



NEW HOPE
GROUP

16. Social Environment



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16. Social Environment

16.1. Introduction

This Chapter provides an assessment of the social benefits and impacts of the revised Project, including potential changes resulting from the construction, operation and decommissioning phases. Mitigation measures are also identified to maximise benefits and minimise impacts on local and regional communities.

16.2. Method of Assessment

Social Impact Assessment (SIA) involves analysing, monitoring and managing the social consequences of development (IAIA, 2003). Key steps in the assessment include:

- scoping the likely range of potential social impacts of the revised Project's construction, operation and decommissioning for local and regional affected communities;
- describing the existing social environment, including:
 - key population and demographic characteristics of local and regional communities;
 - social infrastructure, such as housing, education, health services and recreation; and
 - local community values, including those relating to such things as amenity, community cohesion and community safety.
- assessment of the potential social impacts of the construction, operation and decommissioning phases of the revised Project including effects on property owners, local and regional residents, social infrastructure, community values and the revised Project workforce; and
- identification of mitigation strategies to maximise community benefits and avoid, manage or minimise adverse social impacts.

The description of the social environment has drawn on data and information from:

- Australian Bureau of Statistics (ABS) Census of Population and Housing 2011 and other relevant ABS data;
- data from other Queensland Government and non-government organisations, including the Queensland Government Statistician on demography, Department of Education, Employment and Workplace Relations (DEEWR) on employment and the Queensland Rental Tenancies Authority on rental trends;
- TRC website;
- information sourced from interviews with key stakeholders as outlined in Section 16.4; and
- broader community consultation undertaken for the EIS and the revised Project generally.

16.3. SIA Study Area

In order to comprehensively identify the existing demographic profile and social characteristics of the revised Project's surrounding areas and the potential extent of impacts and opportunities, this SIA has assessed a local study area and region. However, the assessment also considers nearby communities of interest.

The local study area for the SIA comprises the ABS defined Postal Areas of 4401 and 4403 (the SIA study area) as depicted in **Figure 16-1**. The SIA study area considers the revised Project's social and cultural area of influence and the location of potentially affected social infrastructure and includes those communities that are expected to experience changes as a result of the revised Project's construction, operation and/or decommissioning. The SIA study includes local communities located closest to the Mine that may experience changes associated with the revised Project, namely:

- Oakey;
- Acland;
- Jondaryan;
- Muldu; and
- Quinalow.

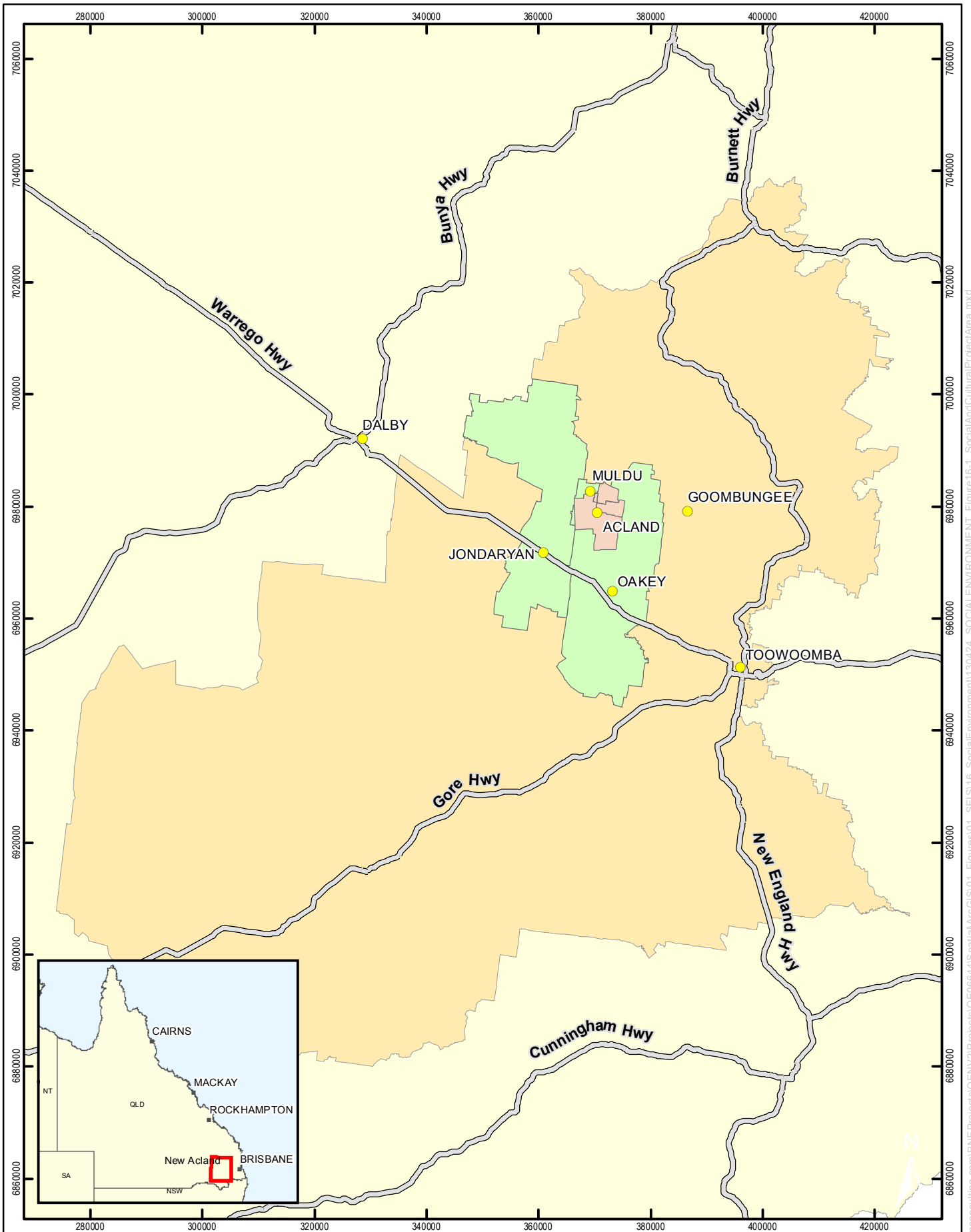
The assessment has also considered communities located further from the Mine that are likely to experience indirect impacts or beneficial outcomes such as employment and training, namely:

- Maclagan;
- Goombungee; and
- Kulpi.

The demographic profiling for these communities is included in the TRC statistics. In addition, potential impacts and opportunities affecting these communities are considered as appropriate. The revised Project is located in the TRC area, which is located in the Darling Downs region of Southern Queensland. The TRC area is located approximately 130 km west of Brisbane and comprises the former shires of Millmerran, Pittsworth, Cambooya, Clifton, Rosalie and Crows Nest and the City of Toowoomba. The assessment also considers impacts on the wider TRC area.

The SIA study area is located in the Clarence-Moreton Basin. The Basin covers an area of approximately 16,000 km², extending from the far north east of New South Wales to the south east corner of Queensland. For reporting purposes, the Federal and State Governments typically include the Clarence-Moreton Basin with data for the Surat Basin, an area of approximately 110,000 km, and including the LGAs of Toowoomba, Western Downs and Maranoa Regional Councils (DSDIP 2013). As such, many of the State's policies, frameworks, strategies and data relevant to the Surat Basin include the areas within the Clarence-Moreton Basin such as the Toowoomba LGA.

The Clarence-Moreton Basin comprises a range of land-use types and industries, including agriculture, defence, manufacturing and industrial development, and some resource activity.



LEGEND

- Towns and Localities
- Social Impact Assessment Study Area
- New Acland Coal Mine Stage 3 Project
- Toowoomba Regional Council Area



**NEW ACLAND COAL MINE
STAGE 3 PROJECT**

**Figure 16-1 - Social Impact Assessment
Study Area**

Scale 1:900,000 on A4
Projection: Australian Geodetic Datum - Zone 56 (AGD84)

16.4. Consultation

Overview

NAC is committed to engaging with communities and stakeholders in those areas affected by its operations, including local communities, industry organisations, local council and State Government departments. The revised Project is, itself, the result of NAC listening to the feedback received during earlier consultation and developing a revised Project compromising on key areas of concern with the original proposal.

In May 2012, NAC established the New Hope Community Information Centre at Oakey. The Information Centre provides the local community with access to up-to-date information about Mine activities and is a key resource for community members about the Mine and revised Project. The centre is staffed by a Community Liaison Officer, who provides a key interface between NAC and the local community.

A Community Reference Group (CRG) was established in October 2012 to provide on-going communication with community stakeholders. The CRG comprises representatives from a broad cross section of local and regional stakeholder groups, including economic development organisations, local government, education and health providers, the agricultural industry and local landholders.

Consultation with the local Traditional Owners is on-going and is being undertaken in accordance with the Cultural Heritage Management Plans and Co-operation Agreements in place. On-going consultation and communication is also undertaken through a variety of stakeholder engagement mechanisms including individual meetings, informal discussions at the New Hope Community Information Centre, letters, phone calls, CRG meetings, community information sessions, community newsletters, media releases, and participation in community events. Recent feedback from local communities about NAC's approach to community and stakeholder engagement has generally been positive and reflects NAC's commitment to work closely with local communities to understand and address concerns about the Mine's current and future operations.

Consultation activities were undertaken before and during the development of the revised Project. Further consultation has generally related to the announcement of the revised Project, the notification of the draft ToR and the EIS process and investigations. The main issues raised in consultation on the revised Project to date relate to:

- engagement activities;
- the EIS approvals process;
- employment and business opportunities; and
- sponsorship, donations, and community partnerships.

Consultation feedback on the revised Project indicates that many stakeholders consider the revised Project provides opportunities for communities in Oakey and surrounding areas in relation to employment, training, sponsorship, community investment and business. NAC is addressing

opportunities provided by the revised Project through consideration of local employment and business opportunities, and opportunities through the New Acland Community Investment Fund.

Chapter 19 provides further information about the community engagement activities conducted to date and proposed activities moving forward for the revised Project.

SIA targeted consultation

This SIA has been informed by the outcomes of community and stakeholder consultation undertaken by NAC for the revised Project, as well as targeted consultation undertaken for the SIA with state government, local government, service providers and community stakeholders. This consultation was completed between April and July 2013.

The consultation involved over 30 meetings/briefings with a total of 42 people, including representatives of local schools, business, health and community organisations.

Table 16-1 provides a summary of the stakeholders consulted for the SIA.

Table 16-1 Consultation undertaken for SIA

Stakeholder group	Name	Date consulted
Federal Government	Regional Development Australia	10 May 2013
State Government	Emergency Management Queensland	7 July 2013
	Queensland Health	4 July 2013
	Department of Community Safety	26 June 2013
	Department of State Development, Infrastructure and Planning – Resource Sector Facilitation (EIS)	20 June
	Department of State Development, Infrastructure and Planning – Resource Sector Facilitation (Local Procurement)	19 June 2013
	Department of Education, Training and Employment - Education	19 June 2013
	Department of Aboriginal and Torres Strait Islander and Multicultural Affairs – South West Division	19 June 2013
	Department of Aboriginal and Torres Strait Islander and Multicultural Affairs – Local Content	13 June 2013
	Queensland Health – Oakey Hospital	28 May 2013
	Department of Education, Training and Employment - Employment	9 May 2013

Stakeholder group	Name	Date consulted
	Department of State Development, Infrastructure and Planning – Strategic Projects	8 May 2013
	Department of State Development, Infrastructure and Planning - Coordinated Project Delivery Division	4 April 2013
Local Council	Toowoomba Regional Council – Goombungee	2 May 2013
Local / Regional Service Providers	Quinalow State School	19 June 2013
	Kulpi State School	20 June 2013
	Oakey State Primary School	27 May 2013
	Oakey State High School	27 May 2013
	C&K Maclagan Windermere Kindergarten	10 May 2013
	Oakey Community Care Nursing	7 May 2013
	Cherry Street Medical Centre, Oakey	6 May 2013
Emergency Service Providers	Emergency Management Queensland	8 July 2013
	Oakey Fire and Rescue	21 June 2013
	Jondaryan Rural Fire Brigade	6 May 2013
Local Businesses	Oakey House and Property Sales	7 May 2013
	Oakey Real Estate	7 May 2013
Community Stakeholders	Goombungee Country Women's Association	24 June 2013
	Maclagan Hall Committee	24 June 2013
	Jondaryan Residents Association	7 May 2013
	Local Landholders	7th May -27 th May 2013
	Oakey Agricultural, Pastoral and Rodeo Society	6 May 2013
	North Eastern Downs Landcare Group	7 May 2013
	Oakey Chamber of Commerce	7 May 2013
Community Reference Group	Group members representing Agriculture, Education, Health, Industry, Business and Landholders	27 May 2013

A further 10 stakeholders were contacted as part of the SIA consultation. Several attempts were made to contact these stakeholders via telephone and email. However, these stakeholders were unavailable during the study period or declined to participate in a briefing.

Stakeholders and community members have been consulted on the proposed mitigation and management measures for the revised Project in several ways, including:

- Presentation of Project mitigation measures in posters and fact sheets including those available at the New Hope Community Information Centre, Oakey;
- Ongoing discussions with landholders and community members;
- Ongoing presentations and feedback to CRG, and
- Ongoing site visits attended by the public and government representatives from DEHP, DNRM and the Office of the Coordinator-General, including the Coordinator-General himself.

The stakeholders and community members understood the range of management measures presented and were generally satisfied that the proposed strategies would be successful in managing potential impacts associated with the revised Project.

16.5. Revised Project Overview

The revised Project involves the progressive continuation of the existing mining activities to include three pits, namely, the Manning Vale West, Manning Vale East and Willeroo pits. The revised Project is located approximately 10 km away from the township of Oakey. The revised Project retains Acland, including Tom Doherty Park, the War Memorial and the Acland No. 2 Colliery. Permanent access and utility services to Acland will be maintained over the life of the revised Project.

Other key elements of the revised Project include:

- decommissioning of the existing JRLF;
- construction of a new 8 km rail spur line and balloon loop from Jondaryan onto MLA 50232;
- construction of the TLF within MLA 50232; and
- relocation and potential upgrade of the existing local telecommunication network and various roads.

A detailed description of the revised Project is provided in **Chapter 3**.

16.5.1. Revised Project Workforce

The personnel requirements for the life of the revised Project have been identified based on a production rate of 4.8 Mtpa up to year 2018, and up to 7.5 Mtpa from years 2018 to 2029.

The construction phase of the revised Project will extend over approximately 26 months between 2015 and 2017, and will require a number of skilled and unskilled workers. It is expected that the construction phase will require an average workforce of approximately 136 people, and a peak construction workforce in the vicinity of 260 people. The peak workforce is expected to occur for a limited time in 2016. NAC's intention is to use local employment options where possible, although

some workers would also be required to be sourced from outside the TRC area for certain construction jobs. Up to an additional 135 people will be employed for the operation of the revised Project, which will be in addition to the current workforce giving a peak workforce of up to 435 people.

The position skill requirements will determine from where new employees will be sourced, however, if operational requirements allow, a number of positions will be made available to people without previous mining industry experience. Contractors may also be employed for some specialist mining activities, in line with the Mine's current practices. Some unskilled and semi-skilled positions will also be required, particularly through the construction phase. During the operations phase, structured training programs will be enhanced to provide ongoing opportunities for career development. This includes school based apprenticeships in partnership with Oakey State High School, traineeships, employing school leavers and other up-skilling programs.

NAC currently implement a range of strategies to attract and recruit local employees, including advertising positions locally, advertising positions and accepting employment applications at the New Hope Community Information Centre at Oakey, and long-term relationships with local educational institutions and employment and recruitment firms.

Table 16-2 shows the approximate number of full time equivalent (FTE) employees required for the Mine's operation. This includes workers currently employed by the Mine.

Table 16-2 Operations Workforce, 2014-2024

Discipline	Role	2018FY	2024FY
Management	General Manager	1	1
	Business Support Officer	1	1
Safety	Safety Manager	1	1
	Safety Training Coordinators	2	2
	Trainer & Assessors	1	2
Wash plant Operations	CHPP Manager	1	1
	CHPP Superintendent	1	1
Mining	Mining Manager	1	1
	Superintendents	2	2
Maintenance	Maintenance Manager	1	1
	Maintenance Superintendents	1	1
	Maintenance Planners	5	5
	Electrical & Engineering Manager	1	1
Technical Services	Technical Services Manager	1	1
	Senior Mining Engineer	1	2
	Mining Engineers	3	3
	Surveyors	3	3
	Environmental Specialists	2	2
	Geologist – Coal Quality	3	3
	Project Manager	1	1
	Drill and Blast Supervisor	1	1
Business Management	Business Support Officer	1	1
	Receptionist	1	1
	Purchasing Officers	1	1
Total Staff		37	39
Supervisors/Operators	Maintenance Supervisors	4	6
	Pit Supervisors	7	10
	Plant Tradesmen	16	24
	Pit Operators	197	267
	Pit Tradesmen	77	89
	Total Mining Personnel		301
TOTAL LABOUR REQUIREMENT		338	435

Source: NAC, based on DETE template

NAC will continue to adopt an equal employment opportunity approach to all recruitment and continue to support a diverse workforce that includes vulnerable population groups including people from culturally and linguistically diverse backgrounds, Indigenous peoples, women, school leavers, the unemployed and underemployed.

16.5.2. Workforce Accommodation

Employees will be given freedom of choice in sourcing accommodation to suit their personal preferences and family requirements. This arrangement is aligned with the Queensland Government's Major Resource revised Projects Housing Policy (August 2011).

It is expected the majority of construction workers will live in Toowoomba and commute to the Mine. However, some construction workers may choose to reside in Oakey, Jondaryan or other localities in the SIA study area. Transport of personnel to and from the revised Project site will be by private vehicles.

No accommodation camps will be established for the revised Project. However, some short-term accommodation in Oakey or Toowoomba will be needed from time-to-time to accommodate specialist contractors required for the revised Project. Based on the current workforce trends, it is expected most of the operational workforce will live in Toowoomba, Oakey, Jondaryan or other towns in the local area, depending on their individual circumstances and preferences.

16.5.3. Hours of Operation

Construction activities will generally occur between 6.00 am and 6.00 pm, Monday to Saturday. However, some night construction works may need to occur during peak construction periods. Mining activities will generally be conducted on a seven day, 24 hour. The coal handling and processing plant activities will generally be conducted on a seven day, 24 hour basis.

16.6. Social policy framework

This Section provides an overview of the policies, plans and projects relevant to the revised Project and the social environment of the SIA study area.

16.6.1. Draft Regional and Resource Towns Action Plan

The *Draft Regional and Resource Towns Action Plan* (March 2013) (Action Plan) was prepared by the DSDIP in response to the issues being experienced by Queensland communities in relation to the resource sector. Key issues identified in the Action Plan include lack of housing affordable to purchase and/or rent; pressure on local government to assess an increased number of development applications in a timely manner; infrastructure costs and delays; and the availability of land for development.

Specific issues identified for the TRC area were:

- land banking inhibits orderly residential growth in Toowoomba;
- infrastructure charging regime is not optimal for development industry (e.g. charges too high and timing not conducive to development);
- supply of affordable housing (\$250,000 or less) is low;
- residential valuations from banks are less than construction costs which inhibits financing; and
- self-certification of operational works is not offered by TRC.

The Action Plan identifies short-term initiatives to respond to local issues, such as implementing self-certification processes, work with housing developments to improve planning and assessment processes and housing diversity, and identify infrastructure linkages needed to support economic growth.

16.6.2. Resources Skills and Employment Plan

The Resources Skills and Employment Plan was released in February 2012 following the 'Work for Queensland' summits held in August and December 2011. The Plan focuses on developing and implementing training and employment strategies to assist the resources sector meet its workforce needs and maximise job opportunities for Queenslanders.

The Plan articulates four key objectives, being:

- enabling a better understanding of the resources sector needs;
- building the workforce in targeted communities;
- increasing workforce participation; and
- providing skilling in key occupations in demand.

The plan identifies 24 actions for implementation, of which, those relevant to the revised Project include:

- target skilling programs to meet the supply chain, and local and regional skill needs in communities impacted by strong resource sector growth;
- expand employment opportunities for Indigenous peoples; and
- sponsor additional apprentices through group training arrangements.

16.6.3. Major Resource Projects Housing Policy

The Queensland Government *Major Resource Projects Housing Policy* (2011) guides and supports better planning for housing in resource communities and provides the opportunity for government, industry and the community to work in partnership on housing issues.

The Queensland Government believes resource workers should have a choice of where and how they live and work. Where a fly-in/fly-out (FIFO)/drive-in/drive-out (DIDO) workforce is proposed, the

proponent must work with local communities, councils, unions and the State Government to make sure that the liveability and sustainability of towns are protected.

The policy outlines those things to be considered by proponents in relation to accommodation and housing. They include:

- provision of housing choice for the workforce;
- potential for a proportion of the workforce to be located within local townships;
- detailed workforce accommodation strategies;
- strategies to mitigate and manage adverse impacts on housing markets;
- projected housing demand; and
- impact of projected rental costs on low and moderate income workers.

16.6.4. Sustainable Resource Communities Policy

The Queensland Government Sustainable Resource Communities *Policy: Social Impact Assessment* for the Mining and Petroleum Industries (2008) was developed in response to the rapid expansion of the mining industry and the subsequent pressure being placed on social infrastructure, such as housing, community, education and health services.

The policy seeks to strengthen the SIA component of the EIS process to enable the delivery of positive community outcomes, including the consideration of cumulative and regional impacts in decision making and planning for communities.

16.6.5. Toowoomba Regional Council Community Plan

The *Toowoomba Regional Community Plan* (2010) describes the community's overall vision for the TRC area's preferred long-term future. It covers local and regional issues across the following nine themes – settlement pattern; transport and mobility; integrated infrastructure and utilities; natural environment; natural resources and landscape; community identity; strong communities; economy; and governance.

The Community Plan articulates a vision for the TRC area being:

...A network of vibrant towns, each with their own character and identity, embraces a relaxed country lifestyle and rural qualities. Our family-friendly and safe communities are defined by their resilience, a spirit of collaboration and a rich cultural life. Good quality services and infrastructure equitably meet the diverse needs of our healthy communities... Toowoomba is a thriving region with a robust and adaptive economy that provides opportunities for all...

The Community Plan identifies a range of outcomes sought for the TRC area. Outcomes relevant to the revised Project include:

- **Natural Economic Resources** – A range of natural economic resources are identified, protected, managed and used only where socio-economic benefits exist and where negative impacts on

communities, good quality agricultural land and other natural environmental values can be minimised.

- **Social Capital** – Our communities are vibrant and resilient and actively foster social interaction and inclusiveness through strong people networks.
- **Employment Opportunities and Skills Base** – The community has access to a diverse range of employment opportunities, and the TRC area’s workforce has the capacity to meet the needs of businesses and industries.
- **Rural Industries and Primary Production** – Sustainable rural industries and primary production contribute to the regional economy, capitalise on existing competitive advantages, are responsive to technological advances and adapt to climate variability.
- **Rural Futures** – Our rural communities are strong and viable with sustainable and unique economies that contribute to and benefit from regional growth, ensuring the health, wealth and liveability of the TRC area.

16.6.6. Toowoomba Regional Planning Scheme 2012

The communities of Oakey, Jondaryan, Goombungee, Kulpi, Maclagan, Quinalow, Muldu and Toowoomba City are covered by the TRC planning scheme. Key strategic directions relevant to the social environment include:

- residents enjoy a range of community services and facilities appropriate to their needs and feel a strong sense of community identity, safety and security in the TRC area as a whole and the specific neighbourhood in which they reside;
- places of local cultural heritage significance are conserved and enhanced;
- the community has equitable access to affordable, suitable and good quality housing;
- development in and adjacent to natural resource areas is managed to prevent and otherwise minimise impacts on the continued and future use of the resource;
- extractive resources and associated haulage routes are protected and extraction only occurs where socio-economic benefits exist and where negative impacts on communities, good quality agricultural land and other natural environmental values can be mitigated to acceptable levels; and
- impacts and benefits of resource projects are well identified and analysed across existing regional community, economy and environmental sources. Cumulative and regional impacts of multiple, sequential resource projects are monitored and reported. Secondary impacts resulting from an expansion in the resource sector need to be mitigated and managed.

16.7. Existing social environment

This Section describes the existing social environment of local and regional communities in the vicinity of the revised Project, including key population and demographic characteristics, social infrastructure and community values.

16.7.1. Regional Context

The SIA study area supports a diverse range of rural land uses and primary production, including dairying and mixed cropping, cotton and grain growing, beef cattle grazing and intensive pig and poultry farming (Rural Land Use Study 2010). Secondary industries include steel building manufacturing, metal fabrication, engineering works, timber milling and wine production.

A wide variety of tourist attractions are located in the broader region, with most activities concentrating on the region's rural lifestyle, heritage, national parks, adventure sports and wineries; some notable examples include:

- Bunya Mountains;
- Crows Nest Falls;
- Picnic Point;
- Palms National Park;
- Rimfire vineyards and winery;
- Jondaryan Woolshed and Station Village;
- farm stay holidays;
- rodeo and camp drafts;
- Canberra Bomber at the Oakey Army Aviation Museum; and
- Goombungee Historical Museum.

Toowoomba City is the primary centre for business, educational, health and community services in the TRC area, and provides support for regional communities and surrounding agricultural industries. It provides a range of private and public schooling options, as well as tertiary education facilities. Higher order health and medical services are also provided in Toowoomba City.

16.7.2. Local Context

Key towns and localities relevant to this assessment include:

- Toowoomba City, with a population of 96,567 people in 2011;
- Oakey, with a population of 4,529 people in 2011;
- Jondaryan, with a population of 377 people in 2011;
- Goombungee, with a population of 1,032 people in 2011; and
- Muldu, Acland, Sabine, Greenwood, Highland Plains and Silverleigh communities with a combined population of 208 people in 2011.
- Quinalow and district, with a population of 411 people in 2011;
- Kulpi and Peranga with a combined population of 298 people in 2011.

Oakey is the key service centre for rural and district populations within the SIA study area. The main street of Oakey is depicted in **Photograph 16-1**. Oakey provides a range of urban and rural lifestyle opportunities for local residents. Community infrastructure located in Oakey includes a community

centre, Medicare local, library, police station, health services, Aboriginal and Torres Strait Islander Services and recreational facilities such as a swimming pool. The two meat processing plants and Oakey Army Aviation Training Centre (AATC) are considered key employers for the local and regional populations. The AATC provides training for Australian Army Aviation and is presented in **Photograph 16-2.**



Photograph 16-1 Oakey Town Centre



Photograph 16-2 Swartz Barracks at the Oakey Army Aviation Training Centre

Goombungee was the administrative centre of the former Rosalie Local Government Area (LGA) and is known for its historic buildings and annual Iron Man competition. Goombungee and the surrounding localities provide limited social infrastructure with residents usually accessing these services in nearby towns or Toowoomba City. Acland is the closest locality to the revised Project, and is described in **Section 16.7.3.**

Towns within the SIA study area, such as Oakey and Jondaryan, have undergone some social change in recent years; that is, the amalgamation of small farms and properties into large properties managed by corporations; an aging population particularly in the agricultural areas; and the retirement of some local farmers. This has resulted in a general decline in the rural population. However, during consultation for the SIA, community members reported that local towns were experiencing some growth, with growing school enrolments and a strong rental and property market (pers. comm 07/05/13).

The Western Wakka Wakka people are the Aboriginal party for the revised Project area and maintain traditional connection and responsibility for the area. A Cultural Heritage Management Plan is in place to manage Aboriginal cultural heritage aspects in the revised Project area.

16.7.3. Acland

The township of Acland was established to support the Acland Coal Mine which operated until 1984. This mine was the oldest and smallest continuously worked coal mine in Queensland when it closed. The wider area is also known for agricultural activities, particularly grain and cattle grazing.

NAC commenced operations at the Mine in October 2002. Stage 2 of the operations commenced in 2007. NAC formally commenced property acquisitions in early 2007 in anticipation of the Mine's future progression. Prior to this date, NAC made a number of opportunistic purchases within the Study area, including within Acland, as a consequence of direct approaches by landowners seeking sale of their property. Approximately 80% of the 157 owners in Acland approached NAC directly to negotiate sale of their property (NAC pers. comm 2013). Since the inception of the Mine, NAC has acquired 160 lots totalling an area of approximately 10,151 ha. All property sales have occurred via voluntary negotiations between landholders and NAC.

Many properties were purchased by NAC above market value, while several landholders have entered into lease-back arrangements with NAC and have continued living at the property.

It is understood that approximately 90 families have relocated from Acland since around 2006. In many instances, families have voluntarily taken the opportunity to move to areas with better services and infrastructure or improved amenity. The sale of their properties allowed many to buy another rural property in the local area.

In 2011, the ABS Census reported a population of 208 people in the Acland State Suburb. Many of these residents reside on rural properties. Currently, there are two households occupied in Acland, supporting a population of less than 10 people.

Several features of the township of Acland are maintained by NAC, including general public areas and road reserves, Tom Doherty Park, the War Memorial and the Acland No 2 Colliery. A detailed description of the township of Acland and future management strategies are outlined in **Chapter 3 - Project Description**.

16.7.4. Existing Resource Development Projects in region

A number of projects are proposed, planned or currently operating in the TRC area. Example projects are described in **Table 16-3**.

Table 16-3 Example resource development projects

Mine	Proponent	Employees
Commodore open-cut mine	Millmerran Operating Company Pty Ltd	77
New Acland Coal Mine	New Hope Corporation Limited	300
Tipton West (CSG)	Arrow Energy Limited	n/a
Millmerran Power Station	Intergen	230
Oakey Power Station	Oakey Power Holdings	5

Source: Southern Queensland Mining, Petroleum and Energy Operations May 2013, Department of Natural Resources and Mines, Queensland Government 2013.

The Surat Basin, located west of the Mine, is experiencing development growth with a number of large coal mining and CSG projects planned. The Surat Basin Workforce Development Plan (Skills Queensland, 2011) indicates that the construction and resource sector workforce will increase to 110,864 workers by 2016, from approximately 85,791 workers in 2009.

Low levels of unemployment across the TRC area will likely see strong competition for local labour, but there are opportunities to support mining industry skill development amongst local people including people from disadvantaged backgrounds e.g. indigenous people.

16.8. Population and Demography

16.8.1. Population and Growth

The SIA study area experienced a greater population growth rate compared to the greater TRC area from 2006 to 2011.

In 2011, the SIA study area had a population of 6,240 people. This increased by 338 people between 2006 and 2011, or a change of 5.7% as presented in **Table 16-4**. It was suggested during consultation for the SIA that the population growth in the SIA study area had occurred as a result of immigration to Oakey for employment at the abattoirs and at the Mine, 'tree changers' moving to the area to experience a rural lifestyle, and the aging population (pers. comm 08/05/13).

Table 16-4 Population change, 2006-2011

Area of Interest	2006	2011	Change (%)
SIA Study area	5,902	6,240	5.7
TRC area	151,297	154,931	2.4
Queensland	3,904,532	4,332,739	11.0

Source: ABS, Census of Population and Housing 2006 and 2011, Australian Bureau of Statistics Regional Population Growth Australia (3218.0).

By June 2031, the population of TRC area is projected to increase to 244,340 people as presented in **Figure 16-2**. This represents an average annual growth rate of 2% between 2011 and 2031, compared to an increase of 1.8% in Queensland over the same period.

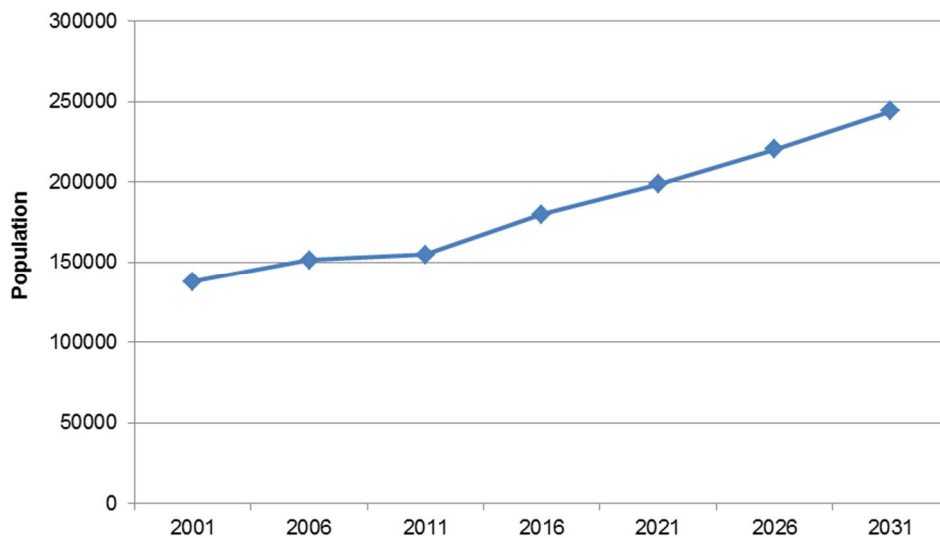


Figure 16-2 Population growth, TRC 2001 to 2031

Source: ABS, Census of Population and Housing 2001, 2006 and 2011; Queensland Government Statistician Population Projections to 2031, local government areas 2011 edition (medium series).

16.8.2. Non-Resident Population

In June 2012, non-resident workers in the SIA study area accounted for a relatively small proportion of the total population of the region (0.1%). However, the proportion of non-resident workers varied across the SIA study area, with 1.4% of Oakey's population considered to be non-resident workers as described in **Table 16-5**. This higher proportion of non-resident workers may be attributable to the seasonal abattoir, mining and agricultural workforces.

Non-resident population data for the SIA study area is included in the Queensland Government Surat Basin Population Report 2013. The non-resident population comprises a small proportion of the SIA study area population.

The Surat Basin non-resident worker population is growing, and has almost doubled in the year to June 2012, growing by 3,175 people or 97%. However, this has generally been driven by significant growth in the Western Downs Regional Council and Maranoa Regional Council areas. The non-resident population of the TRC area was 190 people in 2012, representing approximately 0.1% of the TRC's FTE population estimate.

Table 16-5 Resident and non-resident populations, 2012

Locality	Estimated resident population	Non-resident workers on-shift	FTE population estimate	Percentage of non-resident workers
Toowoomba Regional Council	156,640	190	156,835	0.1
<i>Oakey</i>	4,505	65	4,570	1.4
<i>Toowoomba City</i>	100,250	95	100,345	0.1
<i>Other towns in Region</i>	29,550	30	29,580	0.1
<i>Rural areas in Region</i>	22,340	0	22,340	0
Surat Basin Total	203,140	6,445	209,580	3.1

Source: Surat Basin Population Report, July 2012

16.8.3. Age and Gender Profile

Overall, the age and gender profile of the SIA study area was typical of many rural areas in Australia, which are characterised by relatively higher proportions of males than females, children, and people aged 65 years and older, and a relatively low proportion of young people aged 24-44 years old as presented in **Table 16-6**.

In 2011, the SIA study area had a slightly higher proportion of males to females, at 51.5% of the population. This is consistent with the mining, industrial, agricultural and defence workforces in the area which typically attract more males than females.

The smaller proportion of young people in the SIA study area is consistent with trends in other rural areas of young adults leaving for employment.

The higher proportion of older people is also consistent with rural areas elsewhere and reflects an aging population. In 2011, the SIA study area had a slightly higher median age at 38 years, compared to 37 years in the TRC area and Queensland at 36 years.

Table 16-6 Age profile, 2011

Age	SIA Study Area		Region		Queensland	
	No.	%	No.	%	No.	%
0-14 years	1,379	22.1	32,500	21.5	875,860	20.2
15-24 years	829	13.3	20,387	13.5	587,763	13.6
25-44 years	1,493	23.9	37,270	24.7	1,208,159	27.9
45-64 years	1,568	25.1	37,591	24.9	1,091,971	25.2
65 years or over	971	15.6	23,441	15.5	568,986	13.1
Total	6,240	100.0	151,189	100.0	4,332,739	100.0

Source: ABS – Census of Population and Housing 2011

16.8.4. Cultural Diversity

The SIA study area had a greater Indigenous population but lower levels of cultural diversity in terms of overseas born population compared to the greater TRC area and Queensland generally.

In 2011, the majority of the population in the SIA study area were born in Australia with approximately 11.6% of the population identified as being born overseas. The United Kingdom accounted for the largest proportion of overseas born people at 2.1%, followed by New Zealand (1.0%) and the Philippines (0.5%).

English is the primary language spoken across the SIA study area and TRC area at 92.1% and 88.7% respectively. This suggests a low level of vulnerability in terms of languages used to publicise project related information. However, there is a higher proportion of Indigenous people in the SIA study area, at 6.5% of the population compared to 3.6% in Queensland overall. Employment and training opportunities will be available for people within the SIA study area including indigenous people.

Table 16-7 outlines the cultural diversity profile for the SIA study area, the TRC area and Queensland in 2011.

Table 16-7 Cultural Diversity, 2011

Locality	Indigenous People		Overseas Born		People who spoke LOTE*	
	No.	%	No.	%	No.	%
SIA Study Area	404	6.5	723	11.6	437	7.0
Region	5,243	3.5	23,536	15.6	13,786	9.1
Queensland	122,825	3.6	1,140,625	26.3	656,782	15.2

Source: ABS – Census of Population and Housing 2011

* LOTE – Language Other Than English

16.8.5. Indigenous Community

The SIA study area had a higher proportion of people who identified as being Indigenous compared to the TRC area and Queensland. The age and gender characteristics of the SIA study area's Indigenous population were comparable to Queensland as a whole.

At the 2011 Census, females comprised 53.3% of the SIA study area's total Indigenous population. The Indigenous population in the SIA study area was also relatively young, with 39.6% aged 14 years or younger at the 2011 Census, while 11.6% were aged 45 years or older.

16.8.6. Families and Households

In 2011, there were 2,136 households in the SIA study area. Family households accounted for 74.3% of households, followed by 22.9% lone person households and 2.7% group households. This was similar to the region as a whole.

The SIA study area had a higher portion of couple families with children and a lower portion of one parent families compared to the region and Queensland as presented in **Table 16-8**. Consultation for the SIA indicated the SIA study area was valued as a safe and friendly place to raise a family. This is supported by the higher proportion of couple families with children in the SIA study area.

The relatively high proportion of couple families without children is likely to reflect the aging population in the SIA study area.

Table 16-8 Family Composition, 2011

Locality	Couple family with children (%)	Couple family without children (%)	One parent family (%)	Other family (%)	Total
SIA Study area	46.0	42.4	9.4	0.7	1,509
TRC	41.8	41.2	15.5	1.5	39,961
Queensland	42.8	39.5	16.1	1.7	1,148,179

Source: ABS – Census of Population and Housing 2011

The median household size in the SIA study area was 2.6 persons per household, which is comparable with the region and the state at 2.5 and 2.6 persons per household respectively.

16.8.7. Education

Overall, the SIA study area had significantly lower levels of education compared to the region and Queensland, with fewer people with a tertiary qualification and a smaller proportion of people who had completed Year 12.

There were 1,776 students in the SIA study area at the 2011 Census. This represented 28.5% of the area's population, which is slightly lower than the TRC area at 29.8%. Of the students in the SIA study

area, 37.7% were attending pre-school or primary school, while 21.5% were attending secondary school. In 2011, 9.4% of students in the SIA study area were enrolled in a tertiary or technical institution. This is significantly lower than the rate for Queensland overall, at 19.4%.

Approximately 28.8% of the population aged 15 years or over in the SIA study area had completed Year 12, while 37.9% had completed Year 10. This is significantly lower than in the TRC area and Queensland as described in **Figure 16-3**.

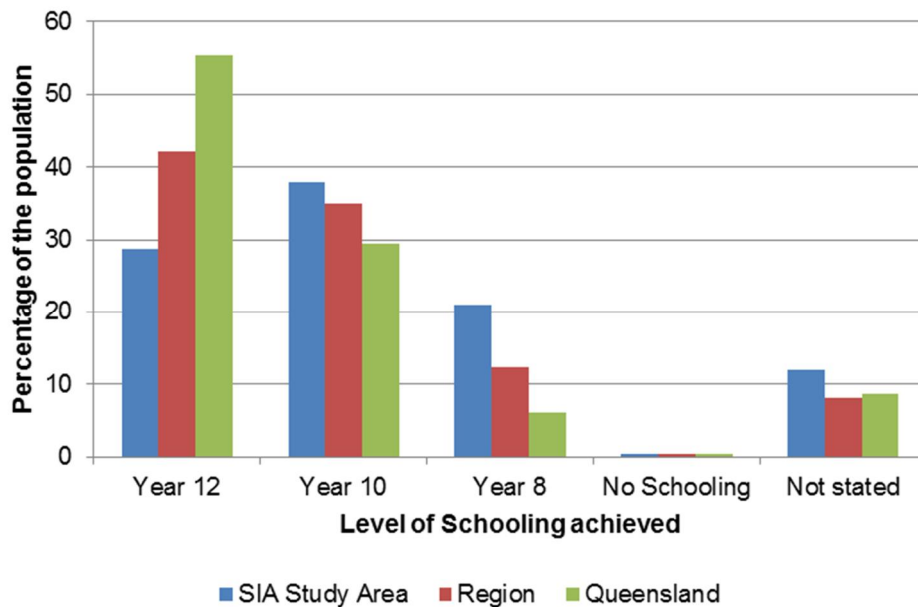


Figure 16-3 Level of Schooling Achieved

Source: ABS – Census of Population and Housing 2011

16.9. Employment and Income

16.9.1. Labour Force Participation and Unemployment

There were 2,883 people who reported being in the labour force in the SIA study area at the 2011 Census. The SIA study area had a relatively low level of unemployment at 3.9%. This was compared to 4.7% within the TRC and 5.5% in Queensland overall.

Approximately 66.3% of the labour force was employed full time and 18.7% were employed part-time. Compared to the region and Queensland, the SIA study area had more people working full-time as presented in **Figure 16-4**.



Figure 16-4 Labour Force Participation, 2011

Source: ABS – Census of Population and Housing 2011

More recently, information on unemployment for the TRC area indicates the number of unemployed persons aged 15 years and over (based on a smoothed series) in the region in June quarter 2012 was 3,716 people. This represented an unemployment rate of 4.2%, comparably less than Queensland's unemployment rate of 5.5% for the same quarter. Between the September quarter 2010 and the June quarter 2012, the unemployment rate in the region ranged between 3.8% and 4.4% as shown in **Figure 16-5**.

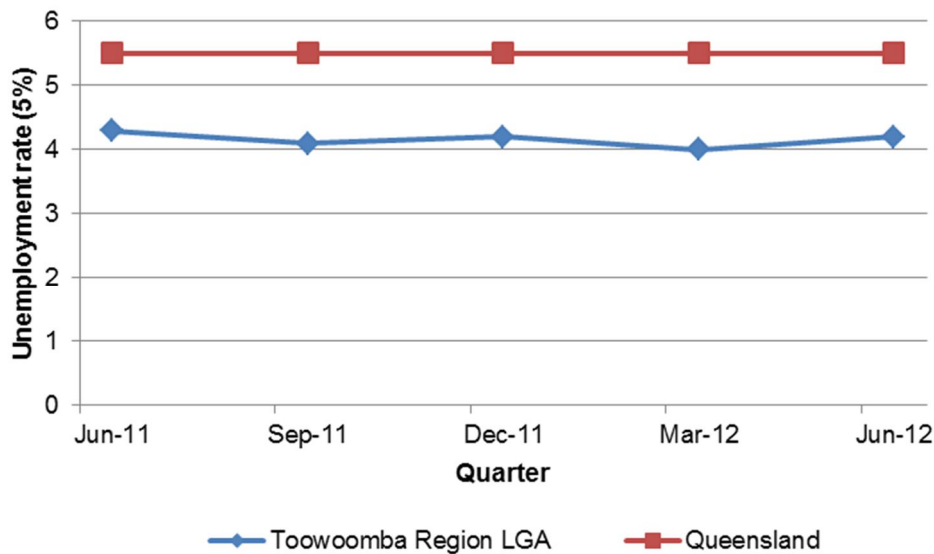


Figure 16-5 Unemployment trends, TRC 2011-12

Source: DEEWR – Small Labour Markets

The low level of unemployment across the SIA study area is likely to reflect access to employment in key industries such as defence, mining and meat processing. The level of unemployment within the SIA study area may also be understated due to under-employment. This includes temporary or seasonal labour (such as farm labour) not registering as unemployed despite these workers potentially having the desire for more permanent work.

16.9.2. Employment by Industry

The Meat and Meat Product Manufacturing industries is a significant source of employment in the SIA study area, with 12.7% of the population aged 15 years or over employed in those industries at the 2011 Census. This reflects the location of the Abattoir in Oakey, which employed up to 600 workers in 2010.

Agricultural industries are also important, with 8.2% of workers in the SIA study area employed in Sheep, Beef Cattle and Grain Farming. This is substantially higher than the percentage of workers employed in this industry in Queensland as a whole (1.1%). People employed in mining in the SIA study area comprised 2.5% of workers, which is lower than both the region and Queensland, at 3.1% and 4.1% respectively.

The Surat Basin Population Report (June 2011) indicates that there were 470 resource (mining and gas) workers in the region in 2010/2011, 64% of whom lived locally. The TRC area provides 11% of Surat Basin's total resource workforce.

16.9.3. Employment by Occupation

A relatively large proportion of the SIA study area workforce at 49.1% was employed as labourers or technicians and trade workers in 2011. This was higher than both TRC at 28.0% and Queensland at

25.5%. Other key occupations in the SIA study area included managers at 22.6% and machinery operators and drivers at 14.9%.

16.9.4. Income Levels

The SIA study area generally had lower median incomes compared to the TRC area and Queensland. Median personal incomes in the SIA study area and the TRC area were \$488 and \$549 per week respectively in 2011, compared to \$587 per week in Queensland. Median household incomes within the SIA study area and the TRC area were \$924 and \$1,061 per week respectively, compared to \$1,235 per week in Queensland.

16.9.5. Advantage and Disadvantage

The ABS produces four Socio-Economic Indices for Areas (SEIFA) based on Census data for local areas which identify areas of relative advantage and disadvantage. Socio-Economic Indexes for Areas (SEIFA) are summary measures of a community's social and economic conditions. SEIFA comprises a number of indexes generated from the ABS Census.

The socio-economic index of disadvantage indicates the level of relative disadvantage of social and economic conditions. The index includes indicators relating to income, education attainment, unemployment and dwellings without motor vehicles. Low index values represent areas of disadvantage while high values represent areas of least disadvantage.

Overall, the SIA study area showed a relatively high level of social and economic disadvantage compared to Queensland. The Postal Area of 4401 had a lower value than Postal Area 4403 and the region, indicating lower portions of qualified and professional people or people on high incomes as described in **Table 16-9**. This indicates the postal area is relatively disadvantaged in terms of socio-economic resources.

The Index of Economic Resources reflects indicators such as income and expenditure including wages and rental costs for families and variables that reflect wealth. Income variables are also specified by family structure, as this affects disposable income. The SIA study area had higher scores than the Toowoomba region, reflecting higher proportions of high-income families and people living in large households. This suggests people in the SIA study area had greater access to economic resources. However, median incomes for households in the SIA study area are lower than in TRC. This suggests the SIA study area population may be asset rich, through their large landholdings or assets, but have less disposable income available to them.

Consultation for the SIA indicated high levels of social housing and pockets of lower socio-economic households in Oakey. This suggests that the SIA study area population overall has comparatively less socio-economic resources to draw upon, with a higher proportion of households likely to be vulnerable to impacts on their financial well-being. Inversely, improvements in the financial wellbeing or education of the community in the SIA study area will help reduce these levels of relative disadvantage.

Table 16-9 SEIFA Indices, 2011

Locality	Advantage/Disadvantage		Economic Resources	
	Score	Percentile ranking in QLD	Score	Percentile ranking in QLD
4401	918	17 th percentile	978	35 th percentile
4403	984	54 th percentile	1018	67 th percentile
TRC	980	n/a	959	82 nd percentile

Source: ABS - Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA) 2011

16.9.6. Need for Assistance

In 2011, the SIA study area generally recorded a higher incidence of people needing assistance in one or more of the areas of mobility, communication or self-care, compared to the TRC area and Queensland as a whole as shown in **Table 16-10**. Almost 6% of the SIA study area population recorded required assistance, which may reflect the older population in the SIA study area.

Table 16-10 Population Requiring Assistance, 2011

	Disability prevalence		Total population
	Number	Per cent	
SIA Study area	363	5.8	6,240
Region	7,514	4.9	151,189
Queensland	192,019	4.4	4,332,738

Source: ABS – Census of Population and Housing 2011

16.10. Housing and Accommodation

16.10.1. Dwelling Type and Tenure

There were 2,168 occupied dwellings in the SIA study area at the 2011 Census. Separate houses were the dominant dwelling type, comprising 82.5% of dwellings, higher than the region and Queensland at 77.6% and 70.4% respectively. This is reflective of the rural nature of the SIA study area.

The SIA study area had relatively high levels of owner occupiers. Approximately 65.3% of dwellings in the SIA study area were fully owned or being purchased, while 31.6% were being rented.

Figure 16-6 demonstrates that the rental rate of the SIA study area is higher than the TRC area, but lower than Queensland.



Figure 16-6 Dwelling Tenure, 2011

Source: ABS – Census of Population and Housing 2011

16.10.2. Housing Costs

Property Values and Housing Costs

In May 2013, there were approximately 50 residential properties for sale in the SIA study area (realestate.com.au).

Median house prices in the SIA study area and the region were well below the State median. The median house price in Oakey at December 2012 was \$200,900, compared to \$378,534 in Queensland. The median house price in Oakey decreased by 12.7% over the 12 months to December 2012 as shown in **Table 16-11**.

Consultation for the SIA identified that Oakey has recently experienced a large number of ‘tree changers’ and retirees relocating into the area. This was considered to be due to the town’s proximity to Toowoomba City which provides good access to community facilities and also the ‘country-town lifestyle’. Oakey and Jondaryan are seen as desirable places to live due to their affordable housing and access to services and infrastructure.

Table 16-11 Median House Sales, December 2012

	Median house sales 12 months to Dec quarter 2012	Change over 1 year (%)	Change over 5 years (%)
SIA Study Area	\$200,900	-12.7	9.5
Region	\$295,000	1.8	15.7
Queensland	\$378,534		

Source: Queensland Market Monitor December Quarter 2012 The median monthly housing loan repayment in the SIA study area (\$1,198) was below the TRC area (\$1,517) and State (\$1,850) as shown in Table 16-12. The SIA study area's affordable property prices have been identified as one of the strongest aspects of the TRC area property market and the component of the market that had been performing the best (QMM, September 2012).

Table 16-12 Mortgage Repayments 2011

	Median monthly mortgage repayments	Households where mortgage repayments are 30%, or greater, of household income
SIA Study Area	1,199	7.3
Region	1,517	7.6
Queensland	1,850	9.7

Source: ABS - Census of Population and Housing 2011

Although median housing costs were low, the average monthly household income for the SIA study area was also low compared to Queensland.

Median household incomes in the SIA study area were also low, at \$924 per week. With a current average weekly rent of \$235 in the SIA study area, families are generally paying around 25% of their income on housing. The median monthly mortgage repayment amount of \$1,198 in the SIA study area equates to approximately 30% of the median monthly household income for the SIA study area. This indicates the community may be sensitive to a large increase in property prices. However, the recent decrease in median house prices in Oakey will likely buffer households from increased house prices.

16.10.3. Rental Accommodation and Vacancy Rates

Consultation for this SIA indicated a relatively high demand for short- and long-term rental accommodation in the region. Although quickly leased, rental properties were still readily available in Oakey and the surrounding district.

Since 2011, the rental market in the SIA study area has been increasing, significantly more so than for the region as a whole with new investment houses becoming available on the rental market. The median weekly rent for a three bedroom house was \$235 in the December Quarter 2012 as described in **Table 16-13**. This was a decrease from \$260 in December 2011. The median weekly rent for a three bedroom house in the region increased by \$5 to \$280 per week over the 12 months to December 2012.

The TRC area rental market had a vacancy rate of 1.2% at December 2012. Vacancy levels are starting to ease in the TRC area, as sales in investment houses have increased (REIQ Dec 2012).

Table 16-13 Median Rents 2011-2012

	Median weekly rent Dec Qtr 2011	New bonds	Median weekly rent Dec Qtr 2012	New bonds	Change over 2011-2012 in rent
SIA Study Area	\$260	34	\$235	38	-9.6
Region	\$275	596	\$280	594	1.8
Queensland	\$340		\$350		2.9

Source: Rental Tenancies Authority, 2013

16.10.4. Social Housing

There were 58 dwellings being rented from a State or Territory Housing Authority, or a housing co-operative/community/church group in the SIA in 2011. This represented 2.9% of all dwellings in the SIA study area, compared to 3.2% in the TRC area.

16.10.5. Temporary Accommodation

In June 2012, the Darling Downs Tourism Region had 106 hotels, motels, guest houses and serviced apartments available for visitors. The occupancy rate was 67.4% in June 2012, an increase from 57.8% five years prior (ABS 2012). This is likely to be attributable to the expansion of the mining and gas industries west of the SIA study area.

Most hotels/motels in the TRC area are located within, or on, the outskirts of towns. They provide accommodation for a range of clients, including tourists and short-term business visitors, as well as business visitors and workers.

In the SIA study area specifically, there are approximately 10 short term accommodation providers, including motels, caravan parks and hotels.

An estimated 11% of hotel/motel rooms in the TRC area were vacant and available to prospective occupants in June 2012, with the TRC area having an average availability of 15% on a typical week-night, when establishments were at their busiest. This suggests local accommodation providers will have some capacity to absorb additional workers or visitors to the region.

Rural tourism is limited in some parts of the TRC area, with a number of small bed and breakfast and farm stay providers, some heritage-based attractions and several wineries (Rural Land Use Study 2010).

16.11. Community Values

Community values are those elements held as being important to quality of life and wellbeing and include tangible elements such as parks, buildings, landscape and intangible elements such as sense of belonging and community resilience.

16.11.1. Amenity and Cohesion

Amenity plays a large part in determining community liveability and wellbeing and is a term given to the attributes and appeal of a place. The SIA study area is characterised as rural and family oriented, in which local support networks are held in high regard. A strong sense of amenity is derived from the TRC area's agricultural and rural lifestyle and consultation. Oakey and surrounding townships are valued as good, safe communities to raise a family and achieve a good quality of life and relaxed lifestyle. A high level of residential amenity and community safety are also valued. Although the SIA study area had strong agricultural connections, industrial land uses were also prominent, for example, the meat processing plants and Defence establishments in Oakey.

Consultation for this SIA identified that community members are proud of their 'sense of community' and links to agricultural history. Community members in Oakey, Jondaryan, and the surrounding district also had a long association with the SIA study area with many families living on the same property or in the local area over a number of generations. This local connection was seen as valuable to building community resilience, sharing knowledge and skills associated with the area and managing the land, and building community organisations and participation.

Consultation with affected property owners and other stakeholders for the revised Project suggests that the feeling of community closeness lessened in recent years due to the growth of Oakey. In addition, community members consulted for this SIA reported the effects of the previous property acquisitions in Acland, such as anxiety and uncertainty regarding the future, were still being felt by some community members. However, community members also suggested that the community had generally adapted to those changes and most people directly affected by property changes were now resettled into new homes.

Consultation for the SIA identified that strong participation in community associations was important. Community participation was reported to have declined over the last decade. This was perceived to be related to increased shift work arrangements at the major employers in the region, and the aging population. Consultation for this SIA identified a desire to promote community volunteering, participation in local organisations and for local community groups to work together to achieve common goals. However, volunteering data suggests a relatively steady rate of volunteering community in the SIA study area. At the 2011 Census, 19.2% of the SIA study area's population participated in volunteering activities, which is comparable to the region and Queensland at 21.3% and 18.7% respectively. The rate of volunteering has only decreased slightly (1.2%) over the last five years, from 20.4% in 2006.

Towns in the TRC area comprise a range of cultural and entertainment venues, such as the Jondaryan Woolshed and the Cobb & Co Museum. As well as the range of attractions, visitors arrive each year for a number of events including Easterfest, the Hampton High Country Food & Arts

Festival, and the highlight event of the Toowoomba Carnival of Flowers each September. This suggests tourism, cultural activities and community events are important to the population of the TRC area. The SIA study area hosts a number of community events, which indicates there is a presence of strong community cohesion in the area.

In Oakey and the surrounding district, regular community events include:

- Oakey Sprints, held annually in May at Oakey;
- Speedway races at Charlton Raceway, held several times throughout the year at Toowoomba;
- Old Time Dance, held monthly at Jondaryan;
- Oakey Rodeo and Ute Muster, held annually in April at Oakey;
- Oakey Show, held annually in March at Oakey;
- CRT FarmFest Field Days, held annually in June at Kingsthorpe;
- Jacaranda Day in Goombungee, held in November and hosted by the Rosalie Shire Historical Society; and
- Australian Heritage Festival, held annually in May at Jondaryan.

16.11.2. Environment and agriculture

The role of farming and agriculture was identified as an important characteristic of the region. In particular, community members value the preservation of good quality farming land. The TRC Rural Land Use Study (2010) identified that 95% of land within the TRC area is zoned for rural purposes. As such, the TRC area has a strong agricultural presence.

During consultation for the SIA, some community members raised concerns about the loss of agricultural land to resource activities in the local and regional areas. However, community members consulted for the SIA were appreciative of the role of the Acland Pastoral Company (APC) in maintaining agricultural uses around the Mine and managing weeds and pests on APC properties. The TRC Community Plan notes a future for the TRC area that has 'balanced development of mining, agriculture and housing'.

The long term sustainability of the SIA study area is also important to the local community. Environmental management and the sustainable use of ground water was identified as being important during consultation for the SIA, as well as the preservation of local creeks in the SIA study area, particularly Oakey, Doctor and Lagoon Creeks which traverse through Oakey and Jondaryan. Local environmental groups identified the need for improved weed and pest management across agricultural properties, appropriate buffering of waterways from development, and the protection of groundwater and water sources. **Chapter 5** and **Chapter 6** provide comprehensive assessments of surface and groundwater impacts respectively. **Appendix J.6** presents a conservation zone management plan, which includes the stretches of Lagoon Creek that passes through the revised Project.

16.11.3. Transport and access

The SIA study area is well connected to major centres by road transport. A number of bus services operate within the region. Kynoch Coaches operates a 'village to town' service from Crows Nest to Toowoomba City between Monday and Friday, whilst Sunbus operates a City Bus service between Toowoomba City and Brisbane. School bus services are provided along the Acland-Kulpi Road during school terms. NAC also supports a community bus which operates between Oakey and Toowoomba City. The community bus provides access to transport for people with a disability, people who are largely immobile, older people and people without private transport.

The Warrego Highway connects Toowoomba City to Ipswich in the east, and Oakey and Dalby in the west. The highway experiences high volumes of traffic and is occasionally subject to congestion at major intersections and periodic delays because of road works. Road safety is also an issue along the Warrego Highway. These circumstances are due in part to the large number of workers that commute between Toowoomba City and surrounding towns on a daily basis at peak time periods. Consultation for the SIA raised concerns that the movement of these vehicles, along with heavy trucks, has caused damage to the highway and local roads, and has impacted on community safety. Oakey is bypassed by the Warrego Highway. A detailed traffic assessment is provided in **Chapter 13**.

For agricultural industries, transport of produce to markets is a critical requirement which has strongly impacted rural activities in the area over the last 150 years (Rural Land Use Study 2010). The major airport is located in Toowoomba City with other main airstrips located at Millmerran, Oakey and Pittsworth. The Toowoomba airport provides commercial connections to Brisbane, Sydney and Charleville.

16.12. Community Safety

The SIA study area is located within the Toowoomba District of the Queensland Police Service Southern Region, which also includes the major centres of Toowoomba, Dalby, Roma and Warwick.

In 2011/12, the Southern District Crime Region generally had higher rates of offences committed per 100,000 people compared to Queensland overall, with the exception of robbery offences. Between 2008 and 2012, the Southern District Crime Region experienced an increase in offences against the person, with a particular significant increase in assaults as shown in **Figure 16-7**. However, this is comparable with Queensland's figures, where a significant increase in assaults was also shown.

Crime data for the Southern District Crime Region reported 422 breaches of domestic violence protection orders in Toowoomba in 2011/12. This indicates approximately 0.27% of the TRC population was charged with breaching a domestic violence protection order, slightly higher than the Queensland rate overall (0.26%) (QPS 2012).

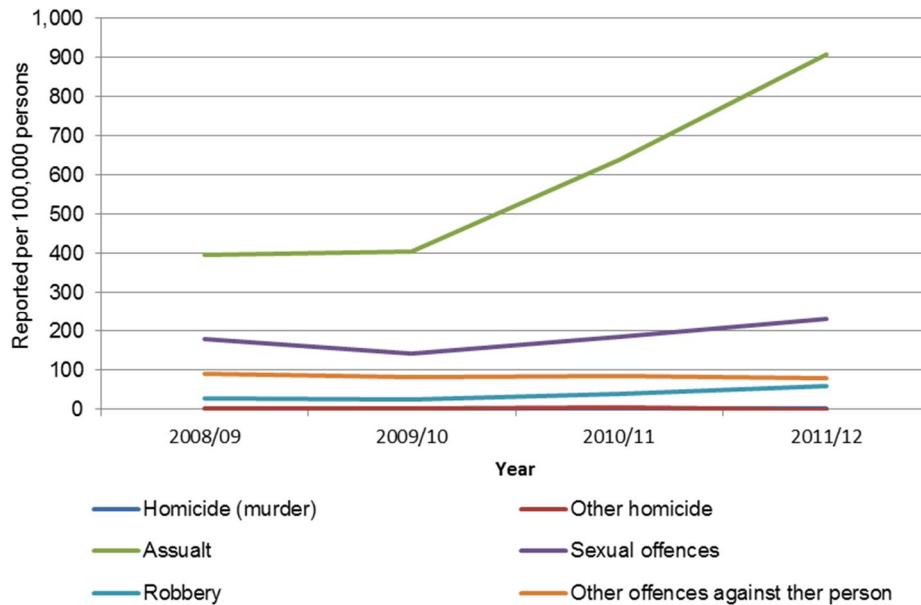


Figure 16-7 Offences against the person, 2008-2012

Source: Queensland Police Services, Region Crime Profiles 2012

16.13. Health

The Public Health Information Development Unit (PHIDU) provides information on a broad range of community health indicators for LGAs across Australia. The TRC area had similar levels of health compared to Queensland overall. The avoidable mortality rate for people aged up to 74 years provides an indicator of community health and well-being. Between 2003 and 2007, the average annual avoidable mortality rate in the TRC area was 173.6 per 100,000 people, above the State average of 169.9 per 100,000 people. This is described in **Table 16-14**.

The PHIDU also provides statistics on health risk due to alcohol consumption for people aged 18 years or over. In 2007, 5% of people in the TRC area were considered to consume alcohol at levels considered to be a high risk to health, lower than the Queensland average of 5.4%.

Local obesity levels in the SIA study area were also slightly lower than for Queensland, ranging from 16.2% to 22.9% of the population.

Table 16-14 Health risk factors

Indicator	TRC	Queensland
Avoidable mortality (per 100,000)	173.6	169.9
High risk alcohol consumption (%)	5.0	5.4
Obesity (%)	19.55	22
People with at least one of the four risk factors (%)	58.9	58.3

Source: Social Health Atlas of Australia, Queensland 2011, PHIDU (www.publichealth.gov.au)

An Emergency Management Plan is currently implemented at the Mine and has been updated for the revised Project. The Emergency Management Plan outlines arrangements with local emergency and health services regarding emergency management protocols and procedures. The Emergency Management Plan for the revised Project is located in **Appendix J.15**.

16.14. Social Infrastructure

Social infrastructure refers to community facilities, services and networks that help individuals, families, groups and communities meet their social needs, maximise their potential for development and enhance community wellbeing. It includes community support, education and training, sport and recreation, cultural, health and emergency facilities and services.

16.14.1. Regional Social Infrastructure

In general, communities have good access to regional level social infrastructure and services in Toowoomba City. This includes education, health and medical, sport, recreation and cultural, tourist accommodation, shopping and community support services.

At a local level, Oakey offers a range of district level services and facilities for residents in the SIA study area, with the smaller localities of Jondaryan, Kulpi, Maclagan, Quinalow and Goombungee providing basic services such as general stores, sports grounds and schools.

16.14.2. Education

Overall, residents in the SIA study area have good access to primary and secondary school facilities with seven primary schools in local townships and one state high school located in Oakey as shown in **Table 16-15**. Toowoomba City also has a number of primary and secondary schools, including private and state facilities. Students commute daily by bus and private transport to school within the SIA study area and the wider TRC area.

Table 16-15 SIA Study Area Schools, 2011 and 2012

School	2011 enrolment	2012 enrolment	Approx distance from the Mine
Primary Schools			
Kulpi State School	17	9	11 km
Goombungee State School (P-10)	115	105	15 km
Oakey State School	352	370	18 km
St Monica's School Oakey	208	204	18 km
Jondaryan State School	30	28	25 km
Haden State School	9	10	25 km
Quinalow State School (Prep-10)	77	72	35 km
Kingsthorpe State School	169	173	30 km
Biddeston State School	60	63	34 km
High Schools			
Oakey State High School	450	387	18 km

Source: Queensland Department of Education, 2012

Previous consultation with the District Education Office in 2011 for the Mine indicated that excess capacity currently exists in many local schools within the region with consultation for this SIA indicating that local schools would welcome new students and families to the SIA study area.

Students seeking tertiary qualifications can access the University of Southern Queensland campus at Toowoomba City or the University of Queensland Gatton campus. The University of Queensland has a small campus in Oakey offering equine studies.

Several child-care and play group facilities are located in the SIA study area. Consultation reported local child-cares were likely to have capacity for additional children in 2014. Child-care and play-groups in and around the SIA study area include:

- Cuddly Bears Babies and Children's Centre, Oakey;
- Little Champions Child Care, Oakey;
- Oakey C&K Kindergarten, Oakey;
- C&K Maclagan Windemere Kindergarten, Maclagan;
- Little Kookas Kingsthorpe Childcare, Kingsthorpe; and
- Goombungee Little Folks Group, Goombungee.

NAC provides support to schools and childcare centres in the region through a Community Sponsorship and Donation Program, and in-kind support. NAC also works with Oakey State High School to identify employment pathways for their students.

16.14.3. Employment and Training

There are no permanent employment and training agencies located within the SIA study area, but several organisations regularly travel to the area to provide services. Several services are available in Toowoomba City, which provide employment and training opportunities, including for disadvantaged groups and people with a disability. These services include:

- Downs Group Training;
- Downs Industry Schools Cooperation;
- Mission Employment;
- Skilled (apprenticeships and training); and
- Golden West Employment.

16.14.4. Sport, Recreation and Leisure

The SIA study area has a large number of sporting and cultural organisations, including arts and crafts groups, historical societies, land-care committees, music clubs, wineries, horse riding and camping. Oakey has a show ground, which is used for a variety of community related activities. The following sports facilities and clubs are an example of those located in Oakey:

- Oakey swimming pool;
- Oakey Racecourse and Showground Reserve (**Photograph 16-3**);
- Oakey indoor sports centre – squash, racquet ball, beach volleyball, netball, indoor cricket, dodge ball, dancing, gymnastics and soccer;
- Oakey Golf Club;
- Oakey and District Tennis Association;
- Oakey Bowls Club;
- Oakey and District Pony Club;
- Oakey and District Race Club - horse racing;
- Oakey Rugby League Football Club;
- Oakey Soccer Club;
- Polocrosse Club; and
- Touch football field.



Photograph 16-3 Oakey Racecourse and Showgrounds

A number of community clubs are located in Oakey, including the Lions, Returned Services League Club, Queensland Country Women's Association, Arts Council and Girl Guides. In Goombungee there is a golf club, a sports ground and a show ground. Toowoomba City has a wide variety of sports, recreational and leisure facilities.

Several cultural and historical venues are located within the SIA study area, including the Museum of Australian Army Flying in Oakey. The Woolshed at Jondaryan is the oldest operating woolshed in Queensland and was built in 1859. The historical facility is a popular attraction, hosting a number of major events and festivals each year including the Australian Heritage Festival.

16.14.5. Health and emergency services

The SIA study area falls within the Toowoomba and Darling Downs Health Services District and more specifically in the Oakey Health Service Area. Hospitals located closest to the Mine include the Oakey and Toowoomba Hospitals. The Oakey Hospital provides 71 nursing home beds, outpatient services, acute care and accident and emergency services, child and community health, and aged care services (Queensland Department of Health, 2012). NAC has an ongoing relationship with the Oakey Hospital and meets regularly with key management staff to understand potential concerns or opportunities.

The Oakey Community Health Service also operates from the Oakey Hospital, providing Home and Community Care services to local residents. These include transport, meals on wheels, hospital discharge planning and home safety assessments.

Consultation for this SIA included discussions with Queensland Health, the Oakey Hospital and Cherry Street Medical Centre. These discussions indicated Oakey was generally well-served in terms of

health and medical services. The majority of accident and emergency incidents in the region are treatable by a General Practitioner (GP) and relate primarily to road accidents and farm trauma.

The Cherry Street Medical Centre, located in the Oakey town centre, provides a board range of comprehensive medical services for rural families in Oakey and district. The practice offers five GPs from Monday to Friday. In addition, there is also a full-time GP operating from another practice based in Oakey.

The SIA study area is located in the Darling Downs – South West Queensland Medicare Local Scheme. The not-for-profit Scheme is part of a network of 61 Medicare Locals that have been set up by the Australian Government to coordinate primary health care delivery, tackle local health needs and fill identified service delivery gaps. The Darling Downs – South West Queensland Medicare Local services include:

- GP after-hours;
- eHealth;
- Mental health;
- Immunisation; and
- Access to allied health.

The Scheme also provides a Rural Primary Health Service program which aims to increase access for rural and remote communities to a range of primary and allied health care services and activities. Consultation with local medical services and the Oakey Hospital suggested there was some capacity for local health and medical services to provide for an increased population, particularly as NAC is self-sufficient in the provision of first aid on-site at the Mine. Medical facilities and services provided on-site at the Mine are provided in line with the requirements of the Health (Drugs and Poisons) Regulations 1996.

GP Connections is the Toowoomba and District Division of General Practice and covers the SIA study area as well as Toowoomba City. GP Connections programs include:

- **Reach Out and Recover (ROAR)** – Six free focused Psychological Services to patients referred through a Doctor. A therapist is available in Oakey one day a week, at local Doctors surgeries;
- **Indigenous Chronic Health Program** – Free visits to Doctors, allied health services, support and transport. Referral through Oakey Community Health Service. Information on free medication; and
- **Closing the Gap** – Indigenous Health programs.

Aboriginal and Torres Strait Islander health services are available in the SIA study area. The Goondir Aboriginal and Torres Strait Islander Corporation delivers holistic and culturally appropriate primary health care and related health services to local Aboriginal and Torres Strait Islander communities from Oakey to St George, in South West Queensland.

Emergency services in the SIA study area include:

- Ambulance stations, in Oakey and Toowoomba;
- Queensland Fire and Rescue services, in Oakey, Jondaryan, Goombungee and Toowoomba;
- Jondaryan Rural Fire Brigade service, Jondaryan;
- Police stations, in Oakey, Goombungee, Jondaryan, Peranga and Toowoomba; and
- State Emergency Services at Goombungee and Oakey.

The Jondaryan Rural Fire Brigade (**Photograph 16-4**) operates on a volunteer basis from Jondaryan, with 18 volunteers involved. Consultation for the SIA reported that the Jondaryan Rural Fire Brigade generally operated to capacity and is often the first to respond to rural fires, grass fires, car accidents and other emergencies in the district. Plans are in place to increase the capacity to service the region.

Recently, Jondaryan Rural Fire Brigade and the New Acland Mine emergency site crew acted to improve their communication and efficiency. During consultation for the SIA, the Jondaryan Rural Fire Brigade reported that NAC had implemented improved communication protocols between Mine site emergency services and external emergency services. This has been beneficial in providing a co-ordinated and efficient approach to emergency response in the region.

There are two State Emergency Service (SES) Groups situated within 20kms of the Mine, at Oakey and Goombungee, each with 10 active members. The Mine has had no effect on these local SES functions or Community Risk Rating (pers comms.July 2013).



Photograph 16-4 Jondaryan Rural Fire Brigade Shed

16.15. Summary of the Social Environment

Overall, key characteristics of the social environment of the SIA study area include:

- The age profile of the SIA study area is typical of many rural areas, with a lower proportion of younger people (15-24 years) and a higher proportion of people aged 45 years or older. Currently many young people are reported to be leaving the region to seek employment opportunities in urban areas. However, this process is counteracted by growth in the elderly population and with new families moving into the area for affordable housing and lifestyle opportunities.
- The SIA study area generally had lower levels of cultural diversity compared to Queensland. However, there were higher rates of people identifying as Indigenous than the Queensland average.
- In 2011, median weekly household incomes in the SIA study area were lower than Queensland as a whole. Pockets of disadvantage in Oakey were also reported. Whilst housing is still affordable in the SIA study area lower income households will be vulnerable to potential rental price increases.
- The SIA study area had a low level of unemployment. This is likely due to employment opportunities such as defence, meat and processing industries, agriculture and resource industries. There may also be under-employment of farmers, with some farmers working part-time or not registering as unemployed. As such, there may be some capacity in the SIA study area to provide labour to projects either from people who are currently employed accessing off-farm work, or by retaining people who would otherwise leave.
- The SIA study area has good access to community services and facilities, with local level services provided in Oakey and higher order services and facilities provided in Toowoomba. Additional capacity exists within many facilities and services, including education. Whilst more constrained, medical and emergency services retained capacity to service a modest population increase. The NAC Mine is self-sufficient in providing on-site first aid and emergency services and further medical and health facilities are available in Toowoomba City.
- The SIA study area is valued for its rural aspect, agricultural opportunities, access to affordable housing and safety.

16.16. Impact Assessment

This Section assesses the potential social impacts of the revised Project's construction and operation for local and regional communities.

16.16.1. Property and Land Use

The revised Project site is located within the Manning Vale and Willeroo resource areas. Between 2007 and 2012 NAC has acquired properties, predominately through voluntary acquisition, within and around Acland to:

- secure surface rights over future development areas within MLA 50232;
- establish buffer zones between operations and surrounding landowners; and
- secure transport corridors.

Negotiations with landowners have involved several strategies including opportunistic purchase of properties as they became available on the open market, option to purchase and compensation agreements. However, the majority of landowners (approximately 80%) have opted to sell their properties outright to NAC through voluntary negotiation.

The design of the rail spur and balloon loop which will transport coal from the revised Project to the Western Rail Line has been developed to minimise property impacts. NAC continues to consult with potentially affected landowners to ensure that a satisfactory arrangement for land access is achieved.

Since the development of the Mine, NAC has acquired 160 lots from 157 owners, covering an area of approximately 10,151 ha. Land previously acquired by NAC comprises a mix of residential, agricultural and community use within Acland and the surrounding area. Construction and operation of the revised Project will result in a change in land use, from current agricultural uses to mining activities.

Much of the farming land previously acquired by NAC is currently used for grazing purposes through the APC. APC is responsible for the sustainable management of NAC's 10,000 hectares of district landholdings, which generally involves the application of recognised agricultural practices outside the active mine areas. Generally, only 10% of the total mining lease area is actively mined at any one time. APC currently implements a progressive rehabilitation program to return mined land to agricultural and conservation uses whilst contributing to the region's agribusiness industry. To date, more than 211 ha of previously mined land has been rehabilitated. Cattle grazing trials and a local tree species planting program are also in progress. There are approximately 2,400 head of cattle on some 4,000 ha of land and cropped wheat, sorghum, barley and legumes on 2,400 ha. Environmental and community groups consulted for this SIA identified the need for continued weed and pest management on and around the land managed by APC.

Some community members have previously identified concerns about potential amenity impacts from the revised Project impacting on property values of neighbouring properties. Property values are driven by a range of factors. For example, agricultural land values are generally driven by their productivity values, whilst residential properties are more influenced by amenity and liveability. Consultation with local real estate agents for this SIA suggested that increased demand from the revised Project workforce and increased investment activity in the SIA study area may have a positive influence on property prices.

NAC will implement a range of environmental management and mitigation measures to minimise amenity impacts on neighbouring properties. Residents in Jondaryan will experience improved amenity following the decommissioning of the JRLF. NAC has also introduced veneering to coat all transported coal leaving the Mine by train as a measure to reduce the potential for coal dust coming from trains although independent scientific dust monitoring along the western rail corridor has noted that air quality meets health and amenity guidelines. NAC consistently meets strict government requirements in relation to dust. Amenity impacts are discussed in **Section 16.16.8** and comprehensively in **Chapter 15**.

Overall, some impacts are expected as a result of changes to property and land use, particularly the change from agriculture to mining. However, the continued use of buffer areas around the revised Project site will also help to minimise land use impacts by retaining agricultural land. In addition, the

retention of Acland will minimise impacts to land uses in Acland, particularly the Acland Memorial Park and the heritage listed Acland No 2 Colliery.

Table 16-16 summarises key impacts associated with property and land use, as well as mitigation strategies to manage impacts.

Table 16-16 Property and Land Use Impacts

Impact/Benefit	Management Objective	Mitigation/Enhancement
Change of land use from agriculture to mining.	Maintain agricultural opportunities in the SIA study area.	APC will continue to undertake grazing and agricultural activities in the SIA study area and will provide training and employment opportunities for local people wherever possible.
Changes to Acland.	Acland will be maintained.	Retain and maintain the Tom Doherty Park, War Memorial and the Acland No 2 Colliery.
Decreased property values.	Manage environmental and amenity impacts.	Move the existing JRLF onto the ML.
		Implement dust suppression measures, such as veneering and the use of enclosed hoppers for loading.
		Implement environmental management measures as identified in Appendix J.19 .

16.16.2. Population and demography

Factors that may impact on population and demography include:

- an increase in the Mine workforce and their families to the region due to increased employment opportunities; and
- retention of younger people in the region due to increased job opportunities.

The construction phase for the revised Project involves an increase in the mining fleet and workforce, construction of supporting infrastructure and development of the new resource areas.

As discussed in **Section 16.5.1**, an average of 136 people would be required for the construction phase, with up to 260 workers required during the period of peak construction activities. Given the existing relatively low levels of unemployment across the region, it is expected that some construction workers for the revised Project would need to be sourced from outside of the TRC area.

The proximity of the revised Project to Toowoomba City means that it is expected that some workers would reside in Toowoomba City and commute to the Mine on a daily basis. For the purposes of this assessment, it is assumed that this would be around 20% of the construction workforce. This would equate to an average of approximately 27 workers, and up to approximately 52 people during the peak construction period. The remaining construction workforce (approximately 109 people on average and up to 208 people during the peak construction period) will likely reside in other areas of South-East Queensland and live in the SIA study area while on-shift.

NAC will endeavour to source workers from the TRC area, where possible, depending on the specific skills required, the status of the labour market at the time, the trainability of the advertised position and the proposed timetable of construction.

Based on the experience of construction projects elsewhere, the construction workforce is anticipated to be predominantly male with a median age of 40 years (MISC 2011). As such, an increase of resident and non-resident workers to the SIA study area for the revised Project is likely to temporarily skew the gender balance towards males within the SIA study area. The SIA study area currently has a significantly lower proportion of people aged 25-44 years when compared to the TRC area and Queensland. The operation workforce may help to smooth this gap by encouraging working aged people to the SIA study area.

The retention and attraction of young people is important for the future growth and vitality of the region with many young people currently leaving the area to seek education and employment opportunities elsewhere. Employment and training associated with the revised Project may provide opportunities for young people to remain in the SIA study area and gain skills in the construction and / or mining industry.

Up to 135 new employees will be required for the operation of the revised Project. This would provide a peak workforce of up to 435 employees, with 300 positions filled by current NAC employees. NAC anticipates the majority of the operational workforce, at least 80%, will reside in the TRC area. This includes 70% who currently live in the SIA study area, plus 10% who relocate to the TRC area for the revised Project. The remaining 20% would live elsewhere and reside in the TRC area during their shift as presented in **Table 16-17**.

Table 16-17 Estimated population increase (operation)

	Assumption	Number of people
Total operational workforce	Including existing 300 person workforce	435 workers
New workers required for the revised Project		135 workers
Workforce		
Workers currently residing within the study area	Up to 70% of the new workforce	95 workers
Workers who relocate permanently for the Project	Up to 10%	14 workers
Workers operating on DIDO basis recruited from outside of the study area	Up to 20% (of new workforce)	27 workers
Non-working population		
Family members who relocate with workers (i.e. 10%)	Additional 1.6 people per worker (based on average 2.6 people per household)	22 people
Population increase		
Resident population		32 people
Non-resident workers		27 workers

Note: Numbers have been rounded.

Based on the current residential distribution of NAC workers and for the purposes of this assessment, for those workers who relocate to the TRC area, either temporarily or permanently (residents), it is assumed that:

- 45% may live in Oakey, Jondaryan and surrounding district; and
- 55% may live within the broader TRC area, particularly in Toowoomba City.

This would result in a total population increase of approximately 33 people in the TRC area, of which 15 people would be non-resident workers and approximately 27 people in the SIA study area, of which 12 people would be non-resident workers.

The increase in the resident population of the SIA study area, including children, the retention of workers from the existing operations, and the creation of some employment opportunities for local residents would also contribute to the longer term growth and vitality of communities in the SIA study area. Employment and training for the revised Project may encourage younger people to stay in the region. This would also contribute to reducing the current median age of the SIA study area, which was 38 years in 2011.

Potential impacts on community values and community cohesion from changes in population and demography from the revised Project are discussed in **Section 16.16.10** and potential impacts of social infrastructure are discussed in **Section 16.16.6**.

Table 16-18 provides a summary of the potential impacts and benefits that may be experienced with regard to the population and demography of the SIA study area. Key management measures are also outlined.

Table 16-18 Population and demography impacts

Impact/Benefit	Management Objective	Mitigation/Enhancement
Increase in the SIA study area and TRC area populations due to an increase of workers and their families for the revised Project's construction and operation.	Appropriately manage and support population growth.	<p>Where possible, NAC will continue its employment of local people.</p> <p>NAC will liaise with TRC and relevant Queensland Government agencies regarding the expected number of employees. This action would allow Government to plan changes to services and support population changes.</p>

16.16.3. Housing and Accommodation

New employees will either be sourced locally or further afield depending on the position's skill requirements and whether job related knowledge and skills can be gained through internal training and any safety concerns relating to initial reduced skill levels are mitigated. The use of local people for employment is not expected to put an additional burden on the region's accommodation resources.

During the construction phase of the revised Project, an average of approximately 136 workers would be required with up to 260 workers required during the peak construction phase. NAC's intention is to use local employment options where possible. However, it is expected that an average of approximately 109 workers and up to approximately 208 construction workers during peak construction, may be required to be sourced from outside the region.

Construction workers may choose to live in Toowoomba or share dwellings whilst on-shift. Assuming the non-resident construction workforce will reside in share accommodation with two people per dwelling, an average of approximately 55 houses would be required to accommodate non-resident workers whilst they are on-shift. This housing demand is likely to be absorbed into the broader TRC area housing market. Consultation with real estate agents in Oakey for this SIA suggested that there is a strong rental market in Oakey, with five or six applications received each week for rental accommodation and many rental properties filled before the dwellings become vacant (pers. comm, 07/05/13). Although there is strong demand, supply is also increasing with new investment properties coming to market in the SIA study area.

Operational workers moving to the region for employment by the revised Project possess the option of residing in several centres, such as Toowoomba, Oakey and Jondaryan. Currently, approximately 45% of the existing workforce permanently lives in Toowoomba City. Therefore, it is expected that a majority of new employees will follow this trend. This would result in the need for approximately 18 houses in TRC and 23 houses in the SIA study area.

The greater TRC area's growing real estate market and service bases are expected to cover this demand, particularly as it will be spread across several years. A strong interest in buyers purchasing investment properties in Oakey was reported during consultation for this SIA, with investors identifying opportunities to invest in properties to cater for workforce requirements, of the Mine, the abattoirs and other local industries. This will assist in the supply of local rental housing and reduce possible upward pressure on rental prices. Any increase in rental costs resulting from increased demand for the revised Project would provide economic benefits for housing investors from increased income from rental houses.

Contract workers may also require accommodation periodically. As such, the demand for temporary accommodation such as hotels, motels, guest houses and rental housing is likely to increase. This increased demand would generally be accommodated in Oakey or Toowoomba, with vacancies available at establishments in the SIA study area and TRC area, as discussed in **Section 16.10.5**. As a result, ad-hoc and short-term accommodation demands are not expected to adversely affect the overall provision of accommodation to tourists and other visitors to the SIA study area and TRC area, although some impacts may occur for short periods during peak times, such as during major events. These would be managed through consultation with accommodation providers. Impacts on temporary

accommodation from the revised Project are expected to be minimal. Accommodation providers in the SIA study area may experience positive impacts such as increased utilisation during the construction phase of the revised Project, leading to increased financial gains for the accommodation providers.

Early consultation with local government, businesses and accommodation providers will be undertaken by NAC to identify trends or issues as they arise. Demands around the type of housing required will be an important factor so that appropriate housing stock can be provided.

It will also be important for NAC to continue working with local real estate agents to provide appropriate housing in the SIA study area and to monitor changes in the property market and impacts on the local community.

Table 16-19 provides a summary of housing and accommodation impacts and the mitigation measures that will be applied to manage these.

Table 16-19 Housing and Accommodation Impacts

Impact/Benefit	Management Objective	Mitigation/Enhancement
Demand for worker housing, impacting on availability of rental and purchase properties in the SIA study area and TRC area.	Assist in managing the demand for housing and accommodation.	NAC will undertake early consultation with local temporary accommodation providers to determine peak periods and ability to service workers and contractors.
		Wherever possible, adopt a target of 70% local employment to reduce demand for housing in the SIA study area.
		As required, NAC will liaise with the appropriate State and local government authorities to devise solutions to short- and long-term housing requirements.
Increased opportunities for local short term accommodation establishments.	Enhance benefits to local tourism and accommodation providers.	NAC will liaise with local accommodation providers so that demand for short term accommodation can be met locally where possible.
Potential increase in housing costs.	Minimise increases in rental and property purchase prices.	Where possible and appropriate, NAC will source new employees for its construction and operation workforces from the TRC area to help minimise the demand for additional accommodation.
		As required, NAC will liaise with the appropriate State and local government authorities to investigate potential long-term sustainable housing options in the local area.
		NAC will continue to liaise with local real estate agents to advise on potential workforce increase / decrease where relevant and identify issues in the local rental market.

16.16.4. Employment and training

Potential impacts on employment and training may relate to:

- direct employment opportunities, through the creation of new positions and/or replacement through turnover;
- indirect employment opportunities, through increased demand for local business services;
- continued provision of education and training opportunities; and
- continued agricultural education and training opportunities through APC.

The revised Project will provide opportunities for employment for the TRC area population, with an average of approximately 136 direct jobs required during construction, increasing up to approximately 260 jobs during the peak construction phase and up to 135 positions for new employees during operation. In addition, the revised Project would support indirect employment through increased demand for local business services.

Where possible, and depending on the specific skills of the available position, NAC will source new employees locally. However, the relative low levels of unemployment (approximately 4.2% in 2011), and high level of labour force containment may impact on the ability for workers to be sourced locally. A shortage of mining related skills may also create difficulties in sourcing local employees. At the 2011 Census, only 2.6% of workers from the SIA study area were employed in mining related occupations. On a broad level, the *Surat Basin Workforce Development Plan (2011)* reported that there is strong competition for labour in the Surat Basin and low levels of unemployment.

A small proportion of the construction and operation workforce will need to be sourced from outside the TRC region. This is not unusual for the community and is expected to have little impact. The TRC region generally experiences relatively high numbers of transient workers associated with the seasonal demands of agricultural and meat processing industries.

Low levels of unemployment across the TRC area will likely see strong competition for local labour, but there are opportunities to support mining industry skill development amongst local people including people from disadvantaged backgrounds e.g. indigenous people. NAC is an Equal Employment Opportunity employer and is committed to the diversity of its workforce and ensuring that all applicants are fairly considered and no unlawful discrimination takes place throughout the advertising, interviewing and selection processes, therefore minority groups will be given equal employment opportunity. NAC will ensure transparent advertising of employment opportunities to the local communities through online advertising, and using the Oakey Community Information Centre as a point of contact for employment enquiries 'on the ground'.

Consultation with the Oakey Chamber of Commerce and State Government Agencies for this SIA identified the need for more employment opportunities, particularly for those finishing school. The level of benefit for local communities from employment would be dependent on an individual's skills and access to appropriate education and training programs. NAC currently offers training and apprenticeship opportunities and will continue to do so wherever possible which will benefit the community regardless of their age.

The revised Project will also contribute to indirect employment opportunities across the local and regional areas. Estimated contribution to employment across all regions from construction and operation of the revised Project, will include direct, indirect and induced impacts. Employment impacts are measured as an average FTE per year, rather than the total over the revised Project's life. This allows for a clearer representation of potential contributions to employment. The revised Project's average contribution to employment (including direct, indirect and induced impacts) per year across all regions is estimated at 468 FTEs from construction/capital expenditure and 3,082 FTEs from operational expenditure. As such, NAC will remain a key employer and economic contributor to the local and regional areas.

The revised Project will provide training opportunities for school leavers, lower-skilled workers and trainees during construction and operations. This will be facilitated by NAC's partnerships with industry, education institutions and government. In particular, employment opportunities for school leavers will be facilitated through NAC's partnership with Oakey State High School. This partnership involves the placement of school-based apprentices.

NAC will also target under-represented groups including women, the unemployed, unskilled workers, members of the Indigenous community and people with a disability to deliver work readiness and skills development training. This will be achieved through up-skilling existing and new employees and working with local recruitment firms to target diverse population groups.

There are no TAFE or Registered Training Authority (RTA) facilities in the SIA study area, which may impact on the capacity to provide education and training locally. However, a range of training providers are available in Toowoomba, and NAC will continue to encourage development of partnerships with training providers in Toowoomba to deliver relevant programs and strategies.

Oakey State High School is engaged with two trade training initiatives that aim to provide high school students and school leavers with opportunities to work in the resources and trade sectors. The Inner Downs Trade Training Centre (TTC), based at Oakey State High School, leads a cluster of schools that include:

- Millmerran State School;
- Pittsworth State High School; and
- Quinalow State School.

The TTC aims to provide additional pathways and learning choices, principally in the traditional trades, and aims to capitalise on the current and emerging industries. In 2009, the Inner Downs TTC had been provided with funding of more than \$1.8 million to also address skills shortages in the telecommunications, energy, construction and manufacturing industries (Surat Basin Workforce Development Plan 2011).

Oakey State High School is also in partnership with the Queensland Minerals and Energy Academy (QMEA). QMEA is an initiative of the Queensland Resources Council and the Queensland Government, with a focus on bringing young people from schools into careers in the resources sector. The QMEA will assist young residents and students of the SIA study area to undertake trade-based apprenticeships and traineeships to boost these opportunities.

NAC currently creates several placements for trainees and apprentices, as well as vacation and graduate employment each year. In the past three years, NAC apprentices have won nine awards and have been finalists 31 times in local, regional and state apprentice and trainee awards programs. In addition, NAC currently offers up skilling opportunities for up to 30 existing NAC employees annually to further progress their skills and career prospects. This will continue throughout the life of the revised Project. NAC will continue working with Oakey State High School to support the programs and curriculum in place at the school. There is also an opportunity to continue to work with education providers to secure opportunities for school leavers in the region. This includes immediate employment, vocational training or university, with a view to them securing regional jobs after they have completed post-school study.

NAC will continue to adopt an equal employment opportunity approach to all recruitment and continue to support a diverse workforce that includes vulnerable population groups including people from culturally and linguistically diverse backgrounds, Indigenous peoples, women, school leavers, the unemployed and underemployed.

Overall, the revised Project is expected to contribute positive opportunities for the SIA study area through the continued provision of training and apprenticeships for local people in traditional trades, mining and agriculture. NAC will assist with the building of skills through the provision of trainee and apprenticeship opportunities wherever possible, including through the Mine and APC. Conversely, if the revised Project does not go ahead, a significant number of job losses will occur which will result in significant community impact. **Table 16-20** summarises impacts on employment and mitigation and enhancement measures.

Table 16-20 Employment and Training Impacts

Impact/Benefit	Management Objective	Mitigation/Enhancement
Creation of direct and indirect employment opportunities.	Maximise levels of local employment.	Where practical and possible, NAC will recruit workers from the TRC (i.e. based on skills and job specific recruitment requirements at the time of employment).
		Where practical and possible NAC will train previously unskilled local labour to meet recruitment requirements.
	Provide employment and training opportunities for Indigenous people and disadvantaged groups.	NAC will continue its current EEO policy which ensures it is a non-discriminatory and equal opportunity employment provider.
Continued provision of education and training opportunities.	Maximise training opportunities for local people.	NAC will continue to liaise with Oakey State High School and other local education providers to identify training opportunities.
	Provide apprenticeships and training in diverse skill areas.	NAC will wherever possible continue to provide apprenticeships and traineeships in various skill areas, including agriculture.

16.16.5. Economy, Local Business and Industry

Benefit and impacts on the economy, local business and industry from the revised Project may include:

- procurement opportunities for local businesses and service providers;
- increased local expenditure due to increased household incomes;
- impact on businesses due to a shortage of labour and attraction of workers away from non-mining industries; and
- employment opportunities for local farmers and other people to supplement their income which allows them to remain in the area.

The revised Project will provide opportunities for local and regional businesses to supply goods and services associated with infrastructure construction, as well as longer term activities such as transportation and sale of the coal product.

As reported in **Chapter 17**, the revised Project will significantly contribute to the state's economy. The estimated capital cost of the revised Project is over \$896 million. The revised Project will provide an annual \$1,395 million into the Queensland economy and will add \$18.7 billion to the Australian economy over the life of the mine.

Estimated economic benefits for the SIA study area can be maximised through strategies to increase local worker and business participation, including from local Indigenous communities. An increase in regional procurement would represent a significant increase in regional revenue during the operational phase of the revised Project.

In the longer-term, consultation for the SIA identified further opportunities for NAC to increase its levels of local procurement through the use of local trades and services. NAC will undertake consultation with, and work in conjunction with local business and industry groups to provide relevant information to local businesses regarding procurement opportunities and processes.

Where local businesses are unable to meet all the requirements of NAC or the contractors, those goods and services required during the construction phase would need to be purchased from outside of the TRC area.

As indicated in **Section 16.7**, short term accommodation providers may also benefit from the increased accommodation requirements from related contractors, particularly during the revised Project construction phase. This will financially benefit short-term accommodation providers in the SIA study area. The revised Project is not assessed to have a significant impact on property values due to the existing number of unoccupied dwellings in the region.

The revised Project has the potential to create positive economic impacts through increased local expenditure and consumption of regional goods and services. As mining incomes are generally higher than average, there is an opportunity for the Mine workforce to increase expenditure in the SIA study area. Consultation for this SIA indicated that the presence of the Mine workforce in Oakey was important in supporting local retail outlets such as the IGA and food outlets.

During the operational phase of the revised Project, the increased number of families in the SIA study area would also support local businesses through the consumption of a wider range of goods and services to meet the needs of the household. Additionally, household income benefits may contribute to increasing the median household income in the study area which is also currently below the Queensland average.

Increased competition for skilled and unskilled labour due to the higher wages offered by the revised Project may impact on existing local businesses in the SIA study area. The use of workers from outside of the TRC area and the continuation of workers from the existing mining operations would likely significantly reduce the competition for local workers.

Consultation for the SIA indicated that the community in the SIA study area was concerned about declining opportunities to work in the local agriculture industry. However, community members also recognised the employment and training opportunities provided through APC and recognised the company was maintaining a significant agricultural presence in the area. APC currently provides a small amount of employment in the agricultural industry and one traineeship. Training and employment opportunities with APC will continue wherever possible as part of the revised Project.

Table 16-21 summarises impacts and mitigation measures relating to the economy, local business and industry.

Table 16-21 Economy, Local Business and Industry Impacts

Impact/Benefit	Management Objective	Mitigation/Enhancement
Creation of direct and indirect employment opportunities.	Maximise levels of local employment.	Where practical and possible, NAC will continue its recruitment of workers from the TRC area (i.e. based on skills and job specific recruitment requirements at the time of employment).
		Where practical, and if necessary, NAC will train previously unskilled local labour to meet recruitment requirements.
	Provide employment and training opportunities for Indigenous people.	NAC will continue its current EEO policy which ensures it is a non-discriminatory and equal opportunity employment provider.
Increased procurement opportunities for local businesses.	Facilitate access of local businesses to economic opportunities.	NAC will continue its preferential use of local businesses and suppliers (i.e. based on an assumption of competitive pricing).
		Where appropriate, NAC will advertise tender requirements in the SIA study area and TRC area.
		NAC will liaise with local accommodation providers so that demand for short term accommodation can be met locally where possible.

Impact/Benefit	Management Objective	Mitigation/Enhancement
Competition for skilled/unskilled labour	Minimise labour impacts on non-mining industries	Where practical and possible, NAC will continue to build a diverse workforce and provide training and employment opportunities to local people (including indigenous people) based on its equal opportunity for all policy.
Declining local employment opportunities in agriculture	Provide employment opportunities	NAC will continue to provide employment and training opportunities through APC wherever possible.

16.16.6. Social Infrastructure

The additional people to the SIA study area for the revised Project may impact community services through:

- increased demand for community services and facilities, including health services and education; and
- increased support for sport, recreation and leisure facilities due to population growth.

Overall, very limited population and demographic changes are expected to occur in the SIA study area as a result of the revised Project. As such, minimal impacts are expected on the current social infrastructure, health and welfare, education, policing and emergency service provisions in the SIA study area. Increased demand from the revised Project workforce and their families has the potential to impact on service levels due to limited medical services available within the SIA study area. This may include visiting the local General Practitioner (GP) for vaccinations, medical prescriptions or diagnosis. Consultation with the Oakey Hospital suggested this is currently not a concern with the Mine workforce and it is not expected to change significantly as a result of the revised Project. The provision of on-site first aid and use of GPs in Toowoomba for NAC employees will also reduce any potential impacts on local health services. Given the relatively small size of the workforce and the modest number of people expected to move or stay in the region due to employment at the Mine, impact on allied health services of the revised Project within the SIA study area is expected to be minimal. Medical facilities and the provision of on-site first aid at the Mine Site will continue to be provided in line with the requirements of the Health (Drugs and Poisons) Regulations 1996.

Consultation for the SIA indicated that the local State Emergency Service has not had any activations directly or indirectly related to the operation of the Mine. In addition, the SIA study area was well serviced by a number of volunteer and full-time emergency services. As such, it is expected the revised Project will have a minimal impact on local emergency services and operations. Continued communication between the local emergency services and NAC emergency staff will help provide consistent and co-ordinated response to emergencies in the local area. In addition, NAC will work with the Rural Fire Brigade to develop consistent protocols and clear roles and responsibilities.

Social infrastructure will generally be unaffected by the revised Project. In particular, infrastructure and utilities, such as water, electricity, gas, serving health facilities will not be disrupted by project works or compromised during the operations phase of the revised Project. One school bus service will be

directly affected by the revised Project. This may result in longer school travel times or changes to the school bus route, which may affect some families along the existing route. The affected school bus route will need to be gradually relocated to the proposed new access road to Acland once the revised Project enters into the construction and operational phase.

Due to the small increase in traffic movements generated by the revised Project during the construction and operation phase, no significant impacts are anticipated to the operation and safety of school bus services within close proximity to the revised Project. A comprehensive traffic impact assessment is presented in **Chapter 13**.

Retaining young people in the area was seen as positive for the growth and vitality of the SIA study area. Local schools and child-care services reported capacity to service a growing population. As such, a population increase as a result of the revised Project is not expected to place pressure on local schools or other social and community services.

For some community facilities, the potential increase in patronage would provide opportunities to improve the sustainability of these services or possibly expand the range of services offered. Likewise for some sport and recreation clubs, the increase in the SIA study area population from the revised Project provides the opportunity to improve the viability of some clubs through increased membership and participation in organised sports. Consultation for this SIA indicated that this would be welcomed by the community, with many people wanting to see increased participation and support for community groups.

NAC will provide a first aid service and fire fighting services at the revised Project site. This will reduce the demand placed on government services. In addition, NAC will continue to liaise with the Queensland Government to identify potential impacts on emergency services over time. On-going consultation with the emergency services should also identify on-going implications for fire services, including the need for upgraded infrastructure or additional training for fire fighters. This is discussed further in **Section 16.12**.

As very minimal demographic and population changes are expected as a result of the revised Project, the existing social infrastructure and services facilities and operations will remain unaffected by the revised Project.

NAC will continue its consultation with the Oakey Hospital. The Oakey Hospital Super Intendant is currently on the CRG and provides valuable feedback and input to the NAC.

Table 16-22 summarises impacts and benefits associated with social infrastructure. Key mitigation measures will be implemented to avoid or minimise impacts where possible.

Table 16-22 Social Infrastructure Impacts

Impact/Benefit	Management Objective	Mitigation/Enhancement
Increased demand for health and emergency services.	Appropriately plan for increased demands on health and emergency services.	NAC will liaise with state and regional health departments to provide information about the revised Project and the potential for associated service provision requirements.
		NAC will continue to undertake appropriate site induction and health / safety training of consultants, contractors and employees to help minimise the number of health and safety related incidents
	NAC will continue to provide on-site first aid and fire fighting services.	
	Implement appropriate emergency management plans.	NAC regularly upgrades its Emergency Response Plan which includes consultation with local emergency service centres, including fire, ambulance and police stations and the Jondaryan Rural Fire Brigade.

16.16.7. Access and connectivity

Access and connectivity may be affected by the revised Project through:

- increased vehicle movements on the existing road network associated with the revised Project workforce;
- materials supply during the construction and operational phases; and
- altered traffic patterns and journey times resulting from permanent road relocations.

The construction and operational phases are not expected to have a significant impact on traffic operations for key road links, with the expected increase in traffic expected to remain within an acceptable range for the affected roads and intersections. During detailed construction planning, Traffic Control Plans will be prepared to safely manage road works and minimise disruption to traffic during construction.

There are four key level crossings that will be impacted by the traffic movements generated by the revised Project during the construction and operation phase, resulting in changed road conditions. Advance warning signs and alternate access routes will be installed at key points within the road network to prevent public access to the rail corridor and to maintain a safe distance between the local roads and the road corridor.

The revised Project is not expected to impede transport and access for vulnerable groups in the community or people with a disability. Access to and from Oakey, and to health and community services will be maintained throughout the revised Project's construction and operation. In addition, NAC will continue to financially support a community bus which operates between Oakey and Toowoomba City. The community bus provides access to transport for people with a disability, people who are largely immobile, older people and people without private transport.

Over the next 11 to 20 years, the Warrego Highway Upgrade Strategy (Queensland Government, 2012) proposes a major transformation of the highway to facilitate development of the rapidly growing Surat Basin and growth in Toowoomba. A key project involves the duplication of the highway between Toowoomba and Dalby to improve capacity and safety. The duplication of this section of the highway would also support employees to safely commute to the revised Project from Toowoomba or other areas. A comprehensive traffic impact assessment is presented in **Chapter 13**. In addition, and ALCAM Assessment Report is provided in **Appendix G.8.4**.

The implementation of the following mitigation measures will be important in maintaining access and connectivity for local residents:

- notifying local communities about proposed changes to local traffic access and providing clear signage around changed traffic conditions;
- providing traffic control measures designed for the safe movement of vehicles;
- providing adequate on-site parking to accommodate employee vehicles;
- maintaining at least one lane open for traffic at any time near construction sites; and
- continued liaison and arrangements with TRC regarding work maintenance and upgrading.

Table 16-23 highlights the impacts that may be experienced in terms of traffic and access. Mitigation measures are also discussed.

Table 16-23 Access and Connectivity Impacts

Impact/Benefit	Management Objective	Mitigation/Enhancement
Decreased connectivity on and around the Mine due to increased vehicle movement.	Limit changes in local access and connectivity.	Access to individual properties surrounding the SIA study area will be maintained using the existing peripheral road network.
		NAC will develop and implement a communication program to inform local residents and road users of planned changes to traffic and access conditions undertaken as a result of the revised Project.
		NAC will employ appropriate road safety signage and minimise delays to travel during the revised Project related construction and transport activities.

16.16.8. Amenity

Amenity plays a large part in determining community liveability and well-being and is a term given to the attributes and appeal of a place. This quality can be negatively affected by loss of privacy or views, or by nuisance arising from such things as noise, light and dust.

During stakeholder consultation for the SIA, some participants raised concerns about noise and dust impacts from the JRLF. The JRLF will be decommissioned for the revised Project, following commissioning of the rail spur and balloon loop. This will improve amenity for adjacent properties and residents. As part of the JRLF decommissioning strategy, all coal, building structures and concrete

floors will be removed from the existing JRLF. Upon decommissioning of the JRLF, it is intended that the site will be used for grazing and agricultural purposes. This will improve the amenity for residents in Jondaryan, and also for motorists travelling along the Warrego Highway near Jondaryan. The decommissioning strategy for the JRLF is presented in **Chapter 3**.

Due to the rural landscape within and surrounding the SIA study area, night lighting is expected to create a glow in the night sky that will be visible from the surrounding region and nearby residences. The Mine already provides some luminance in the night sky and it is unlikely that the revised Project will increase the existing visual impact. A range of screening methods will be implemented to screen the revised Project site from neighbouring properties and roads where possible. In particular, vegetation will be planted to screen visual impacts. Further detail about visual impacts and mitigation measures are provided in **Chapter 15**.

NAC will employ an extensive environmental monitoring regime for the revised Project. The revised Project's EM Plan is located in **Appendix J.19** and outlines the environmental monitoring regime.

APC will continue to operate agricultural and grazing activities outside of the active mine areas. Generally, only 10% of the lease area is mined at any one time. This will assist in maintaining the agricultural amenity of the local area, and help to provide a visual buffer between residential properties and the revised Project site.

Table 16-24 summarises the means by which key amenity impacts will be managed.

Table 16-24 Potential Amenity Impacts

Impact/Benefit	Management Objective	Mitigation/Enhancement
Improved amenity at site of JRLF.	Removal of the JRLF.	Decommissioning of the JRLF.
		Removal of buildings, coal stockpile and concrete floors at JRLF.
		Use of the JRLF site for grazing and agriculture following decommissioning of the JRLF.
Rural and agricultural amenity.	Maintain rural and agricultural cohesion in local area where possible.	The current and future activities of APC will promote the continued agricultural use of land surrounding the SIA study area.
Dust, noise and visual impacts from mining operations.	Minimise environmental impacts associated with mining activities.	NAC will implement the environmental impact control strategies and measures described in Appendix J.19 .
		Use of profiling, veneering and dust suppression measures.
		NAC will implement visual screening measures, such as tree planting along roads and neighbouring properties

16.16.9. Community Health and Safety

Potential impacts on health and safety may occur for the workforce as well as communities in the SIA study area.

The revised Project workforce may be vulnerable to stress, fatigue and road safety concerns, related to shift work and daily commuting. Potential impacts may include increased road safety risks due to driver fatigue, particularly when driving after long shifts. NAC will implement appropriate education to regulate driver behaviour and this will assist in managing these impacts. NAC's *Fitness for Work Policy – Alcohol Management, Fatigue Management and Drug Management* is located in **Appendices A.3, A.4 and A.5** respectively and will be implemented for the revised Project.

Consultation with the Oakey Hospital indicated that communicable diseases were generally well managed in the community and were not an issue for the existing mine workforce. It was not expected that the revised Project workforce will present any concerns regarding health for the local community. NAC will continue to implement a range of health and safety measures relevant to the workforce, including full checks and vaccination programs for communicable diseases and seasonal illnesses. The revised Project is unlikely to place additional demand on the Oakey Hospital, most accidents and illnesses are treated at the Mine or sent to the larger hospital bases at Toowoomba and Brisbane. However, NAC will continue to work in partnership with the Oakey Hospital to identify and manage potential concerns. New Hope is also currently a significant sponsor of the CareFlight rescue helicopter service's Toowoomba operations.

Consultation with community groups and businesses for this SIA identified existing concerns with road safety in the SIA study area. In particular, railway crossings in and around Oakey, and intersections in Jondaryan with the Warrego Highway were identified as being of particular concern for motorists. Trucks and heavy vehicles currently contribute to safety issues in these areas and an increase in the number of heavy vehicles during construction using these roads would exacerbate existing concerns.

Traffic management measures will be implemented for the revised Project, which will assist in managing potential impacts on local residents. This will include encouraging suppliers to deliver materials and equipment during non-peak times and reporting any damage or deterioration to roads used for the revised Project. The development of suitable traffic management plans for specific issues (i.e. haulage of oversized equipment), obtaining the necessary regulatory approvals, use of signage and regular communication with local communities will also assist in managing road safety impacts. Access and connectivity around the revised Project site are discussed in **Section 16.16.7** and in **Chapter 13**.

NAC will establish and maintain contingencies to deal with emergency situations. An emergency response capability and appropriate facilities will be provided, and maintained, to enable the management of emergency situations in an appropriate manner. In addition, Emergency Preparedness and Response shall be tested via emergency exercises, audits and reviews to verify adequacy and effectiveness. This will be completed in consultation with local emergency service providers. NAC has developed emergency and evacuation planning and response procedures in consultation with state and regional emergency service providers. NAC will continue to liaise with Queensland Fire and Rescue Service (QFRS), Queensland Ambulance Service (QAS), local State

Emergency Services, local ambulance, local hospital services and local Police throughout all stages of the revised Project. NAC will continue to conduct periodic emergency simulation drills with its regional emergency service providers over the life of the revised Project.

Perceived health impacts of coal dust were identified by community members in Oakey and Jondaryan during consultation for the SIA. The current mining operation meets strict government requirements in relation to dust and noise and extensive monitoring confirms that air quality standards are consistently met. This commitment to dust and noise monitoring and compliance will continue for the life of the revised Project. Scientific, independent dust monitoring along the rail corridor has also confirmed that dust levels are equivalent to, or less than, levels of dust recorded away from the rail corridor.

Despite this, a number of measures will be employed as part of the revised Project to minimise community concerns. These include decommissioning the JRLF, use of enclosed hoppers for the loading of coal and continued veneering of coal prior to transport by rail. A comprehensive air quality impact assessment is provided in **Chapter 9**. A range of recently implemented and planned dust and noise management measures were discussed with the community and stakeholders as part of consultation for this SIA. The consultation indicated that the community was pleased with the results of the recent coal veneering as a management measure to manage coal dust and were satisfied with NAC's proposed management strategies to further manage dust as part of the revised Project, such improved technology at the coal loading facility.

In terms of social behaviour, there were no reported concerns around the Mine workforce. As such, the revised Project workforce is not expected to raise concerns around social issues or behaviour. NAC will continue to implement a range of worker management measures, including its Code of Conduct, fatigue management policy, and zero alcohol policy.

The revised Project may improve local well-being for some community members, particularly the long term unemployed, by providing opportunities to participate in paid employment. This has the potential to result in positive mental and physical health outcomes.

Table 16-25 summarises key impacts and mitigation measures associated with community health and safety.

Table 16-25 Community Health and Safety Impacts

Impact/Benefit	Management Objective	Mitigation/Enhancement
Increased road safety issues during construction.	Avoid safety hazards and minimise the risk of Project-related injuries and incidents.	NAC will implement effective and clear signage in all areas affected by the revised Project related traffic.
		NAC will provide full safety induction training for all vehicle drivers (either employees or contractors) to ensure that high standards of safety are upheld at all times.
		NAC will advise the local community about revised Project related activities that may directly impact upon the public (e.g. changes to road conditions).
		Review the Emergency Management procedures on an annual basis that it remains up-to-date and meets the relevant Government policies, guidelines and procedural requirements for incident management.
Improvements in the health and wellbeing of vulnerable groups if they are able to access employment or other opportunities that improve their financial wellbeing.	Provide employment and training opportunities for vulnerable groups	If practical and possible, implement a 70% local workforce target to maximise local employment opportunities.
		Continue to apply the NAC EEO Policy and wherever possible continue training and apprenticeship programs.
Safety concerns related to increases in heavy vehicles in towns and local roads.	Minimise road and traffic risks.	Develop a Traffic Management Plan for the revised Project in consultation with relevant state and local government departments.
		Communication (i.e. signage, advertisements in local papers, consultation materials) about changes to local access, road hazards and expected traffic volumes during construction.
		Communicate corporate policies to the workforce
Concerns of impacts associated with mining activities.	.Continue compliance in relation to environmental factors to minimise impacts	NAC will implement the environmental impact control strategies and measures described in Appendix J.19 .

16.16.10. Community values

The construction and operation of the revised Project could impact on local community values through changes to land use, impacts on local amenity, and effects on social and environmental values held by the community.

Whilst the community has a long association with resource projects, rural amenity and lifestyle remain highly valued. Some community members perceive the previous acquisition of agricultural properties by NAC has resulted in a diminishment in the rural amenity of the Study area and a reduction in local

agricultural activity. Previously acquired properties are being managed by APC. This has helped to protect the rural amenity of the Study area and maintain agricultural land uses. However, some properties within the Study area will change from rural and farming land use to mine activities. This may impact on community values through the impact to rural amenity and loss of farming land.

Social changes to the SIA study area in recent years have contributed to the disruption of previous community networks and cohesion; namely, the relocation of defence staff and their families from Oakey to Toowoomba City; the amalgamation of small agricultural properties into large holdings; the movement of families out of Acland; and the aging population of the farming community which has seen some agricultural properties cease as farmers retire. These changes have disrupted community networks in the SIA study area to some degree.

However, such social changes have also resulted in positive impacts for some residents in the SIA study area. Positive impacts of the NAC voluntary acquisition process were reported during consultation for the SIA. For example, voluntary property acquisition has helped to improve the financial security for some residents impacted by the Mine's activities and allowed greater choice in property purchase and lifestyle decisions.

Residents and stakeholders of the Project have not identified that they are experiencing project fatigue, nor are they expected to experience project fatigue as a result of the revised Project. The revised Project is the only resource project located in Oakey and surrounds. As such, there are no other consultations or project information being presented to the communities of the SIA study area, which reduces the risk of project fatigue.

There has been a high level of interest in the revised Project, with residents of the SIA study area regularly visiting the New Hope Community Information Centre located at Oakey. In addition, there has been ongoing interest and applications from community members to participate in the next round of the CRG. This further demonstrates that the study area is not experiencing project fatigue.

If project fatigue occurs as the revised Project progresses, NAC can revise and alter its consultation program to tailor community contact to best suit the communities evolving needs. However, NAC will maintain relevant community contact points throughout the life of the revised Project.

Community cohesion in the SIA study area may be improved through the revised Project if new employees settle within these localities. Community perception suggests that an increased population in the SIA study area may restore the sense of community in these towns, particularly if the increased population supported more local businesses. This benefit would not be experienced if workers choose to settle only in Toowoomba City and commute to the revised Project site. During consultation for the SIA, residents reported the need for NAC to create opportunities for employees to live locally. These opportunities will be facilitated by NAC through:

- inviting community representatives to distribute information to employees on the liveability of these towns; and
- engaging with rural community representatives to explore opportunities for encouraging focused settlement of employees.

Consultation for the SIA identified the importance to the community of several items of historical and social significance within Acland. These included:

- Acland War Memorial;
- Former Acland No. 2 Colliery - listed on Queensland's Heritage Register, 2007; and
- The Tom Doherty Park.

Community members supported the proposal by NAC to protect these items of local value from mining activities. NAC has committed to the protection and maintenance of these items and sites, resulting in an overall benefit to the local community and visitors to the area. Maintenance of these items includes general landscaping and cleaning. Community members were also supportive of the revised Project plans to retain Acland. The Acland No.2 Colliery Conservation Management Plan is provided in **Appendix J.12**.

Social amenity also relates to the ability to live in accordance with one's values, both social and environmental. Consultation revealed that some community members were concerned with potential environmental impacts of the revised Project, such as increased localised flooding, water contamination and the use of groundwater. This impact is discussed in **Section 16.16.10**. Comprehensive flood studies and impacts to groundwater resources are presented in **Chapter 5** and **Chapter 6** respectively. In addition, weed and pest control was identified as an important environmental value for the community. APC currently implements an environmental management strategy to manage weeds and pests on APC land. A Pest and Weed Management Plan for the revised Project is located in **Appendix J.9**.

Table 16-26 summarises the means by which key amenity impacts will be managed.

Table 16-26 Community Values

Impact/Benefit	Management Objective	Mitigation/Enhancement
Reduced rural and agricultural amenity.	Maintain rural and agricultural cohesion in the local area where possible.	NAC will continue its ongoing community consultation to provide updated information and respond to issues and concerns.
		The current and future activities of APC will promote the continued agricultural use of land surrounding the SIA study area.
Improved community cohesion in smaller towns.	Enhance cohesion associated with increased population and participation in smaller communities.	NAC will continue initiatives to encourage participation of employees in events and clubs.
Reduced ability to live in accordance with environmental and social values.	Minimise environmental impacts associated with environmentally sensitive activities.	NAC will implement the environmental impact control strategies and measures described in Appendix J.19 .
Preservation of sites of historical or social	Maintain identified sites of historical or social	NAC will maintain the sites through general ground keeping and maintenance.

Impact/Benefit	Management Objective	Mitigation/Enhancement
significance	significance	

16.16.11. Revised Project workforce

Whilst recognising social impacts of the revised Project on local and regional communities, it is also important to consider impacts on the revised Project workforce and their families.

During construction and operation, employees will be given freedom of choice in sourcing accommodation to suit their personal preferences and family needs. This arrangement will assist in minimising family impacts that are often associated with employees residing in worker's camps or who live away from their permanent residence. The following issues may be experienced by the revised Project workforce:

- stress or anxiety associated with lifestyle transition as a result of relocating to a new town, for example, children adjusting to a new school environment and families adapting to their new community;
- isolation from existing social networks and support mechanisms as a consequence of relocating to a new area;
- travelling times, especially for those employees choosing to reside in Toowoomba City and commuting to the revised Project site via the Warrego Highway.

These impacts will be monitored and managed as required by NAC through on-going communication with employees. NAC will also encourage employees to be involved in the local community, through their support of community groups such as voluntary emergency services, and also by publicising various community groups, social and sporting clubs via various mechanisms. Health and safety will remain a priority for NAC and employees will be advised of the benefits of safe commuting practices, and will also be appropriately managed in relation to key issues, such as fatigue, to minimise the potential for accidents on and off the revised Project site.

Employee health and safety will remain a priority for NAC. First-aid facilities, equipment and supplies are provided so that trained people can properly administer first-aid. These facilities are provided as follows:

- an established first-aid room is located in the main Administration building. This first-aid room is equipped with adequate first-aid supplies to treat minor injuries and illnesses through to trauma.
- the first-aid room is adequately equipped and maintained, by the Safety Training Department. The site first-aid room and emergency response vehicle are equipped with first aid kits and other specific equipment (oxyviva and defibrillators) that are specifically designated for major medical emergencies and can be used in the routine provision of minor first-aid.
- additional first-aid supplies are kept in lockable cupboards in the site first-aid room. First Aiders are responsible for access to first-aid supplies.
- first-aid resources, other than the First Aid Room, are located in the Maintenance Workshop, Coal Handling Plant Control Room and Crib Room, and field Crib Rooms.

- all light vehicles on site are fitted with an Emergency First Aid Kit.
- any usage of first-aid supplies must be reported and the kit returned to 'ready for use' condition.
- a list of the required contents is included with each first aid kit and first aid station.
- a monthly check will be made by the designated first-aid officers to ensure the first aid stations are maintained in 'ready-for-use' condition. A record of First-Aid Station Inspections will be maintained.
- operators of vehicles are required to check their first aid kits as part of their vehicle pre-start inspections.
- a register of first-aid and emergency response equipment is maintained within the Safety and Health Management System.
- emergency Showers and Eye Wash Facilities
- portable eye wash cylinders are provided on service trucks and emergency response vehicle.

In addition, NAC will continue to provide a 24 hour employee support program. This employee support program provides counselling and support to all employees and immediate family members.

Consultation with staff from the Oakey Hospital and local medical centre indicated that these management measures were adequate for the revised Project.

Table 16-27 summarises impacts on the revised Project workforce and recommends mitigation measures.

Table 16-27 Revised Project Workforce Impacts

Impact/Benefit	Management Objective	Mitigation/Enhancement
Employee stress and anxiety related to transition and social dislocation.	Integrate employees into receiving communities.	NAC will monitor, and help address as required, employee's social integration issues
Safety risks associated with travelling to site.	Implement a Fatigue Management Policy	NAC will continue to communicate corporate policies, including fatigue management.
		NAC will continue to manage health and safety issues, such as fatigue, in an effort to reduce the potential for accidents on and off the revised Project site.
Limited access to social services in smaller towns	Encourage local economic development and diversification.	Where practical and possible, NAC will continue to support local businesses and services to strengthen the local economic base.

16.16.12. Cumulative impacts

There are five resource and energy projects planned, proposed or currently under construction in the TRC area, including the revised Project. Cumulatively, these would increase the non-resident and resident populations in the TRC area. The *Surat Basin Workforce Development Plan* (Skills Queensland, 2011) indicates that the construction and resource sector workforce in the Surat Basin

will increase to 110,864 workers in 2016, from 85,791 workers in 2009. The revised Project would represent approximately 0.4% of these workers, including employees currently employed with NAC. In addition, most of this growth will occur in the Surat Basin, west of the revised Project site.

Regionally, the cumulative increase in resident and non-resident populations in the region is likely to result in increased demand for services and facilities. During both the construction and operational phases there may be indirect population growth associated with back-filling of local positions. This will occur where existing workers, for example farm hands or diesel mechanics, leave their existing employers to pursue employment opportunities in the resources industry. Their former employers will then need to back fill their positions, possibly with labour from outside the region.

However, growth was seen to be positive for the Oakey community, and increased direct and indirect employment opportunities are likely to encourage growth in the local communities and encourage young people to remain in the region following school. The cumulative impacts in the region will also bring economic, employment and training opportunities to the TRC area.

Importantly, the revised Project is an extension of an existing mining activity and therefore is not expected to negatively impact on housing or employment diversity.

16.16.13. Revised Project Decommissioning

The revised Project is anticipated to continue to 2029. Appropriate closure and decommissioning planning will occur well in advance of the revised Project closure. Some impacts are likely to be associated with the decommissioning phase of the revised Project, particularly due to land use changes, traffic impacts, and population and employment changes. The intention is to use the revised Project site as grazing and agricultural land following decommissioning of the revised Project site.

The decommissioning phase of the revised Project will involve predominately rehabilitation and infrastructure removal tasks. Transport off-site will be required to remove infrastructure for re-sale or recycling and the removal of waste material by a licensed waste contractor. This may result in a short-term increase in traffic, particularly heavy vehicles, in the SIA study area. However, transport requirements for the decommissioning phase of the revised Project will be minor compared to the other project phases and is likely to occur during daylight hours on week days.

The decommissioning of the revised Project will result in a decline in local employment opportunities, as the 435 positions associated with the revised Project will no longer be required. This may cause an increase in the unemployment rate in the SIA study area. In addition, unless alternative sources of employment can be found locally there is likely to be a decrease in the residential population of the SIA study area as workers move to other projects outside of the SIA study area. However, it is likely that some workers will be able to secure employment on other projects proposed, planned, under construction or operating within the TRC area at that time.

Chapter 3 and **Chapter 4** provide further information and assessment on the decommissioning process and post mine land use.

16.17. Summary of Impacts

Potential impacts of the revised Project's construction, operation and decommissioning on local and regional communities were identified and evaluated. This included both beneficial and adverse impacts and direct and indirect impacts. Impacts considered were informed by the ToR, other SIAs for mining projects locally and elsewhere and outcomes of consultation.

A risk framework was used to assess and prioritise each impact as presented in **Table 16-28**. It considered:

- the extent, duration and severity of each impact;
- the probability of an impact; and
- the significance based on the consequence and probability.

Table 16-28 Extent, duration and severity scale

Extent	Duration	Severity	Probability
International	50 years +	Major positive	Definite
National	25-50 years	Positive	Probable
Regional	5-25 years	Neutral or Minor impact	Possible
Local	1-5 years	Negative	Unlikely
On site	<1 year	Major negative	Impossible

The level of significance was determined based on the scale described in **Table 16-29**. Impacts identified as being of moderate or high significance are addressed in the Social Impact Management Plan (SIMP) located in **Appendix J.14**.

Table 16-29 Significance Ratings

Significance
High positive
Moderate positive
Neutral or low
Moderate Negative
High Negative

Table 16-30 provides a summary of the Project's key impacts and opportunities and includes an assessment of the likely extent, duration, severity, probability and significance of the impact or opportunity.

Table 16-30 Summary of Impacts

Criteria	Impact/Opportunity	Extent	Duration (years)	Severity	Probability	Significance
Property and land use	Change of land use from agriculture to mining.	Local	5-25	Negative	Definite	Neutral or low
	Retention of Acland.	Local	5-25	Positive	Definite	Neutral or low
	Decreased property values for properties adjacent to the revised Project site.	Local	5-25	Neutral or minor impact	Possible	Neutral or low
Population and demography	Increase in local and regional population due to additional workers and their families.	Region	5-25	Positive	Probable	Neutral or low
Housing and accommodation	Decreased availability of local rental and purchase properties.	Local	5-25	Neutral or minor impact	Possible	Neutral or low
	Increased opportunities for local short term accommodation establishments.	Local	1-5	Positive	Possible	Moderate positive
	Decreased affordable housing options.	Local	5-25	Neutral or minor impact	Possible	Neutral or low
	Safety risks associated with travelling to revised Project site.	Region	5-25	Negative	Probable	High Negative
Employment	Creation of direct and indirect employment opportunities.	Region	5-25	Major positive	Probable	High positive
Economy, local business and industry	Creation of direct and indirect employment opportunities.	Region	5-25	Major positive	Probable	High positive
	Increased procurement opportunities for local businesses.	Region	1-25	Major positive	Probable	Moderate positive

Criteria	Impact/Opportunity	Extent	Duration (years)	Severity	Probability	Significance
Education and training	Continued provision of education and training opportunities.	Region	1-25	Major positive	Probable	High positive
Social infrastructure	Increased demand for health services.	Region	1-25	Neutral or minor impact	Possible	Neutral or low
	Increased demand for education services.	Local	5-25	Neutral or minor impact	Possible	Neutral or low
Access and connectivity	Decreased connectivity on and around the revised Project site due to increased vehicle movement.	Local	1-25	Negative	Possible	Moderate Negative
Amenity	Improved amenity at the JRLF.	Region	5-25	Major Positive	Probable	High Positive
	Decreased rural and agricultural amenity.	Local	5-25	Negative	Probable	Neutral or low
	Dust, noise and visual impacts from mining operations.	Local	5-25	Negative	Possible	Neutral or low
Community Health and Safety	Increased risk to community safety.	Local	5-25	Neutral or Minor impact	Possible	Neutral or low
Community values	Reduced rural and agricultural amenity.	Local	5-25	Negative	Probable	Neutral or low
	Improved community cohesion in smaller towns.	Local	5-25	Positive	Possible	Moderate Positive
	Preservation of sites of historical or social significance.	Local	1-25	Positive	Probable	Moderate Positive

16.18. Summary of Mitigation Measures

Table 16-31 outlines a summary of the mitigation measures proposed to manage the social impacts associated with the revised Project. These have been used as the basis of the action plans contained in the SIMP located in **Appendix J.14**.

Table 16-31 Mitigation Measures and Commitments

Impact	Mitigation Measures and Commitments
Community development	Continued operation of the Community Investment Fund and Community Sponsorship and Donation Program.
	Maintain a community grievance mechanism to allow landholders and other stakeholders to lodge issues, concerns, questions or suggestions and have them responded to in a timely manner.
	Engage with local schools to provide specific curriculum assistance through specialist visits.
Change of land use from agriculture to mining.	APC will continue to undertake grazing and agricultural activities in the SIA study area and provide training and employment opportunities for local people.
	Continued progressive rehabilitation of mined land – returned to grazing potential.
Changes to Acland.	Retain and maintain the Tom Doherty Park, War Memorial and the Acland No 2 Colliery.
Impact on amenity	Move the JRLF onto the revised Project site.
	Continue dust suppression measures, such as veneering and implement the use of enclosed hoppers for loading.
	Implement environmental management measures as identified in Appendix J.19 .
	NAC will continue its on-going community consultation to provide updated information and respond to issues and concerns.
	The current and future activities of APC will promote the continued agricultural use of land surrounding the revised Project site.
	Continue the CRG as a communication channel to identify concerns and disseminate information
Increase in SIA study area and TRC area population.	Where practical and possible, NAC will continue its employment of local people.
	Where practical and possible, NAC will source employment from unskilled labour to help meet labour demand.
Demand for worker housing, potentially impacting on availability of local rental and purchase properties.	NAC will liaise with local accommodation providers so that demand for short term accommodation can be met locally where possible.
	Where practical and possible, adopt a target of 70% local employment to reduce demand for housing in the SIA study area.
Increased opportunities for local short term accommodation establishments.	NAC will liaise with local accommodation providers so that demand for short term accommodation can be met locally where possible.
Creation of direct and indirect employment opportunities.	Where practical, NAC will recruit local community members (i.e. based on skills and job specific recruitment requirements at the time of employment).
	Where practical and if necessary, NAC will train previously unskilled local labour to meet recruitment requirements.
	Continuation of existing partnerships with educational institutions, training groups and government agencies (such as Oakey State High School, University of South

Impact	Mitigation Measures and Commitments
	<p>Queensland and Downs Group Training)</p> <p>Continued implementation of structured training programs such as apprenticeships and traineeships, and opportunities for vacation employment and graduate employment through NAC</p> <p>Continued appointment of a dedicated Community Liaison Officer, to provide information around employment opportunities to local communities.</p> <p>Job advertisements placed online and in physical locations to allow local access</p>
Creation of employment opportunities for vulnerable groups	<p>Maintain relationships with government agencies, training groups and community groups to assess the opportunity to provide employment for long-term unemployed people or people with a disability, and assessing skills gaps and training required.</p> <p>Implement a targeted advertising campaign to attract a diverse workforce, including circulation of employment opportunities to local community groups and development of specific ads targeting females and Indigenous workers, dedicating 10% of NAC's recruitment budget to targeting advertising, distributing employment advertisements to community groups and the Oakey Reconciliation Council.</p> <p>Maintain preference clauses for employment of local Indigenous peoples in line with the Cultural Heritage Management Plan and Cooperation Agreement</p> <p>Adopt flexible and fair work arrangements such as flexible shift times, working from home arrangements and school hour shifts which are designed to assist employees with maintaining work/life balance and help disadvantaged groups transition to the workforce.</p> <p>Continued adoption of equal employment opportunities for recruitment and continue to support a diverse workforce that includes vulnerable population groups including people from culturally and linguistically diverse backgrounds, Indigenous peoples, women, school leavers, the unemployed and underemployed.</p> <p>Continue to build partnership with the Oakey Reconciliation Council to encourage Indigenous peoples to apply for employment opportunities.</p>
Education and training.	<p>NAC will continue to liaise with Oakey State High School and other local education providers to identify training opportunities.</p> <p>Wherever possible, NAC will continue to provide training and apprenticeships in various skill areas, including agriculture.</p> <p>Continued practice of up-skilling and training staff to progress to new positions and training to Black Coal industry standards.</p> <p>Continued implementation of Management and Leadership Development Training.</p> <p>Continued access to Employee Educational Assistance Program to encourage staff to continue their education or undertake further training and qualifications.</p> <p>Continued relationship with Downs Group Training to facilitate structure training programs.</p>
Procurement opportunities for local businesses.	<p>NAC will continue its preferential use of local businesses and suppliers (i.e. based on an assumption of competitive pricing).</p> <p>Where appropriate, NAC will advertise tender requirements locally and participate in information sessions regarding local procurement requirements.</p>

Impact	Mitigation Measures and Commitments
	<p>NAC will liaise with local accommodation providers so that demand for short term accommodation can be met locally where possible.</p> <p>NAC will adopt and promote the Queensland Resources and Energy Sector Code of Practice for Local Content.</p> <p>NAC will establish a register for local contractors to register interest in the revised Project.</p> <p>NAC will hold local briefings for businesses explaining what opportunities are available for local contractors and the anticipated timelines.</p> <p>NAC will provide or facilitate the provision of pre-tender training and information to ensure interested parties are tender ready. NAC will hold bi-annual procurement information sessions during detail design and construction of the project with potential contractors and subcontractors to explain NAC requirements and expectations.</p> <p>NAC will provide feedback if requested by suppliers that were unsuccessful in prequalification or tendering.</p> <p>Present at the Toowoomba Regional Council 2014 Energy Summit to inform local business of NAC content requires and provide information to allow businesses to ready themselves for tender opportunities.</p> <p>NAC to sponsor a local workshop to educate businesses on preparing for tenders and becoming 'tender ready'.</p> <p>Develop and distribute fact sheet on tender requirements.</p> <p>Consult with the Oakey Reconciliation Council to identify Indigenous business opportunities.</p> <p>Develop and distribute fact sheet on procurement requirements and processes to New Hope Community Information Centre at Oakey, Oakey Reconciliation Council and Traditional Owner representatives.</p>
Declining local employment opportunities in agriculture.	Where possible, NAC will continue to provide employment and training opportunities through APC.
Safety risks associated with travelling to site.	<p>NAC will continue to communicate the company's corporate policies.</p> <p>NAC will continue to manage health and safety issues, such as fatigue, in an effort to reduce the potential for accidents on and off the revised Project site.</p>
Impacts on health and emergency services.	<p>NAC will liaise with state and regional health departments to provide information about the revised Project and the potential for associated service provision requirements.</p> <p>NAC will continue to undertake appropriate site induction and health / safety training of consultants, contractors and employees to help minimise the number of health and safety related incidents.</p> <p>NAC will continue to provide on-site first aid and fire fighting services.</p> <p>NAC has prepared an Emergency Management Plan for the revised Project (Appendix J.15), which will include consultation with local emergency service centres, including fire, ambulance and police stations and the Jondaryan Rural Fire</p>

Impact	Mitigation Measures and Commitments
	Brigade.
	NAC will continue to liaise directly and through the CRG with Oakey Hospital and other local health services.
Increased demand for education services	NAC will continue to liaise directly with Oakey State High School and other local schools through the Community Reference Group and other mechanisms.
	Partnerships and relationships with local educational institutions such as Oakey State High School, University of Queensland and University of Southern Queensland to understand concerns and opportunities.
Decreased connectivity on and around the Project site due to increased vehicle movement.	Access to individual properties surrounding the revised Project area will be maintained using the existing peripheral road network.
	NAC will develop and implement a communication program to inform local residents and road users of planned changes to traffic and access conditions undertaken as a result of the revised Project.
	NAC will employ appropriate road safety signage and minimise delays to travel during the revised Project related construction and transport activities.
	Develop a Traffic Management Plan for the revised Project in consultation with relevant state and local government departments.
Increased traffic congestion and travelling times for local people.	NAC will undertake maintenance and upgrade activities on road surfaces that are significantly affected by the revised Project related traffic in a timely manner. This will be done in consultation and agreement with the TRC.
Improved amenity at site of JRLF.	Decommissioning of the JRLF.
	Removal of buildings, coal stockpile and concrete floors at JRLF.
	Use of the JRLF site for grazing and agriculture following decommissioning of the JRLF.
Dust, noise and visual impacts from mining operations.	NAC will continue to implement the environmental impact control strategies and measures described in Appendix J.19 .
	Use of enclosed hoppers, veneering and dust suppression measures at the rail loading facility.
	NAC will implement visual screening measures, such as tree planting, along roads and neighbouring properties.
Improvements in the health and wellbeing of vulnerable groups if they are able to access employment or other opportunities that improve their financial wellbeing.	Where practical and possible, implement 70% local workforce target to maximise local employment opportunities.
	Continue to build a diverse workforce by ensuring that it is non-discriminatory and equal employment opportunity provider and continue training and apprenticeship programs wherever possible.
Safety concerns related to increases in heavy vehicles in towns and local roads.	Develop a Traffic Management Plan for the revised Project in consultation with relevant state and local government departments.
	Communication (i.e. signage, advertisements in local papers, consultation materials) about changes to local access, road hazards and expected traffic volumes during construction.

Impact	Mitigation Measures and Commitments
	Develop a fatigue and road safety strategy for the workforce.
Concerns of impacts associated with mining activities.	NAC will use enclosed hoppers and other dust mitigation measures to reduce dust impacts associated with the coal stockpile.
	NAC will implement the environmental impact control strategies and measures described in Appendix J.19 .
Reduced ability to live in accordance with environmental and social values.	NAC will implement the environmental impact control strategies and measures described in Appendix J.19 .
	Continued operation of the New Acland Community Reference Group to understand community concerns and disseminate project information.
	Continued commitment to provide a Community Liaison Officer.
	Continued land and stakeholder engagement and implementation of the Local Stakeholder Management Plan.
	Continued communications through the project phone line and email address and maintaining a complaints management process.
	Participation in the Oakey Community Care Group, Toowoomba Surat Basin Enterprise, Oakey Chamber of Commerce and other local groups.
	Continue to liaise with local Traditional Owners as outlined in the Cultural Heritage Management Plan and Cooperation Agreements and continue to build relationship with Oakey Reconciliation Council.
Preservation of sites of historical or social significance.	NAC will maintain the sites through general ground keeping and maintenance.
Limited access to social services in smaller towns.	Where practical, NAC will continue to support local businesses and services to strengthen the local economic base.
Worker health and safety	Medical facilities and services and emergency services will be provided on-site at the Mine in line with the requirements of the Health (Drugs and Poisons) Regulations 1996.
	Continue to manage communicable diseases and viruses through vaccination programs and education.
	Undertake appropriate site induction and health/safety training of consultants, contractors and employees to minimise the number of health and safety related incidents on-site.
	Implement Emergency Management Plan to incorporate the revised Project.
	Maintain an effective and well-communicated Safety and Health Management System (SHMS) to limit the number of mining-related emergencies. The SHMS will include relevant health aspects, such as fatigue management.
	Maintain current Employee Assistance Programme (EAP) to assist employees in dealing with personal issues and minimise impact on family assistance services locally.
	Maintain Fitness for Duty (FFD) Policy to avoid onsite accidents and emergencies.

16.19. Conclusion

The revised Project will provide several key social benefits for local and regional communities. Benefits will include:

- creation of employment for local and regional communities;
- opportunities for local business and industry to supply goods and services to the revised Project;
- increased spending power of employees and the associated boost to the local economy;
- training and apprenticeship opportunities at the Mine or with APC wherever possible; and
- support for local organisations and community groups through donations and population growth.

These benefits will be enhanced through the continued application of local procurement and recruitment policies, as well as through NAC's direct involvement in local communities.

The additional workers and their families to the SIA Study area may result in some negative impacts due to increased demand for residential accommodation and decreased housing affordability. The state of the local and regional property markets will also have an important influence over the degree of impact. However, the property market was generally considered fit to absorb the small population increase associated with the revised Project, as housing and accommodation will be required over time. Population growth was welcomed by businesses and community services in the local area and was seen to contribute to the sustainability and vitality of the local area.

Commuter traffic and road damage is an existing problem between Toowoomba City and Dalby and as a result, may deteriorate if the population of the TRC area is significantly increased. Future government policy direction and spending levels in these service and infrastructure areas will also be critical factors.

The following management measures will be implemented by NAC to enhance benefits and minimise impacts:

- where practical and possible, NAC will continue to undertake recruitment that promotes the employment of local people;
- NAC will continue to consult with local government and community service providers to discuss the requirements of the revised Project and possible business opportunities;
- NAC will provide ongoing feedback to the TRC, government agencies and community groups with regard to the progress of the revised Project so that the necessary preparations can be made in a timely manner;
- NAC will assist in maintaining agricultural land uses and opportunities in Oakey through APC; and
- NAC will continue its community support program for local individuals, clubs and schools.

The application of the recommended mitigation measures will help reduce the potential impact on employees and nearby communities.