversed by the proposal, with particular focus on the towns of Parkes, Peak Hill and Narromine, which are located close to the proposal site. The study area also includes Dubbo as it is a major regional centre located close to the proposal site (the regional context is shown in Figure 2-1).

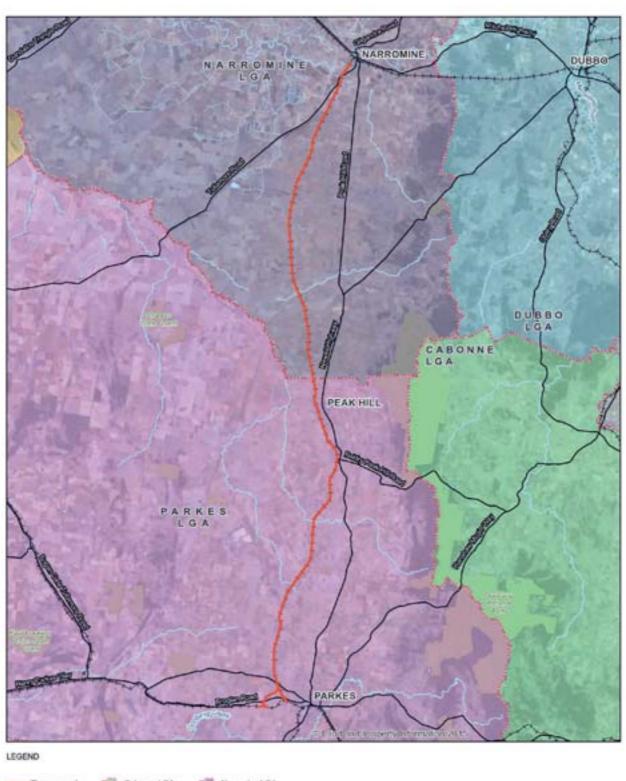
Scoping of socio-economic issues

To provide a framework for the SIA, an initial list of social issues and potential benefits relevant to the proposal was developed to inform the research and consultation. These impacts were based on an understanding of the proposal, other projects, and Practice Note (Roads and Maritime, 2013). The initial list of issues was augmented as other impacts were identified during the later stages of the SIA.

Literature review

The following documents were reviewed:

- The environmental impact statement (EIS) guidelines and legislative framework.
- Strategic plans and community plans for the study area (summarised in Section 2.2).
- The proposed Inland Rail (Parkes to Narromine) EIS.
- ARTC 2015 A Business Case for Inland Rail.
- Examples of socio-economic studies undertaken for other similar projects.
- Technical studies undertaken as part of the EIS:
 - ARTC Inland Rail Parkes to Narromine Hydrology and Flooding, GHD 2017a.
 - ARTC Inland Rail Parkes to Narromine Water Quality Assessment, GHD 2017b.
 - ARTC Parkes to Narromine Inland Rail Noise and Vibration Assessment, GHD 2017c.
 - Australian Rail Track Corporation Inland Rail Parkes to Narromine Traffic, Transport and Access Assessment, GHD 2017e.
 - ARTC Inland Rail Parkes to Narromine Aboriginal Cultural Heritage and Archaeological Assessment, Umwelt 2017a.
 - ARTC Inland Rail Parkes to Narromine Aquatic Ecology Assessment, Umwelt 2017b.
 - ARTC Inland Rail Parkes to Narromine Biodiversity Assessment Report, Umwelt 2017c
 - Australian Rail Track Corporation Inland Rail Parkes to Narromine Landscape and Visual Assessment, Urbis 2017.





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Regional context

Figure 2.1

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Developing the social baseline

A description of the existing social characteristics and community dynamics was compiled to form the basis for predicting or measuring the potential social benefits and impacts of the proposal. The existing social environment (also referred to as the social baseline) was developed for the social study area. The social baseline describes the following community characteristics and issues:

- Community lifestyle, values and aspirations.
- Demographic characteristics, including population, age and gender, indigenous population, family composition, housing, full-time equivalent worker population and per cent of non-resident workers, occupation and industry of employment, income.
- Social and community infrastructure, including health services and facilities, community support services, education and training facilities.

Data and information for the social baseline were gathered from the following sources:

- Australian Bureau of Statistics (ABS) Census 2011 data.
- Websites and publications of councils in the social study area.
- NSW Government agencies.
- Information from stakeholder consultation, site visits, and information from other technical studies undertaken as part of the EIS.

Population projections were sourced from the NSW Department of Planning and Environment forecasts for each LGA. These projections are based on assumptions taking into account recent and current trends for births, deaths, and migrations.

SIA stakeholder consultations

Stakeholder consultation with relevant agencies were undertaken by ARTC. Consultation took place with staff responsible for social and economic planning/development, development/ maintenance of open spaces and recreational areas, and urban planning, at Narromine Shire Council and Parkes Shire Council. GHD also consulted with Narromine Shire Council on 20 June 2016 and Parkes Shire Council on 27 June 2016 to further inform this SIA. The outcomes of this consultation are incorporated into this SIA.

Identification and assessment of social benefits and impacts

In this SIA, the definition of social impacts is based on the Practice Note. This defines social impacts as issues associated with a planned intervention that affect or concern people due to actual or perceived social changes invoked by the intervention. It includes any aspect of human life and its environs as long as it is valued or considered important by people who would directly or indirectly experience the change.

It should be noted that perceived impacts are as important as actual (measurable) impacts, as people may modify their behaviours or experience discomfort simply because of a perceived impact. Therefore, references to social impacts throughout this assessment refer to both actual impacts and perceived impacts.

To predict social benefits and impacts, this SIA adopts the precautionary and uncertainty principles (IAIA, 2015). With regards to the precautionary principle, this means that even though some impacts were not fully confirmed, they were still considered as part of the assessment. By adopting the uncertainty principle, there is recognition that the predicted impacts may change from place to place and people to people over time, due to ever-changing social processes and as knowledge of these social processes increases.

The predicted impacts were identified based on the social conditions (including trends and forecasts) in the social study area at the time the SIA was undertaken (May-November 2016). It is recognised that the predicted social impacts and their assessment may change with any alterations to the socio-economic and political context, or as stakeholder perceptions change over time as more information about the proposal is available. The social impacts may also change once the proposal is being constructed, and when it begins operation.

In light of the variables described above, the process of impact prediction was made robust through data triangulation, in which the SIA team used multiple sources of information to identify the social impacts. Impact identification was informed by:

- Using the outcomes of the ARTC stakeholder consultation.
- Proposal information available at the time, the social baseline of the study area, and the scoping of social issues carried out by the SIA team.
- A literature review of social impact assessments of similar projects, community and regional plans for the study area, and relevant information/documents shared by stakeholders.
- Other technical studies prepared for the EIS, as listed in literature review section (Section 2.1.2).

The impact categorisation and risk rating was based on the environmental risk assessment process for the EIS. As per this process, social risks were identified and then categorised as:

- Positive impact/benefits where the impacted stakeholders would be 'better off' or would benefit due to the proposal.
- Negative impacts where the impacted stakeholders would be 'worse off' due to the proposal.

The benefits and impacts were then further assessed to determine their significance, using the 'impact likelihood and consequence' framework (refer to the EIS for further information). Those risks that were identified to be 'moderate' to 'high' are detailed in Section 4. Some perceived risks of lower rating are also discussed in Section 4.

Social impact management strategies

The social impact management strategies outlined in this report seek to both enhance the benefits for stakeholders and communities, and mitigate negative impacts from the proposal. The SIA also draws upon the various EIS technical studies (as listed in the literature review Section 2.1.2) for mitigation/management of specific impacts.

The management strategies were developed using adaptive management principles recognising that impacts may change over time, and that ongoing monitoring of impacts would provide the flexibility to accommodate such changes.

2.2 Planning and policy context

There are a number of statutory and non-statutory regional and community plans relevant to the social study area that provide strategic advice and guidance to regional development. These plans were reviewed to provide an understanding of the broader context of the region. The results of the review are summarised below.

2.2.1 Economic planning

The social study area is covered by two regional development plans prepared by Regional Development Australia: *Central West Regional Plan 2013 – 2016* (RDA Central West, 2013) and the *Orana Regional Plan 2013 – 2016* (RDA Orana, 2015). The Central West Regional Plan is also supported by the *NSW Central West Freight Study* (RDA Central West, 2014).

The NSW Government's *Economic Development Strategy for Regional NSW* (NSW Department of Trade and Investment, 2015) also applies to the study area.

At a local level, economic development is considered within the community strategic plans for the Parkes and Narromine LGAs.

2.2.2 Community planning

Community Strategic Plan: Narromine Shire 2023

In the *Community Strategic Plan: Narromine Shire 2023* (Narromine Shire Council, 2013), the shared vision is stated as: "a highly desirable place to live, work and conduct business, and where shire residents care for one another and the natural environment". Council values support and guide this vision, which include:

- Encouraging new business development
- Not competing with commercial service providers
- Being willing to consult with the community
- Maintaining the safety of Shire residents and visitors
- Placing a high value on the proper management, protection and restoration of the natural environment.

The plan also responds to a number of significant future challenges such as climate change, an ageing population, changes in the agricultural industry, and State and federal government policy changes.

Community consultation was undertaken in 2008 for the Community Strategic Plan. The consultation showed that the people of Narromine Shire are interested in improvements to intrashire governance and events, such as by developing the showground and by holding regular meetings with town committees. Waste, water and land management were also seen as key to developing local business and agriculture.

Parkes Shire Council: Community Strategic Plan 2022

The Parkes *Community Strategic Plan 2022* (Parkes Shire Council, 2013) provides a vision for Parkes Shire and recommends strategic objectives and future directions to meet this vision.

As per the Plan, by 2022, Parkes Shire aims to be 'a progressive regional centre, embracing a national logistics hub with vibrant communities, diverse opportunities, learning and healthy lifestyles'.

To achieve this vision, eight future directions were developed for the community:

- 1. Develop education and lifelong learning opportunities.
- 2. Improve health and wellbeing, including maximising public safety.
- 3. Promote, support and grow our communities.
- 4. Grow and diversify the economic base.
- 5. Develop Parkes as a national logistics hub.

- 6. Enhance recreation and culture.
- 7. Care for the natural and built environment in a changing climate.
- 8. Maintain and improve the Shire's assets and infrastructure.

Of particular relevance to this proposal is future direction five. Parkes Shire Council views the development of Inland Rail as beneficial in helping Parkes develop as a national logistics hub. The transfer of freight volumes from road to rail is seen as a key benefit of the proposal.

2.2.3 Land use and transport planning

Draft Central West and Orana Regional Plan

The *Draft Central West and Orana Regional Plan* (Department of Planning and Environment, 2016) (the draft plan) is a consolidated strategic plan prepared for the 20 local government areas in the Central West and Orana region, and includes the Parkes and Narromine LGAs.

The draft plan outlines a number of challenges facing the region, such as its ageing population, increasing freight volumes and climate change. A regional vision is presented of a sustainable future based on diverse economic industries, helping to service a healthy environment and strong, resilient communities.

The draft plan presents four goals with associated actions to help achieve this vision. These goals are:

- A growing and diverse regional economy.
- A region with strong freight transport and utility infrastructure networks that support economic growth.
- A region that protects and enhances its productive agricultural land, natural resources and environmental assets.
- Strong communities and liveable places that cater for the region's changing population.

Central West Regional Transport Plan, 2013

Key relevant points presented in the plan include:

- Implications for the transport network due to the specific population, employment and land use characteristics of the region including: slowly growing population, ageing population, employment clustered in major centres, existing and future freight movements, social disadvantage, dispersed population, road safety, and seasonal tourism.
- Regional initiatives are already underway. These include: Traffic Management Road Safety Program, Country Passenger Transport Infrastructure Grant Scheme, Transport Access Program and Better Boating Program.
- Investing in rail freight facilities and infrastructure is identified as an action. At the time the plan was published, ARTC was undertaking the feasibility study for Inland Rail to support the efficient movement of rail freight through the Central West region and avoid freight having to use coastal routes.

Other actions focus on investing in the road network and upgrades, and improving road safety, passenger rail and bus services. Improving pedestrian and cycling opportunities within centres and towns is also a key focus of the plan.

Other relevant strategic planning documents are described in the EIS.

3. Existing environment

3.1 Proposal site

With the exception of the Parkes north west connection, the majority of the proposal would be undertaken within the existing rail corridor for the Parkes to Narromine line.

The southern end of the proposal site starts just west of Parkes near where Brolgan Road crosses the existing rail corridor, about 3.5 kilometres from Parkes Station and the town centre. The Parkes north west connection is proposed at the southern end of the proposal site, near Parkes and the proposed Parkes Logistics Hub. This would provide a connection between the existing Broken Hill line and the existing Parkes to Narromine line.

From the northern end of the Parkes north west connection, the proposal site extends through rural lands along the existing rail corridor. It follows a roughly north—south direction for a distance of about 51 kilometres through the localities of Nanardine, Goonumbla and Trewilga (near the Newell Highway) to Peak Hill. The existing rail corridor passes through the western outskirts of Peak Hill to the west of the main residential area and about 90 metres from the main street of Peak Hill. It is located about 980 metres west of the Newell Highway (which passes through the eastern side of the town).

From Peak Hill, the proposal site extends through rural lands along the existing rail corridor. It follows a roughly north—south direction for a distance of about 58 kilometres through the localities of Tomingley West and Wyanga to Narromine.

The northern end of the proposal site is just south of where Old Blackwater Road crosses the existing rail corridor about 500 metres west of the town, and about 1.1 kilometres south west of Narromine Station. Dubbo city is a major regional centre located close to the proposal.

The proposal site is located in a rural/agricultural landscape, with areas of concentrated urban development in nearby towns and villages. Residents of rural and agricultural areas around the proposal and in the social study area enjoy a quiet rural lifestyle and rural landscape.

3.2 Land use in the social study area

The social study area is dominated by agricultural land uses, with significant cotton, wheat, and livestock industries. The proposal site traverses a predominately rural area, and is surrounded by large rural properties that are used for agriculture and grazing. In the Parkes and Narromine LGAs, 90 per cent of land use is dedicated to agriculture, with cropping and grazing the main land uses. Natural areas and forestry make up the remainder along with mining, residential, commercial, and utility usage.

Cropping consists of both dry-land and irrigated agriculture with the main crop being wheat. Grazing land is split between improved pasture and other pasture types with just under half being sown to improved pastures. Beef cattle and sheep (prime lambs and wool) are the main livestock enterprises. A number of grain storage and handling facilities are located in various locations along (adjacent to) the proposal site.

The majority of the study area has been cleared of the original vegetation. Scattered patches of remnant vegetation remain, mainly in the vicinity of watercourses. There are scattered paddock trees in various locations throughout the study area.

Other key features and land uses in the vicinity of the proposal site are:

- Parkes National Logistics Hub, which adjoins the southern end of the proposal site.
- Grain storage and handling facilities along (adjacent to) the proposal site.
- The former Peak Hill Open Cut Gold Mine situated about 1.5 kilometres east of the proposal site.
- Goobang National Park located about nine kilometres east of the proposal site (near Peak Hill), which includes walking trails, campgrounds, amenities, barbecues and picnic facilities.

3.3 Transport in the social study area

The road network consists mainly of local roads and private rural roads. The main roads include the Newell Highway and Henry Parkes Way. There are 71 level crossings (33 public and 38 private) located along the proposal site.

A small number of passenger rail services travel through the southern end of the study area. The Indian Pacific travels between Sydney and Perth and stops at Parkes twice a week. The Broken Hill Outback Explorer service, run by NSW TrainLink, travels to Broken Hill from Sydney on Mondays and from Broken Hill to Sydney on Tuesdays.

The Parkes to Narromine line is used by grain trains at an average rate of two to three trains per day. Annually, these trains carry about two million tonnes of grain per year. Trains using the line have a maximum length of 1800 metres. Train speeds are limited to a maximum of 90 to 100 kilometres per hour, with local speed restrictions due to limitations associated with the existing track.

Parkes is strategically located at the intersection of the Inland Rail north–south and east–west links (Parkes Shire Council, 2016b). To maximise the potential economic benefits from Inland Rail, Parkes Shire Council has developed the Parkes National Logistics Hub, a multi-modal transport facility. The Parkes Hub is designed to operate 24 hours a day, seven days a week to meet future freight needs. It comprises 516 hectares of agricultural and industrial land on the western edge of the town with an additional reserve of over 100 hectares.

3.4 Proximity to Dubbo

Dubbo, which is located about 45 kilometres west of Narromine, is a regional service centre for the Central West and Orana regions. Dubbo services a catchment of over 120,000 people which may include communities within the social study area (Dubbo Regional Council, 2013). In 2012, Dubbo had a population of 40,491 persons.

In addition to traditional rural industries, other industries in Dubbo include retail, health services, manufacturing, tourism, education and professional services. Dubbo has a number of regional community facilities, in particular health facilities, that may be accessed by towns within the study area such as Narromine and Peak Hill (71 kilometres south). These include Dubbo Base Hospital, Lourdes Hospital, and Dubbo Community Health Centre.

Dubbo City Regional Airport provides over 180 flights each week to and from Dubbo, Sydney, Brisbane, Melbourne, Newcastle, Cobar and Broken Hill (Dubbo City Regional Airport, 2016). Communities within the study area and the future Inland Rail workforce would likely access this airport to connect to major cities.

Dubbo has approximately 70 accommodation facilities with 4,500 beds, which cater to the tourism industry as well as overflow demand for temporary workforce in the region. Dubbo City Council and accommodation providers in Dubbo have formed an informal network that the Council facilitates, to discuss upcoming projects and events.

3.5 Key socio-economic characteristics

3.5.1 Narromine local government area

Narromine LGA covers about 5,224 square kilometres and has an estimated resident population of 6,822 (as of 2015). The population lives across the three urban centres of Narromine (3,500), Trangie (800), and Tomingley (50) as well as surrounding rural areas (REMPLAN, 2016).

Economy

Based on the *Community Strategic Plan: Narromine Shire 2023*, the Narromine LGA's major industry is agriculture, representing over 28 per cent of economic output, with citrus farming grain crops, livestock, wool and cotton (Narromine Shire Council, 2013). Rental, hiring and real estate services, manufacturing and wholesale trade are the next largest industries, representing 11.6, 8.1 and 7 per cent of economic output respectively (REMPLAN, 2016).

In terms of employment generated, agriculture is also the largest industry, generating 32 per cent of jobs, whilst healthcare and social assistance, retail trade, and education and training each generate a greater proportion of employment than economic output, representing 10.8, 10 and 9.7 percent of employment, respectively (REMPLAN, 2016).

The output generated by the Narromine economy is estimated at \$597.8 million in 2015. Narromine represents 4.2 per cent of the \$14 billion in output generated in Orana, and 0.06 per cent of the \$1 trillion in output generated in New South Wales. Agriculture, forestry and fishing is the largest industry in terms of economic output at \$169 million and employment, with a quarter (25 per cent) of the LGA's workers employed in the industry (Narromine Shire Council, 2013).

In addition to its agricultural industry, Narromine is also known for being a centre of aviation. The first plane landed in Narromine in 1919 and the town hosts Australia's oldest aviation club. In World War Two (WWII) the RAAF established the No. 5 Elementary Flying Training School at the Narromine Aerodrome. Since that time, Qantas has used Narromine as a training centre for many of its pilots (Narromine Aviation Museum, 2010).

Natural features

Major features of the LGA include Goobang National Park, the Bogan River, the Macquarie River, and several State forests.

Roads

The Shire is served by the Mitchell Highway and the Newell Highway.

Narromine town

Narromine has a population of 3,789 people and is the biggest commercial centre within Narromine Shire (Narromine Shire Council, 2013). In addition to agriculture (25.4 per cent), industries such as healthcare (11 per cent) and retail (9.2 per cent) are common employers, as are education and training (8.7 per cent), construction, and transport, postal and warehousing (both 5.8 per cent).

Table 3-1 provides a demographic overview of Narromine town and the Narromine LGA as at the 2011 census.

Table 3-1 Narromine town and LGA demographic overview

Data type	Narromine town, 2011	Narromine LGA, 2011
Population	The population was 3,789 people, comprising 57.5% of the LGA population. Narromine's population increased by 190 people from 2006.	Narromine LGA's population increased slightly from 2006 by 77 people (6,508 to 6,585). In 2015, REMPLAN estimated that the population of Narromine LGA was 6,822 people. The projected population is 6,200 by 2036 (DPE, 2016) representing a declining population from 2015.
Age and gender	The gender divide was about even at 48.0% male and 52.0% female, similar to the LGA. The median age was 38 years, similar to the LGA. The proportion of school aged residents (19.2%) and older residents (24.3% aged 60 years and over) is comparable with that of the LGA The town had a similar age profile to the LGA.	There was an even gender divide of 50.0% male and 50.0% female. The median age was 39 years. The proportion of school aged residents was 19.4% and older residents was 23.8% (aged 60 years and over).
Indigenous population	The indigenous population of 915 people comprised 24.1% of the population, slightly greater than the LGA.	Indigenous people represented 19.6% of the population. State-wide and nationally, indigenous people make up 2.5% of the population.
Family composition	Family households were the dominant household type at 68.5%, similar to the LGA. There were 993 families within Narromine. Similar to the LGA, couple families with and without children were the dominant family types, comprising 36.4% and 37.6% of all families in Narromine, respectively. There was a slightly greater proportion of single parent families within Narromine than the LGA at 24.3%. This was higher than in wider Australia, where one-parent families comprised 15.9% of all families.	Family households were the dominant household types at 69.7%. Couple families with and without children were the dominant family types comprising 38.1% and 40.3% in the LGA respectively. The proportion of single parent families was 20%.
Housing	There was a slightly lower proportion of dwellings owned outright, compared to the Narromine LGA at 36.7%. The proportion of dwellings owned with a mortgage was 30.5% for Narromine, similar to the LGA. 30.5% of all privately occupied dwellings were rented in Narromine, similar to the LGA. The median monthly mortgage repayment in Narromine was \$1,092, slightly higher than the LGA. Residential vacancies in October 2016 in the Narromine post code were at 1.1 % with 7 available properties (SQM Research, 2016). Weekly rent was higher in Narromine than the LGA at \$168.	40.0% of dwellings were owned outright. 29.8% of dwellings were owned with a mortgage. 29.8% of all privately occupied dwellings were rented. The median monthly mortgage repayment was \$1,083. Weekly rent was \$145.

Data type	Narromine town, 2011	Narromine LGA, 2011
Full time equivalent worker population (FTE)	There was a similar full-time labour force participation to that in the LGA at 62.1%. The total employed population was 1,477 workers, both full-time and part-time. Unemployment in 2011 was 7.6%, considerably higher than for the LGA at 5.9%.	Full-time labour force participation in the LGA was 65.0%. The total employed population was 2,997 workers, both full-time and part-time in the LGA. At June 2016, unemployment in the LGA was recorded as 4.6% (Department of Employment, 2016)
Occupation and industry of employment	There were similar proportions of workers employed as technicians and trades people (15.6%), professionals (14.2%) and labourers (14.0%) in Narromine and the LGA. However, significantly more people were employed as managers in the LGA than in Narromine at 24.1% and 12.7% respectively. Healthcare and social assistance (14.0%) and retail trade (12.0%) were the dominant industries within Narromine. Within the LGA, lower proportions of workers were employed in these industries. Compared to the LGA, there was a significantly lower proportion of workers employed in agriculture, forestry and fishing in Narromine (9.7%).	The most common industry of employment in the LGA was agriculture, forestry and fishing, which employed 25.4% of all workers. 12.2% of workers were employed as technicians and trades people, 13.0% were professionals, and 12.6% were labourers. 11.0% and 9.2% of workers were employed in healthcare, social assistance and retail trade industries.
Education	12.2% of residents aged over 15 were studying at technical or tertiary institutes, either full or part time. However, 55.9 percent of adults did not have a post school qualification in Narromine town.	Narromine LGA had lower rates of post school students with 10.9% of residents aged over 15 studying at technical or tertiary institutes, either full or part time, and comparable rates of adults who did not have a post school qualification (54.9%).
Income	The median individual income was \$465 per week, less than the LGA.	The median individual income was \$492 per week.

Accommodation and community facilities

Multiple accommodation facilities are located in Narromine, including the Narromine Tourist Park (11 cabins and 36 powered sites), three hotels, two motor inns, a bed and breakfast, and a farm stay.

A range of local community facilities and services are located in the town, including education and childcare, parks and recreation facilities, library, emergency services, and other community facilities such as shops and medical services, including the Narromine hospital and community health centre.

People from Narromine may also access regional facilities in the regional centre of Dubbo, such as Dubbo Base Hospital, Lourdes Hospital, Dubbo Community Health Centre, and Macquarie Regional Library. Table 3-2 identifies some community facilities that may be used by the construction workforce for the proposal.

Table 3-2 Community facilities within or near Narromine town

Facility type	Name	Address
Place of worship	St Mary's Anglican Church	146 Dandaloo Street
	Narromine Baptist Church	46 Dandaloo Street
	St Andrew's Uniting Church	61 Meryula Street
	Generosity Church Narromine	45-51 Dandaloo Street
Emergency services	Narromine Police Station	Burraway Street
	Narromine Rural Fire District	39 Burraway Street
	NSW Ambulance	15 Dandaloo Street
Health	Narromine Hospital and Community Health	128 Cathundril Street
	Narromine Shire Family Health Centre	127 Dundaloo Street
	Dubbo Base Hospital	Myall Street, Dubbo
	Lourdes Hospital	4 Tony McGrane Place, Dubbo
	Dubbo Community Health Centre	2 Palmer Street, Dubbo
Community and cultural venues	Narromine Library	31 Dandaloo Street
Sport and recreation	Narromine Sport and Fitness Centre	12A Meringo Street
	Narromine Swimming Pool	Burroway Street
	Narromine Golf Club	Warren Road
	Narromine Bowling Club	158 Dandaloo Street

3.5.2 Parkes local government area

Economy

Parkes LGA covers 5,957 square kilometres and has a population of 15,337 as of 30 June 2015 (Parkes Shire Council Profile id n.d.).

Parkes has a broad employment base with agriculture (representing 15.1 per cent), retail (10.2 per cent), healthcare and social assistance (9.1 per cent), mining (8.1 per cent), construction (7.9 per cent), and educational and training (7.8 per cent) being the most prominent industries of employment in Parkes. Sheep and cattle grazing and wheat growing form key parts of the agriculture industry (Parkes Shire Council Profile id n.d.). The tourism industry is centred on the region's gold rush history, natural scenery and the landmark CSIRO Parkes Radio Telescope, better known as 'the Dish'.

By contrast, the generators of the largest economic output in the LGA are mining (19.4 per cent), construction (13.1 per cent) and agriculture, forestry and fishing (11.4 per cent) (Parkes Shire Council Profile id n.d).

Parkes town

Parkes is located 120 kilometres south of Dubbo and 100 kilometres west of Orange. It is the principal town within Parkes Shire.

Parkes is a commercial centre with its major industries including agriculture, transport, mining, and tourism (Parkes Shire Council, 2016a). The CSIRO Parkes Radio Telescope is a key tourist attraction, as is the Parkes Elvis Festival, which attracts about 20,000 visitors each year.

Table 3-3 provides a demographic overview of Parkes town and the Parkes LGA as at the 2011 census.

Table 3-3 Parkes town and LGA demographic overview

Data type	Parkes town, 2011	Parkes LGA, 2011
Population	The population was 10,026, comprising about 68.7% of the LGA population. Parkes' population increased by 297 people from 2006.	The LGA population increased slightly from 2006 by 311 people (14,281 to 14,592). In 2015, profile.id estimated that Parkes LGA had a population of 15,337. The projected population is 15,700 by 2036 (DPE, 2016) representing an increasing population from 2015.
Age and gender	There was a roughly even gender divide of 48.5% male and 51.5% female, similar to the LGA. The median age was 38 years, similar to the LGA. The urban centre and LGA had a similarly proportioned composition of age groups. The proportion of school aged residents (19.6 percent) and older residents (23.3 per cent aged 60 years and over) is comparable with that of the LGA	There was a roughly even gender divide of 49.3% male and 50.7% female. The median age was 39 years. The proportion of school aged residents was 19.9 percent and older residents was 23.6 per cent aged 60.
Indigenous population	The indigenous population of 765 people represented 7.6% of the population, slightly greater than the LGA. This was significantly greater than the State and national percentages (indigenous people consist of 2.5% of the State and national populations).	Indigenous people represented 8.3% of the LGA population.
Family composition	Family households were the dominant household types within Parkes at 67.6%, similar to the LGA. There were 2,545 families within Parkes. Similar to the LGA, couple families with and without children were the dominant family types, comprising 39.6% and 39.0% of all families in Parkes, respectively. There was a slightly greater proportion of single parent families within Parkes at 20.2% than the LGA. This was higher than in wider Australia, where one parent families comprised 15.9% of all families.	Family households were the dominant household types at 69.1%. Couple families with and without children were the dominant family types at 40.2% in both categories. The proportion of single parent families was 18.4%.
Housing	A slightly lower proportion of dwellings within Parkes were owned outright at 34.2%, compared to the LGA. Similar proportions were owned with a mortgage at 32.1% for Parkes, compared to the LGA.	39.2% of dwellings were owned outright.30.9% of dwellings were owned with a mortgage.

Data type	Parkes town, 2011	Parkes LGA, 2011
	33.6% of all privately occupied dwellings were rented in Parkes, similar to the LGA. The median monthly mortgage repayment in Parkes was \$1,387, higher than the LGA. Weekly rent was also higher in Parkes than the LGA at \$165. Residential vacancies in October 2016 in the Parkes post code were at 1.2 % with 19 available properties (SQM Research, 2016), with a declining trend over recent years.	29.9% of all privately occupied dwellings were rented. The median monthly mortgage repayment was \$1,300. Weekly rent was \$150.
FTE population and % of non-resident workers	There was a similar full-time labour force participation at 55.5% to that of the LGA. The total employed population was 4,102 workers, both full-time and part-time. 63.6% of workers in Parkes were employed full-time, similar to the LGA. Unemployment in 2011 was 4.9%, in both the town and the LGA. At June 2016, unemployment in the Parkes town and immediate surrounds was recorded as 7.7%, compared with a rate of 10.5% for largely the balance of the LGA (Department of Employment, 2016), a significant increase from 2011.	The labour force participation rate was 56.1%. 63.8% of workers were employed full-time. The total employed population was 6,030.
Occupation and industry of employment	Technician and trades people (15.8%) followed by professionals (14.5%) were the dominant occupations within Parkes, contrasting to the LGA where manager was the most common occupation. Retail trade (12.0%) was the dominant industry, and was more common than in the LGA. However, significantly fewer Parkes workers (2.5%) worked within the agriculture, forestry and fishing industry than those in the broader LGA.	11.6% of workers were employed in retail trade. 11.3% worked within the agriculture, forestry and fishing industry.
Education	13.4% of residents aged over 15 were studying at technical or tertiary institutes, either full or part time. 52.2% of adults did not have a post school qualification in Parkes town.	Parkes LGA had marginally lower rates of post school students with 12.8% of residents aged over 15 studying at technical or tertiary institutes, either full or part time. Parkes LGA also marginally lower rates of adults who did not have a post school qualification (54.9%).
Income	The median individual income in Parkes was \$485 per week, higher than the LGA.	The median individual income was \$456 per week.

Accommodation and community facilities

Multiple accommodation facilities are located in Parkes, including four caravan or cabin parks, seven hotels, 15 motels and five bed and breakfasts, with approximately 1500 bed spaces. Preliminary consultation with operators of some of these providers indicates that frequent and/or longer term cabin/unit rental is common with workers of nearby mines and of the current Newell Highway upgrading project, and that demand is currently exceeding supply, with over half of this demand from mining workers.

The town has a range of community facilities and services, including education (TAFE Western Institute campus) and childcare, parks and recreation facilities, emergency services, shops, and medical services (including the newly built Parkes Hospital).

As the principal town within Parkes Shire, people from surrounding areas such as Peak Hill may access the facilities in Parkes, such as Parkes Hospital and Parkes Community Health Centre. Table 3-2 identifies some facilities that may be used by the construction workforce for the proposal.

Table 3-4 Community facilities in Parkes town

Facility type	Name	Address
Place of worship	Community Baptist Church Parkes	Back Trundle Rd
	Parkes Baptist Church	Church Street
	Presbyterian Church	Gap Street
Emergency services	NSW Ambulance	19 Bushman Street
	Parkes Police Station	3 Court Street
	Parkes Fire Station	1 Court Street
Health	Parkes Community Health Centre	18 Coleman Road
	Ochre Health Medical Centre Parkes	335 Clarinda Street
	Parkes Hospital	2 Morrissey Way
	Currajong Street Medical Centre	61 Currajong Street
Community and cultural venues	Cooke Park and Community Centre	Welcome Street
	Parkes Library	Bogan Street
Sport and recreation	Parkes Bowling & Sports Club	6 Cecile Street
	Parkes Olympic Swimming Pool	33-35 Dalton Street
	McGlynn Sporting Complex	Baker Street
	Northparkes Oval	Alexandra Street
	Pioneer Oval	Alexandra Street
	Spicer Oval	Albert Street
	Harrison Park	Eugowra Road
	Cheney Park	Station Street
	Parkes Skate Park	Hooley Street
	Memorial Hill and Rotary Park	Bushman Street

Peak Hill

Peak Hill is 55 kilometres south of Narromine within Parkes LGA. It is a small town with a population of around 755 people. The town is centred on the Newell Highway.

A mineral rich area, settlement of Peak Hill began in 1889 following the discovery of gold. Copper and gold mining were key industries in Peak Hill (Peak Hill, 2012). Today, cropping and grazing are key industries, with tourism also forming part of the local economy.

Table 3-5 provides a demographic overview of Peak Hill, compared to the Parkes LGA as at the 2011 census.

Table 3-5 Peak Hill and Parkes LGA demographic overview

Table 3-5 Peak Hill and Parkes LGA demographic overview				
Data type	Peak Hill, 2011	Parkes LGA, 2011		
Population	The population was 755, comprising about 5.2% of the LGA population. Peak Hill's population decreased by 191 people from 946 in 2006. The projected population is 776 by 2031 – an increase of 21 people at a rate of 0.1% per annum.	The LGA's population increased slightly from 2006 by 311 people (14,281 to 14,592). In 2015, profile.id estimated that Parkes LGA had a population of 15,337.		
Age and gender	There was a roughly even gender divide of 48.2% male and 51.8% female, similar to the LGA. Peak Hill had an older population than the LGA, with higher proportions aged over 60 (28.6 per cent), a lower proportion of school aged residents (18.4 per cent) and a higher median age of 45 compared to 39 years in the LGA.	There was a roughly even gender divide of 49.3% male and 50.7% female. The median age was 39 years. The proportion of school aged residents was 19.9 percent and older residents was 23.6 per cent aged 60.		
Indigenous population	The indigenous population of 202 represented 26.8% of the population. This is significantly greater than in the wider LGA (8.3%) and Australia as a whole (2.5%).	Indigenous people represented 8.3% of the LGA population.		
Family composition	Family households were the dominant household types, at 60.3% of all households. This was lower than the LGA. There was a greater proportion of lone person households in Peak Hill (38.4%) than the LGA.	Family households were the dominant household types at 69.1%. Couple families with and without children were the dominant family types at 40.2% in both categories for the LGA. The proportion of single parent families was 18.4%. The proportion of lone person households was 28.9%.		
Housing	A higher proportion of dwellings within Peak Hill are owned outright at 48.0% compared to the LGA. However, only 20.7% are owned with a mortgage, lower than the LGA. 31.3% of all privately occupied dwellings were rented in Peak Hill similar to the LGA. The median monthly mortgage repayment in Peak Hill was \$900, significantly lower than the LGA. Weekly rent was also lower in Peak Hill than the LGA at \$110. Residential vacancies in October 2016 in the Peak Hill post code were at 1.1 % with only 2 available properties (SQM Research, 2016), with a declining trend over recent years.	39.2% of dwellings were owned outright. 30.9% of dwellings were owned with a mortgage. 29.9% of all privately occupied dwellings were rented. The median monthly mortgage repayment was \$1,300. Weekly rent was \$150.		

Data type	Peak Hill, 2011	Parkes LGA, 2011
FTE population and % of non-resident workers	Peak Hill has a low labour force participation rate at only 41.8%. Labour force participation in the LGA is 56.1% and in Australia is 61.4%. Total employed population of 227 workers, both full and part-time. 54.6% of workers in Peak Hill were employed full-time, less than the LGA. Unemployment in Peak Hill in 2011 was 11.3%,2016 data was not available.	The labour force participation rate was 56.1%. 63.8% of workers were employed full-time. The total employed population was 6,030 workers, both full-time and part-time in the LGA workers, both full-time and part-time in the LGA.
Occupation and industry of employment	Similar proportions of workers were employed as managers in Peak Hill (16.2%) to the LGA. Community and personal service was the dominant occupation within Peak Hill consisting of 17.5% of workers, higher than the LGA. Prominent industries within Peak Hill significantly differ to the LGA. In Peak Hill, healthcare and social assistance is the most common industry (13.5%) followed by accommodation and food services (10.9%), and education and training (10.9%). These were all higher than the LGA (11.3%, 7.4% and 7.3% of the workforce respectively). Only 9.6% and 9.2% of the Peak Hill workforce worked in retail trade and agriculture, forestry and fishing respectively. This was lower than the LGA. Only 2.6% of the Peak Hill workforce worked in mining, significantly lower than the LGA.	17.7% of workers were employed as managers. 9.6% worked in community and personal services. Prominent industries were retail trade (11.6%) and agriculture, forestry and fishing (11.3%). Mining comprised 7.2% of the workforce.
Education	14.8 % of residents aged over 15 were studying at technical or tertiary institutes, either full or part time, considerably higher than in the LGA, with the bulk of these at technical or further education institutes. 57.1 % of adults did not have a post school qualification in Peak Hill, also higher than the LGA.	Parkes LGA had marginally lower rates of post school students with 12.8 % of residents aged over 15 studying at technical or tertiary institutes, either full or part time. Parkes LGA also marginally lower rates of adults who did not have a post school qualification (54.9 %).
Income	The median individual income in Peak Hill was \$341 per week, significantly lower than the LGA.	The median individual income was \$456 per week.

Accommodation and community facilities

There are two caravan parks that are currently at capacity (with some mine workers but a predominance of road workers). The operators currently report regularly turning away workers for the Newell Highway upgrade that are seeking accommodation.

Key facilities include Peak Hill Central School, St Joseph's Primary School, James Catholic Church, and a range of local shops and medical services. As a small town within Parkes Shire, people from Peak Hill may access facilities in the larger towns of Parkes and Dubbo, such as hospitals and community health centres. Table 3-2 identifies some facilities in Peak Hill which may be used by the construction workforce for the proposal.

Table 3-6 Community facilities in Peak Hill

Facility type	Name	Address
Place of worship	St James' Catholic Church	153 Caswell St
Emergency services	Peak Hill Fire Station	130 Caswell Street
	Peak Hill Police Station	Dugga Street
Health	Peak Hill Hospital	111 Newell Highway
	Peak Hill Medical Centre	93 Euchie Street
	Peak Hill Aboriginal Medical Service	51 Caswell Street
	Parkes Hospital	2 Morrissey Way, Parkes
	Parkes Community Health Centre	18 Coleman Road, Parkes
	Dubbo Base Hospital	Myall Street, Dubbo
	Lourdes Hospital	4 Tony McGrane Place, Dubbo
	Dubbo Community Health Centre	2 Palmer Street, Dubbo
Community and cultural venues	Southern Cross Community Centre	113 Caswell Street
Sport and recreation	Lindner Oval	89 Boori Street
	Peak Hill Memorial Pool	Boori Street
	Peak Hill Memorial Park	Corner Caswell and Ween Streets
	Peak Hill NSW Golf Course	Golf Club Road
	Peak Hill Bowling Club	52 Caswell Street

3.6 Stakeholder consultation outcomes

3.6.1 Social study area wide consultations undertaken by Inland Rail

In mid-2015, the Inland Rail team conducted a series of meetings and workshops prior to beginning formal consultation and fieldwork. Local councils and State and federal Members of Parliament were invited to attend these sessions as a form of early engagement. Key issues raised provide an understanding of the communities, their values and issues relevant to the Inland Rail. These issues are as follows:

- Communities and stakeholders are interested in the regional and local economic opportunities of the proposal, particularly the cotton and grain industries, which are major industries in the area.
- There is community action in the area related to coal seam gas operations in the Pilliga, with people concerned about the future of farming in the region.
- Aboriginal communities include the Kamilaroi and Gamilleroi people.
- Narromine is known for its aviation activities, and aviation is Narromine's point of difference. It has a strong gliding community and hosts major gliding events. The aerodrome is a major asset and Council would seek to avoid close proximity of the existing rail corridor to the Aviation Precinct.

 Changes will be made to regional planning. As of 2016, Narromine Council has remained a member of the Orana Regional Organisation of Councils. Consultation indicated that other previously involved councils would move to other regional organisations.

3.6.2 SIA consultations - Narromine Shire Council

On 20 June 2016 GHD conducted a phone interview with a number of staff from Narromine Shire Council. Key issues raised are as follows:

- Due to this section of the proposal terminating to the south of Narromine town it is unlikely that the increased frequency of trains would have an impact.
- Community values captured in the *Community Strategic Plan: Narromine Shire 2023* regarding agricultural production and the aviation history are correct.
- The residents are very community minded and have a strong affiliation with sport.
- Opportunities associated with the proposal include future development, increased production in Narromine and the removal of heavy vehicles from the road network.

3.6.3 SIA Consultations - Parkes Shire Council

On 27 June 2016 GHD and a representative of the Inland Rail team conducted a phone interview with a number of staff from Parkes Shire Council. Key issues raised are as follows:

- Mining is the largest contributor to the Parkes economy, and provides a skilled workforce base to the town. Based on profile.id (n.d [b].), mining is the most productive industry contributing 21.9 per cent to Parkes Shire's Gross Regional Product.
- Other industries in the town include agriculture (7.9 per cent of the GRP), public sector agencies (6.5 per cent) and a large retail sector (6 per cent) (profile.id, n.d.[b]).
- There is a positive view of the proposal throughout the community.
- There is some concern regarding severance caused by level crossings and increased frequency of trains.
- Existing accommodation in town should have the capacity to cater for the workforce associated with construction of the proposal.
- Development of the National Logistics Hub at Parkes in conjunction with Inland Rail would bring many economic opportunities to the area. The design and configurations of the proposal should consider the National Logistics Hub.
- Traffic and transport movements in Parkes are currently inefficient. There is significant
 traffic congestion, with over 1,400 heavy vehicle movements per day through town, while
 rail freight on the existing rail corridor through Parkes sees a daily delay for vehicles
 travelling east to west on the Newell Highway.

Council is a key stakeholder for the proposal and expects to be included in planning and procurement to ensure that benefits are delivered locally, for example through the use of local suppliers.

3.6.4 Accommodation providers

Brief telephone interviews were conducted with a number of accommodation providers in Narromine, Parkes, Peak Hill and Dubbo¹ on 25 November 2016 to ascertain current vacancies and trends and the nature and source of guests. The consultation indicated that:

- Availability of accommodation for construction workers will be dependent on other concurrent project in the area. The current Newell Highway upgrade works may continue to require accommodation until end 2017 to mid-2018.
- Workers create demand for accommodation facilities and not for housing leases.
- There is some capacity in the Narromine tourist park as road workers are not seeking accommodation here, but seasonal harvesting workers are common.
- Caravan parks in Peak Hill are at capacity and the operators are regularly turning away
 enquiries from road workers seeking accommodation. Some workers have purchased
 caravans and are using powered sites as there is availability for these. All workers are
 required to vacate their bookings during the Elvis Presley festival in January.
- Caravan parks, though full, are reserving some cabins to continue to have availability for tourists so as to not risk a "boom and bust" when current demand concludes.
- In some cases, road workers make up 90 per cent of current cabin guests, and in others
 guests are exclusively mine workers. In Parkes, this means only approximately 36 of the
 existing 86 units would be available for proposal staff (assuming the Newell Highway
 upgrade works conclude before commencement of this proposal in mid 2018).
- Caravan parks regularly refer clients to motels.
- If the timing of the conclusion of the Newell Highway upgrade work and commencement of the proposal align, the proposal could offer significant benefit to accommodation providers with a continued stimulated demand for accommodation.
- With adequate engagement with the accommodation providers, some operators could plan for expansion to better cater for meet the demand during construction.
- Dubbo, a 30-minute drive from Narromine, has 70 accommodation providers delivering 4,500 beds, and regularly accommodates overflow demand for temporary workforces in the region.
- Accommodation in Dubbo generally has capacity but tends to fill up during April,
 September and special events, at which time Narromine, Parkes and Peak Hill often
 accommodate overflow demand. Providers are currently accommodating workers for
 many large infrastructure projects.

¹ Conversation undertaken with staff of Narromine Tourist Park, Spicer Park Caravan Park Parkes), Currajong Cabin park (Parkes), Peak Hill Caravan Park, Double D Caravan Park, Ray White Real Estate Parkes, Dubbo Tourist Info and Dubbo Regional Council.

4. Impact assessment

4.1 Construction impacts

4.1.1 Employment and regional economic benefits

Potential employment and economic benefits are expected to occur during construction at a local, regional and national level. While the *Business Case for Inland Rail* (ARTC, 2015) provides a detailed analysis of the potential national economic benefits, a local level analysis for this proposal has not been undertaken. The assessment of potential local and regional economic benefits is therefore based on a qualitative assessment.

Local benefits

During construction a variety of workers would be required, including labourers, tradespeople, machinery operators, engineers, surveyors and site supervisors. An average workforce of 150 FTE would be required over the proposed 18 months of the construction period. Preference would be given to locally/regionally based workers where practicable. It is therefore likely that some proportion of the workforce may be sourced from the social study area, including the Parkes, Narromine and Dubbo LGAs, and some would be non-residents.

The proportion of the resident and non-resident workforce would depend on a number of factors, such as availability of appropriately skilled workers in the region, proposal timeframes, and the location of contractors engaged during construction. Data from the social baseline (Section 3.1) and stakeholder consultation undertaken for the SIA indicates that a suitable workforce is potentially available within the social study area.

Consultation undertaken for this SIA and by ARTC (ARTC, 2015) indicate that both Parkes Shire Council and Narromine Shire Council expressed an interest in construction contractors ensuring local purchasing and employment and using the existing workforce. There is also an interest in using the proposal as an opportunity to provide training for local people, particularly young people. The social baseline (Section 3.3.) shows there are high unemployment rates across both LGAs. There is also a reasonable population of young people in Parkes, and a high proportion of Indigenous people in Narromine and Peak Hill who would benefit from local training and employment opportunities during construction.

The proposal would also offer opportunities for local businesses supplying goods and services to the non-resident workforce. The non-resident workforce would create some demand for local food and beverages, accommodation, bus and coach drivers, and recreation services.

Both Narromine and Parkes councils identified that the economic opportunities generated by the additional non-resident workforce would have a positive impact on the local economy. In particular, it is likely there would be a short term positive economic impact for Parkes, Peak Hill and Narromine, where non-resident workers are likely to be accommodated. This is discussed further in Section 4.1.3.

Wider benefits

The *Business Case for Inland Rail* (ARTC, 2015) estimated that Inland Rail would increase Australia's gross domestic product (GDP) by \$16 billion during its construction and first 50 years of operation, and up to 16,000 new jobs are estimated at the peak of construction.

The Business Case notes that during construction there would be a stimulatory impact in the construction sector in each region it is being built. This would trigger an expansion in the construction sector and support an additional flow-on demand in the economy through the construction industry supply chain and additional expenditure in the region.

4.1.2 Property impacts

During construction it is expected that private landholders along the proposal site would experience property impacts resulting from changes to infrastructure and utilities within their properties, establishment of compound sites, and the need to gain access to some private properties. These impacts may interrupt daily activities for the landholders/lessees, including their personal lives and agricultural activities. In particular, frequent access to properties for construction purposes can be stressful for landholders, and may cause or exacerbate personal and interpersonal issues.

The establishment of compound sites along the length of the existing rail corridor may require some private property lease arrangements. In these circumstances, landowners could be impacted through loss of productivity due to loss of land or loss of time required to engage with the proposal, damage to access tracks and poor rehabilitation. The details of these arrangements would be addressed through property agreements with landholders.

While the work associated with the proposal is largely contained within the existing rail corridor, at this stage of the design process, it is estimated the proposal would require partial land acquisition from 10 privately owned lots. All acquisitions would be undertaken in consultation with landowners and in accordance with the requirements of the *Land Acquisition (Just Terms Compensation) Act 1991*.

Property acquisition would mostly affect land with existing rural or agricultural uses. Areas that are proposed to be acquired may include open grazing land, land used for cropping, scattered vegetation, and farm buildings. Where it is considered that an intolerable impact would occur at a property, then consideration would be given to acquiring the entire property.

Impacts on properties may also include flooding on properties and difficulty in responding to hazards such as bushfires on the other side of the proposal site. There is the potential for the proposal to exacerbate bushfire risk (as a result of the storage of dangerous goods, and construction site issues such as smoking or hot works), therefore accessing properties on the other side of the proposal site may be an issue. The hydrology and flooding assessment (GHD, 2017b) has also identified that there would be some flooding on properties within the proposal site which could temporarily inundate cropping and grazing land. However, the duration of flooding in these additional areas under most flood events is likely to be in the order of a few hours, which would be insufficient to determinately affect crops, and flooding would generally only impact properties already affected by flooding. Additional discussions would be undertaken with the landowners of the affected properties to determine the consequences of the expected impacts and, where necessary, further refine mitigation measures to reduce the impacts.

4.1.3 Impacts of non-resident workforce on nearby communities

As identified in Section 4.1.1 the construction workforce would comprise a mixture of local/regional and non-resident workers, with the proportion of the resident and non-resident workforce depending on a number of factors. Relevant social issues associated with a non-resident construction workforce are:

 Demographic changes to communities, behaviour of the non-resident workforce, and demand for local goods and services.

- Demand for housing and accommodation facilities in the region, and associated impacts on housing affordability and availability in nearby towns.
- The transportation of workers between the workers' accommodation and the proposal site during construction.

These issues are considered in further detail.

Demographic change

Assuming that a larger proportion of the workforce would be residents from the social study area, it is likely that the construction workforce may cause a negligible temporary increase in the non-residential population of the nearby towns such as Narromine, Parkes and Dubbo. The proportion of increase in non-resident population would be determined when the source of workers is confirmed. Construction workforces are typically dominated by young, single, male workers, which may potentially lead to minor changes in the age and gender profile of communities, with a likely increase in the transient male population aged between 18 to 49 years.

Anti-social behaviour

SIA consultation identified that perceived or real anti-social behaviour of single, male, non-resident workers may be a concern for local communities. Anti-social behaviour has the potential to increase crime and adversely affect community perceptions of safety. SIA consultation with the Narromine Shire Council and Parkes Shire Council revealed that the region has experienced a number of large infrastructure projects and mining activity over the past few years, and the accommodation in towns has catered for non-resident workforces. With workforce management measures in place, communities have not experienced any noticeable anti-social impacts from such projects. The perceived behaviour impact from the non-resident workforce was therefore considered to be minimal. ARTC would develop and implement a workforce management plan for Inland Rail including a worker's code of conduct and behaviour management, which would be applicable to the proposal workforce.

Transportation of workers

Workers are likely to be transported to the construction work areas either by bus, from local towns or from various collection points. The location of accommodation of workers and collection points is yet to be determined. In terms of traffic impacts, using a bus to transfer the workforce would increase the daily number of buses on local roads but limit the increase in private vehicles. The location of collection points in relation to areas of high pedestrian activity (such as town centres, roads around childcare centres and schools) should be considered to maintain pedestrian and road safety, and maintain access for motorists and cyclists. Collection points should be located close to accommodation of workers to reduce the need for private vehicle use.

Increased demand for services

The presence of non-resident workforce is likely to increase demand for local goods and services, such as food, eateries other daily services, increasing trading opportunities for local businesses. Also, non-resident workers are likely to potentially increase demand for community support and health services. SIA consultation with both Narromine and Parkes Shire Councils confirmed that the existing community support and health services have the capacity to accommodate such minor increase in demand from the non-resident workforce of the proposal.

Increased demand for housing and accommodation

The anticipated small proportion of the non-resident workforce required for construction is likely to generate a small demand for accommodation and housing facilities in the nearby towns. Based on the SIA consultation with Narromine and Parkes Shire Councils, Dubbo City Council and some accommodation services providers (Sections 3.5 and 3.6) it can be inferred that depending on the timing of the start of construction of the proposal and likely conclusions of construction of other projects such as the Newell Highway upgrade it is likely that there would be suitable temporary accommodation available within the nearby towns including Dubbo. However, there is potential for an increase in demand for accommodation to increase housing rents and accommodation prices in the short to medium term. ARTC would develop a workers housing and accommodation plan for the Inland Rail which would be applicable to the proposal. Availability of accommodation specific to the proposal would be reviewed prior to construction. The review would include consultation with respective councils and accommodation providers in the social study area and consider maintaining vacancies for other local usage.

4.1.4 Local amenity and community values

Visual amenity and loss of privacy

The rural amenity associated with a quiet rural lifestyle may be impacted due to an increase in construction related activities. It is anticipated that this would be most noticeable around the construction compound locations. Details on the indicative location of construction compounds is provided in the EIS. However, due to the linear nature of the proposal, construction activities would move as construction progresses, hence visual amenity impacts are anticipated to be temporary and short term.

Residents of rural areas often enjoy views of rural landscape from their homes. Construction sites may have the potential to temporarily change these views to construction sites. However, this issue is unlikely to be significant as the townships of Parkes, Narromine and Peak Hill and smaller settlements are sparsely populated near the proposal site, which would be mainly contained within the existing rail corridor. However, it is likely that visual changes to the rural landscape near the construction site for the Parkes north west connection could be perceived as significant, due to the greenfield nature of the proposal site in that area. Landscape and visual impacts are assessed in the *Inland Rail, Parkes to Narromine Landscape and Visual Assessment* (Urbis, 2017).

During construction some residents may experience loss of privacy due to the presence of a construction workforce in and around private properties, which may also generate perceived safety concerns for the nearby residents. Construction activities would be restricted within fenced areas of the proposal site and construction traffic would be limited to designated routes and/or as agreed with landholders when working on or near private properties.

Noise and vibration

Generally, people living in rural and agricultural areas value a quiet and peaceful lifestyle. Changes to noise levels can sometimes cause disruption to daily activities, such as interrupt conversations or listening to radio or television; lead to lifestyle alternations such as promoting people to close doors and windows to keep the noise out, cause sleep disturbance due to noise from activities outside of standard working hours, and may result in stress and anxiety associate with increased noise levels. The significance of impact from the proposal's construction noise would depend on the proximity to residential areas, community facilities and businesses; timing of the construction activities, and the type and duration of construction activities in the area. Since the proposal would be linear, it is expected that noise and vibration impacts on community members would be experienced for limited periods.

The proposal would be generally located more than 200 metres from most residences. It is likely that noise and vibration impacts would affect residential areas close to the proposal site, such as within the main towns and villages.

Vibration generated by construction activities typically dissipates to negligible levels within 50 to 200 metres, depending on the type of activity and local geology. Therefore, widespread impacts are not anticipated. However, residents located close to the existing rail corridor may experience increased frequencies of noise and vibration in the short term.

The potential noise and vibration impacts of the proposal are assessed in the *Inland Rail*, *Parkes to Narromine Noise and Vibration Assessment* (GHD, 2017c). Based on the findings of the noise and vibration assessment, it is considered that the noise and vibration impacts associated with the construction of the proposal can be satisfactorily managed through the implementation of the mitigation measures outlined in the report.

Air quality

As noted in the EIS, construction activities would generate additional dust, which has the potential to settle on agricultural crops, cattle, sheds, farm machinery and houses close to the existing rail corridor. Properties close to the construction site compounds may experience short term dust impacts. These are expected during site establishment only. Prior to their stabilisation, spoil mound sites may also generate minor dust impacts on nearby properties. Increased dust may alter people's usual rural residential lifestyle by prompting them to close doors and windows to avoid dust from settling inside their homes or work spaces. In some instances, it may also increase people's usual work load requiring cleaning and washing of surfaces.

Further information on the potential for air quality impacts, and recommended mitigation measures, are provided in the EIS.

Aboriginal heritage

As established in the baseline, the social study area has a notable Aboriginal population. The regional community values its Aboriginal cultural heritage.

The Inland Rail, Parkes to Narromine Aboriginal Cultural Heritage and Archaeological Assessment (Umwelt, 2017a) identified that there are seven listed Aboriginal sites within or close to the proposal site (scattered artefacts and a scarred tree). As per the assessment the majority of works would be undertaken within the previously disturbed rail corridor where the archaeological potential is low.

Non-Aboriginal heritage

The regional community values its non-Aboriginal heritage and strong links to the history of the towns.

The potential impacts on non-Aboriginal heritage were assessed in the *Inland Rail, Parkes to Narromine Non-Aboriginal Heritage Impact Statement* (Umwelt, 2017d). No sites or items with a statutory heritage listing, with the potential for direct or indirect impacts, were identified within or in the immediate vicinity of the proposal site.

However, the assessment concluded that the rail line and the remains of a cottage (Wyanga cottage) are potentially locally significant. The proposal would impact on the rail line, and it has the potential to impact on the cottage. These impacts are assessed in the historic heritage assessment, which provides suitable measures to mitigate the potential significance of the impacts.

Consultations undertaken for the proposal in 2015 identified that a cemetery near Trewilga, north of Parkes, is culturally important. It would be important to ensure that construction activities close to this site are conducted sensitively.

4.1.5 Access and connectivity

The potential social and economic impacts related to access and connectivity during construction have been identified by the *Inland Rail – Parkes to Narromine Transport and Traffic Impact Assessment* (GHD, 2017a).

Given the proposal is located outside the larger towns of Narromine and Parkes, and to the west of Peak Hill, impacts on community access and connectivity overall during construction are expected to be minor. Any potential traffic diversions or delays are expected to be experienced by very few community members. Access to Narromine, Parkes and Peak Hill and their various community facilities and services is therefore not expected to be impacted during construction. The potential impacts are discussed further below.

Community access and connectivity

Potential temporary detours at local roads or crossings as a result of the proposal construction may lead to some increased travel times and disruption of journeys for community members including landholders close to the existing rail corridor.

The following roads may require realignment due to construction of the Parkes north west connection:

- Coopers Road an unsealed local road that intersects with Brolgan Road to the north, London Road about midway along, and Watts Lane to the south. Brolgan Road and London Road provide access to Parkes, and Watts Lane connects to the Newell Highway.
- Millers Lookout Road the northern section of Millers Lookout Road is an unsealed local road, and the southern section is a narrow unsealed track that intersects with Brolgan Road via an access gate.

An overbridge is proposed to enable Brolgan Road to cross the Parkes north west connection with sufficient clearance for double stacked Inland Rail trains to pass beneath. The overbridge will be constructed offline to enable continued use of Brolgan Road during construction. The overbridge will be constructed at the same time construction of the proposal and Parkes north west connection. Construction of the overbridge over the Parkes north west connection may have localised impacts on Brolgan Road traffic, including access to Coopers Road, although the new bridge will be primarily constructed on a separate alignment which will minimise disruption.

It is unlikely there would be any material increased travel times for community members who currently use Coopers Road and Millers Lookout Road. If access across the rail line is not available, there may be some extended journeys for a very few local community members including:

- Coopers Road one or two landholders may experience an increased distance to Parkes of up to 2.1 kilometres.
- Millers Lookout Road the southern section which would be impacted is a locked access
 gate, therefore very minimal traffic is expected to travel via this road.

Considering a 'worst-case' scenario of closure for these roads it is unlikely that access and connectivity would be significantly impacted for the majority of the community because these roads are local, are likely used by very few community members, and community members often travel distances in rural areas. The small number of local community members who currently use these roads may experience a minor permanent increase in travel distance to access Parkes.

Construction would result in temporary impacts to traffic and access within the study area, and an increase in both heavy and light vehicle movements on the local road network. The *Inland Rail – Parkes to Narromine Traffic, Transport and Access Assessment* (GHD, 2017a) found that, based on a worst case scenario, the greater road network is not expected to be significantly impacted by the construction activities. This is because the roads have sufficient capacity to absorb the increased traffic, and delays or closure at crossings will have localised affect only due to the low volumes on affected roads. Potential impacts on community access and connectivity would depend on the location of the works, however they are expected to be minor and temporary.

Proposed works on level crossings may also result in disruptions to local traffic and temporary access restrictions to private property. Where this occurs, alternative access arrangements would be provided and/or appropriate traffic controls implemented. These would be detailed in a traffic, transport and access management sub-plan prepared as part of the CEMP. Potential access impacts to private properties are therefore expected to be temporary and be experienced by specific landholders during the construction period.

Pedestrian and cyclist accessibility

Given the low volume of pedestrian and cyclist activity in the study area, and the location of the proposal, significant impacts on pedestrian and cyclist accessibility and connectivity are not expected during construction.

Connectivity for bus passengers

Bus passengers travelling on coaches between Parkes and Condobolin and other public bus passengers may experience slight delays in the short term due to construction works and construction traffic. This may impact a small number of passengers given the relatively small number of bus services in the area. School bus services which use level crossings along the proposal may be similarly affected, resulting in the potential for a minor delay to these services. Traffic impacts are not expected to impact other public transport services. As part of the traffic, transport and access management sub-plan consultation would be undertaken with the public transport and school bus providers to inform them of potential access changes or delays.

Emergency response and safety

Given the location of the proposal outside of the centres of Narromine and Parkes and the town of Peak Hill, emergency response times are not expected to be significantly impacted. Increased traffic and proposed level crossing works could cause disruptions. Emergency services providers would be consulted during detailed design and construction and would be informed of potential changes to access routes or delays along existing routes.

Increased traffic could impact on pedestrian and road safety, particularly near access points to the proposal site.

Business impacts

Overall, businesses within Parkes, Narromine and Peak Hill are not expected to be impacted during construction due to access issues. Potential delays caused by increased traffic and level crossing works may lead to minor, temporary impacts for businesses. For example, disrupted freight deliveries for businesses.

4.2 Operation impacts

4.2.1 Economic impacts

The *Business Case for Inland Rail* (ARTC, 2015) provides a detailed analysis of the potential national economic benefits, a local level analysis for this proposal has not been undertaken. The assessment of potential local and regional economic benefits is therefore based on a qualitative assessment.

Inland Rail would have the potential for wide economic benefits, including enhanced efficiencies and increased freight capacity along the interstate rail network (ARTC, 2015). The benefits would generally be experienced at a regional and national level. Economic benefits experienced at a local level are expected to be felt by those industries that rely on rail freight.

Local benefits

Connectivity to market has been identified as a key challenge for businesses in the Central West region of NSW (RDA Central West, 2014).

During consultation on the proposal, representatives of Parkes Shire Council and Narromine Shire Council expressed their strong support for the proposal, noting that Inland Rail offers significant potential benefits for the region's productivity and economic development opportunities.

The proposal has the potential to improve productivity and economic efficiency for regional economies by providing a more reliable service and ability to move increased freight volumes. Businesses that would have previously transported their freight by road along the coast would be able to use the rail network. Businesses are expected to save on time and operating costs due to these improvements, especially if the freight services are accessible to the local regions.

The study area is well positioned to leverage economically from Inland Rail as a result of the location of the Parkes Hub. The Parkes north west connection would facilitate connections between Inland Rail and the Broken Hill rail line. To take advantage of this, Parkes Shire Council is facilitating development of the Parkes Hub.

It is noted that no stop facilities form part of the proposal at this stage. The stopping patterns for Inland Rail trains continue to be firmed up, and would be finalised in consultation with regional stakeholders, including Parkes Shire Council.

The proposal would allow longer trains with larger loads, further providing cost savings to regional businesses. The proposal would also reduce the overall travel distance, which would lower the risk of rail accidents and disruptions to regional freight movements.

The *Business Case for Inland Rail* (ARTC, 2015) notes that Inland Rail will enable farmers to move agriculture products more efficiently for domestic use and for export, as it will pass through some of Australia's most productive farming country. The Business Case also recognises further benefits to supply chain efficiencies for commercial freight, and benefits to consumers and regional areas.

By providing a more efficient freight option, the proposal is expected to reduce heavy vehicle volumes on roads while increasing freight volumes and reducing environmental impacts and costs to regional communities.

Wider benefits

The proposal would reduce the volumes of heavy vehicles on the road (Inland Rail Implementation Group, 2015), which would limit future road congestion. This would further reduce economic costs relating to road maintenance and social costs related to safer roads and decreased chances of accidents.

Wider economic impacts would also relate to the generation of economic multipliers due to investment in a major new form of public infrastructure, as well as the direct and indirect generation of local and regional employment and service opportunities.

As part of the overall Inland Rail, the proposal has the potential to contribute to wider economic and community benefits, including the following (ARTC, 2015):

- Strong benefit cost ratio it is estimated that Inland Rail will have an economic benefit cost ratio of 2.62.
- Boost the Australian economy Inland Rail is expected to increase Australia's gross domestic product by \$16 billion during its construction and first 50 years of operation.
- Create jobs it is estimated that an average of 700 additional jobs would be created during operation.
- Improve connections within the national freight network Inland Rail enhances the National Land Transport Network by creating a rail linkage between Parkes and Brisbane, providing a connection between Queensland and the southern and western States.
- Provide better access to and from regional markets Inland Rail will make it easier for freight to move from farms, mines and ports to national and overseas markets. It is estimated that two million tonnes of agricultural freight will switch from road to rail.
- Reduce costs Transport costs for freight travelling between Melbourne and Brisbane will reduce by \$10 per tonne.
- Increased capacity of the transport network Inland Rail will increase capacity for freight
 and passenger services by reducing congestion along the busy coastal route and allow
 for growth in passenger services particularly in the Sydney region.
- Improve road safety It is estimated that each year, Inland Rail will remove 200,000 truck
 movements from roads and reduce truck volumes in 20 regional towns; and reduce the
 number of serious crashes, avoiding fatalities and serious injuries.

As noted by the *Australian Infrastructure Audit Report* (Infrastructure Australia, 2015) 'Rail offers... societal benefits in terms of lower emissions, reduced road congestion and increased safety per tonne kilometre, particularly over longer distances or when carrying heavy goods.'

4.2.2 Amenity impacts

Once operational, the proposal will increase the number of train movements from the existing average of four trains per day to an average of 12.5 trains per day in 2025 (8.5 associated with Inland Rail), increasing to the estimated maximum of 19 trains per day in 2040 (15 associated with Inland Rail). Since the majority of the proposal is within the existing rail corridor amenity impacts due to the operation of the proposal are anticipated to be minimal, and are discussed below.

Visual amenity

Only limited views of the operational line would be available from surrounding receivers except where close to residential areas. Views of new infrastructure (such as culverts) would be minimal as they would be located within rural areas away from receivers and in the existing rail corridor for the majority of the proposal site. The *Inland Rail Parkes to Narromine Landscape and Visual Assessment* (Urbis, 2017) predicts that overall the proposal will generate low visual and landscape impacts for the 106 kilometres stretch of existing track, particularly in the case of settlements where no crossing loops are proposed. With a range of built form, agricultural landscape, vegetation and trees across a relatively flat landscape, the settlement character areas have a high absorptive capability.

Noise and vibration

The proposal would allow for an increase in train volumes, lengths and speeds along the rail line, all of which would result in an increase in noise levels. Although overall rail noise is expected to increase, which may particularly impact the nearest sensitive receivers or community around Peak Hill, Parkes and Narromine, there may also be potential to reduce local sources of noise (such as wheel-squeal) through the straightening of some curves as part of the proposal. The *Inland Rail Parkes to Narromine Noise and Vibration Assessment* (GHD, 2017c) predicts that noise levels at non-residential noise receiver (such as schools, places of worship and outdoor recreational areas in the nearby communities and for noise receivers along the Parkes to north west connection would not exceed the noise criteria determined for the proposal.

Air quality

The proposal would generate low emission levels during operation and will operate through a rural area with few sensitive receives close to the existing rail corridor. An increase in the number of trains would increase dust generation, which may settle on agricultural crops, cattle, sheds, farm machinery and houses.

Air quality impacts are expected to be minimal and directly associated with the increase in train services. The impacts on air quality would relate to the types of goods being transported, such as cotton as opposed to coal, and the type of diesel and exhaust fumes from the trains. Impacts decrease significantly with greater distance from the existing rail corridor. Air quality impacts are assessed in the EIS.

4.2.3 Access and connectivity

The potential social and economic impacts related to access and connectivity during operation have been identified through an assessment of the *Inland Rail – Parkes to Narromine Traffic, Transport and Access Assessment* (GHD, 2017a).

Given the proposal is located outside the larger towns of Narromine and Parkes, and to the west of Peak Hill, impacts on community access and connectivity overall during operation are expected to be minor. The potential impacts are discussed further below.

Overall community access and connectivity

The key traffic impact of the proposal will be impacts on travel time for road users as a result of increased train activity at level crossings. The duration of delays will in some cases be reduced due to the increased train speeds that will be possible with Inland Rail. Based on the model used, the delay may reduce from 122 seconds in existing conditions, to 109 seconds per train by 2040.

The frequency of trains, and therefore likelihood of being delayed, will however increase over time as the freight task grows. Given the local nature of most affected roads, this impact is expected to affect a small number of community members. Those who are most likely to be impacted are expected to include those community members living on properties to the west of Peak Hill. As discussed in Section 4.1.5, a very small number of community members may experience changed access to Parkes due to the realignment of Coopers Road and Millers Lookout Road. Further consultation would be undertaken with key stakeholders regarding the need for road alignment at Millers Lookout Road and Coopers Road.

The potential for queued vehicles to impact on adjacent intersections is also considered to be very low, even allowing for the additional length of road trains and other heavy vehicles that may use some of the affected roads. On the busier roads crossed by the proposal, such as Henry Parkes Way, there is sufficient room for traffic to queue without obstructing any major junctions.

Level crossings and private property access

Changes to some property access roads and the local road network may be required in some locations as a result of the rationalisation of level crossings. There are 33 public level crossings and 38 private level crossings within the study area. The proposal may result in the permanent closure of some level crossings that are either not frequently used or where suitable alternative access exists.

These changes may result in slightly longer journeys for some community members however these are expected to be minor increases and impact a small number of community members. The loss of private level crossings may result in changes in how landholders move around their property, which in turn might impact agricultural activities and the financial viability of agricultural businesses. Consultation with potentially affected landowners would continue during the detailed design stage, and closures would only be undertaken if an alternative means of access exists and agreement with the road owner has been obtained.

Pedestrian and cyclist accessibility

Given the low volume of pedestrian and cyclist activity in the study area, and the location of the proposal, significant impacts on pedestrian and cyclist accessibility and connectivity are not expected during operation.

Public transport connectivity and service

Bus passengers travelling on coaches between Parkes and Condobolin and other public bus passengers may experience delays at level crossings. Delays would be minor when considered in the context of the distances travelled. This may impact a small number of passengers given the relatively small number of bus services in the area. School bus services which use level crossings along the proposal will be similarly affected, resulting in the potential for a minor delay to these services.

In addition, the proposal as part of Inland Rail as a whole, has the potential to result in improved customer outcomes for rail passengers in Sydney and Brisbane due to unused freight paths on the coastal route being returned to passenger services. The increased frequency of services would reduce average wait times and crowding on these services, which would benefit users (Inland Rail Implementation Group, 2015).

Emergency response and safety

During operation, emergency vehicles may experience delays at level crossings. Given the level crossings are primarily local roads outside of each town centre, overall emergency response times are not expected to significantly impacted. Consultations with local emergency services during detailed design would ensure emergency service providers are aware of accessible routes during operation, particularly alternate routes in the case of level crossing delays.

An increase in the number of trains may impact on community safety, as there would be an increase in the potential for a pedestrian or cyclist to encounter a train. However, the likelihood of an incident occurring is very low.

There is the potential for some drivers, observing a train approaching, to take additional risks in order to avoid being delayed. Risks include speeding or ignoring warning controls at level crossings. This behaviour is most likely to occur at remote level crossings, where active controls are not present and fewer road users are present.

The proposal, as part of Inland Rail as a whole, has the potential to reduce the volume of intercity freight trucks on the Newell Highway. This would provide a long term benefit to the community by improving travel times and road safety, with, potentially, up to 15 fewer serious crashes on the road, and therefore fewer fatalities and serious injuries (ARTC, n.d.).

Parking impacts

Community members are not expected to experience any accessibility impacts as a result of changes to car parking provision. This is because there is no existing parking provision that would be lost during operation, and no expected increase in parking demands as a result of the freight trains.

5. Mitigation and management

5.1 Employment and regional economic benefits

To maximise opportunities for the local and regional communities, at a wider program level ARTC will develop the following plans that would apply to ARTC and contractors engaged for the proposal:

- Local business and industry procurement plan would include (but not limited to)
 opportunities for local procurement and suppliers across the social study area for the
 proposal. Skills and up-skilling opportunities would be provided to ensure that training
 and apprentice/trainee development are encouraged by the proposal, subject to
 regulatory and associated restrictions.
- Workforce management plan including an indigenous participation plan would include (but not limited to) opportunities for local and regional sourcing of workforce, workers code of conduct, zero tolerance policy regarding drugs and alcohol at work sites, induction and training, worker support programs and indigenous participation through training and apprenticeship opportunities.
- Workforce housing and accommodation plan the workforce accommodation specific to
 the proposal would be developed in consultation with the local councils and
 accommodation services providers within the social study area. Consideration would be
 given to maximise business opportunities for local and regional accommodation facilities,
 ensuring there are enough vacancies within the accommodation facilities left for other
 usual usage.

5.2 Property impact management

The impacts on properties would be significantly reduced and managed by:

- Effective construction design and planning.
- Implementation of the property management strategy that would be prepared for Inland Rail. This strategy would provide the framework for the development of individual property management agreements. All acquisitions/adjustments would be undertaken in consultation with landowners and in accordance with the requirements of the Land Acquisition (Just Terms Compensation) Act 1991. Property management agreements would be developed in consultation with landowners/lessees who would be directly impacted during construction. They would include (but not limited to) specific agreements with landholders regarding:
 - process and timeframes for permissions to enter and access different parts of the property
 - speed of vehicles on private properties
 - protocols relating to weed and seed management where appropriate
 - temporary access requirements and locations of any relevant ancillary infrastructure and agreement to occupy land with a commercial arrangement
 - management of loss or damage to property
 - compensation for any impacts caused by the proposal including property acquisition.
- Minimising the need for local road and access closures.
- Providing alternative access arrangements in the event that access closures are necessary.

- Consultation with individual landowners to identify individual concerns, and develop and document strategies to address these concerns.
- Ongoing communication.
- A number of other mitigation measures specified in the EIS and other technical reports to manage land use, construction traffic within and outside properties, hydrology and flooding on properties, health and safety, biodiversity, stakeholder consultation would also assist in managing impacts on properties.

5.3 Stakeholder engagement

Engagement with stakeholders is an important component in managing and monitoring the potential social impacts and opportunities of the proposal. A communications management plan would be developed for Inland Rail to ensure this process is managed appropriately and will include stakeholder feedback and grievance management mechanism.

5.4 Managing impacts from non-resident workforce

Community values - a workforce management plan would be put in place including a code of conduct for the construction workforce to manage perceived impacts on community safety (community values) related to workforce anti-social behaviour, including a zero tolerance policy regarding drugs and alcohol at work sites.

Accommodation impacts - ARTC would prepare and implement a workforce housing and accommodation plan. With respect to the proposal consultation would be undertaken with local accommodation providers and councils in Narromine, Parkes and Dubbo, and consideration will be given to availability of housing and accommodation in the nearby towns and the need to maintain vacancies for other usual usage.

5.5 Traffic, access and connectivity

A traffic, transport and access management sub-plan would be prepared as part of the construction and environment management plan (CEMP), and construction of the proposal would be undertaken in accordance with this plan. The sub-plan would include a detailed list of the measures that would be implemented during construction to minimise the potential for impacts on the community and the operation of the surrounding road and transport environment. It would address all the aspects of construction relating to the movement of vehicles, pedestrians and cyclists, and the operation of the surrounding road network, including:

- Construction site traffic control, parking and access arrangements.
- Construction material, equipment and spoil haulage, including arrangements for oversize vehicles.
- Road pavement and access road condition management.
- Management of impacts to public transport, including school buses, pedestrian and cyclist access, and safety.
- Management of impacts to access for surrounding residents and business owners/ operators.
- Arrangements for level crossings during construction.
- Road and driver safety.

 Access to and within properties. Where changes to access arrangements are necessary, ARTC would advise property owners/occupiers and consult with them in advance regarding alternate access arrangements.

The traffic, transport and access management sub-plan would be developed in consultation with (where relevant) Parkes Shire Council, Narromine Shire Council, Roads and Maritime, and public transport/bus operators. Consultation with relevant stakeholders would be undertaken regularly to facilitate the efficient delivery of the proposal and to minimise congestion and inconvenience to road users. Stakeholders would include the relevant local council, bus operators, Roads and Maritime, emergency services, and affected property owners/occupants.

A safety awareness program would be developed and implemented to educate the community regarding safety around trains. Based on the rural setting of the majority of the proposal site, the education program would target those areas where residential districts are located near the rail line, such as at Parkes, Narromine and Peak Hill.

The community would be notified in advance of any proposed road network changes through signage, the local media, and other appropriate forms of communication.

All operational activities would be undertaken in accordance with ARTC's standard operating procedures and the environmental protection licence relevant to the proposal.

Further details on traffic management and road safety are provided in the EIS.

5.6 Amenity impacts

Measures to mitigate social amenity impacts are detailed in the EIS in the relevant chapters for noise and vibration, air quality, landscape and visual and heritage management.

5.7 Summary of impact mitigation/management measures

A range of mitigation and management measures developed in various technical studies and chapters in the EIS together will assist in avoiding and/or managing social impacts identified and described in Section 4. Additional recommended measures are summarised in Table 5-1.

Table 5-1 Summary of social impact management measures

Category	Mitigation or management
Employment and regional economic benefits	Employment and regional economic benefits would be managed through development and implementation of:
	 Local business and industry procurement plan – would include opportunities for local procurement and suppliers across the social study area region for the proposal. Consideration would be given to the requirements of the Sustainable Procurement Guide (Australian Government, 2013) and the NSW Government Resource Efficiency Policy (OEH, 2014). Support skills and upskilling opportunities would be provided to ensure that training and apprentice/trainee development are encouraged by the proposal, subject to regulatory and associated restrictions
	 Workforce management plan including an indigenous participation plan – would include (but not limited to) opportunities for local and regional sourcing of workforce, workers code of conduct, zero tolerance

Category	Mitigation or management
	policy regarding drugs and alcohol at work sites, induction and training, worker support programs and indigenous participation through training and apprenticeship opportunities
Property impacts	Impacts on properties would be managed through:
	effective construction design and planning
	 implementation of the property management strategy to be prepared for Inland Rail. This strategy would provide the framework for the development of individual property management agreements
	minimising the need for local road and access closures
	 providing alternative access arrangements in the event that access closures are necessary
	 consultation with individual landowners to identify individual concerns, and develop and document strategies to address these concerns
	• ongoing communication through the construction phase.
Workforce impacts	Impact of a non-resident workforce would be managed through:
	 implementation of a workforce management plan including code of conduct for the construction workforce to manage perceived impacts on community safety (community values) related to workforce anti-social behaviour, including a zero tolerance policy regarding drugs and alcohol at work sites.
	implementation of a workforce housing and accommodation plan. With respect to the proposal consultation would be undertaken with local accommodation providers and councils in Narromine, Parkes and Dubbo, and consideration would be given to availability of housing and accommodation in the nearby towns and the need to maintain vacancies in each town for other usual usage.
Local amenity, safety and	Implement the mitigation measures proposed in:
community values	ARTC Parkes to Narromine Inland Rail Noise and Vibration Assessment, GHD 2017c.
	Australian Rail Track Corporation Inland Rail – Parkes to Narromine Traffic, Transport and Access Assessment, GHD 2017e.
	ARTC Inland Rail – Parkes to Narromine Aboriginal Cultural Heritage and Archaeological Assessment, Umwelt 2017a.

Category	Mitigation or management
	 Australian Rail Track Corporation Inland Rail – Parkes to Narromine Landscape and Visual Assessment, Urbis 2017.
	A safety awareness program would be developed and implemented to educate the community regarding safety around trains. Based on the rural setting of the majority of the proposal site, the education program would target those areas where residential districts are located near the rail line, such as at Parkes, Narromine and Peak Hill.
Access and connectivity	Access and connectivity impacts would be managed through: implementation of the traffic, transport and access management sub-plan which would include consultation with the public transport, school bus providers and emergency services providers to inform them of potential access changes or delays
	the plan would provide alternate access arrangements if closure of access routes is required
	 further consultation would be undertaken with key stakeholders regarding the need for road alignment at Millers Lookout Road and Coopers Road.
Stakeholder engagement	Ongoing stakeholder engagement would be undertaken as part of the communications management plan

6. Conclusion

Inland Rail between Parkes and Narromine has the potential to generate social and economic benefits as well as adverse impacts on the social study areas.

Key benefits would potentially include:

- Increased employment opportunities through demand for construction and operation workforce and business opportunities through demand for goods and services mainly during construction phase.
- Potential of reduced freight road traffic along regional and local roads as freight would be transported by rail during operation.

Adverse social impacts would include:

- Impacts on properties and landholders due to property acquisition and land access required during construction.
- Perceived or real anti-social behaviour of single, male, non-resident construction workers
 may be a concern for local communities. Anti-social behaviour has the potential to
 increase crime and adversely affect community perceptions of safety.
- Amenity impacts due to changes in noise levels, air quality, views and landscape during construction and operation are expected to be experienced by residents close to the proposal site especially at Parkes and Peak Hill and would reduce with increasing distance from the proposal.
- Impacts on community access and connectivity. However, given the proposal is located outside the larger towns of Narromine and Parkes, and to the west of Peak Hill, overall impacts on community access and connectivity during construction and operation are expected to be minor. Any potential traffic diversions or delays are expected to be experienced by very few community members.

Through the implementation of the proposed mitigation and management measures outlined in Section 5 it is anticipated that the potential benefits would be enhanced and the potential impacts on properties and communities would be minimised.

7. References

ARTC [Australian Rail Track Corporation Ltd] 2015a. 'Stakeholder Engagement Outcomes Report'. Version 2.0. Unpublished document.

ARTC [Australian Rail Track Corporation Ltd] 2015b. *The Business Case for Inland Rail*. Viewed 19 May 2016. Available: http://inlandrail.artc.com.au/business-case/documents/30189/download.

Department of Environment and Climate Change 2009, *Interim Construction Noise Guideline*. Viewed 5 May 2016. Available: http://www.epa.nsw.gov.au/resources/noise/09265cng.pdf.

Department of Planning and Environment 2016, *NSW State and Local Government Area Population Projections 2016.* Sydney, NSW.

Department of Trade and Investment 2015, *Economic Development Strategy for Regional NSW,* viewed 13 July 2016. Available at:

http://www.industry.nsw.gov.au/__data/assets/pdf_file/0010/67699/Economic-Development-Strategy-for-Regional-NSW_with-APPENDIX_Feb2015.pdf.

Dubbo City Regional Airport, 2016, *Dubbo City Regional Airport*, available: http://www.dubboairport.com.au/Airport/home>.

Dubbo Regional Council, 2016, Dubbo 2036 Community Strategic Plan.

GHD, 2017a, Australian Rail Track Corporation Inland Rail – Parkes to Narromine Traffic, Transport and Access Assessment.

GHD, 2017b, ARTC Inland Rail – Parkes to Narromine Hydrology and Flooding Assessment.

GHD, 2017c, ARTC Parkes to Narromine Inland Rail Noise and Vibration Assessment.

GHD, 2017d, ARTC Inland Rail - Parkes to Narromine Water Quality Assessment.

IAIA, 2015, Social Impact Assessment: guidance for assessing and managing social impacts of projects. Viewed on 3 May, 2016. Available at

http://www.iaia.org/uploads/pdf/SIA_Guidance_Document_IAIA.pdf.

Macquarie Regional Library 2016. 'Narromine Timeline', *Local Heritage*. Viewed 3 May 2016. Available http://www.mrl.nsw.gov.au/LocalHeritage/narromine-timeline.

Narromine Aviation Museum 2010. *Narromine Aviation Museum*. Viewed 3 May 2016. Available http://www.narromineaviationmuseum.org.au/>.

Narromine Shire Council 2013. *Community Strategic Plan: Narromine Shire 2023*. Narromine, NSW.

NSW Government 2013. *Central West Regional Transport Plan*. Transport for NSW. Chippendale NSW.

NSW Government 2016. *Draft Central West and Orana Regional Plan*. Department of Planning and Environment. Dubbo, NSW.

Parkes Shire Council 2013. *Parkes Shire Council: Community Strategic Plan 2022*. Viewed 9 May 2016. Available:

http://www.parkes.nsw.gov.au/sites/parkes/files/public/images/documents/parkes/IPR/Community_Strategic_Plan.pdf.

Parkes Shire Council 2016. "Gold & Sir Henry Parkes". *Parkes: It all adds up.* Viewed 3 May 2016. Available: http://www.visitparkes.com.au/about/history-and-culture.aspx>.

Parkes Shire Council 2016a. "Parkes". *Parkes: It all adds up*. Viewed 3 May 2016. Available: http://www.visitparkes.com.au/about/our-towns/parkes.aspx>.

Parkes Shire Council Profile id n.d. *Community Profile*. Viewed 3 May 2016. Available: http://profile.id.com.au/parkes?WebID=120>.

Profile.id n.d (a). *Parkes Shire Council Community Profile*. Viewed 3 May 2016. Available: http://profile.id.com.au/parkes?WebID=120.

Profile.id n.d (b). *Parkes Shire Council Economic Profile*. Viewed 3 May 2016. Available: ">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://economy.id.com.au/parkes/value-add-by-industry?IndkeyNieir=23100&sEndYear=2011>">http://eco

Regional Development Australia (RDA) Central West, 2013, *Central West Regional Plan*, viewed 13 July 2016, available: http://www.rdacentralwest.org.au/region/regional-plan/.

Regional Development Australia (RDA) Central West, 2014, *NSW Central West Freight Study*, viewed 13 July 2016, available: http://www.rdacentralwest.org.au/wp-content/uploads/2014/11/RDA-Central-West-Freight-Study-Nov-2014.pdf.

Regional Development Australia (RDA) Orana, 2015, *Orana Regional Plan*, viewed 13 July 2016, available: http://www.rdaorana.org.au/publications.htm.

REMPLAN, 2016, *Narromine Shire Council Community Profile*, viewed 11 October 2016, available: http://www.communityprofile.com.au/narromine/population/age#!bar-chart;i=0.

Roads and Maritime, 2013 *Environmental Impact Assessment – Practice note EIA-N02*. Viewed 9 May 2016. Available: http://www.rms.nsw.gov.au/documents/about/environment/planning-and-assessment/strategic-assessment-report-appendix-b.pdf.

Transport for NSW, 2013, *Central West Regional Transport Plan*, viewed 13 July 2016, available: http://www.transport.nsw.gov.au/sites/default/files/b2b/publications/central-west-regional-transport-plan.pdf.

Umwelt, 2017a, Australian Rail Track Corporation, Parkes to Narromine Aboriginal Cultural Heritage and Archaeological Assessment.

Umwelt 2017b, Australian Rail Track Corporation Inland Rail, Parkes to Narromine Aquatic Ecology Assessment.

Umwelt, 2017c, Australian Rail Track Corporation Inland Rail, Parkes to Narromine Biodiversity Assessment Report.

Umwelt, 2017d, Australian Rail Track Corporation Inland Rail, Parkes to Narromine Non-Aboriginal Heritage Impact Statement.

Urbis, 2017, Australian Rail Track Corporation Inland Rail, Parkes to Narromine Landscape and Visual Assessment.

Vanclay F 2003, *International Principles for Social Impact Assessment*, Impact Assessment and Project Appraisal, vol. 21, no. 1,pp.5-11.

Vanclay, F., Esteves, A., Aucamp, I., Franks, D. 2015, *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects*, International Association for Impact Assessment, available: http://www.iaia.org/uploads/pdf/SIA Guidance Document IAIA.pdf>.

Department of Employment, Australian Federal Government. SA2 Data tables - Small Area Labour Markets - June quarter 2016. Viewed 24 November 2016. Available: https://docs.employment.gov.au/node/34691.

Profile.id n.d. Parkes Shire Council Economic Profile. Viewed 24 November 2016. Available: http://economy.id.com.au/parkes/employment-by-industry-fte.

REMPLAN, 2016, Narromine Shire Council Economic Profile, viewed 23 November 2016, available: http://www.economicprofile.com.au/narromine/economy/output http://sqmresearch.com.au/vacancy.php?t=1.

Narromine Shire Council 2016. *Community Profile*. Viewed 3 May 2016. Available: http://www.communityprofile.com.au/narromine/>.

ABS 2011 *Census Quick Stats Narromine LGA*. Viewed 3 May 2016. Available: http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/LGA15850?opendocument&navpos=220.

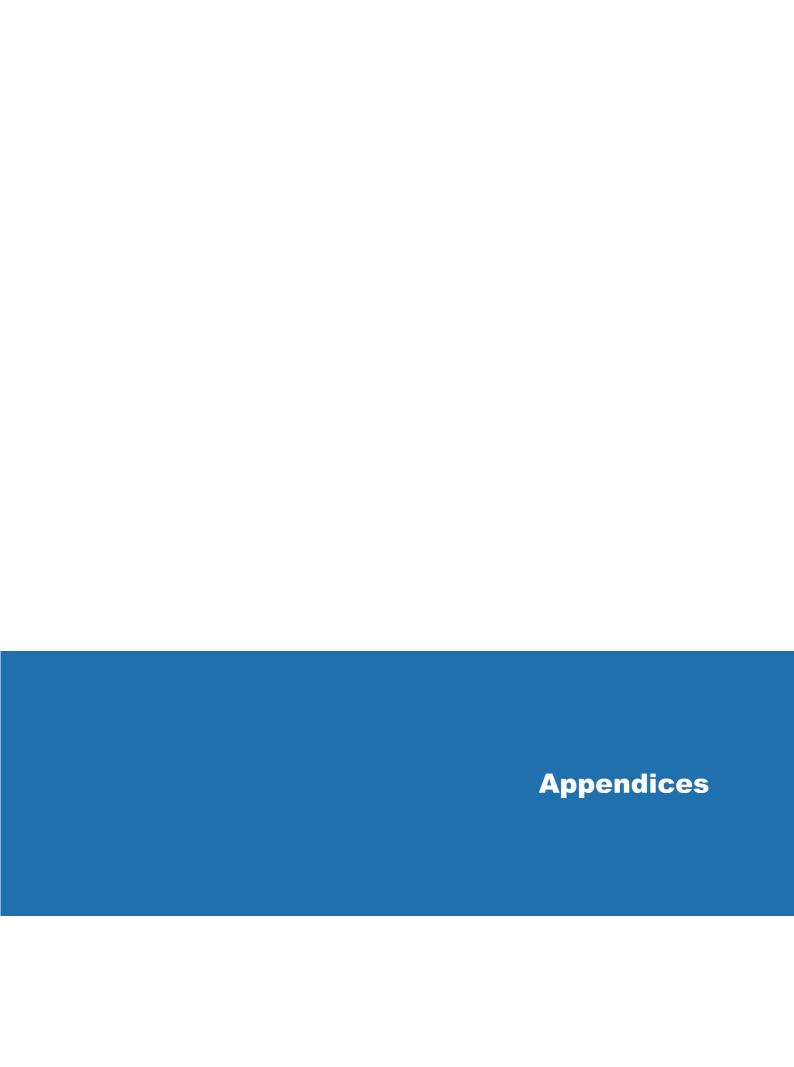
ABS 2011 *Census Quick Stats Parkes LGA*. Viewed 3 May 2016. Available: http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/LGA162 http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/LGA162 http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/LGA162 http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/LGA162 http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/LGA162 <a href="https://www.census/abs/https://www.cens

Narromine Shire Council 2016. *Economic Profile*. Viewed 3 May 2016. Available: http://www.economicprofile.com.au/narromine/>.

Parkes Shire Council 2016b. *National Logistics Hub*. Viewed 3 May 2016. Available: http://www.parkes.nsw.gov.au/economic-development/national-logistics-hub>.

Peak Hill 2012. Peak Hill NSW. Viewed 3 May 2016. Available: < http://www.peakhill.nsw.au/>.

SQM Research, 2016 Residential Vacancy Rates, viewed 24 November 2016, available at: http://www.sqmresearch.com.au/.



Appendix A – Environmental Impact Assessment Practice Note – Socio-Economic assessment



Environmental Impact Assessment Practice Note

Socio-economic assessment

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Introduction

Background

RMS is required by the NSW planning system to consider impacts upon the socio-economic environment in the development and assessment of projects. In addition, the 2012-2016 Corporate Strategy commits RMS to delivering customer focussed projects. The legislative and policy context of socio-economic impact assessments is outlined in **Appendix A**.

The socio-economic practice note forms part of the common procedures under the Roads and Maritime Services (RMS) environmental impact assessment (EIA) guidelines. The practice note is divided into two parts:

- Part 1: Project managers briefly outlines the purpose of a socio-economic impact assessment. This section also provides guidance on determining the need for and level of assessment and engaging contractors. The interface between socio-economic impact assessments and RMS communications activities is explained.
- Part 2: Contractors provides guidance on RMS' expectations for a socio-economic impact assessments.

Purpose

Road and maritime projects have the potential to produce both positive and negative socioeconomic impacts for communities and businesses, through such things as changes in accessibility, local amenity and connectivity, and impacts on properties, local industry and employment. Socio-economic impacts, and how they are managed, may also influence how a customer perceives RMS and its activities.

This practice note provides a framework for assessing socio-economic impacts of road and maritime projects undertaken by or on behalf of RMS to ensure impact assessments are carried out consistently, to a high standard, and are properly integrated with other environmental assessments, design development and management processes.

PART ONE: Overview and steps

1. Overview of socio-economic impact assessment

This section provides an overview of the scope of a socio-economic impact assessment.

1.1. What is a socio-economic impact assessment?

Socio-economic impact assessment involves analysing, monitoring and managing the social and economic consequences of development. It involves identifying and evaluating changes to or impacts on, communities, business and industry that are likely to occur as a result of a proposed development, in order to mitigate or manage impacts and maximise benefits.

In particular, socio-economic impact assessment is concerned with changes to such things as:

- How people live, work, play and interact with one another on a daily basis.
- How people move about their area for personal or business purposes, including by vehicle, walking, cycling or public transport.
- People's culture, including shared beliefs, customs and values, attachment to land and places, and sense of belonging.
- People's community, including the level of community cohesion, local character and sense of place.
- People's access to and use of community services, facilities and social networks.
- People's physical and psychological health and wellbeing, including stress levels, happiness and sense of security.
- planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment (International Association of Impact Assessment,

2003).

unintended social consequences,

both positive and negative, of

Social impact assessment

includes the processes of

analysing, monitoring and managing the intended and

- People's fears and aspirations, including perceptions about safety and their fears about, and aspirations for, the future of their community.
- People's assets, such as property, housing or business.
- People's personal or business income and expenses.
- Employment, including location, availability and types of employment and labour force availability.
- People's environment, including the quality of the air and water people use, the level of hazard or risk, dust and noise they are exposed to and their physical safety (International Association of Impact Assessment, 2003).

Socio-economic impacts may be experienced by individuals and communities as positive, neutral or negative, depending on individual circumstances, vulnerabilities and attitudes in relation to particular changes. Socio-economic impacts can also:

- Be direct or indirect.
- Result in temporary or permanent changes to the socio-economic environment.
- Occur at various project stages, including planning and development, construction, and operation and maintenance.
- Be cumulative, decreasing or intensifying due to interaction with other projects' impacts.

Direct impacts include changes directly related to a project, such as property impacts, changes to public transport, changes in local access, or changes in road traffic noise. Indirect impacts include secondary or 'flow on' effects of a project, such as changes to employment and income in a region due to impacts on land use and improved connectivity.

Cumulative impacts include the incremental effects of an action when added to other past, present or reasonably foreseeable future actions. Cumulative impacts can result from actions that individually would be minor but collectively could result in significant changes to the socio-economic environment of local and regional communities.

Social and economic impacts are also closely linked with other biophysical impacts, such as those relating to traffic and transport, land use and planning, heritage, noise and vibration, air quality and flora and fauna. As such, socio-economic impact assessment is informed by a range of other studies and environmental investigations.

1.2. Outcomes of a socio-economic impact assessment

The primary outcome of a socio-economic impact assessment will be a report containing the following information:

- Description of the existing socio-economic conditions, including the baseline conditions
 of potentially affected groups or communities, to provide a basis for predicting likely changes
 and future monitoring of impact management strategies.
- Impact assessment, including identifying and analysing the likely benefits or impacts of a
 project and assessing the magnitude, duration and likelihood of identified benefits and
 impacts.
- Identification of mitigation and monitoring measures, including measures to enhance the project's benefits and avoid, manage or mitigate its potential impacts.

Additional outcomes which may flow from effectively considering the socio-economic benefits and impacts of road and maritime projects include:

 Promoting community 'buy-in' and confidence in a project through inclusion in a project's planning and decision making.

- Identification of possible changes to the project footprint, construction methods, operation or maintenance which could reduce negative impacts or maximise project benefits.
- Balancing a project's benefits for local and regional communities with transport and efficiency outcomes for the State.
- Providing decision makers, stakeholders and the community with information on the socioeconomic benefits and impacts and strategies to be implemented to avoid or manage negative impacts and maximise positive impacts.
- Helping to manage or avoid potential community conflicts about a project.

2. Assessing socio-economic impacts

This section provides guidance on identifying and assessing socio-economic impacts as part of environmental impact assessment. Interfacing with communications is also covered.

2.1. Task 1 - Project scoping checklist

The Project scoping checklist (**Appendix B**) will guide RMS project managers and environment staff in deciding the level of socio-economic impact assessment required. The socio-economic impacts section of the checklist is completed by the RMS project manager in consultation with environment and communications staff.

Discuss the socio-economic findings of the checklist with the Lead environmental advisor to:

- Identify the scale and magnitude of potential impacts to determine the level of socioeconomic impact assessment required.
- Establishing the extent of the study or focus of the socio-economic impact assessment.
- Inform the community consultation program.

The checklist should be used to consider both communities that are directly impacted and likely to experience changes due to their proximity to the project, as well as those indirectly impacted.

2.2. Task 2 – Investigate avoid options

Review the project scoping checklist for potential impacts on the socio-economic environment. Investigate opportunities for avoiding the impact in project design. Avoid options can also include avoiding impacts through project scheduling. Issues likely to cause broad community concern are likely to need an increased level of community consultation.

2.3. Task 3 - Determine level of socio-economic impact assessment

The level of socio-economic impact assessment required will depend on the nature and scale of potential impacts and whether these can be appropriately managed. The size or capital investment value of the project does not necessarily dictate the appropriate level of socio-economic impact assessment.

In consultation with the Lead environmental advisor, use **Table 1** and the findings of the Project scoping checklist to identify the appropriate level of socio-economic assessment. Example scenarios for each level of assessment are provided in **Appendix C**.

Note that the basic level of assessment should be undertaken by someone with experience in impact assessment, preferably with some experience in community engagement and socio-economic impact assessment. The moderate and comprehensive assessments should be undertaken by people with experience in socio-economic impact assessment.

Table 1 Levels of socio-economic impact assessment

Level of assessment	Scale of impacts	2	Magnitude of impacts	Information expectations	ations	S	Socio-economic baseline content
Basic	 Few impacts OR Very localised impacts		Impacts of a minor nature only Short duration impacts OR Impacts that can be managed by standard mitigation measures (eg generic measures, standard safeguards from the Environmental Assessment Procedure for Routine and Minor Works)	 Mainly desktop Quantitative information from secondary sources For Minor Works, information as per Minor Works REF template 	nation urces Minor ite		ABS Census data to describe relevant demographic characteristics (ie identify groups that may be particularly vulnerable to changes from the project) Basic local community structure and patterns (eg pedestrian movements) Outcomes of previous or basic consultation (ie with local Council officers)
Moderate	 Several impacts OR Two or more medium or high impacts OR Impacts on groups of people		Impacts of a moderate nature OR Impacts of moderate duration Impacts that require specific mitigation measures	 Desktop research Quantitative information from secondary sources Limited primary research Targeted consultation with some key community and government stakeholders to identify specific impacts and mitigation measures 	nation urces search tion with nity and nolders impacts		ABS Census data, describing key population characteristics Local community structure and patterns Relevant business and economic data Outcomes of targeted consultation
Comprehensive	 Many impacts OR Impacts affecting a broad section of the community OR Impacts likely to cause broad community		Impacts of a major nature OR Impacts of long duration Impacts that require specific mitigation measures Impacts that may have residual affect after mitigation	 Desktop research Quantitative information from secondary sources Extensive primary research required Community and stakeholder consultation to define community values, impacts and mitigation measures 	nation urces research tation to values,		ABS Census data, fully describing population and demographic characteristics Community structure and patterns Community values Economic environment Outcomes of consultation with community and government

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2.4. Task 4 – Update project communications plan

RMS carries out consultation and communication at various stages of a project life – the community involvement and communications process often starts in early project development and continues into the Project's operation. Community involvement for RMS projects is carried out in accordance with the *RMS Community Engagement Policy Statement 2012* and the *RMS Community Engagement and Communication Manual 2012*, which are complemented by procedures set out in the RMS EIA guidelines, ProjectPack and MinorProject.

Consultation with Aboriginal communities may also be undertaken for a project. Consultation with Aboriginal communities must be done in accordance with the *RMS Procedure for Aboriginal Cultural Heritage Consultation and Investigation* to comply with statutory requirements.

The relationship between community involvement and socio-economic impact assessment is explored in more detail in **Appendix D**, including a best practice case study.

In consultation with the Lead environmental advisor and communications officer, update or develop a communications plan that reflects the issues identified and the level of assessment decision made during **Task 2**. The plan should identify those communications activities intended to be undertaken by the socio-economic impact assessment contractor.

Table 2 provides an indicative list of stakeholders to be consulted for the socio-economic impact assessment. This is in addition to the wider consultation with property owners, the general public, transport users and key stakeholders generally undertaken for RMS projects. The stakeholder groups to be consulted are similar for moderate and comprehensive levels of assessment. However the number of stakeholders is likely to increase as the level of assessment increases and consultation is likely to expand to include the views of both directly and indirectly impacted groups and individuals.

Stakeholder consultation should not be undertaken until agreed to by RMS communications staff and should be coordinated with other stakeholder engagement activities for the project.

Table 2 Indicative stakeholders to be consulted for a socio-economic impact assessment

Stakeholder	Basic level of assessment	Moderate level of assessment	Comprehensive level of assessment
Local council officers	✓	✓	✓
Local council elected representatives			✓
State government officers (ie education, health, police and emergency services)		✓	✓

State government elected representatives		✓	✓
Community facility providers (ie schools, child care, aged care, support services)		✓	✓
Affected property or business owners	✓	✓	✓
Community/ resident groups		✓	✓
Environmental groups (including local heritage groups)			✓
Business or industry associations		✓	✓

2.5. Task 5 – Engage a contractor (if required)

To engage a contractor to undertake a socio-economic impact assessment:

- 1. Adjust the model brief (**Appendix E**) to fit the project request for tender. Note if a stand alone brief is required, contact Environmental Planning and Assessment.
- 2. Include a plan indicating the timing and nature of communications and stakeholder consultation activities during the preparation of the socio-economic impact assessment.
- 3. Attach Part 2 of this practice note to the brief.
- 4. Provide the brief to the Lead environmental advisor for review.
- 5. Once comments from the Lead environmental advisor have been addressed, proceed with tender process as per RMS policy and guidelines.

The appointed contractor should be provided with any consultation and/or issues reports produced for this or other related projects.

2.6. Task 6 – Review the draft socio-economic impact assessment

It is vital that the Project manager understands and supports the mitigation and management measures proposed in the socio-economic impact assessment. The project manager is accountable for the outcomes of the assessment. Guidance on developing mitigation and management measures is provided to the contractor in Part 2 of this practice note.

Review the draft socio-economic impact assessment and provide comments to the contractor. The Lead environmental advisor will also provide feedback on the report. Give particular attention to the mitigation and management measures proposed, which should:

- Directly respond to an impact identified in the report.
- Be reasonable, feasible and have RMS support.
- Have a timeframe and responsibility assigned.

PART TWO:

Assessment and reporting

3. Scope of a socio-economic impact assessment

This section provides guidance on the level of socio-economic impact assessment required to appropriately evaluate potential benefits and impacts of a project.

3.1. Preliminary scoping checklist

At the commencement of the project, the project manager completed a preliminary scoping checklist. The checklist aims to flag potential issues within the community for the project and determine the level of socio-economic impact assessment required. The preliminary scoping checklist also informs the community consultation program that is developed for the project.

RMS undertakes socio-economic impact assessment at three levels depending upon the complexity of the project and the sensitivity of the existing environment: basic; moderate; and comprehensive. The decision on level of assessment is made by the RMS project team based upon the scoping checklist and the guidance provided in Table 1.

The brief will outline the level of socio-economic impact expected, including the community consultation plan and the contractor's role in consultation. The preliminary scoping checklist is attached to the brief.

The contractor must review the preliminary scoping checklist. Based on knowledge of socioeconomic issues, the community in which the project occurs and previous similar projects, the contractor must assess the checklist for gaps. Gaps identified in the tendering phase should be highlighted in the response to brief. Otherwise, discuss gaps directly with the project manager.

Table 1 Levels of socio-economic impact assessment

Level of assessment	Scale of impacts	_	Magnitude of impacts	_	Information expectations	ဟ	Socio-economic baseline content
Basic	 Few impacts OR Very localised impacts		Impacts of a minor nature only Short duration impacts OR Impacts that can be managed by standard mitigation measures (eg generic measures, standard safeguards from the Environmental Assessment Procedure for Routine and Minor		Mainly desktop Quantitative information from secondary sources For Minor Works, information as per Minor Works REF template		ABS Census data to describe relevant demographic characteristics (ie identify groups that may be particularly vulnerable to changes from the project) Basic local community structure and patterns (eg pedestrian movements) Outcomes of previous or basic consultation (ie with local Council officers)
Moderate	 Several impacts OR Two or more medium or high impacts OR Impacts on groups of people		Impacts of a moderate nature OR Impacts of moderate duration Impacts that require specific mitigation measures		Desktop research Quantitative information from secondary sources Limited primary research Targeted consultation with some key community and government stakeholders to identify specific impacts and mitigation measures		ABS Census data, describing key population characteristics Local community structure and patterns Relevant business and economic data Outcomes of targeted consultation
Comprehensive	 Many impacts OR Impacts affecting a broad section of the community OR Impacts likely to cause broad community		Impacts of a major nature OR Impacts of long duration Impacts that require specific mitigation measures Impacts that may have residual affect after mitigation		Desktop research Quantitative information from secondary sources Extensive primary research required Community and stakeholder consultation to define community values, impacts and mitigation measures		ABS Census data, fully describing population and demographic characteristics Community structure and patterns Community values Economic environment Outcomes of consultation with community and government

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4. Describing the existing socio-economic environment

This chapter outlines expectations for the description of the existing socio-economic environment. The description of the existing socio-economic environment should provide the project team and the community with an understanding of the social and economic context of the project.

4.1.1. Identifying the study area

The extent of the study area for the socio-economic impact assessment depends on the extent or scale of potential impacts, including both direct and indirect impacts, and the context of the area surrounding the project (ie whether it is in an urban, rural or regional setting).

For larger projects, such as a new road corridor, major highway upgrade or new commuter wharf, the study area would generally incorporate a larger area, such as a number of suburbs (in an urban context) or the wider local government area (in a rural or regional context). Towns and/or major population centres should also be included, particularly for projects in regional or rural areas.

For smaller projects, such as a new pedestrian fence or new access ramp for an existing wharf facility, the study area would be more focussed and may include residents, businesses, facilities or communities directly impacted by the project or closest to the proposed works.

The bounds of the study should be confirmed with the RMS project team.

The ABS collects and publishes Census data and other information that will inform the socio-economic profile. ABS statistical geographic areas (Australian Statistical Geography Standard areas) may assist with defining a study area¹ but may not correspond directly to the area of interest.

The main geographic areas that will be relevant to a socio-economic assessment include:

- Statistical Areas Level 1.
- Statistical Areas Level 2.

¹ The Australian Statistical Geography Standard (ASGS) is being used for the release of data from the 2011 Census of Population and Housing (2011 Census). This replaces the Australian Standard Geographical Classification (ASGC) used in previous Censuses. Familiar statistical boundaries such as Census Collection Districts, Statistical Local Areas, and Statistical Divisions are replaced by new units. This will cause some issues with time series comparisons, especially at the CCD and SLA level. To assist with the transition to the Australian Statistical Geography Standard, 2011 Census data are available for both the Australian Statistical Geography Standard and Statistical Local Areas from the 2011 Australian Standard Geographical Classification (ABS, undated).

- Urban Centres/ Localities.
- Local Government Areas.

While statistical local areas are no longer supported by the ABS, information from the 2011 Census is also presented for statistical local areas to assist with the transition to the new geographic areas.

Data collected by other Commonwealth or State government agencies, such as population projections and employment and business data, is generally collected for either statistical local areas or local government areas.

Other geographic areas are listed in **Appendix F**. A description of each of these geographic areas is available on the ABS website (www.abs.gov.au).

Where a project impacts upon an Aboriginal community, other geographical groupings may be more relevant for the purposes of statistics, for example: Indigenous Locations, Areas and Regions.

4.1.2. Socio-economic data sources

Sources of primary and secondary information will include but not be limited to:

- Data on population and demography, income and employment and business and industry available from the ABS, and Commonwealth, State and local government agencies.
- Existing socio-economic policies and strategies relevant to the study area, including local government policies and strategies (eg community strategic plans, local environmental plans, social plans and economic development strategies).
- Outcomes of consultation, including consultation undertaken as part of the socio-economic impact assessment, for the project generally and previous consultation undertaken for the project or for other projects in the study area.
- Observations of the study area, visual surveys or surveys of pedestrians, public transport users, businesses and industry, social and economic infrastructure, or local and regional communities.
- Analysis of social infrastructure, based on a review of web based information, including Council websites and consultation with managers of community services and facilities.

4.1.3. Surveys

For moderate and comprehensive assessments, there are a range of surveys that can assist with establishing the socio-economic baseline:

- Shopper surveys, to identify patterns in commercial activity.
- Origin and destination surveys, to gauge travel patterns in and around the area, identify traffic generators and get a sense of commercial activity.

- Pedestrian surveys, to identify lines of desire, commercial activity and how people are using public spaces.
- Survey of business owners, to understand the target market of businesses, their products and clientele, business operations (ie key accesses) and employment levels.
- Car parking surveys, to understand use and availability of car parking.
- Surveys of community facilities, such as public spaces, to understand the level of use and catchment for community facilities.
- Values surveys, to understand community values, what people like about their community, what makes a community or a location unique, priority issues for the community, spiritual connections and sense of place.

4.2. Describing the socio-economic profile of the community

The description of the existing socio-economic environment should tell a story of the community within the study area. The community should not be defined by raw statistics. Rather statistics should be used to support findings on the people who make up the community and their capacity to adapt to change. The range of socio-economic characteristics used to describe the existing environment will vary according to the level of assessment required.

The socio-economic baseline should consider existing conditions as well as known or likely future conditions. For example, population projections and known or expected future developments should be acknowledged as part of the existing environment discussion.

To better understand the existing socio-economic environment of the study area, statistical information can be compared at different geographical scales to identify key local differences.

4.2.1. Basic assessment

A basic level of assessment will apply to projects of few, short duration or localised impacts or where impacts can be appropriately managed by notifications and consultation.

For a basic level of assessment, the socio-economic profile should identify who (individuals, businesses, groups) is likely to be affected by the proposal and how the area, service, facility or aspect of concern is currently used. The basic assessment should also focus on identifying groups within the community that may be vulnerable to changes brought about by the project, due to such things as their level of economic resources, age, need for assistance or cultural background.

Table 2 provides guidance on the parameters of the socio-economic profile for a basic assessment.

Table 2 Socio-economic profile – basic assessment

Socio-economic aspects to consider

- · Vulnerable groups and their access to an area, service, facility or other aspect of concern.
- · Numbers of people potentially directly affected.
- Who uses the area, service, facility or other aspect of concern.
- · How and for what purpose do users use the area, service, facility or other aspect of concern.
- When, how long or how often do the users use the area, service, facility or other aspect of concern.
- How the area, service, facility or other aspect of concern is accessed.

The socio-economic profile for a basic assessment will be informed by desktop research, findings from previous consultation and observations. Tables 3 and 4 provide a list of indicators that may assist with drawing a socio-economic profile for a basic assessment, with a focus on readily available quantitative data. The socio-economic characteristics described in the existing environment should be informed by the range of potential issues identified in the preliminary scoping checklist.

Table 3 Basic level of assessment – quantitative indicators

Socio-economic characteristics	Sub-category	Indicator	Source
Social characteristic	s		
Population and demography	Population	Total population (ERP)	ABS (3235.0) Population by Age and Sex, Regions of Australia (by statistical local area)
	Age	Proportion of people aged 14 years or under	ABS Census of Population and Housing
		Proportion of people aged 65 years or older	
	Cultural Diversity	Aboriginal and Torres Strait Islander population	
		Language other than English spoken at home	
Need for assistance	People with disability	People with need for assistance	
Travel to work	Travel to work	Travel to work by car (as driver or passenger)	
		Travel to work by public transport, including breakdown of travel by ferry, bus, rail and tram (where relevant)	
		Travel to work by cycle or walking	

Socio-economic characteristics	Sub-category	Indicator	Source
Economic characteristics			
Income and employment	Income	Median household income (\$)	ABS Census of Population and Housing
	Employment	Unemployment rate	ABS Census of Population and Housing
			Department of Employment and Workplace Relations (Small Area Labour Markets – by statistical local area)
		Industry of employment	Department of Employment and Workplace Relations (Small Area Labour Markets – by statistical local area)
			Department of Infrastructure and Transport (Bureau of Industry, Transport and Regional Economics) – Industry structure database

Qualitative indicators that will assist with developing the socio-economic profile of the community are listed in Table 4.

Table 4– Basic level of assessment – qualitative indicators

Socio-economic characteristics	Sub-category	Indicator
Economic characteri	stics	
Business and industry	Local business	Immediately adjacent businesses or services
Social infrastructure		
Social infrastructure	Social infrastructure	Education facilities (ie child care centres, schools, major tertiary education facilities)
	directly impacted, or	Health, emergency and aged care services
	immediately	Sport, recreation and cultural facilities
	adjacent, to the	Community support services
	project.	Transport facilities, including key roads, pedestrian and cycle networks, public transport facilities, and school bus routes

4.2.2. Moderate assessments

A moderate level of assessment applies to projects with several impacts, medium duration impacts or impacts on groups of people. Moderate level assessments will usually require project specific mitigation measures to ensure impacts are acceptable to the community.

For a moderate level of assessment, the socio-economic profile is expanded from the basic level to consider groups of people within the community, the services, businesses and facilities that they access and how they move around the community.

Table 5 Socio-economic profile – moderate assessment

Socio-economic aspects to consider

- Vulnerable groups and their access to an area, service, facility or other aspect of concern.
- Groups, individuals and businesses potentially directly affected.
- · Groups, individuals and businesses potentially indirectly affected.
- · Services, businesses, facilities or other aspect of concern and their spatial location.
- · Access to and use of services, businesses, facilities or other aspect of concern.
- · Patterns of moving around the community.
- · Patterns of use of public spaces.

A moderate socio-economic profile is still primarily generated from quantitative data, easily accessible community information and field observation. However to understand an area and how it is used by the community better, some consultation and surveys may be appropriate. Tables 6 and 7 provide a list of indicators that may assist with drawing a socio-economic profile for a moderate socio-economic assessment. The socio-economic characteristics described in the existing environment should be informed by the range of potential issues identified in the preliminary scoping checklist.

Table 6 Moderate assessment – quantitative indicators

Socio-economic characteristics	Sub-category	Indicator	Source
Social characteristic	S		
Population and demography	Population	Total population (ERP)	ABS (3235.0) Population by Age and Sex, Regions of Australia (by statistical local area)
	Age	Proportion of people aged 14 years or under	ABS Census of Population and Housing
		Proportion of people aged 65 years or older	
	Cultural Diversity	Aboriginal and Torres Strait Islander population	
		Overseas born	

Socio-economic characteristics	Sub-category	Indicator	Source
		Language other than English spoken at home	
Families and	Dwellings	Total dwellings	
housing	Ü	Dwelling type	
	Households and	Total households	
	families	Average household size	
	Housing cost and tenure	Housing tenure	
Socio-economic indicators for areas (SEIFA)	Advantage/ Disadvantage Index	Advantage/ disadvantage index by decile	
Need for assistance	People with disability	People with need for assistance	
Travel behaviour	Vehicle ownership	Households with no vehicles	
		Households with one vehicle	
		Households with two or more vehicles	
	Travel to work	Travel to work by car (as driver or passenger)	
		Travel to work by public transport, including breakdown of travel by ferry, bus, rail and tram (where relevant)	
		Travel to work by walking or cycling	
Economic character	istics		
Labour force, income and	Income	Median household income (\$)	ABS Census of Population and Housing
employment	Employment	Unemployment rate	ABS Census of Population and Housing
			Department of Employment and Workplace Relations (Small Area Labour Markets – by statistical local area)
		Industry of employment	Department of Employment and Workplace Relations (Small Area Labour Markets – by statistical local area)
			Department of Infrastructure and Transport (Bureau of

Socio-economic characteristics	Sub-category	Indicator	Source
			Industry, Transport and Regional Economics) – Industry structure database
Business and industry	Agriculture	Productivity of agricultural land	Significant agricultural lands mapping
	Tourism	Visitor statistics by tourism region, level of self-drive tourism	Tourism NSW (visitor nights, expenditure, tourism businesses by tourism region and LGA)

Table 7 provides a list of qualitative indicators to assist with understanding the community. Information of this type will be informed mainly by desktop research and field observations.

Table 7 Moderate assessment – qualitative indicators

Socio-economic characteristics	Sub-category	Indicator
Social characteristic		
Travel behaviour	Key transport networks	Key pedestrian, cycle, public transport and local road networks, maritime transport and facilities, scenic drives/ tourist routes
	Activity centres	Key activity centres such as commercial areas, schools, employment and user catchments
	Desire lines	Shopper/ pedestrian surveys
	Cultural landscape	Areas, buildings, places, open spaces, landscapes and views of importance
Economic characteri	istics	
Business and	Local business	Type, nature and number of local businesses
industry	Industry	Key local and regional industries, value of industry
	Access	Current access and parking facilities available to businesses
Social infrastructure		
Social infrastructure	Services	Location of relevant services such as education, health and emergency services.
	Community facilities	Location of relevant sporting facilities, open space areas, museums, churches, community halls, etc.
	Shopping	Provision and location of shopping centres, regular markets, etc.
	Transport and access	Transport facilities, including key roads, pedestrian and cycle networks, public transport facilities, school bus routes, airports, and tourist routes

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4.2.3. Comprehensive assessments

A comprehensive assessment centres on the question of "what is it like to live here?" A comprehensive assessment considers the full range of quantitative aspects of a socio-economic profile. In addition, a comprehensive assessment will attempt to capture those intangible aspects of a community that define its character.

Table 8 provides guidance on the parameters of the socio-economic profile of a comprehensive assessment.

Table 8 Socio-economic profile – comprehensive assessment

Socio-economic aspects to consider
Vulnerable groups and their access to an area, service, facility or other need.
Patterns of settlement.
Spatial distribution of socio-economic advantage.
Services and facilities and their spatial location.
Patterns of moving around the community.
Patterns of use of public spaces.
Local and regional economy.
Local and regional industry.
Distance to major centres (for bypass projects).
External drivers of socio-economic change.
Community character and values.
Cultural landscape and sense of place.

The socio-economic profile for a basic assessment will be heavily reliant on current community consultation, surveys and mapping to complement quantitative data. Tables 9 and 10 provide a list of indicators that may assist with drawing a socio-economic profile for a comprehensive assessment.

Table 9 Comprehensive level of assessment – quantitative indicators

Socio-economic characteristics	Sub-category	Indicator	Source
Social characteristic	s		
Population and demography	Population	Total population (ERP)	ABS (3235.0) Population by Age and Sex, Regions of Australia (by statistical local area)
		Population Growth (ERP) - 5 years and 12 months	ABS Census of Population and Housing
		Population Projections	NSW Department of Planning and Infrastructure

Socio-economic characteristics	Sub-category	Indicator	Source
			(by statistical local are and statistical division)
	Age	Age profile	ABS Census of Population
	Cultural Diversity	Aboriginal and Torres Strait Islander population	and Housing
		Overseas born	
		Language other than English spoken at home	
	Population mobility (ie	Other address 12 months previous	
	population transience)	Other address 5 years previous	
Families and	Dwellings	Total dwellings	
housing		Dwelling type	
	Households and	Total households	
	families	Household type	
		Family type	
		Average household size	
	Housing cost	Median property prices	
	and tenure	Median rental costs	
		Housing tenure	
Socio-economic indicators for areas (SEIFA)	Advantage/ Disadvantage Index	Advantage/ disadvantage index by decile	
	Economic Resources Index	Economic resources index by decile	
Need for assistance	People with disability	People with need for assistance	
Travel behaviour	Vehicle ownership	Households with no vehicles	
		Households with one vehicle	
		Households with two or more vehicles	
	Travel to work	Travel to work by car (as driver or passenger)	
		Travel to work by public transport, including breakdown of travel by ferry, bus, rail and tram (where relevant)	
		Travel to work by walking or cycling	

Socio-economic characteristics	Sub-category	Indicator	Source
Economic characteri	stics		
Labour force, income and	Income	Median household income (\$)	ABS Census of Population and Housing
employment		Low income households <\$500/ week	ABS Census of Population and Housing
	Employment	Workforce participation	ABS Census of Population and Housing
			Department of Employment and Workplace Relations (Small Area Labour Markets – by statistical local area)
		Unemployment rate	ABS Census of Population and Housing
			Department of Employment and Workplace Relations (Small Area Labour Markets – by statistical local area)
		Industry of employment	Department of Employment and Workplace Relations (Small Area Labour Markets – by statistical local area)
			Department of Infrastructure and Transport (Bureau of Industry, Transport and Regional Economics) – Industry structure database
Business and industry	Agriculture	Productivity of agricultural land	Significant agricultural lands mapping
		ABS Agriculture statistics	Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES)
	Tourism	Visitor statistics by tourism region, level of self-drive tourism	Tourism NSW (visitor nights, expenditure, tourism businesses by tourism region and LGA)

Table 10 provides a list of qualitative indicators to assist with understanding the community. Information of this type will be informed by field observations, targeted surveys, broad community consultation outcomes and consultation with local Council officers and elected local government officials.

Table 10 Comprehensive level of assessment – qualitative indicators

Socio-economic characteristics	Sub-category	Indicator	
Social characteristics			
Travel behaviour	Key transport networks	Key pedestrian, cycle, public transport and local road networks, maritime transport and facilities, scenic drives/ tourist routes	
	Activity centres	Key activity centres such as commercial areas, schools, employment and user catchments	
Community values	Participation in	Rate of voluntary work for organisation or group	
	community life	Community groups and events	
	Desire lines	Shopper/ pedestrian surveys	
	Cultural landscape	Areas, buildings, places, open spaces, landscapes and views of importance	
External drivers of change	Shifts in demography	Changes to the make-up of the community, e.g. young people leaving, sea/tree-changers, local/State/Federal strategies for population/immigration planning	
	Service equity	Closure or opening of medical and financial services	
	Employment equity	Closure or opening of business/industry in the region	
Economic characteri	istics		
Business and	Local business	Type, nature and number of local businesses	
industry	Industry	Key local and regional industries, value of industry	
	Dependency on passing trade	Nature of local business (ie highway or transport based businesses), business surveys, shopper surveys, stoppers survey, origin destination surveys	
	Access	Current access and parking facilities available to businesses	
	Regional economy	Role of business, including agribusiness, in the regional economy	
		Distance from major centres	
Social infrastructure			
Social infrastructure	Education	Provision and location of child care, primary schools, secondary schools, tertiary education facilities	
	Health, emergency and aged care	Provision and location of hospitals, community health centres, ambulance stations, police stations, fire stations, aged care facilities	
	Sport, recreation and cultural facilities	Provision and location of sporting facilities, open space areas, museums, churches, community halls, etc.	
	Community support services	Provision and location of employment and training services, disability support, child, family and youth support services, accommodation support services	
	Community networks	Provision and location of sporting clubs, resident associations, historical societies, scouts, etc.	

Socio-economic characteristics	Sub-category	Indicator
	Shopping	Provision and location of shopping centres, regular markets, etc.
	Transport and access	Transport facilities, including key roads, pedestrian and cycle networks, public transport facilities, school bus routes, airports, and tourist routes

4.2.4. Community values

Understanding community values is important for comprehensive assessments. Identifying community values may also be appropriate for moderate level assessments. Community values relate to such things as:

- Amenity and character, including character of the built form or natural environment, existing noise levels and air quality, heritage and cultural features important to local communities.
- Community health and safety, including road safety and perceptions of community safety.
- Community cohesion and sense of community, including levels of community participation, places of importance to community members, presence of community networks, existing barriers to movement and access to employment and community services.
- Environmental values, including natural features important to local communities, waterways, perceived air quality.
- What defines a place for its inhabitants and users, the intangible connections to place.
- Community fears, aspirations and view of the future.

The community itself owns community values, with places and features of importance specific to individual communities. As such, it is preferable to source this information directly. Community consultation, including broad consultation undertaken for the project and targeted consultation undertaken for the socio-economic impact assessment, is the best source of information on community values.

In the absence of this level of detail in community consultation, identifying community values may be informed by such things as:

- Understanding of the level of social networks, community organisations or events, as an indicator of community cohesion.
- Literature reviews and data analysis.
- Existing government and council socio-economic policies and strategies.
- Local environment plans or other environmental planning instruments.
- Observation of conditions in the study area.

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5. Assessing socio-economic impacts

This chapter outlines what information should be used in assessing the impacts of road and maritime projects.

The impact assessment identifies and analyses the likely changes to the existing socioeconomic conditions, or baseline, of the study area as a result of the project's footprint, construction and operation. The assessment of socio-economic impacts also includes determining the significance of likely impacts, based on considerations such as the scale and duration, intensity and scope of the impacts.

5.1. Information requirements

The assessment of socio-economic impacts should be informed by a range of information, such as:

- Project information on the project footprint, number and type of directly affected properties and construction methodology, including location of work areas, number of jobs, haulage routes, and associated construction infrastructure.
- Experience of impacts from other transport projects.
- Information on other large developments occurring in the area.
- Information collected on the existing environment.
- Outcomes of community and stakeholder consultation.

The socio-economic impact assessment will also be informed by the outcomes of other studies undertaken for the project such as:

- Land use and property.
- Noise and vibration.
- Air quality.
- Visual assessment.
- Traffic and transport.
- Aboriginal and non-Aboriginal cultural heritage assessments.
- Economic appraisal.
- Flooding.

The socio-economic impact assessment may also be informed by broader studies, such as the RMS commissioned review of bypasses (**Appendix F**).

The socio-economic impact assessment should provide an understanding of the social context of the impacts identified in these studies, such as how people are likely to experience these impacts or how they may impact on the local and regional economy. For

example, changes to noise, air quality and traffic may result in changes to amenity for local communities or businesses, while changes in traffic volumes may impact on community values around safety.

5.2. Approach

The assessment of the socio-economic impacts should provide the RMS project team and the community with an understanding of the likely direct and indirect impacts of the project on the local and regional communities, businesses and economies.

The socio-economic assessment should assess the whole of life impacts of the project. This includes:

- Construction, such as:
 - Work areas, including within the project footprint and associated work sites.
 - Haulage routes for materials, equipment and supplies.
 - Associated infrastructure, such as temporary detention basins and stock pile areas.
 - Changes to access.
 - Use of local resources.
- Operation, particularly:
 - The operational footprint, including associated infrastructure such as permanent detention basins, noise walls, and pedestrian networks.
 - The operation of the project itself as well as surrounding transport networks (road, ferry, rail, bus, pedestrian/cycle etc).

The range of socio-economic impacts considered would be guided by the initial scoping phase and the depth of assessment for each issue will vary according to the level of assessment required (ie basic, moderate or comprehensive).

Consideration should also be given to the community's "perceived" impacts of the project, as community perceptions about possible impacts may influence tolerance of change.

5.3. Evaluating impacts

The assessment must attempt to weigh negative impacts upon communities and individuals with the positive impacts of a project for transport users as a whole. In order to achieve this, the impacts of the project should be assessed in the context of existing social change processes. This would include both cumulative impacts resulting from the combined effects of existing and future developments and impacts resulting from external drivers of change (e.g. industry closure, loss of financial and medical services).

Interactions with other projects' impacts, or with external drivers of change, may decrease or intensify the socio-economic benefits and impacts of a project. The assessment should consider other projects and sources of social change that are likely or probable in proceeding, rather than those that are merely possible.

Some examples of cumulative socio-economic impacts of road and maritime transport projects include:

- Extended periods of construction, due to the sequential construction of multiple projects, increasing the duration of impacts on local amenity or disruptions to traffic and pedestrian networks and public transport facilities.
- Incremental loss or severance of open space or important environmental areas due to multiple projects, impacting on community values.
- Construction traffic from multiple projects placing additional pressure on road networks, leading to periods of congestion and frustration for motorists.
- Traffic from the interaction of multiple developments placing additional pressure on road networks, leading to increased congestion.
- Construction traffic from multiple projects resulting in increased traffic noise and impacts on local amenity.
- Construction of projects on adjoining properties, including both transport and non-transport projects, increasing disruption to pedestrian access, including for people with mobility difficulties.
- Consultation and construction "fatigue" for local communities due to the concurrent or sequential planning and construction of multiple projects.

5.4. Indicative socio-economic impacts

Table 12 provides an overview of those matters to be considered in assessing the socio-economic benefits and impacts of road and maritime transport projects, including impacts of a project's footprint, construction and operation.

Table 12 Matters to be considered in assessing socio-economic impacts

Issue	Sub-category	Matters to be considered	Information requirements
Property impacts (note that some of the information gathered here will overlap with that required for the Landuse and property assessment).	Impacts on property	 Number of properties directly affected by the project, including totally or in part Properties affected by changes in access or severance impacts Ownership of properties directly affected by the project (ie private, local government, state government) Types of properties directly affected by the project. For example: Residential Commercial (business or industry) Agriculture Natural resources (ie quarries, mining, State Forests, etc) Community facilities Open space Conservation (ie national parks and reserves) 	 Details of directly affected properties Outcomes of land use and planning investigations GIS information on land use
	Impacts of property acquisition (ie stress, anxiety, loss of social networks and community cohesion)	 Need for residents to relocate as a result of property acquisition for the project Likely characteristics of residents who are required to relocate. If information on specific property owners are not available (ie through consultation) do the demographics of the local community demonstrate that there are likely to be people who may be more vulnerable to impacts of moving, such as: Higher proportions of elderly people or people in need of assistance Higher proportions of people who are unemployed, on low incomes or who 	 Outcomes of property owner consultation Outcomes of community and stakeholder consultation Population and demographic information collected for the existing environment (ie age, population mobility, economic resources, need for assistance, etc) Mapping of socio-economic advantage index

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Issue	Sub-category	Matters to be considered	Information requirements
		demonstrate higher levels of disadvantage and lower levels of economic resources Higher proportions of longer-term residents or owner occupiers Communities that demonstrate high levels of community cohesion Ability for residents to relocate locally (ie availability of alternative housing) Need for businesses to relocate due to the project: Ability to establish locally Number of employees that are likely to be impacted	
	Impact on property amenity	 Impacts of accessibility/ amenity changes may affect property enjoyment. 	 Project information for directly affected properties Changes in local access, including improvements for motorists and public transport users Potential changes in local amenity, including amenity improvements – street scaping/beautification works undertaken for the project
Changes to population and demography		 Possible influx of workers to the study area during construction, including the number and likely demographics of workers Proportion of local workers and workers from outside of the study area Number of residents required to relocate for the project, particularly outside of the area Demographic profile of residents required to relocate for the project Potential for urban renewal opportunities which may change the existing demographics particularly in regards to levels of socio-economic advantage/disadvantage Number of people who may relocate to/ away from the study area from improved connectivity/accessibility with other activity centres. 	 Project information on directly affected properties, including number of residential properties affected Project information on construction workforce requirements Information on study area population.
Economy	Employment and income	 Number of direct jobs created by the project during construction Number of indirect jobs created by the project 	 Project information on construction workforce requirements Project information on directly affected properties,

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Issue	Sub-category	Matters to be considered	Information requirements
		during construction Potential impact on employment in local business and major industries within the study area (eg directly or indirectly, through such things as increased demand for goods and services or impacts on local businesses) Impact on household income through changes in wages and salary.	including number of commercial properties (local businesses) affected Business surveys Outcomes of property owner consultation Outcomes of economic modelling for the project.
	Value add		 Economic modelling (impact tools including inputoutput analysis or computable general equilibrium modelling) Surveys Outcomes of land use and planning studies Capital and operating expenditure estimates Direct employment estimates where possible.
Business and industry	Impact on local business	perty if nd set-up	 Project information on directly affected properties, including number of commercial properties (local businesses) affected Business surveys Outcomes of community and stakeholder
		 Indirect impacts on local businesses due to changes in access, for both customers and service vehicles (ie delivery vehicles) Indirect impacts on local businesses due to such things as changes to visibility, or amenity (ie increased noise or dust) 	consultation Outcomes of consultation with property owners.
		 Benefits for local or regional businesses during construction (ie supply of goods and services to construction, increased spending by workers, etc). 	
	Impact of bypassing businesses	 Extent that the project results in the bypass of commercial centres, towns or villages Impacts on commercial centres, towns or villages would be influenced by: 	 Information on population of towns and villages bypassed Business surveys Outcomes of community and stakeholder
		 The existing economic base, particularly degree of dependence on highway generated trade Distance from a larger centre 	כסומקומוסו:

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Issue	Sub-category	Matters to be considered	Information requirements
		 Opportunities to enhance local businesses with the removal of through traffic from a centre (ie through improvements in local amenity and access to businesses). 	
	Regional industries	 Direct or indirect impacts on regional industries (ie tourism, agriculture and agri-business, commercial fishing, mining and resources, forestry and manufacturing), including through: Property impacts 	 Project information on directly affected properties, including number of commercial properties (local businesses) affected Information on the project design Outcomes of community and stakeholder
		 Changes or disruption to access Potential sterilisation of resources Property severance (eg of larger agricultural 	consultation Outcomes of consultation with industry groups.
		properties)Increased demand for short-term tourist accommodation	
		 Improved service conditions (ie lower transportation costs) and flow on effects to alternative industries 	
Social infrastructure	Direct impacts on community services, facilities, networks	 Impact on any community services or facilities identified in the existing environment investigations due to property acquisition 	 Project information on directly affected properties (ie community services and facilities, social housing)
		 Direct impact on social housing due to property acquisition 	 Information on existing community services and facilities available locally
		 Impact on service levels if community services and facilities are required to relocate due to the project 	 Outcomes of community and stakeholder consultation
		(ie will depend on existing access to alternate services and facilities locally and ability of the facility or service to relocate locally).	 Outcomes of consultation with facility managers.
		 Direct or indirect impacts on the operation of emergency services. 	
	Indirect impacts (ie access and	 Changes in access to local or regional level community services and facilities 	 Project information on design and construction methodology
	amenity)	 Potential for community services or facilities located near to the project to be affected by: 	 Outcomes of other project studies (ie noise, vibration, traffic and transport, visual assessment)
		 Increased noise from construction and operation Changes in air quality, including dust and 	 Outcomes of community and stakeholder consultation
		vehicle emissions	 Outcomes of consultation with facility managers.
		 Changes to property access 	

Issue	Sub-category	Matters to be considered	Information requirements
		Changes to traffic volumes (increase or decrease)Changes to the visual amenity.	
Community values	Local character and identity, community cohesion, community safety, environmental values, sense of place, heritage	 Potential direct impacts on areas or features of importance to local or regional communities identified by the existing environment investigations (eg heritage places, areas of natural or recreational value, public places) Potential impacts on community values identified by the existing environment investigations due to: Changes to local access and local connectivity Changes in the level of community severance (either reducing or increasing) (ie will it create or remove barriers to movement in the community) Disruption in access to public places, including waterways, public foreshore areas, shopping centres, and open spaces. Changes in community safety Changes in noise, air quality or visual environment impacting on local amenity Relocation of residents or reducing the amount of social interaction potentially impacting on community cohesion Changes which may affect community identity (ie green space, change in the nature of land use, heritage, places of importance to local community members, impacting on community cohesion Opposing views about the project amongst community cohesion 	 Information on areas or features of community importance identified in existing environment Information on existing community safety Outcomes of community and stakeholder consultation Outcomes of other project studies (ie noise, vibration, traffic and transport, visual assessment, heritage) Community surveys
Local amenity	Local amenity	 Potential changes in local amenity due to: Changes to local access Changes in noise, air quality or visual environment impacting on local amenity Impacts on features that contribute to local amenity, such as green space, heritage places, natural features (ie waterways, public foreshore 	 Project information on design and construction methodology Outcomes of community and stakeholder consultation Outcomes of other project studies (ie noise, vibration, traffic and transport, visual assessment, heritage).

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Information requirements		 Project information on design and construction methodology, including timing and duration of possible closure of public facilities (ie public transport facilities, boat ramps, etc) Project information on traffic management, including worker parking, changes to local networks, haulage routes and alternate public transport services and facilities Outcomes of other project studies (ie noise, vibration, traffic and transport, visual assessment) Population and demographic information collected for the existing environment (ie age, population mobility, economic resources, need for assistance) Information on existing pedestrian and cycle networks and public transport facilities identified in the existing environment.
Matters to be considered	areas, national parks, etc), areas of vegetation, including native or urban vegetation.	 Temporary or permanent changes to: Traffic volumes on local or regional road networks (ie increase/ decrease in traffic volumes, changes to local routes, etc) Pedestrian and cycle networks, public transport facilities or car parking (ie by closing or relocating the facility) Access for people with disabilities School bus routes Property access Local parking, including on-street parking Access to waterways, including for commercial and recreational users. Impacts on any specific population groups identified in the existing environment investigations that may experience mobility difficulties, such as elderly people, people with disability, children or households that may have limited transport options Construction related traffic, including workers, worker parking, heavy vehicles Delays and disruptions to road and transport users (motorists, pedestrians, cyclists and public transport) during construction.
Sub-category		Walking and cycling networks, public transport facilities, roads, parking, changes to adjacent road conditions (ie clearways, heavy vehicle routes)
Issue		Access and connectivity

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5.5. Evaluating significance

For many people affected by social impacts, many impacts of a project are likely to be considered substantial, but the degree to which they are tolerated differs with factors such as people's skills or resources to cope with change, and the effectiveness of project communication with affected stakeholders.

Evaluating significance helps to identify those impacts which are considered to have a negligible or low impact, and which can be readily managed through communication and agreement with stakeholders, versus those which require mitigation strategies to avoid effects on social conditions.

In evaluating significance, consideration should be given to whether:

- Changes will be negative or positive.
- Quality of life, community identity, safety, health or economic viability will be affected.
- Impacts will be acceptable or tolerated by most people, rather than cause concern or discomfort.
- The area affected is limited to people for whom individual arrangements can be made, or extends to an area which requires more detailed strategies to be implemented.
- Impacts will affect social equity, such as access to housing, employment, services or customers.
- Negative impacts will be temporary or permanent.
- The impacts will compromise wider planning goals or community values.

The significance of an impact will depend on the magnitude of the impact, such as the intensity or duration of the effect and the scope or extent of the effect.

The intensity of an impact would depend on such things as the strength of the impact, proportion of the socio-economic value lost/ enhanced and rate of loss/ benefit. The duration of an impact would consider such things as period of impact and whether the impact is continuous or intermittent. Consideration should also be given to the immediate effects of the impact as well as the effects that may result over time as well as the phase of the project that the impact occurs and to whether impacts are permanent or temporary.

It is possible that something that may be identified as being a "low" level of significance based on its intensity or duration, and scope or extent, may be a significant issue for the community. As such, consideration should also be given to the level of community acceptability or community concern about the impact when determining the level of significance. For example, the loss of agricultural land for a project may be minor within the context of the amount of agricultural land within the region, however this may be a significant

issue for local communities and the level of community acceptability or concern around this issue should be considered in the overall evaluation.

Socio-economic impact assessments must provide comment on the significance of the impacts identified and the capacity and willingness of the community to adapt to the proposed changes to the socio-economic environment.

6. Developing management and mitigation measures

This section provides information to assist in identifying and developing management and mitigation measures to avoid, minimise, manage or mitigate the project's impacts and enhance or maximise the project's benefits identified through the socio-economic impact assessment.

6.1. Objectives

Management and mitigation measures should generally seek to:

- Avoid, where possible, the negative impacts of the project on quality of life or socioeconomic conditions within the study area through changes to the project (footprint, construction or operation) so that the impact is eliminated.
- Minimise the impacts of the project on quality of life or socio-economic conditions within the study area, by modifying the project to reduce the severity of the impact.
- Mitigate the impacts of the project on quality of life or socio-economic conditions within the study area, by implementing measures that alleviate or offset an impact.
- Enhance the quality of life or socio-economic conditions within the study area, implementing measures that ensure the project fits more harmoniously into the community.

Strategies should also be implemented to ensure local communities, including residents, business owners and managers of community facilities are informed about the project's construction and operation and consulted about proposed measures to manage impacts.

6.2. Identifying management and mitigation measures

Management and mitigation measures are important in managing the impacts and benefits of the project's footprint, construction and operation. They should be tailored to the needs of specific projects and should clearly link to the issues identified through the impact assessment.

Management and mitigation measures may relate to the pre-construction, construction and operation phases of a project.

Management and mitigation measures should be developed in consultation with the RMS project manager to ensure they can be implemented. In identifying management and mitigation measures, consideration should be given to:

 Measures and strategies that have been successfully used in other projects to manage similar project impacts and benefits.

- Potential for eliminating the cause of the impact, where possible, rather than managing the outcome. For example, can impacts of traffic noise on local communities be managed through the project design rather than through the use of noise attenuation measures such as noise barriers or double glazing?
- Ensuring that any significant adverse impacts of the project are addressed as a priority.
- Identifying management and mitigation measures through consultation with affected residents, businesses, communities and stakeholders, to ensure that the proposed strategies address the impacts identified.
- Opportunities to enhance the project's long-term socio-economic benefits.

Consideration should also be given to those measures or strategies to be delivered by the project as well as other management or mitigation measures that may be undertaken by other agencies (ie local or state government) with support from RMS.

The implementation of community and stakeholder engagement strategies during a project's construction and operation phases are also important in managing or mitigating a project's impacts on local and regional communities. For example, undertaking early consultation and communication with affected communities about construction activities, including timing and duration of activities and potential impacts and management measures, will allow people to appropriately plan their activities to take account of potential disruptions (ie time of travel, travel route, etc).

6.3. Example management and mitigation measures

Examples of management and mitigation measures used on RMS projects to manage specific socio-economic impacts include the following:

"As far as possible and practicable, source construction materials and other products and services from local suppliers" – Hume Highway Upgrade, Holbrook Bypass.

"The travelling stock route through and around Holbrook would be maintained during operation of the project. This would be further developed during detailed design in consultation with the Hume Livestock Health and Pest Authority and other relevant stakeholders" – Hume Highway Upgrade, Holbook Bypass.

"Develop a signage strategy to provide appropriate signage on the Hume Highway on approach to Holbrook and near to interchanges to identify Holbrook as a stopping destination" – Hume Highway Upgrade, Holbrook Bypass.

"RMS and contractors would work closely with businesses and residents affected by parking restrictions during construction to develop alternative measures to ensure access and trade can continue during construction" – Great Western Highway Upgrade, Kelso.

"Use of temporary road signage would be considered in consultation with business owners where businesses may be impacted due to lack of views from the road during construction" – Great Western Highway Upgrade, Kelso.

"Future Mid-block pedestrian crossings would be monitored within one year of operation between Littlebourne Street and Pat O'Leary Drive. This would be conducted by RMS to Great Western Highway upgrade, to determine whether these have increased, decreased or remained the same compared to existing conditions. Should it be determined that pedestrian safety is compromised due to mid-block crossings then a pedestrian refuge would be considered at this location" – Great Western Highway Upgrade, Kelso.

"Regrade existing access ways. Where not practicable, provide suitable alternative access, the location of which will be determined in consultation with the landowner" – Hume Highway Duplication, Sturt Highway to Tarcutta.

"Negotiations for property acquisition will include consultation on property adjustments where required to maintain farm management practices" – Hume Highway Duplication, Woomargama to Mullengandra.

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7. Reporting

This section provides an overview of key considerations for reporting on socio-economic impacts.

The socio-economic impact assessment should provide a balanced assessment of the project's potential benefits and impacts, considering:

- Differing views of community members and key stakeholders.
- Experience from other transport projects.
- Findings from the existing environment investigations.
- Outcomes of other studies such as traffic and transport, land use and planning, noise, air quality and visual assessment.

The impact assessment should also give appropriate weighting to the discussion of issues, based on the level of impact or likely level of community concern.

The current RMS Editorial Style Guide should be used as a writing reference to encourage clarity in the report and provide consistency in style.

7.1. Report structure

The structure of the socio-economic assessment report should demonstrate a logical process of assessment and clear links between the findings of the baseline investigations, assessment of project impacts and the development of mitigation and management strategies. For example, where an impact is identified, the existing condition impacted should be described in the existing environment section of the report. Further, all management and mitigation strategies identified should mitigate those impacts described in the impact assessment section of the report.

The report structure should clearly distinguish between those impacts resulting from the different project phases (ie planning and development, construction and operation and maintenance).

While the structure would depend on the individual writer or project reporting requirements (ie uniformity with other technical studies), the report should provide:

- Project introduction, including:
 - Report purpose.
 - Assessment methodology.
 - Data sources used to inform the study.
 - Geographical description of the study area.

- Project overview.
- Overview of the social policy framework, relevant to the project and the study area.
- Description of the existing socio-economic environment (refer to Section 4), including:
 - Overview of the local and regional socio-economic context.
 - Discussion of relevant socio-economic characteristics.
 - Summary of key findings relevant to the socio-economic impact assessment.
- Impact assessment (refer Section 5), including:
 - Discussion of the socio-economic impacts relevant to the project's operation.
 - Discussion of the socio-economic impacts of the project's construction.
 - Summary of key findings of the impact assessment.
- Management and mitigation strategies (refer Section 0), including:
 - Overview of project commitments.
 - Monitoring framework.
- Conclusion.

8. References

Australian Bureau of Statistics (2011), Census Dictionary 2011 (Cat No. 2901.0)

Australian Bureau of Statistics (2008), Information Paper: An Introduction to Socio-Economic Indexes for Areas (SEIFA), 2006 (Cat No. 2039.0)

California Department of Transportation (June 30, 2005), Guidance for Preparers of Cumulative Impact Analysis Approach and Guidance (http://www.dot.ca.gov/ser/cumulative_guidance/approach.htm) Last updated: Friday, February 3, 2012

Cavaye, J., Department of State Development, Queensland Government (2003) Integrating Economic and Social Issues in Regional Natural Resource Management Planning: A Framework for Regional Bodies, QLD

Fenton, M. (2005), Guidebook on Social Impact Assessment, prepared for the Comprehensive Coastal Assessment (DoP) by Environment and Behaviour Consultants, Townsville, QLD.

Franks, D, Fidler, C, Brereton, D, Vanclay, F and P, Clark. 2009. Leading Practice Strategies for Addressing the Social Impacts of Resource Developments. Centre for Social Responsibility in Mining, Sustainable Minerals Institute, The University of Queensland. Briefing paper for the Department of Employment, Economic Development and Innovation, Queensland Government. November. Brisbane.

Health Scotland (2007), Health Impact Assessment of Transport Initiatives: A Guide.

Illinois Department of Transportation, Bureau of Design and Environment (2007) "Community Impact Assessment Manual" Springfield, Illinois

Interorganizational Committee on Guidelines and Principles (1994). Guidelines and principles for social impact assessment. US. Dep. Commer., NOAA Tech. Memo. NMFS-F/SPO-16, 29 p.

Johnson, C. (1992). "What is Social Value? A Discussion Paper", Australian Government Publishing Service, Canberra.

LGA (2004). "Community cohesion – an action guide – guidance for local authorities" Local Government Association, Local Government House, London

Mackenzie Valley Environmental Impact Review Board (2007), Socio-Economic Impact Assessment Guidelines

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Main Roads Western Australia (2004), "Environmental Guideline: Environmental Assessment and Approval", Perth

Main Roads Western Australia (2006), Environmental Guideline: Supplementary Guidance on Environmental Impact Assessment

National Cooperative Highway Research Program (2001) "Guidebook for Assessing the Social and Economic Effects of Transportation Projects", National Academy Press, Washington, D,C

New South Wales Social Policy Development Unit, The Cabinet Office (1997) "Guidelines for Assessing Social Impacts", New South Wales Government

NZ Transport Agency (2010) "Minimum Standard Z/19 – Social and Environmental Management"

NZ Transport Agency (2010) "Professional Services Guide (PSG/13) Social and Environmental Management"

Queensland Government Department of Infrastructure and Planning (2010). "Social impact assessment: Guideline to preparing a social impact management plan", QLD

Queensland Government Department of Infrastructure and Planning: Social Impact Assessment Fact sheet

Queensland Health: Young, A., McKiernan, S., Copeland, K. (2005): Guidance for impact assessment: considerations for health and social impact assessment of transport infrastructure proposals (a tool of the Health and Social Impact Assessment of the South East Queensland Regional Plan), Statewide Health Services Planning, Queensland Health, Brisbane.

Queensland Main Roads (2005) "Road Project Environmental Processes Manual"

Stanley, J. Clouston, B. Binney, J, Department of Natural Resources, Mines and Water (2004) "Compiling regional social and economic profiles: a practical guide for regional NRM bodies", QLD

Stanley, J. Clouston, B. Binney, J, Department of Natural Resources, Mines and Water (2004) "Conducting social and economic impact assessment: a practical guide for regional NRM bodies", QLD

Transport SA (2000) "Environmental Approval Procedures: Operational Instruction"

EIA-N05 43

University of NSW (2011), Economic evaluation of town bypasses – review of literature, prepared by Bruno Parolin, Faculty of Built Environment, University of NSW (revised September 2011), for NSW Roads and Traffic Authority

US Department of Transportation, Federal Highway Administration (FHWA) (undated), Community Impact Assessment: A quick reference for transportation, at www.ciatrans.net/CIA_Quick_Reference/CIA_QuickRef.pdf

Vanclay, F., IAIA (2003) "Social Impact Assessment: International Principles", Fargo, USA

Vicroads (2008) "Social Impact Assessment for the Geelong Ring Road Future Links Planning Study – Surf Coast Highway Connection (Section 4C)"

Victorian Government DPCD (2006) Ministerial guidelines for assessment of environmental effects under the environmental effects act 1978, Melbourne

Victorian Government DPCD (2007) "Referral of a project for a decision on the need for assessment under the environment effects act 1978", Melbourne

Appendix A Legislative and policy context

This appendix provides an overview of the legislation and policy relevant to socio-economic impact assessment.

A.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) is the primary legislation governing land use and development in New South Wales. The EP&A Act provides the framework for the assessment of RMS activities.

RMS projects that may require a socio-economic impact assessment are generally assessed and approved or determined under the following parts of the EP&A Act:

- Part 5.1 applies to State significant infrastructure and requires approval from the Minister for Planning and Infrastructure. Environmental impact statements are prepared in accordance with the requirements of the Director-General of the Department of Planning and Infrastructure.
- 2) Part 5 applies to the majority of RMS activities. Usually a review of environmental factors (REF) is prepared to assess the environmental impacts of the proposal prior to a determination being made on whether or not to proceed with the works.
- 3) Part 4 applies to projects that require development consent from a Council or the Minister for Planning and Infrastructure. A statement of environmental effects or environmental impact statement (for designated development) is prepared to assess environmental impacts.

In the EP&A Act, *environment* is defined as including all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings. The objects of the Act support the promotion of the social and economic welfare of the community and providing increased opportunity for public involvement and participation in environmental planning and assessment.

A.2 Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a legal framework to protect and manage matters of national environmental significance. This includes nationally and internationally important flora, fauna, ecological communities and heritage places. The EPBC Act also provides a framework for assessing development relating to Commonwealth land or being undertaken by Commonwealth agencies.

If a project is determined to be a 'controlled action' under the EPBC Act, there will be a need for an environmental assessment to be prepared and this may require a socioeconomic impact assessment.

When deciding if a proposed action should be approved, and what conditions are to be imposed, the Commonwealth Minister for Environment will consider the impacts of the proposed action on matters protected by the EPBC Act as well as other economic and social matters.

A range of other Commonwealth government legislation, policies and strategies may also be relevant to the socio-economic environment, particularly in relation to:

- Social inclusion.
- Education and employment.
- Families and housing, community services and Aboriginal affairs.
- Population and communities.

A.3 Ecologically sustainable development

In NSW, the commitment to the concept of environmental sustainability is expressed in current legislation. It is an object of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act) to encourage ESD (Section 5(vii)). The EP&A Act refers to the NSW Protection of the Environment Administration Act 1991 (PEA Act) for definition of ESD.

Principles and programs aimed at achieving ESD are defined in Section 6(2) of the PEA Act as follows:

Ecologically sustainable development requires the effective integration of economic and environmental considerations in the decision making process. Ecologically sustainable development can be achieved through the implementation of the following programs and principles:

- The precautionary principle if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- Inter-generational equity the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.
- Conservation of biological diversity and ecology integrity that conservation of biological diversity and ecological integrity should be a fundamental consideration.
- Improved valuation, pricing and incentive mechanisms that environmental factors should be included in the valuation of assets and services.

It is also an object of the Commonwealth *Environment Protection and Biodiversity*Conservation Act 1999 (EPBC Act) to "promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources" (Section

3(b)). The four principles outlined in the PEA Act also appear in the EPBC Act. The EPBC Act identifies a fifth principle, the integration principle:

Integration principle – decision making processes should effectively integrate both longterm and short-term economic, environmental, social and equitable considerations.

Case law has developed around ESD in the NSW and Federal court systems. Recent court decisions relating to ESD and learnings for RMS are summarised in the *Environmental Planning and Assessment Practice Note – Addressing Ecologically Sustainable Development* (EIA-N02).

A key consideration in relation to socio-economic impact assessment is how project responds to intergenerational equity concerns such as economic viability, access and maintaining vibrant communities. This includes consideration of such things as:

- Impacts on passing trade or access to local businesses, or agricultural or productive land.
- Transport needs of future urban development and improved access for residents and users.
- Potential impacts on the cohesiveness or viability of communities; availability of residential, commercial, industrial and community lands; improved road safety; and traffic noise impacts.

A.4 RMS guidelines and policies

2012-2016 Corporate Strategy

The RMS Corporate Strategy outlines what RMS will strive to deliver over the next four years. It sets out a clear commitment of what customers, the community and partners can expect from RMS and provides guidance on where the organisation is heading.

The strategy identifies six community results that are relevant when considering socioeconomic impacts. They include:

- Customer the customer is at the heart of everything we do.
- Travel the door-to-door movement of people and goods is efficient and reliable.
- Asset transport infrastructure meets acceptable standards.
- Access the accessibility of transport is aligned to the needs of the community and the economy
- Safety the safety and security of the transport system is maximised.
- Environment the impact of transport on the environment is minimised.

Other RMS policy

Several other RMS policies and guidelines have been developed to establish frameworks for consulting with the community and for considering and managing impacts on the built and social environment. Relevant RMS policies and guidelines include, but are not limited to:

- Community engagement policy statement 2012.
- Community engagement and communication manual 2012.
- Beyond the pavement: RTA urban design policy, procedures and design principles, July 2009.
- Contributing to liveable communities: roads as links and places guidelines for investigating the liveability effects of road and traffic management projects in town centres, August 2012.
- Environmental Planning and Assessment Practice Note Addressing Ecologically Sustainable Development (EIA-N02).
- Land acquisition information guide, February 2012.

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Appendix B Project scoping checklist

			Scale of impact	impact			
enss	Consideration	ylno slaubivibnl	Groups of residents/ special interest groups/ secures	Sections of the community/ economy	Towns/ suburbs/ town centres	Is the impact manageable using standard mitigation measures? If yes, how?	Comment
Property impacts	Are property acquisitions likely?						
	Is there a potential for displacement of residents or businesses due to property acquisition?						
	Will there be impacts on vulnerable groups (ie elderly, people in need of assistance, communities that demonstrate higher levels of disadvantage)?						
	Will the project impact upon any property improvements?						
	Does the project result in fragmentation of rural properties?						
Changes to population and	Will residents need to relocate as a result of property acquisition?						
demography	Will the project's construction result in a large influx of workers to the study area?						
Economy	Will the project impact on local employment?						
	Will the local population benefit from improvements in income as a result of the project?						
Business and	Does the project impact (either directly						

		Scale	Scale of impact			
Issue	Consideration	Individuals only Groups of residents/ special inferest groups/	interest groups/ Sections of the community/ economy	Towns/ suburbs/ town centres	Is the impact manageable using standard mitigation measures? If yes, how?	Comment
industry	or indirectly) on businesses/ commercial enterprises, including agricultural businesses?					
	Are impacts on businesses likely to have flow on effects for employees?					
	Is the project likely to have direct or indirect effects on the regional economy?					
	Will the project result in changes in access to or bypass of businesses?					
	Does the project impact on the composition of regional industries (ie tourism, agriculture, mining and resources, manufacturing)?					
Social Infrastructure	Will the project impact (directly or indirectly) any community services or facilities such as hospitals, schools, recreational facilities, aged care, etc?					
Community values, including community health	Does the project impact on any places of Aboriginal or non-Aboriginal heritage?					
and safety, and community cohesion/ severance	Does the project impact on any places likely to be of importance to the local community (ie environmental areas, local monuments, etc)?					
	Do sections of the community have a strong attachment to place (e.g. large number of generations of a family have					

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			Scale of impact	mpact			
Issue	Consideration	vino slaubivibn	Groups of esidents/ special nterest groups/	ections of the	Towns/ suburbs/ cown centres	Is the impact manageable using standard mitigation measures? If yes, how?	Comment
	lived in the same area)?						
	Is there a potential for impacts (real or perceived) on community health or safety due to emissions to air or water, noise or chemical hazards?						
	During construction, is there a potential for impacts (real or perceived) on community health or safety due to emissions to air or water, noise or chemical hazards?						
	Is there the potential for severance of communities or towns?						
	Will the project change the way people use and access community facilities?						
	Will the project change the unique character of the place or community in which it is located?						
Local amenity	Will the project change the amenity for residents, businesses, or community facilities? (ie through changes in air quality, visual and landscape impacts, noise and vibration)						
	During construction, will the project change the amenity of residents, businesses or community facilities? (ie through changes in air quality, visual and landscape impacts, noise and vibration)						

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	Comment														
	Is the impact manageable using standard mitigation measures? If yes, how?														
	Towns/ suburbs/ town centres														
Scale of impact	Sections of the community/														
Scale of	Groups of residents/ special interest groups/														
	vino slaubivibni														
	Consideration	Will the project change:	 travel patterns (eg introduce turning restrictions, traffic signals, road closures, new connections, etc) 	 cyclist facilities or access 	pedestrian access (ie access to public transport, and to/ within commercial precincts, town centres, recreational locations, shops)	 public transport services or facilities 	■ parking	property access	 access for people with special needs (ie people with mobility difficulties, elderly, children, etc) 	During construction, will the project:	 generate large volumes of traffic 	change pedestrian, cyclist or property access	alter public transport services or facilities	alter travel patterns	 impact on traffic flow
	Issue	Access and	connectivity												

Appendix C Level of assessment scenarios

This appendix provides scenarios to demonstrate how the Project scoping checklist can be used to determine the level of socio-economic impact assessment required for a proposal.

C.1 Basic assessment

Description of the proposal

The proposal involves the upgrade of a wharf used by a volunteer marine rescue service. The existing wharf prevents stretcher access for emergency services and limits the size of the vessel used in rescue operations. A 4m section of the existing timber wharf would be removed. New piles would be installed to accommodate a wider aluminium gangway and floating pontoon. The assembled pontoon would travel to, and be stored at, the site on a barge. The wharf and rescue base would be closed to all but emergency activities. A crane required for installation of the gangway would operate from the driveway and public carpark area at the front of the rescue base. The works would take approximately three weeks.



Level of socio-economic impact assessment

See below attachment for potential impacts identified in the project scoping checklist.

The proposal would require a basic level socio-economic impact assessment because:

- There are few impacts. Construction related impacts to amenity would be localised and the temporary closure of the wharf would inconvenience a limited number of people.
- Impacts to amenity can be managed by community consultation and information.

		Increa	Increasing scale of impact	f impact			
lssue	Consideration	Individuals only Groups of	residents/ special inferest groups/ herringens of the Sections of the	economy economy	Towns/ suburbs/	Is the impact able to be managed with consultation or information? If yes, how?	Comment
Community values, including community health and safety, and community cohesion/ severance	During construction, is there a potential for impacts (real or perceived) on community health or safety due to emissions to air or water, noise or chemical hazards?		`		7 2 3 2	Yes. Mitigation for noise, water quality etc., inform residents of works program and environmental protection measures.	
Local amenity	During construction, will the project change the amenity of residents, businesses or community facilities? (ie through changes in air quality, visual and landscape impacts, noise and vibration)		`		7 0 12 12 12	Yes. Mitigation for noise, air quality, visual impacts etc., inform residents of works program and environmental protection measures.	Existing wooden shelter would be retained but new structure would be added. Investigate community acceptability.

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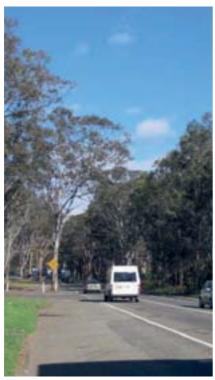
		Increasing scale of impact	cale of impa	ict ict		
Issue	Consideration	Individuals only Groups of residents/ special interest groups/	berlingeres Sections of the economy	Towns/ suburbs/ town centres	Is the impact able to be managed with consultation or information? If yes, how?	Comment
Access and	During construction, will the project:					
connectivity	alter travel patterns	>			Yes. Signage and awareness for car park users.	Relates to use of public car park when crane is in operation.

C.2 Moderate assessment

Description of proposal

The proposal occurs over 5km of an arterial road with traffic congestion that causes delays during peak hour in both travel directions. The road is located in an area earmarked for future growth. It is proposed to widen the two lane road with unrestricted intersections to a four lane road with a closed median and traffic signals at intersections.

The proposal passes through rural-residential settlement. A nursery, pet shop and small commercial centre also occur within this area. The proposal would result in strip acquisition and the loss of approximately 15 parking spaces.





Level of socio-economic impact assessment

See below project scoping checklist for potential impacts identified. The proposal would require a moderate level socio-economic impact assessment because:

- The introduction of a median changes access to commercial and residential properties with potential to impact on businesses, their employees and clientele.
- The alignment encroaches on parking at the commercial centre.
- The introduction of a median will close right-turn access for a number of side streets, changing travel patterns for residents and bus routes.
- The changes to access, parking and travel patterns cannot be solved by standard mitigation measures and requires development of mitigation measures specific to the project.

		Incre	asing sca	Increasing scale of impact	ict		
Issue	Consideration	Vino slaubivibni	Groups of residents/ special interest groups/ servingeses	Sections of the community/ economy	Towns/ suburbs/ town centres	Is the impact able to be managed with consultation and information? If yes, how?	Comment
Property impacts	Are property impacts likely?	>				No	Strip acquisition required for private and commercial properties.
Business and industry	Does the project impact (either directly or indirectly) on businesses/commercial enterprises, including agricultural businesses?		>			No	Access and parking will change for 10 businesses located within the commercial centre and operating from rural properties.
	Are impacts on businesses likely to have flow on effects for employees?	>				No	Potentially, see above.
	Will the project result in changes in access to or bypass of businesses?		>			No	Yes, vehicle access will change with the loss of parking, and closure or right turns potentially affecting loading activities and customers.

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		lnc	Increasing scale of impact	ale of impa	<u>5</u>		
ssue	Consideration	yino slaubivibr	ioups of seidents/ special nterest groups/	ections of the ommunity/ conomy	owns/ suburbs/	Is the impact able to be managed with consultation and information? If yes, how?	Comment
Access and	Will the project change:	ı	JI.	o S			
connectivity	 travel patterns (eg introduce turning restrictions, traffic signals, road closures, new connections etc) 			>		ON	The closure of right turn access will alter travel patterns for residents and bus commuters.
	 cyclist facilities or access 					N/A	A shared pedestrian-cycle path runs along the proposal.
	pedestrian access					N/A	A shared pedestrian-cycle path runs along the proposal.
	 public transport services or facilities 			>		OZ	Bus routes and stops will have to be relocated to accommodate the changed access to side streets.
	parking		>			ON.	15 parking spaces will be lost from the commercial centre.
	property access	>				ON	Access for properties with direct frontage will change with median closure.
	During construction, will the project:						
	change pedestrian, cyclist or property access		>				
	property access		>				
	alter travel patterns		>				
	 impact on traffic flow 		>				

C.3 Comprehensive assessment

Description of proposal

The proposal involves an upgrade to 12 kilometres of a State Highway to a four-lane road. The proposal passes primarily through rural and semi-rural landscapes, two townships would be bypassed. Five grade separated interchanges and four new bridges would be built. A major cutting (approx. 26 metres deep) would be built to accommodate six lanes across the ascent/descent of a ridge.

There would be modifications to nine local roads, including two road closures. Access to 47 properties would be modified, with direct property accesses to be limited to left-in, left-out access. There would be partial acquisition of 23 properties, including three agricultural properties which would be severed by the proposal. The new path of the freeway would run between the main centre of one rural town and residential development to the north-east.

A public open space area used for sporting and other community events would be subsumed by the alignment.



Project scoping checklist

See below project scoping checklist for potential impacts identified. The proposal would require a comprehensive level socio-economic impact assessment because:

- There are many potential impacts around property, access, business, amenity and community values which are likely to impact on many people and cause broad community concern.
- Several impacts are of a permanent and major nature, requiring project specific mitigation strategies to reduce impacts, including relocation of a public open space. Residual impacts may remain after mitigation strategies are applied.

		Incr	Increasing scale of impact	ale of impa	act		
ense.	Consideration	ylno slsubivibn	Groups of special streets appropries of special streets groups/	sections of the community/ ymonose	own centres own centres	Is the impact able to be managed with consultation and information? If yes, how?	Comment
Property impacts	Are property acquisitions likely?		>	D		ON	Partial acquisitions only, including three properties severed.
	Will there be impacts on vulnerable groups (ie elderly, people in need of assistance, communities that demonstrate higher levels of disadvantage)?		>			OZ	Potential for severance of north-eastern sector of township. Investigate social advantage and demography aspects.
	Will the project impact upon any property improvements?	>				OZ	Potential for loss, particularly in cases of severance. Itemise improvements within acquisition areas.
	Does the project result in fragmentation of rural properties?	>				No	Three properties severed.
Changes to population and demography	Will the project's construction result in a large influx of workers to the study area?					N/A	Large influx not anticipated but may be some increase.
Economy	Will the project impact on local employment?	>				N/A	Potential for temporary increase in opportunities with construction related spending.
	Will the local population benefit from improvements in income as a result of the project?	>				N/A	Potential for temporary increases in income with construction related spending.
Business and industry	Does the project impact (either directly or indirectly) on businesses/commercial enterprises, including agricultural businesses?				>	No	Bypass of Foxground and Berry, severance of agricultural properties. Assess reliance on passing
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		Incr	Increasing scale of impact	ale of imp	act		
Issue	Consideration	ylno slsubivibnl	Groups of residents/ special interest groups/ seconingesec	Sections of the community/ economy	Towns/ suburbs/ town centres	Is the impact able to be managed with consultation and information? If yes, how?	Comment
							trade.
	Are impacts on businesses likely to have flow on effects for employees?			>		No	Potentially, related to town bypass. See above.
	Will the project result in changes in access to or bypass of businesses?				>	No	See above.
Social infrastructure	Will the project impact (directly or indirectly) any community services or facilities such as hospitals, schools, recreational facilities, aged care, etc?		>			No	Impacts upon David Park.
Community values, including community health and safety, and	Does the project impact on any places likely to be of importance to the local community (ie environmental areas, local parks, local monuments, etc)?		>			No	Impacts upon David Park.
community cohesion/ severance	Do sections of the community have a strong attachment to place (e.g. large number of generations of a family have lived in the same area)?				>	No	Berry strong community, sense of place, tourism and arts centre.
	During construction, is there a potential for impacts (real or perceived) on community health or safety due to emissions to air or water, noise or chemical hazards?		>			No	Residents living adjacent to new route.
	Is there the potential for severance of communities or towns?				>	No	Residential expansion to north east of the town would be severed by the road.
	Will the project change the way people use and access community facilities?				>	No	

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		Incr	easing sc	Increasing scale of impact	act		
enss	Consideration	vino sisubivibni	Groups of residents/ special interest groups/ special passociused	Sections of the community/ economy	Towns/ suburbs/	Is the impact able to be managed with consultation and information? If yes, how?	Comment
	Will the project change the unique character of the place or community in which it is located?				>	No	Potentially.
Local amenity	Will the project change the amenity for residents, businesses, or community facilities? (ie through changes in air quality, visual and landscape impacts, noise and vibration)				>	No	Change for some groups of residents from current rural aspect.
	During construction, will the project change the amenity of residents, businesses or community facilities? (ie through changes in air quality, visual and landscape impacts, noise and vibration)				>	Yes	

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		Incre	asing sca	Increasing scale of impact	act		
lssue	Consideration	Vino sisubivibni	Groups of residents/ special interest groups/ perimossos	Sections of the community/ economy	Towns/ suburbs/ town centres	Is the impact able to be managed with consultation and information? If yes, how?	Comment
Access and	Will the project change:						
connectivity	 travel patterns (eg introduce turning restrictions, traffic signals, road closures, new connections, etc) 			>			Two road closures, modifications to several local roads.
	 pedestrian access (ie access to public transport, and to/ within commercial precincts, town centres, recreational locations, shops) 			>			Particular reference to residents of north-east sector
	public transport services or facilities			>			
	property access		>				
	During construction, will the project:						
	 generate large volumes of traffic 		>				
	 change pedestrian, cyclist or property access 			>			
	alter public transport services or facilities			>			
	 alter travel patterns 			>			
	 impact on traffic flow 			>			

Appendix D Community involvement

D.1 Role of consultation in socio-economic impact assessment

Community and stakeholder consultation is an important part of socio-economic impact assessment, helping to identify:

- Community issues or concerns relating to a project, informing the project scoping and assessment stages.
- Community values, including places or features of importance to local or regional communities, including the strength of feeling about particular places or features.
- Community facilities, services or networks of importance to local communities and how these operate or function.
- Potential benefits or impacts of a project's design, construction or operation on local or regional communities.
- Measures or strategies to avoid, manage or mitigate a project's negative impacts or maximise or enhance a project's positive impacts.

The amount and type of consultation and communication undertaken varies for each project, depending on the specific issues and community interest or project complexity and potential level of impact.

RMS community involvement and socio-economic impact assessment processes are often complementary. Community consultation undertaken prior to environmental impact assessment can assist with the scoping phase for socio-economic impact assessment. Conversely, scoping of likely socio-economic issues early in project development can inform the community involvement plan for the project. When community consultation and socio-economic impact assessment processes align, better project outcomes are likely to be achieved, as demonstrated in the case study in below.

D.2 Level of community and stakeholder consultation

The scoping phase for the socio-economic impact assessment also helps to determine the level of community and stakeholder consultation to be undertaken specifically for the socio-economic impact assessment. This would depend on such things as the scope of likely project impacts, existing understanding of community issues and level of assessment being undertaken.

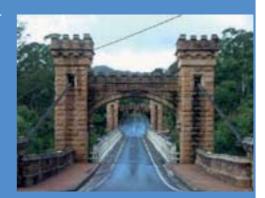
For some projects, consultation undertaken specifically for the socio-economic impact assessment may be limited to key stakeholders such as affected property or business owners or local government officers with a focus on community development, economic development, tourism or strategic planning. For these projects, information on community issues or community values would be informed by such things as the outcomes of wider

project consultation, consultation previously undertaken for the project or undertaken for similar projects elsewhere, or other projects in the study area.

For other projects, a comprehensive consultation process should be undertaken for the socio-economic impact assessment, which could involve targeted consultation with a broad range of community and business organisations, government stakeholders or local property and business owners. For some projects, this may also include a community or business survey to identify baseline information on such things as community values, including relative weighting of values, existing travel patterns or travel behaviours and local business activity.

D.3 Best practice case study – Hampden Bridge – involving the community in decision making

Hampden Bridge is a steel suspension bridge with a timber deck built in 1898. The iconic bridge is located on Moss Vale Road and is a major focal point of the town of Kangaroo Valley. The bridge has historic, technical, aesthetic, social and functional significance. To maintain these values into the future, major rehabilitation work was required, including:



- Replacing the entire timber deck of the bridge.
- Reinforcing the abutments on both sides of the bridge.
- Refurbishing the four bridge bearings.

Closures of the bridge to all traffic were inevitable. Major impacts on the way the community accessed and used local facilities and services were also expected. These socio-economic impacts were identified early and influenced the decision to develop the program of works in consultation with the community.

The community involvement program commenced with a phone survey of 80 businesses and stakeholders. Further community input was sought through targeted briefings to key stakeholders including community groups, business owners and emergency service providers, followed by community forums. A working party was then established to ensure ongoing community input into the development of the maintenance works. Community engagement was further supported by various community updates and information releases.

The community involvement program developed for Hampden Bridge effectively allowed the community to define their own socio-economic impacts and take part in formulating solutions. Positive outcomes for the community included the development of a program of work specifically tailored to reduce a range of potential impacts and a shuttle bus service for closure periods. The significant improvement of RMS's public profile in this area is a testament to the success of this approach.

Appendix E Model brief

Below are samples of sections for inclusion in the scope of works section of the contractor brief for both early investigations and environmental impact assessment stage.

E.1 Overview of Socio-Economic Effects (use for preliminary environmental investigations)

(a) Objective:

To identify the social-economic effects expected of the Boundary St Upgrade Roseville.

(b) Key Issues/Activities:

- (i) review social-economics effects from the preferred Concept Design.
- (ii) describe the existing socio-economic environment in accordance with a [low, moderate, comprehensive] level of assessment as described in the Environmental Impact Assessment Practice Note Socio-economic impact assessment (EIA-N05).
- (iii) carry out consultation with individuals, groups, community representatives and officials as identified in the community consultation plan and identify major issues of concern.
- (iv) consider comments received from various affected government instrumentalities, including local Councils, and the requirements of Department of Planning and Infrastructure.
- (v) identify likely impacts specific from the preferred Concept Design.
- (vi) identify opportunities to avoid impacts from the preferred Concept Design.
- (vii) examination of all Corridor/Route Options in relation to the expected impacts.
- (viii) prepare a general statement on the types of impacts that can be expected and the practicality of their measurement, which may include health, psychological stress, intrusion, community severance, impacts on industry, commerce, tourism or recreation.
- (ix) present findings on community perspectives drawn from consultation activities.
- (x) identify any additional work that would be required at environmental impact assessment stage to further evaluate socio-economic impacts.

(c) Outputs:

Socio-economic effects report on the preferred Concept Design.

E.2 Socio-economic impact assessment (use for reviews of environmental factors or environmental impact statements)

(a) Objective:

Identify the socio-economic impacts of the project and describe the strategies and measures to mitigate these impacts.

(b) Key Issues/Activities:

- (i) review overview of socio-economics effects from the preferred Concept Design.
- (ii) describe the existing socio-economic environment in accordance with a [low, moderate, comprehensive] level of assessment as described in the Environmental Impact Assessment Practice Note Socio-economic impact assessment (EIA-N05).
- (i) describe the local and regional community structure and patterns
- (ii) describe the local and regional industry and commercial activities
- (iii) carry out consultation with individuals, groups, community representatives, community officials and government agencies as identified in the community consultation plan and identify major issues of concern.
- (iv) identify and assess potential significance of the impacts of the Project on individuals and the community in accordance with a [low, moderate, comprehensive] level of assessment as described in the *Environmental Impact Assessment Practice Note Socio-economic impact assessment* (EIA-N05).
- (v) assess the impact of the project in the context of other concurrent and foreseeable projects, including external drivers of social change such as changes to land use and industry.
- (vi) perform an economic evaluation, including:
 - Road User Cost Benefit analysis
 - other quantified economic impacts (including business impacts and, where possible, quantified environmental costs/benefits)
 - non quantified environmental costs/benefits
 - relate the two (2) previous dot points to any specific economic evaluation and, as appropriate, to multi criteria analysis and community involvement program in identifying the community's view of the economic valuation of environmental impacts
- (vii) cross reference results of Road User BCR evaluations and results of community consultation; and
- (viii) identification of mitigation measures and their feasibility for managing the impacts of the project.

(c) Outputs:

Socio-Economic Impact Assessment report on the preferred Concept Design as part of the [Concept Design Report/Review of Environmental Factors/Environmental Impact Statement].

Appendix F ABS defined geographic areas

The ABS collects and publishes data from the Census of Population and Housing and other information for various geographic areas, based on two broad categories:

- ABS structures those regions which are defined and maintained by the ABS.
- Non-ABS structures those regions defined and maintained by other organisations, but for which the ABS supplies data.

The following provides a list of the geographic locations under each category.

ABS Structures

- Mesh Blocks.
- Statistical Area Level 1 (SA1).
- Statistical Area Level 2 (SA2).
- Statistical Area Level 3 (SA3).
- Statistical Area Level 4 (SA4).
- Greater Capital City Statistical Areas.
- State/Territory.
- Australia.
- Indigenous Locations.
- Indigenous Areas.
- Indigenous Regions.

Non-ABS Structures

- Postal Areas (POA).
- State Suburbs (SSC).
- Statistical Local Areas (SLA).
- Local Government Areas (LGA).
- Commonwealth Electoral Divisions (CED).
- State Electoral Divisions (SED).
- Australian Drainage Divisions (ADD).
- Natural Resource Management Regions (NRMR).

Appendix G Highway bypasses review

Socio-economic impact of highway bypasses

A review of highway bypass literature was undertaken on behalf of the RMS by the University of NSW (2011) to understand those factors that influence the longer-term socio-economic impacts of highway bypasses.

The review examined three key areas of highway bypass impacts – economic impacts, social impacts and community response and mitigation measures. The literature review found that:

- In the longer-term, highway bypasses generally do not have adverse economic impacts on bypassed towns. Economic impacts that do occur tend to be minimal and of a relatively shortterm duration, and in many cases the bypasses have resulted in longer-term economic development benefits for the bypassed towns.
- There are three main indicators of post-bypass economic change, being:
 - **Population size** smaller towns are generally more likely to experience economic impacts from a highway bypass than medium and larger towns. However, they continue to survive.
 - **Economic base**, particularly the degree of dependence on highway generated trade those towns with a higher level of dependence on highway generated trade may experience greater difficulty in managing post-bypass recovery than towns with a low level of dependence on highway generated trade.
 - **Distance from a larger economic centre** in some studies being close to a larger centre was seen as detrimental to post-bypass recovery as motorists could use the bypass to quickly access the larger centre for highway related services. In other studies it was remoteness from a larger centre that was a hindrance to economic growth in the post bypass environment.
- Longer-term traffic levels in medium or larger bypassed towns may approach those of prebypass levels, due to increased economic activity from local and regional clientele and from stopping traffic.
- Factors such as the state of the national and regional economy, rural population decline, restructuring of industry and services and the number and scale of chain retail stores may have more of an impact on the economy of a town than the introduction of a highway bypass.
- In the US context, a highway bypass was found to bring about positive land use and land value changes for the bypassed community and for businesses on the main street, with new land use activity generated along the bypass route.
- The social impacts on a bypassed community are generally positive; there is a perception on the part of residents and businesses in bypassed communities that the bypass is very important to the quality of life in their communities and to the environmental amenity of their communities.
- Active leadership and pro-active planning on the part of the local community and Government and road authorities are important aspects of managing change in a post-bypass environment.

The literature review indicated that in the longer term, there is generally "life after the bypass" and that other impacts may influence the economic prosperity of a community more so than a highway bypass. For smaller communities, the literature review highlighted the importance of pre- and post-bypass pro-active planning to mitigate any potential adverse losses and manage post-bypass change. Irrespective of the population size of a bypassed community or its distance from a larger centre, a highway bypass triggers change in the highway related sector of a town economy so that the retail landscape may be quite different in the longer-term. It is important for businesses and the community to capitalise on these changes (University of NSW, 2011).

Appendix H Common terms

Community

A community refers to a group of people who share an attachment with one another and ascribe to a common membership and shared rights and responsibilities. A community can be linked geographically, culturally, ethnically, racially, or through some other identifier (Mackenzie Valley Environmental Impact Review Board, 2007).

Community cohesion

Community or social cohesion can be understood as "the bonds and relationships people have with their family, friends and the wider community. Day to day interactions between people in a community build trust and reciprocity and contribute to cohesion" (ABS, 2010).

Community severance

Community severance refers to reduced access to local amenities and disruption of local social networks caused by a physical barrier running through a community (ie a road or other transport route). Community severance may also be caused by significant increases in traffic flow on a road that was not originally regarded as a barrier (Health Scotland, 2007).

Community values

Community values are those elements held as being important to quality of life and wellbeing. They include tangible (physical) elements such as parks, buildings, and landscape, and intangible (social) elements such as sense of belonging and community diversity. Social infrastructure such as churches, schools, public places and community centres is also highly valued in local communities, as are demographic characteristics and local features.

Economic impact assessment

Economic impact assessment examines how a proposed development might impact how people make a living, their material well-being and the economic structures of local or regional communities (Mackenzie Valley Environmental Impact Review Board, 2007).

Micro-economic appraisal techniques such as Cost-Benefit Analysis is generally undertaken during the planning phases of a project to inform a public sector investment decision. Cost benefit analysis compares the costs of the project against its benefits to various beneficiaries including users and non-users. If overall benefits are demonstrated to exceed the expected costs, the project is considered economically viable. RMS and the NSW Government have well established methodologies for economic appraisals, based on nationally recognised guidelines.

Macro-economic appraisal tools such as computable general equilibrium and input-output modelling can be utilised when an investment decision has been made to determine the effect of a project on economic activity in a region. The assessment of economic impacts involves both quantitative and qualitative analysis to determine changes to such things as business and industry, employment and income, and economic output.

Environment

Environment is defined as including all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social grouping (*Environmental Planning and Assessment Act 1979*).

Social impact assessment

Social impact assessment includes the "processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment" (International Association of Impact Assessment, 2003).

Social infrastructure

Social infrastructure refers to the "community facilities, services and networks which help individuals, families, groups and communities meet their social needs, maximise their potential for development, and enhance community wellbeing. They include:

- Universal facilities and services such as education, training, health, open space, recreation and sport, safety and emergency services, religious, arts and cultural facilities, and community meeting places.
- Lifecycle-targeted facilities and services, such as those for children, young people and older people.
- Targeted facilities and services for groups with special needs, such as families, people with a
 disability and Indigenous and culturally diverse people" (SEQ Regional Plan, Implementation
 Guideline Number 5 Social Infrastructure Planning, June 2007).

About this document

Reference number	EIA-N05
Title	EIA practice note: Socio-economic assessment
Parent procedure	RMS EIA guidelines

Approval and a	uthorisation	Name
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Location	File name
G:\ENVIRNMNT\Planning and Assessment\	EIA_N05

Document status	Date
Draft	17/04/13

Version	Date	Revision Description		
Draft		Draft for internal consultation		

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Document Status

Revision	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
1	E.Davidson L. Harding C. Lau	P Mandke	Person	Simon Page	2-8	21/06/2017

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