

Social Impact Assessment  
for  
South Galilee Coal Project  
January 2012

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## **1 INTRODUCTION**

Joint venture participants AMCI (Alpha) Pty Ltd (AMCI) and Alpha Coal Pty Ltd (a subsidiary of Bandanna Energy Limited) propose to establish a new coal mine in the Galilee Basin, south-west of the township of Alpha (**Figure 2-1**). Alpha is located approximately 170 kilometres (km) west of Emerald and 450 km west of Rockhampton in Central Queensland.

Referred to as the South Galilee Coal Project (SGCP), the project will target thermal coal at depths suitable for both open cut and underground mining. The life of the SGCP is anticipated to be 35 years. The SGCP is expected to produce up to 17 Million tonnes per annum (Mtpa) of high volatile, low sulphur thermal coal for export to international markets. Product coal from the SGCP will be transported from the Galilee Basin to the Abbot Point Coal Terminal (APCT) near Bowen via third party access to a rail line constructed by another mining proponent.

AMCI is the manager of the joint venture and is responsible for preparation of the Environmental Impact Statement (EIS). AMCI is herein referred to as 'the proponent'.

The SGCP workforce is anticipated to be up to approximately 1,600 personnel during the construction stage, up to 1,288 personnel during the operational stage and up to 300 personnel during the decommissioning stage.

The workforce will be fly-in/fly-out (FIFO) and will be sourced from regional, coastal and south-east Queensland (SEQ), (**Section 3.1.2**). The workforce will be housed in an on-site accommodation village located within Mining Lease Application (MLA) 70453. The FIFO workforce will travel to the Alpha Aerodrome where they will be collected and transported to the SGCP by bus.

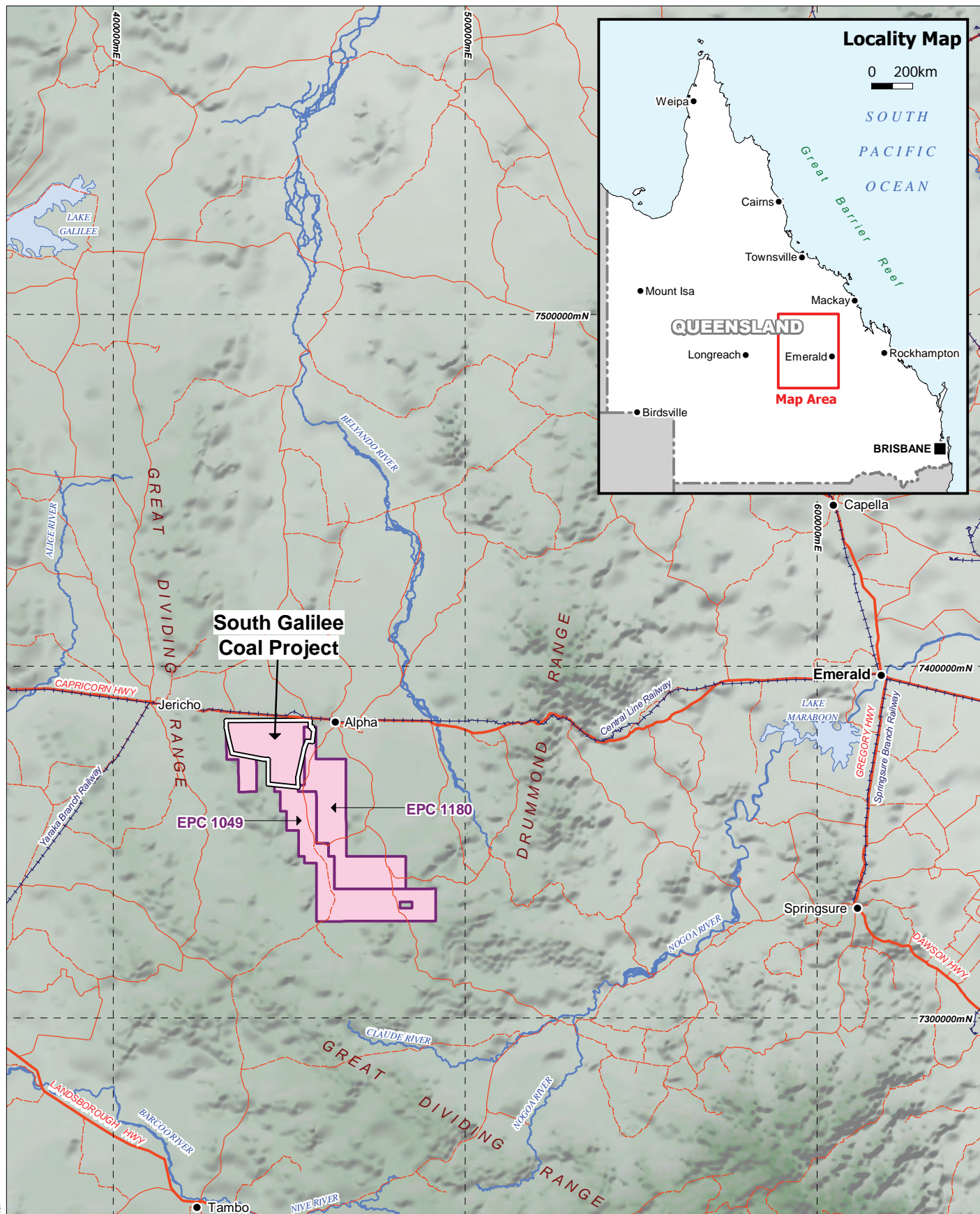
## **2 OBJECTIVES**

This Social Impact Assessment (SIA) has been developed as part of the SGCP EIS process under the Queensland *State Development and Public Works Organisation Act 1971*. The SGCP EIS will be assessed by the Office of the Coordinator General, Department of Employment, Economic Development and Infrastructure (DEEDI). This SIA has been developed to meet the requirements of the Final Terms of Reference for the EIS (Final ToR), released in November 2010 (Office of the Coordinator-General, 2010).

The objectives of this SIA are to:

- collect and analyse information about the baseline social environment;
- collect and analyse information about key social and cultural issues, population change and social changes with the potential to occur as a direct or indirect result of the SGCP; and
- develop strategies for mitigation, management, monitoring and review of social impacts.





#### LEGEND

- MLA70453
- Exploration tenement
- SGCP infrastructure corridor
- Principal road
- Road (sealed)
- Road (unsealed)
- Railway
- River
- Proposed Railway
- Population centre

Data Source:  
Tenement - DEEDI. Topography (250k) - Geoscience Australia.

## Alpha Coal Pty Ltd South Galilee Coal Project

### Regional Location Plan

0 25 50  
Kilometres

Scale: 1:1,500,000 (A4)

13/03/2012

Datum: GDA94  
Projection: MGA55

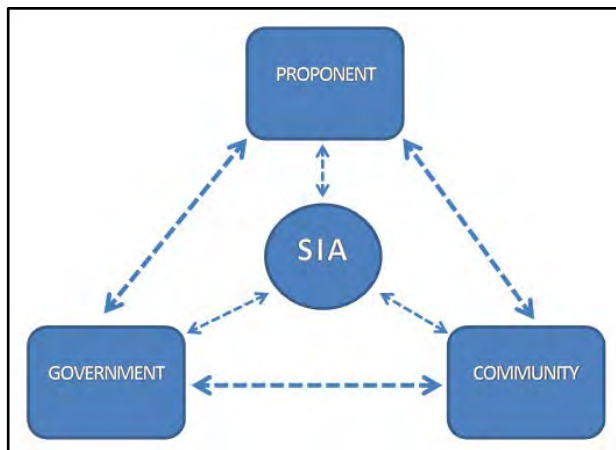
FIGURE 2-1

### 3 METHODOLOGY

As described in Section 2, this SIA has been developed to meet the requirements of the Final ToR for the SGCP EIS, in consultation with the DEEDI's Social Impact Assessment Unit (SIAU).

This SIA has been developed in consideration of the *Social Impact Assessment Factsheet* (Department of Infrastructure and Planning [DIP], undated), *Social Impact Assessment: Guideline to Preparing a Social Impact Management Plan* (DIP, 2010) and other relevant policies and publications.

**Figure 3-1** summarises the context within which the SGCP SIA was developed. It highlights the iterative and collaborative approach undertaken by AMCI, government and related agencies and community stakeholders throughout the development of this SIA.



**Figure 3-1 SIA Context**

#### 3.1 STUDY AREAS

In order to describe the baseline social environment and assess potential impacts, this SIA has delineated social and cultural areas of interest (study areas) relevant to the SGCP. The study areas were determined in consideration of the scale and context of the SGCP as well as the below factors:

- the potential for social and cultural impacts to occur;
- potential cumulative impacts of other relevant proposals or projects;
- the location and types of physical and social infrastructure, settlement and land use patterns;
- the social values that might be affected by the project (e.g. including the integrity of social conditions, visual amenity and liveability, social harmony and wellbeing, and sense of community); and
- Indigenous social and cultural characteristics such as Native Title rights and interests and cultural heritage.

This SIA examines two study areas, including:

- a 'Local Study Area' (LSA), comprising the Barcaldine Regional Council (BRC) Local Government Area (Barcaldine LGA), (with particular focus on the township of Alpha and landholders who are directly affected or adjacent to the SGCP); and
- a 'Regional Study Area' (RSA), made up of the following sub-groups:
  - Inland sub-group - Central Highland Regional Council LGA, focussing on Emerald;

- Coastal subgroup - with a focus on the Bundaberg Regional Council, Cairns Regional Council, Fraser Coast Regional Council, Townsville City Council and Whitsunday Regional Council LGAs; and
- SEQ sub-group - with a focus on the Brisbane City Council, and Gold Coast City Council.

The LSA and RSA are described in further detail in **Section 3.1.1** and **Section 3.1.2**, respectively. As determined in consultation with the SIAU (L. Hopewell, pers. comm., 22 August 2011), the approach for describing the baseline environment was to provide detailed statistics and analysis for the LSA and broad discussion and trend analysis only for the RSA.

Given the scope and scale of the selected study areas, district and State study areas were not considered necessary or meaningful.

### 3.1.1 Local Study Area

The objective of the LSA was to assess potential direct and indirect local impacts associated with the SGCP and cumulative impacts from nearby mining proposals (**Figure 3-2**). The LSA comprised the Barcaldine LGA, with a particular focus on:

- Alpha, being the closest population centre to the SGCP; and
- directly affected landholders (i.e. landholders within MLA 70453 or the infrastructure corridor located to the north of the SGCP).

As described in **Section 3.2.2**, the quantitative data used to characterise the LSA was a combination of 2006 Census data from the LGAs comprising the Barcaldine LGA pre-2008 amalgamation (i.e. Aramac [S], Barcaldine [S] and Jericho [S] LGAs). Qualitative information for Alpha was obtained from 2006 Census data for the urban centre/locality of Alpha.

**Figure 3-3** identifies the properties located within MLA 70453 and/or the infrastructure corridor. The LSA is illustrated in **Figure 3-4**.

**Table 3-1** details the properties and landholders within MLA 70453 and infrastructure corridor.

**Table 3-1 Properties Located Within or Partly Within MLA 70453 or Infrastructure Corridor**

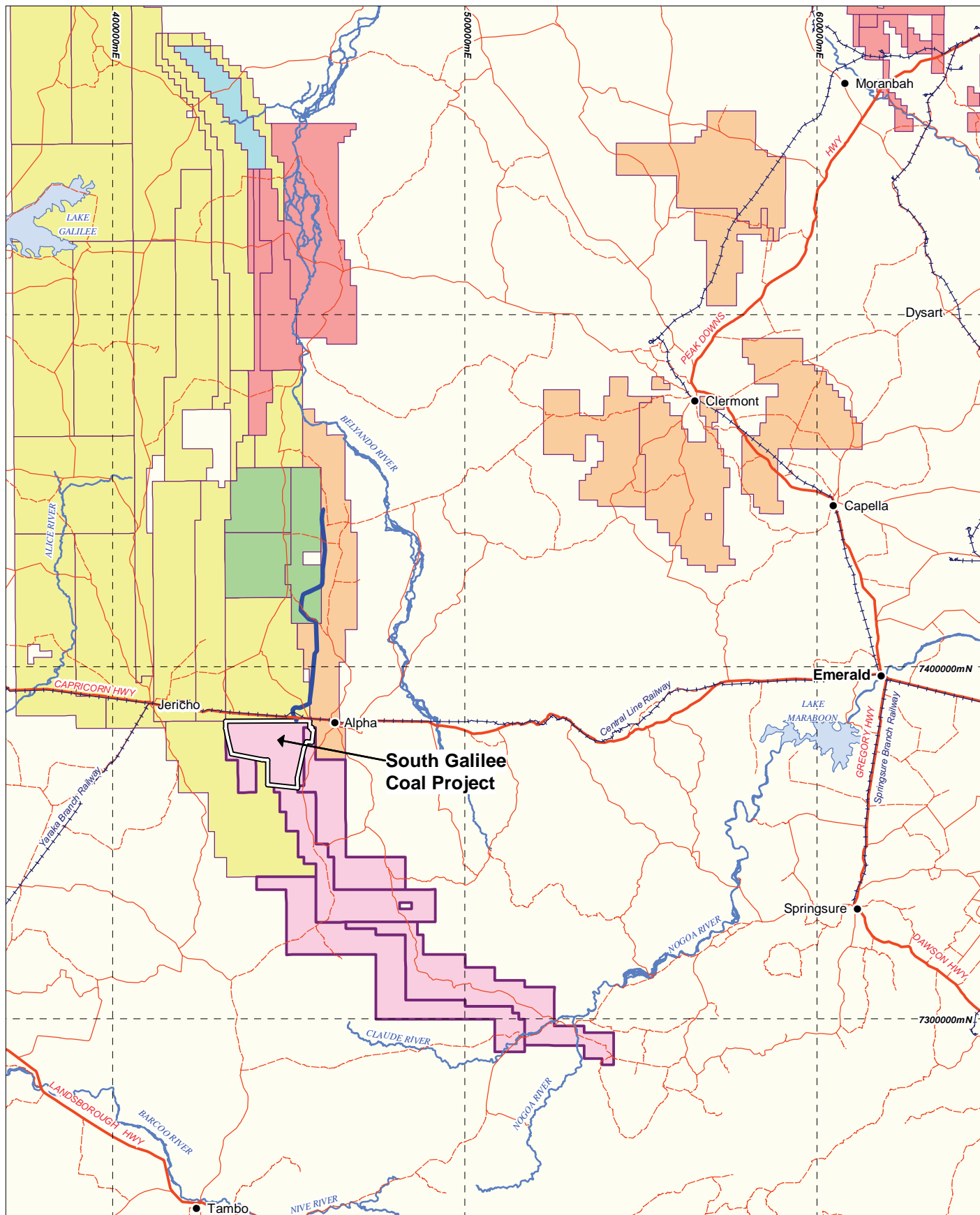
Real Property Description	Property Name	Landholder
MLA 70453		
4315PH720 <sup>1</sup>	'Creek Farm'	Creek Farm Pty Ltd (Jason and Sherri Taylor)
1DM3	'Chesalon'	May Sophia and Richard Hans Hansen
7BF57	'Tallarenha'	Jeffery Alan and Lee Michelle Clews
31BF11	'Betanga'	Cathy Michelle and Russell Hall
1160PH286	'Armagh'	Mexico Grazing Co Pty Ltd
3BF53	'Sapling Creek'	Cyril Thomas and Kathleen Susan Emily and Katrina Ann and Warren Peter Gleeson

**Table 3-1 Properties Located Within or Partly Within MLA 70453 or Infrastructure Corridor (cont.)**

Real Property Description	Property Name	Landholder
Infrastructure Corridor		
5BF5	'Oakleigh'	Paul Anderson
3CP860083	'Tresillian'	Glenn and Keith Sparrow
2SP136836	'Monklands'	Pamela and Reid Bauman
4BF50	'Mentmore'	Bevan and Ernest Everingham
6BF16	'Gadwell'	Bevan and Ernest Everingham
7BF16	'Saltbush'	John White
301SP108315	N/A	Queensland Rail
4315PH720 <sup>1</sup>	'Creek Farm'	Creek Farm Pty Ltd (Jason and Sherri Taylor)
2BF38	Leased Reserve	Creek Farm Pty Ltd (Jason and Sherri Taylor)

<sup>1</sup> 4315PH720 is affected by MLA 70453 as well as the infrastructure corridor.





#### LEGEND

- MLA70453
- SGCP infrastructure corridor
- Principal road
- Road (sealed)
- Road (unsealed)
- Railway
- River
- Population centre

#### Tenement - Principal Holder

- Alpha Coal Pty Ltd
- Adani Mining Pty Ltd
- Hancock Coal Pty Ltd
- Queensland Thermal Coal
- Vale Exploration Pty Ltd
- Waratah Coal Pty Ltd

## Alpha Coal Pty Ltd South Galilee Coal Project

### Surrounding Tenements

0 25 50  
Kilometres

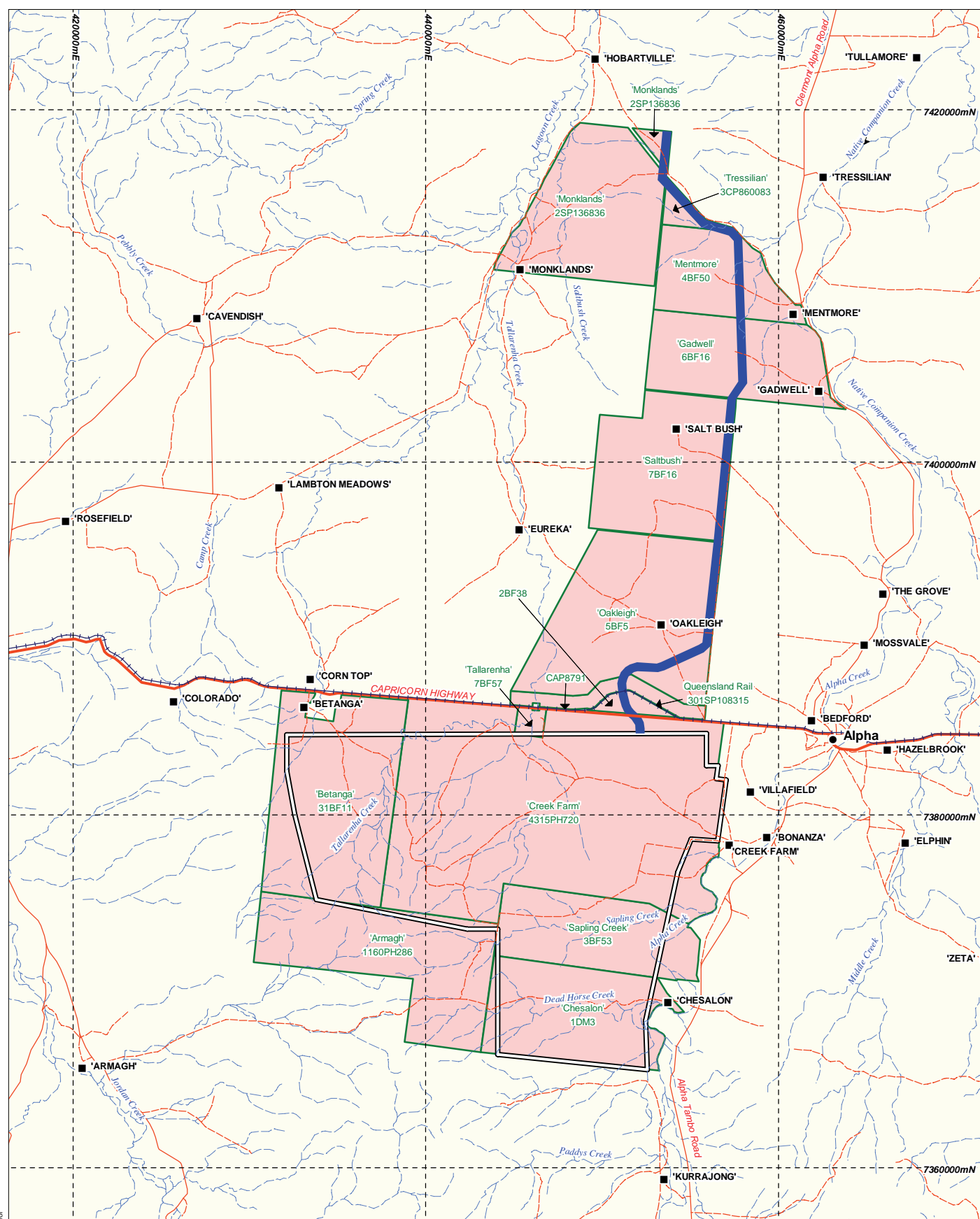
Scale: 1:1,500,000 (A4)

13/03/2012











Datum: GDA94  
Projection: MGA55

FIGURE 3-2

Data Source:  
Tenement - DEEDI. Topography (250k) - Geoscience Australia.

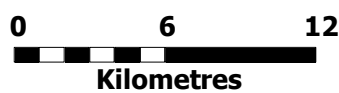


**LEGEND**

-  MLA70453
-  Directly affected property boundary
-  SGCP infrastructure corridor
-  Principal road
-  Road (sealed)
-  Road (unsealed)
-  Railway
-  River
-  Population centre
-  Homestead

**Alpha Coal Pty Ltd**  
**South Galilee Coal Project**

### Directly Affected Properties



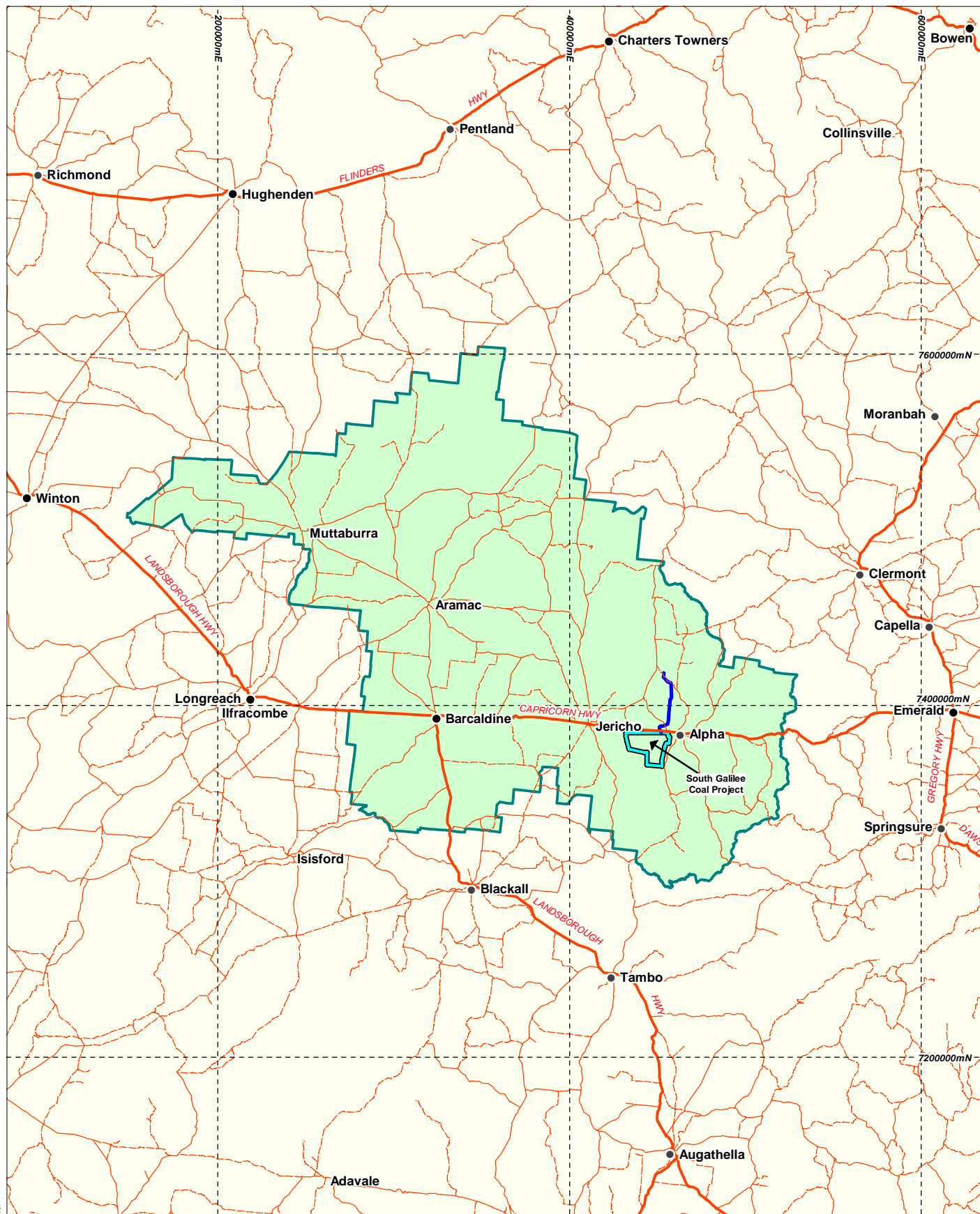
Scale: 1:300,000 (A4)

13/03/2012



Datum: GDA94  
Projection: MGA55

FIGURE 3-3



#### LEGEND

- MLA70453
- SGCP infrastructure corridor
- Principal road
- Road (sealed)
- Road (unsealed)
- Population centre

#### Local Study Area

- Barcaldine Regional Council LGA

## Alpha Coal Pty Ltd South Galilee Coal Project

Local Study Area (LSA)

0 60 120  
Kilometres

Scale: 1:3,000,000 (A4)

14/03/2012

Datum: GDA94  
Projection: MGA55

FIGURE 3-4

### **3.1.2 Regional Study Area**

The objective of the RSA was to assess potential regional social impacts. These impacts are typically associated with the workforce, service provision and transport.

AMCI held a number of workforce planning and profiling meetings with relevant government agencies (e.g. DEEDI, SIAU, Office of Economic and Statistical Research [OESR] and Skills Queensland) to discuss potential workforce sources and government resourcing/regionalisation policy. In order to define the RSA, potential workforce source locations were assessed in consideration of:

- the availability of employees (e.g. unemployment and underutilised workforce numbers);
- existing population;
- existing social infrastructure, including availability of training and recruitment resources;
- readiness for FIFO (e.g. availability of existing airport); and
- existing workforce pressures and trends (e.g. types of industries, other workforce demands, etc.).

By considering these factors early in the workforce planning process, AMCI aimed to minimise the social impacts associated with the SGCP workforce. Although ultimately the source, composition and number of employees will be dictated by availability, FIFO contracts and project execution strategy, for the purposes of this SIA, an estimation of the potential sources of the SGCP workforce is provided below:

- south-east Queensland (60 %);
- Townsville (15 %);
- Cairns (9.5 %);
- Bundaberg (5 %);
- Maryborough (5 %);
- Proserpine/Whitsunday/Bowen (5 %); and
- Alpha (0.5 %).

These workforce sources were used as the basis for delineating the RSA. For the purpose of this SIA, the RSA was then divided into three broadly consistent sub-groups through discussion with the SIAU and OESR. These sub-groups included:

- inland sub-group (Central-Highlands Regional Council LGA, focussing on Emerald);
- coastal sub-group (Bundaberg Regional Council, Cairns Regional Council, Fraser Coast Regional Council, Townsville City Council and Whitsunday Regional Council LGAs); and
- SEQ sub-group (Brisbane City Council and Gold Coast City Council LGAs).

Although the Central Highlands Regional Council (CHRC) LGA is not considered to be likely source of employees, it has been included in the RSA due to the likelihood of Emerald being used as a service provision/training centre.

It is acknowledged that some employees may be sourced from within the region (e.g. from Longreach, Blackall and other locations west of the SGCP) and that people from this area may be accustomed to driving long distances to work (e.g. to Bowen Basin mining operations). However, the drive time to the SGCP has been limited to 20 minutes for road safety reasons.

Similarly, although Rockhampton has not been include in the RSA due to its proximity to Gladstone and the likelihood of workers being employed in the Liquefied Natural Gas (LNG) industry, the city is considered to have good potential for a planning perspective and relatively high unemployment. It is



considered possible that some employees may be sourced from Rockhampton and surrounding areas (e.g. Woorabinda and Mt. Morgan).

Although a small number of employees will potentially be sourced from Alpha, it was not included in the RSA, as it is included and assessed in detail in the LSA.

The RSA is illustrated on **Figure 3-5**. **Table 3-2** provides an overview of the RSA sub-groups, including the LGA naming before and after the 2008 LGA amalgamations.

As determined in consultation with the SIAU (L. Hopewell, pers. comm., 22 August 2011), the approach for describing the baseline social environment was to provide detailed statistics for the LSA and broad discussion and trend analysis only for the RSA.

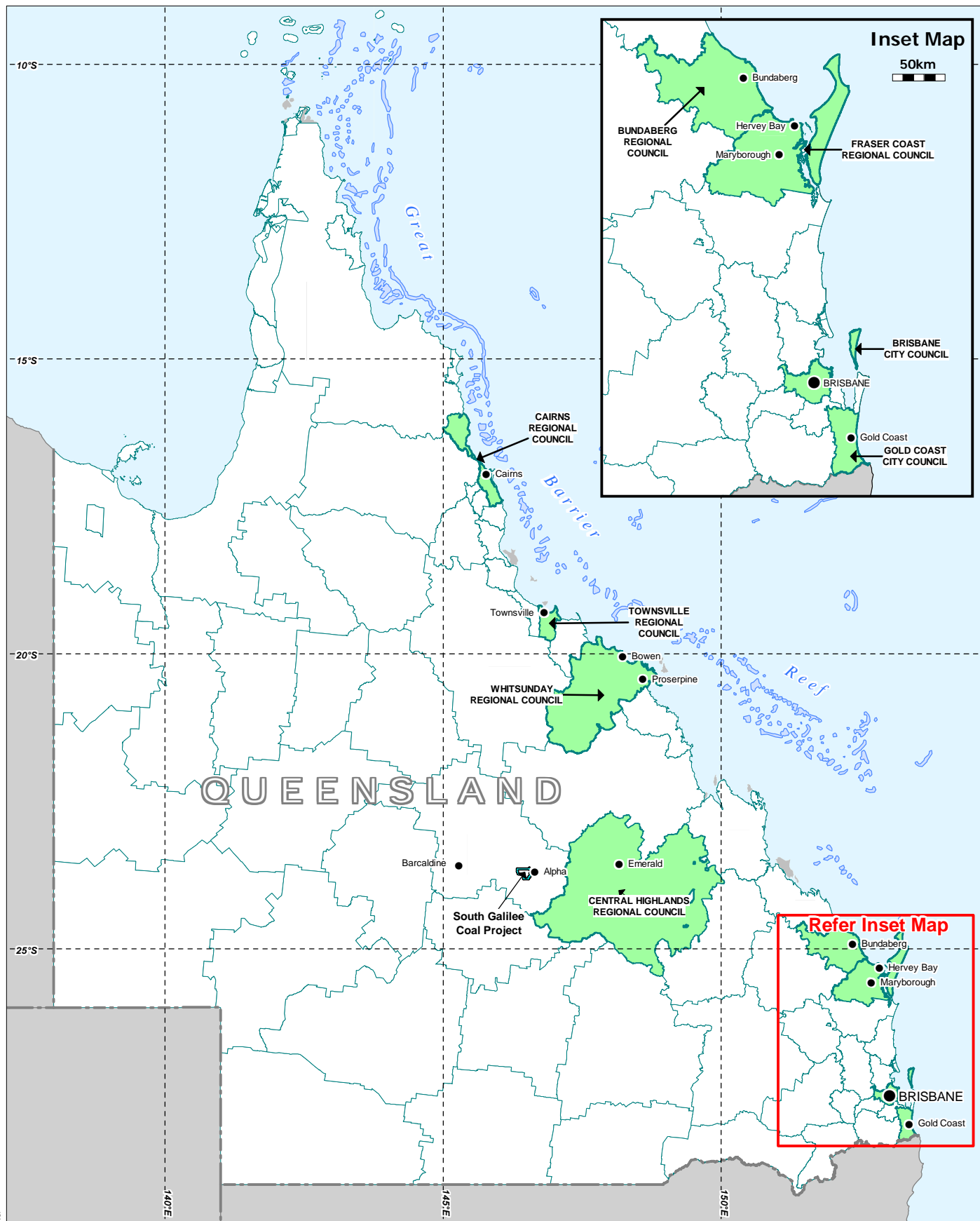
**Table 3-2 Regional Study Area Sub-groups**

Regional Study Area Sub-group	LGA Component	
	Pre-2008 Amalgamation	Post-2008 Amalgamation
Inland	Emerald (S) LGA	Central Highlands Regional Council LGA
Coastal	Bundaberg (C) LGA	Bundaberg Regional Council LGA
	Cairns (C) LGA	Cairns Regional Council LGA
	Hervey Bay (C) LGA	Fraser Coast Regional Council LGA
	Maryborough (C) LGA	Fraser Coast Regional Council LGA
	Townsville (C) LGA	Townsville City Council LGA
	Whitsunday (C) LGA	Whitsunday Regional Council LGA
SEQ	Brisbane (C) LGA	Brisbane City Council LGA
	Caboolture (C) LGA	Moreton Bay Regional Council LGA
	Caloundra (C) LGA	Sunshine Coast Regional Council LGA
	Gold Coast (C) LGA	Gold Coast City Council LGA
	Ipswich (C) LGA	Ipswich City Council LGA
	Logan (C) LGA	Logan City Council LGA
	Maroochy (C) LGA	Sunshine Coast Regional LGA
	Noosa (C) LGA	Sunshine Coast Regional Council LGA
	Esk (C) LGA	Somerset Regional Council LGA

Source: Department of Local Government and Planning (2011)

### 3.2 SOURCES OF BASELINE INFORMATION

The sources of information used in this SIA (including both qualitative and quantitative information) are described in **Section 3.2.1** and **Section 3.2.2**.



#### LEGEND

- Regional study area
- Local Government Area (post 2008 amalgamation)
- MLA70453
- Population centre

Data Source:  
LGA - Queensland Government. Topography - Geoscience Australia.

## Alpha Coal Pty Ltd South Galilee Coal Project

Regional Study Area (RSA)

0 200 400  
Kilometres

Scale: 1:10,000,000 (A4)

15/03/2012

Datum: GDA94  
Projection: Long/Lats

FIGURE 3-5

### **3.2.1 Qualitative Information**

The qualitative information presented in this SIA was obtained from various sources, including extensive community engagement, relevant publications, documents, websites and observation.

A summary of the comprehensive community engagement programme undertaken as part of the EIS process is provided in **Section 4.0**.

### **3.2.2 Quantitative Information**

The quantitative data presented in this SIA was primarily sourced from the Australian Bureau of Statistics' (ABS) 2001 and 2006 Census information. Although a more recent Census was conducted in 2011, the data from this Census will not be available until June 2012.

The Census data used was 'Place of Enumeration Profiles', as recommended by OESR. Place of enumeration refers to the place at which an individual is counted (i.e. where he/she spent Census Night) and may not be where he/she usually lives (ABS, 2011).

The LGAs referred to within this assessment are defined by the Australian Standard Geographic Classification (ASGC). In March 2008, an amalgamation of LGAs occurred in Queensland. Although the amalgamation of LGAs does not affect the demographic statistics available from the 2006 Census, in many instances, the LGA composition and naming will differ pre- and post-2008.

The term LGA refers to a geographical area which falls within the administrative boundaries of a local government council, or an Indigenous government council. The creation and delineation of LGAs is the responsibility of State/Territory governments and is governed by the provisions of State/Territory legislation. The ABS and OESR provide statistics for a range of geographical and statistical classifications, including LGAs.

The quantitative data presented in this assessment for the LSA is a combination of the data from the Aramac, Barcaldine and Jericho LGAs (i.e. these component LGAs comprise the Barcaldine LGA as defined by the 2008 LGA amalgamation). The LSA also examines the township of Alpha. Quantitative information for Alpha was sourced from ABS data for the 'Urban Locality' of Alpha, denoted in this report as Alpha (L). **Table 3-2** lists the LGAs which comprise the RSA, both pre and post-amalgamation.

Given the significant activity in the resource sector since 2006, the ABS Census data was supplemented, where practicable, with more up-to-date statistical data obtained from the OESR. The OESR is a portfolio office of Queensland Treasury and the principal economic, demographic and social research agency for the Queensland Government.

Quantitative data was also sourced from various local and state government agency statistics, documents and websites.

The quantitative baseline social data presented in this SIA is generally provided on a LGA basis, corresponding to the study areas described in **Section 3.1**.

## **3.3 IMPACT ASSESSMENT PROCESS**

For the purposes of this SIA, the broad spectrum of potential social conditions and impacts has been described and assessed in the context of a number of 'key aspects' (i.e. settlement patterns, demographics, education and training, economy, employment and income, housing and accommodation, community health and safety and culture and community). These key aspects have been used to illustrate the baseline environment and assess the potential project impacts and will also flow on to the draft Social Impact Management Plan (SIMP).

Based on analysis of the baseline environment and in consideration of the project description and workforce profile, a list of potential impacts was developed. **Table 8-2** to **Table 8-8** use a risk assessment framework to generate an overall impact significance ranking, based on duration, type, probability and consequence of the impact. The impacts are presented in order of their overall impact significance ranking (highest to lowest). A summary of the assessment framework used is provided in **Table 3-3**.

**Table 3-3 Social Impact Assessment Framework**

Impact Assessment Criteria	Parameter	Rationale
Duration/Phase <sup>1</sup>	Construction	Potential impact predicted to occur during the SGCP construction phase.
	Operation	Potential impact predicted to occur during the SGCP operations phase.
	Decommissioning	Potential impact predicted to occur during the SGCP decommissioning phase.
	Beyond Project	Potential impact predicted to occur or continue to occur beyond the life of the SGCP.
Type of Impact <sup>2</sup>	Positive	The potential impact is expected to result in positive outcome/s.
	Negative	The potential impact is expected to result in negative outcome/s.
Probability	High	The potential impact is expected to occur or will probably occur in all or most circumstances.
	Medium	The potential impact may occur in some circumstances.
	Low	The potential impact is not expected to occur or could possibly occur in some circumstances.
Consequence	High	The potential impact is predicted to result in significant changes to the social environment, which are irreversible, widespread or severe.
	Medium	The potential impact is predicted to result in detectable changes to the social environment.
	Low	The potential impact is predicted to result in minor or undetectable changes to the social environment, within the range of natural variation.
Overall Impact Significance	High	Mitigation and/or management measures expected to be required to address impact. Monitoring required to measure the impact and the effectiveness of mitigation/management measures.
	Medium	Some mitigation and/or management measures expected to be required to address impact.
	Low	Specific mitigation and/or management measures not expected to be required.

- <sup>1</sup> Multiple phases may be listed if the impact is predicted to occur during more than one phase of the SGCP.
- <sup>2</sup> If the impact has both positive and negative outcomes, it will be listed twice with a separate impact assessment provided for each outcome.
- <sup>3</sup> This SIA proposes preliminary mitigation and/or management measures for impacts as well as any opportunities to capitalise on or maximise positive impacts in order to achieve optimum outcomes (**Table 8-2 to Table 8-8**). Mitigation measures are refined and further described in the draft SIMP (**Appendix R** of the EIS). Monitoring is discussed in **Section 10** and in further detail in the draft SIMP.

### 3.4 SOCIAL IMPACT MANAGEMENT PLAN

A draft SIMP has been prepared for the SGCP in accordance with the *Social Impact Assessment: Guideline to Preparing a Social Impact Management Plan* (DIP, 2010). A copy of the draft SIMP, including the methodology for its preparation, is provided in **Appendix R** of the EIS.

#### **4 COMMUNITY ENGAGEMENT**

A comprehensive Community Engagement Plan (CEP) was prepared in consultation with the SIAU to provide a framework for the SGCP community engagement process. The objectives of community engagement are to:

- identify stakeholders and their values, concerns and issues;
- develop a consultation process that can be integrated into the community with minimal disturbance and which provides a foundation for long-term relationships between the SGCP and the community that is based on trust and mutual respect;
- promote stakeholder confidence by ensuring open and transparent two-way communication;
- develop a range of communication activities and tools that deliver regular, consistent and accurate information;
- provide factual information about the SGCP and ensure all stakeholders understand any potential benefits and/or impacts;
- acknowledge and manage the expectations of stakeholders;
- ensure community feedback mechanisms are in place to maximise opportunities for input into the EIA process and actively seek opinions from stakeholders on matters of relevance to the SGCP;
- work with stakeholders to develop agreed outcomes and solutions to issues where practicable;
- meet the statutory requirements for community involvement in the formal approvals process and ensure stakeholder issues are appropriately addressed as part of the EIS process; and
- continually improve the acceptance and reputation of the SGCP on a local, regional and state level and monitor and evaluate community acceptance of the SGCP.

The definitions of 'affected' and 'interested' persons provided in sections 38 and 39 of the Queensland *Environmental Protection Act 1994* (EP Act) and the definition of an 'affected party' provided in section 500 of the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) were used to generate a preliminary stakeholder list. Title searches were undertaken for parcels of land located within or adjacent to the Project tenements. A desktop review was undertaken to identify other relevant stakeholders and included a review of cadastral information, searches for mining tenement holders and Native Title claims and review of local community directories. The stakeholder list has been regularly reviewed and updated to reflect feedback during ongoing community engagement.

Community engagement commenced early in the EIS process and activities undertaken to date include the following:

- establishment and maintenance of a dedicated SGCP website, email and freecall phone number;
- Community Reference Group (CRG) meetings;
- Technical Reference Group (TRG) meetings;
- face-to-face meetings;
- community information sessions;
- a SGCP community survey; and
- publication of fact sheets, information updates and media releases.

A report detailing the community engagement activities undertaken to date and how the outcomes of community engagement have been considered/addressed in the planning and assessment of the SGCP is provided in **Appendix D** of the EIS (MET Serve, 2011). The key outcomes of community engagement undertaken for the SGCP have been incorporated and/or addressed in this SIA, where relevant.

## 5 SOCIAL BASELINE STUDY

A social baseline study was undertaken to describe the existing social conditions within the SGCP study areas. As discussed in **Section 3.3**, social conditions have been examined in the context of a number of key aspects (e.g. settlement patterns, demography, education and training, economy, employment and income, housing and accommodation, community health and safety, culture and community and social policy).

### 5.1 SETTLEMENT PATTERNS

#### 5.1.1 Local Study Area

##### 5.1.1.1 Barcaldine Regional Council LGA

The Central Line Railway was constructed in stages between 1883 and 1891 from Alpha to beyond Barcaldine, following pastoral expansion (University of Queensland, 2011a). A branch line from Jericho to Blackall was opened in 1908, and a locally-financed tramway ran from Barcaldine to Aramac (1913-75), (University of Queensland, 2011a). The Barcaldine region is one of the largest cattle producing regions in central-western Queensland and also has productive sheep, wool and macropod harvesting industries. Barcaldine has a significant place in Australian politics as it was integral to the formation of the Australian Labour Party.

The BRC was formed in 2008 by the amalgamation of Aramac, Barcaldine and Jericho Shires. The town of Barcaldine, located 520 km west of Rockhampton, is the main population centre and houses the regional council's headquarters. Other population centres include Alpha, Aramac, Jericho and Muttaborra.

##### 5.1.1.2 Alpha

Alpha is a small community within the Barcaldine LGA, situated on the Capricorn Highway approximately 450 km west of Rockhampton.

In the mid-1800s, Thomas Mitchell, the New South Wales (NSW) Surveyor-General, explored the area south of the Belyando River system and reported on the region's prospects. A railway line, primarily to support the beef industry, was constructed from Rockhampton to Emerald and then continued west to Alpha in 1884 (University of Queensland, 2011b). The town of Alpha was named after the Alpha pastoral station.

Alpha is known as the 'Town of Murals' due to the 27 colourful murals painted on buildings throughout the town after the 1990s flood. Each mural depicts a different aspect of pioneering and contemporary rural life.

#### 5.1.2 Regional Study Area

##### 5.1.2.1 Inland Sub-group

##### 5.1.2.1.1 Central Highlands Regional Council LGA

The original inhabitants of the Central Highlands area were the Kairi, Kanolu and Wadja Aboriginal people. European settlement of the Central Highlands/Emerald area dates from the 1860s, with land used mainly for cattle and sheep grazing. Growth took place during the late 1800s and early 1900s, aided by the opening of a railway line and the establishment of the township in 1878. In the 1880s, gold and copper were discovered in various locations throughout what is now the Central Highlands LGA. Although there were some early mining activities in the area, for at least the next century, agriculture remained the dominant industry (CHRC, 2011a).

The CHRC LGA (**Figure 3-5**) covers an area of 56,969 square kilometres (km<sup>2</sup>), extending from Arcadia Valley in the south to the Peak Ranges in the north and from Boolburra in the east to Bogantungan in the west (OESR, 2010a). The main settlement locations are Emerald and Blackwater, with smaller townships at Bluff, Capella, Dingo, Duaringa, Rolleston, Springsure and Tieri.

Significant development occurred during the post-war years, particularly from the 1970s, spurred by the growth in coal mining in the surrounding area. The population continued to increase substantially from the early 1990s, a result of the construction of new dwellings. The Central Highlands Region is a



rural and rural residential area. Land is used largely for cattle and sheep grazing, crop production (e.g. cotton, fruit and vegetables), coal mining and gem fossicking. Recent mining booms have resulted in significant activity in and around Emerald and the city is utilised as a service centre for nearby coal mines (CHRC, 2011).

#### *5.1.2.2 Coastal Sub-group*

##### *5.1.2.2.1 Bundaberg Regional Council LGA*

The Bundaberg region is situated at the southern end of the Great Barrier Reef (GBR), stretching from the Burrum River to Baffle Creek. The Bundaberg Regional Council LGA covers an area of 6,449 km<sup>2</sup>, or 0.4 % of Queensland.

The original inhabitants of the Bundaberg area were the Dundu/Doondora Aboriginal people. European settlement of the Bundaberg area began in 1868 when a sawmill was erected on the north bank of the Burnett River. Timber supplies in the area were soon exhausted and sugarcane growing became the primary industry in the late 1880s. Other light industries (e.g. blacksmithing, coach building, boat building and saw milling) also prospered during this time.

Bundaberg was gazetted as a town during 1902 and eventually became a city in 1913 (Bundaberg Regional Council, 2011). Bundaberg has developed a rapidly expanding tourism industry and is now marketed as the Southern Gateway to the GBR.

##### *5.1.2.2.2 Cairns Regional Council LGA*

The Cairns Regional Council LGA extends from Bloomfield in the north to the village of Mirriwinni in the south, covering a total area of 4,129 km<sup>2</sup> (OESR, 2010).

The first European to explore the Cairns area was Captain James Cook who sailed up the coast of north-east Australia in June, 1770. When gold was discovered at the Palmer River in 1872, thousands of miners arrived beginning a rush that would see Cairns eventually established in 1876. Beginning as a tent city, the first major structures to go up were wharves and storage sheds. Despite initial success, the slowing of the gold rush saw the town at risk of disappearing due to lack of income until it was chosen as the starting point for a railway line that was to service the Atherton Tableland (Cairns Regional Council, 2011).

With the establishment of agriculture on the Atherton Tableland and further development of the lands around Cairns, the town continued to grow during the early 20<sup>th</sup> century. Sugar cane became a major export crop for the Cairns region with the dairy industry growing at an equally fast pace on the Atherton Tableland.

Cairns continued to develop viable industries with fishing, market gardens and continued timber logging helping to turn the small settlement into an incorporated town in May, 1903. During World War II, the Cairns region supplied the Allied Forces and served as a training base, mainly for American troops. Post World War II, Cairns began to develop as a domestic tourism destination, in part due to its proximity to the GBR and Daintree National Park.

##### *5.1.2.2.3 Fraser Coast Regional Council LGA*

The Fraser Coast Regional Council LGA is located in the Wide Bay–Burnett region of Queensland, approximately 250 km north of Brisbane. It is centred on the twin cities of Hervey Bay and Maryborough and also contains Fraser Island. The LGA covers an area of 7,116 km<sup>2</sup> (OESR, 2010c).

The Indigenous Butchulla people are the traditional owners of the Fraser Coast region. Captain James Cook first sighted the Fraser Coast area in 1770. Matthew Flinders landed at Sandy Cape in 1802 and was responsible for mapping much of the area. The region owes much of its character and history to the Mary River. Mary River first drew European settlers to the region with rich alluvial soil and a deep, natural harbour. The first European settler at Hervey Bay, in 1863, was Boyle Martin, who is likely to have introduced sugar farming to the area.

In 1896 a railway line was constructed from Maryborough to Pialba, boosting tourism. This line was extended to Urangan in 1913 and the Urangan Pier was built in 1917 to facilitate the export of sugar and later coal. By the 1920s, the Hervey Bay area was rapidly expanding due to continuing growth in



the primary industries (sugar cane, citrus, pineapples, beef cattle and fishing) and investment in transport infrastructure. Regular air services from Brisbane commenced in 1930. The 1930s also saw the completion of a fully bituminised road connecting Maryborough and Urangan which encouraged further economic and population growth. Today the region's economy is most reliant on the sectors of manufacturing, ownership of dwellings, construction, education and retail trade (Fraser Coast Regional Council, 2011).

The Fraser Coast is the gateway to the World Heritage listed Fraser Island and the southern region of the GBR. Hervey Bay is the key tourism hub of the Fraser Coast. The Fraser Coast includes major road, rail, air and sea transport infrastructure.

#### *5.1.2.2.4 Townsville City Council LGA*

The Townsville City Council LGA includes the city of Townsville and extends from communities of Alligator Creek, Woodstock and Reid River to the south to the Northern Beaches and Paluma in the north. The LGA also includes Magnetic Island. The size of the LGA is 3,738 km<sup>2</sup> (OESR, 2010d).

Traditional owners, the Bindal and Wulgurukaba people, are the first known people to have lived in the Townsville area. Captain James Cook mentioned the region in 1770. Townsville was founded in 1864 as a port for the fledgling pastoral industry in North Queensland. Following the discovery of gold in the immediate hinterland at Ravenswood and Charters Towers, the town developed into the principal centre and de facto capital of North Queensland (Townsville City Council, 2011).

The history of Townsville is marked by the world wars. During World War I, the Townsville-based Kennedy Regiment was highly involved in the capture of Germany's Pacific colonies. During World War II, Townsville was a major military base, accommodating up to 90,000 Australian, American and other allied service personnel. The city was bombed on three occasions by the Japanese and was used as a base for launching major offensives during the battle of the Coral Sea.

Townsville has a strong and diverse economy including retail trade, health and education services, government administration and defense, construction, mining, manufacturing and property and business services.

Together, Queensland Rail (QR) and the Port of Townsville provide a transport hub for the region's mining and agricultural industries, as well as for the locally-based Xstrata Copper Refinery, Sun Metals Zinc Refinery, Queensland Nickel and the Queensland Sugar Corporation Distribution Centre. Townsville city is a major service centre, and the main centre for government administration outside Brisbane. Regional health services are provided by the Townsville Hospital. There are a number of research institutions such as James Cook University, the Australian Institute of Marine Science, the Great Barrier Reef Marine Park Authority, Department of Primary Industries and CSIRO Davies Laboratory. The large defence presence due to Australian Army and Airforce bases also influences the local economy.

#### *5.1.2.2.5 Whitsunday Regional Council LGA*

The Whitsunday Region is located in tropical North Queensland, extending from Bowen in the north to St Lawrence in the south, and from the coast inland to Dysart and Glenden. The Region encompasses Proserpine, the mining town of Collinsville, the coastal settlements of Bowen, Cannonvale, Airlie Beach and Shute Harbour and includes 74 islands located within the Great Barrier Reef. The LGA covers a total area of 23,871 km<sup>2</sup> (OESR, 2010e).

Traditional owners, the Ngaro people, are the first known people to have lived in the Whitsunday region. The region's first documented European history was in 1770, when Captain James Cook sailed through the islands on his voyage up Australia's east coast. Only in the mid 1800's, after facing opposition from the local Indigenous community, were the first island land leases granted to mainland farmers.

European settlement began on the Whitsunday islands in the 1860s, mainly in the form of camps that harvested hoop pine timber to construct buildings in nearby Bowen. This industry operated strongly for the next 40 years, and finally petered out in the 1930s. Also in the 1860s, settlers attempted to establish grazing operations on some islands, but these proved unsustainable. Over the next 35 years,

grazing leases were granted over various islands but none thrived (Whitsunday Regional Council, 2011).

Viable sheep-grazing businesses were established on some islands in the late 19<sup>th</sup> century. Tourism began in the late 1920s, with boats taking visitors on day trips to the settled islands. Gradually the tourism industry grew, with Lindeman Island being one of the first to encourage visitors to stay overnight. Most islands are now wholly or partly national parks. The regional economy is now driven by tourism, mining, sugar, agriculture, aquaculture and cattle grazing (Whitsunday Regional Council, 2011).

#### *5.1.2.3 SEQ Sub-Group*

##### *5.1.2.3.1 Brisbane City Council LGA*

Brisbane is the capital city of Queensland and is located in the south-east corner of the state. The city is situated along the Brisbane River, and its eastern suburbs line the shores of Moreton Bay. Brisbane's metropolitan area extends from Caboolture in the north to Beenleigh in the south, and Ipswich in the south-west.

The Brisbane City Council LGA covers a total area of 1,340 km<sup>2</sup> (OESR, 2010f).

The Jagera and Turrbal Aboriginal clans had lived around the Brisbane river for a considerable time period before European settlers arrived. Europeans settled the region when the first convict jail was built in Redcliffe in 1824, but moved to the site of present-day Brisbane CBD in 1825.

Free settlement in the Brisbane region did not occur until 1842, because the Government initially wanted to isolate the jail from the wider community. By the late 1880's Brisbane was the main centre of commerce and the capital of the colony of Queensland.

The city grew steadily until World War II when it became the main allied headquarters in the South Pacific and an influx of Australian and American servicemen stretched the population to three quarters of a million. Industry flourished and has continued to boom post war (Brisbane City Council, 2011).

Brisbane is a diverse city with one of the fastest growing economies in Australia. Brisbane is one of the major business hubs in Australia. The key sectors include information and communication technology, creative industries, life sciences, food and beverage, tourism infrastructure, manufacturing, logistics and distribution and aviation.

##### *5.1.2.3.2 Gold Coast City Council LGA*

The Gold Coast region is located approximately 94 km south of Brisbane and extends from Beenleigh and Russell Island to the border with NSW, and west to the foothills of the Great Dividing Range.

The Gold Coast City Council LGA covers an area of 1,333 km<sup>2</sup> (OESR, 2010g).

Traditional owners, the Yugambah people, are the first known people to have lived in the Gold Coast area. The first Europeans to visit the area were timber getters looking for cedar. When the convict settlement closed and the population of Brisbane settlers grew, the first large cattle stations were established in the river valleys. Eventually these properties were divided into smaller sugar and cotton farms, later dairy farms. The first township in the region, Nerang, was surveyed in 1865. The Gold Coast region did not provide good agricultural land and poor timber grew in the region.

By the late 1890s, residents of Brisbane travelled via the waterways of Moreton Bay by boat to spend time by the seaside. A Governor of Queensland, Governor Musgrave, built a seaside home near Southport in 1885, setting a trend for the coast becoming a fashionable resort for the wealthy and influential (Gold Coast City Council, 2011).

The railway brought many visitors to the region, either to live permanently or as visitors. A new coastal road, linking Brisbane to the beaches of the coast was completed in 1925. These seaside towns became well-known to the thousands of Australian and United States (US) armed servicemen who came for recreational leave during the World War II. Development increased rapidly throughout the 1950's with the first high rise on the Gold Coast built in 1959. The Gold Coast is now a major tourism destination.

## 5.2 DEMOGRAPHY

This section describes and analyses the demographics of the study areas, focussing on the following statistics:

- population and population trends;
- age and gender distribution;
- family structure;
- registered marital status;
- cultural and ethnic characteristics; and
- Indigenous population, age and gender.

### 5.2.1 Local Study Area

#### 5.2.1.1 Population and Population Trends

The resident population of the Barcaldine LGA is provided in **Table 5-1**. At the time of the 2006 Census, the resident population of the Barcaldine LGA was 3,498 people, comprising 1,803 (approximately 52 %) males and 1,695 females (approximately 48 %), (ABS, 2006a; 2006b; 2006c). Between 2001 and 2006, the population experienced a decline of approximately 1 %. As at 30 June 2010, the resident population of the Barcaldine LGA had increased to 3,406 people (OESR, 2010h). Population projections predict an approximate 10 % population increase over the next five years (**Table 5-2**), a rate comparable to the expected growth rate for Queensland (OESR, 2011). Between 2016 and 2031, population is predicted to continue to increase, albeit at quite modest rates (OESR, 2011).

**Table 5-1 Total Enumerated Population in Barcaldine LGA, 2001 - 2006**

Sex	Resident Population					
	2001		2006		Overall Change	
	Number	% of Total	Number	% of Total	Number	% of Total
Male	1,810	51	1,803	52	-7	-0.4
Female	1,722	49	1,695	48	-27	-1.6
Total	3,532	100	3,498	100	-34	-1.0

Source: ABS (2001a; 2001b; 2001c; 2006a; 2006b; 2006c)

**Table 5-2 Barcaldine LGA Population Projections**

Year	Barcaldine LGA	
	Projected Population	Difference (%)
2011	3,412	-1
2016	3,772	11
2021	3,934	4
2026	4,050	3
2031	4,185	3

Source: OESR (2011)

OESR (2010i) indicates that Western Regional Queensland is characterised by relatively static or falling local populations associated with long-term industry restructure and the movement of young and working aged people to urban centres. The long-term population decline in Western Regional

Queensland has generally persisted even when the population of Queensland as a whole has increased, suggesting that economic factors influencing population in the rest of the state have had less or no effect in this region (OESR, 2010i). Even in 2008, when the resources boom was at its peak and the Western Regional Queensland population grew for the first time since 2001, new demand for labour did not offset out-migration completely and net migration in this region remained negative (OESR, 2010i). Natural increase is the only positive component of population change in Western Regional Queensland (OESR, 2010i).

A steady loss of population has been a cause for concern in Alpha, and in 2003 the Mayor appealed for refugee families to settle in the town (University of Queensland, 2011b).

As indicated in **Table 5-3**, the enumerated population in Alpha (L) in 2006 was 371 persons, with 200 (approximately 54 %) males and 171 (approximately 46 %) females (ABS, 2006d). Alpha's population increased by approximately 7 % between 2001 and 2006 (ABS, 2001d; 2006d). Alpha's population has continued to increase slightly with the population recorded to be 433 people as at 30 June 2010 (OESR, 2010j).

**Table 5-3 Total Enumerated Resident Population in Alpha (L), 2001 - 2006**

Sex	Resident Population					
	2001		2006		Overall Change	
	Number	% of Total	Number	% of Total	Number	% of Total
Male	180	52	200	54	20	10
Female	164	48	171	46	7	4
Total	344	100	371	100	27	7

Source: ABS (2001d; 2006d)

#### 5.2.1.2 Age and Gender Distribution

**Table 5-4** presents the age and gender composition in Alpha and the Barcaldine LGA.

**Table 5-4 Age and Gender Composition in Alpha (L) and Barcaldine, 2006**

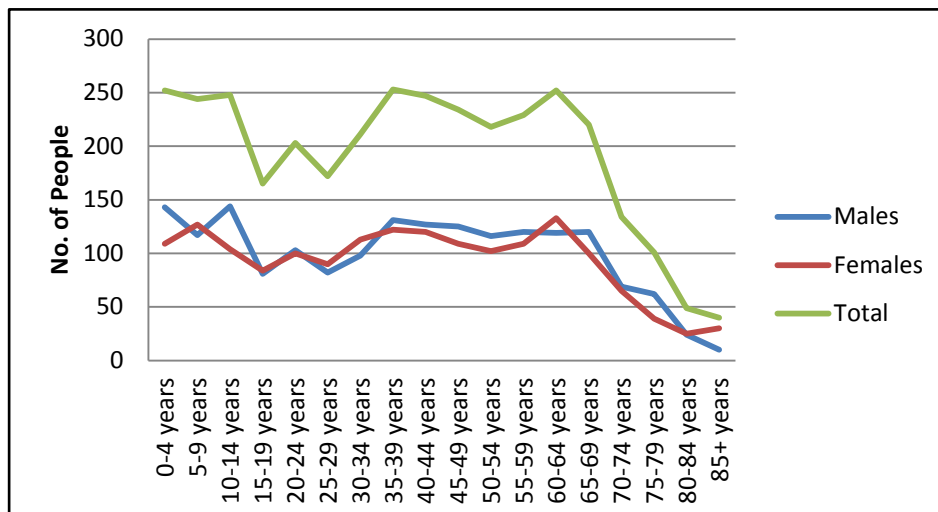
Age Group	Alpha (L)						Barcaldine LGA					
	2001			2006			2001			2006		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4 years	15	21	36	16	12	28	139	136	275	143	109	252
5-9 years	20	11	31	17	15	32	161	130	291	117	127	244
10-14 years	0	10	10	16	6	22	120	140	260	144	104	248
15-19 years	6	3	9	3	6	9	101	81	182	81	84	165
20-24 years	15	9	24	4	11	15	99	89	188	103	100	203
25-29 years	12	14	26	12	10	22	105	131	236	82	90	172
30-34 years	17	15	32	15	13	28	146	147	293	98	113	211
35-39 years	11	8	19	15	10	25	131	126	257	131	122	253

**Table 5-4 Age and Gender Composition in Alpha (L) and Barcaldine, 2006 (cont.)**

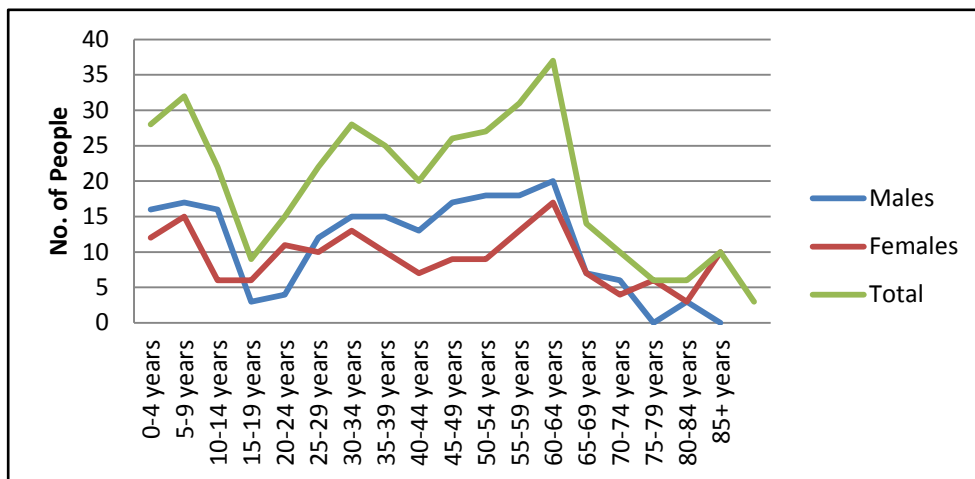
Age Group	Alpha (L)						Barcaldine LGA					
	2001			2006			2001			2006		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
40-44 years	9	12	21	13	7	20	132	119	251	127	120	247
45-49 years	13	3	16	17	9	26	116	103	219	125	109	234
50-54 years	13	10	23	18	9	27	105	98	203	116	102	218
55-59 years	9	9	18	18	13	31	105	103	208	120	109	229
60-64 years	13	3	16	20	17	37	110	92	202	119	133	252
65-69 years	9	13	22	7	7	14	90	70	160	120	100	220
70-74 years	12	6	18	6	4	10	66	41	107	69	65	134
75-79 years	3	6	9	0	6	6	42	39	81	62	39	101
80-84 years	3	8	11	3	3	6	22	42	64	24	25	49
85+ years	0	3	3	0	10	10	6	12	18	10	30	40
Overseas visitors	0	0	0	0	3	3	7	7	14	12	14	26
Total	180	164	344	200	171	371	1,803	1,706	3,509	1,803	1,695	3,498

Source: ABS (2001a; 2001b; 2001c; 2001d; 2006a; 2006b; 2006c; 2006d)

Gender distribution is relatively even in the LSA. Age and gender distribution in the Barcaldine LGA is presented graphically in **Figure 5-1**. There are fewer people in the 15-29 age group, suggesting that younger people leave the region to study or obtain work. A similar trend is apparent in Alpha (**Figure 5-2**). There is also a significant spike in the number of people aged 60-64 years in Alpha and no males over the age of 85 years old.

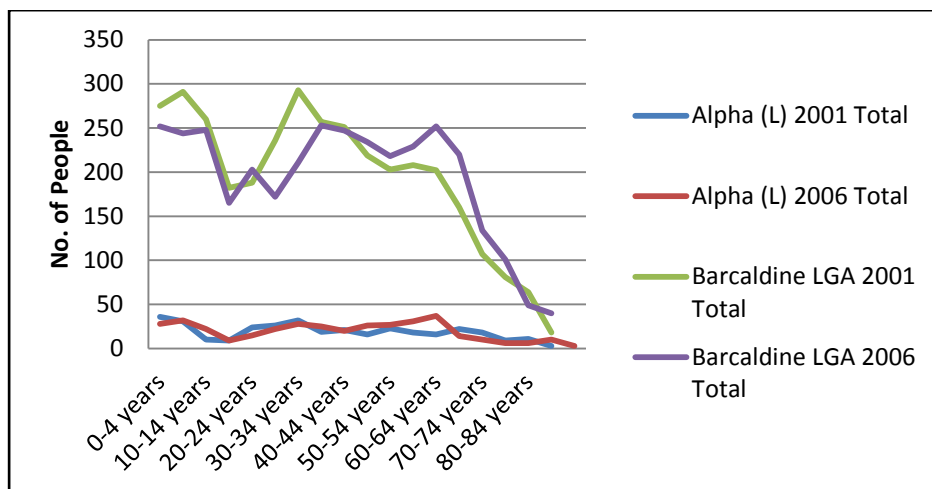


**Figure 5-1 Age and Gender Composition in Barcaldine LGA, 2006**



**Figure 5-2 Age and Gender Composition in Alpha (L), 2006**

A comparison of Alpha (L) and Barcaldine LGA (**Figure 5-3**) suggests that the distribution of population in Alpha is relatively evenly spread across age groups, with little variation between 2001 and 2006. The Barcaldine LGA age distribution is spread asymmetrically, with a trend towards older age groups between 2001 and 2006.



**Figure 5-3 Comparison of Age Composition in Alpha (L) and Barcaldine, 2001 – 2006**

#### 5.2.1.3 Family Structure

Family composition in Alpha (L) and the Barcaldine LGA is roughly similar, with the most common family unit being couples with no children, followed by couples with children under 15 years old (**Table 5-5**).

**Table 5-5 Family Composition in Alpha (L) and Barcaldine LGA, 2006**

Family Composition	Alpha (L)		Barcaldine LGA	
	Number	%	Number	%
Couple with no children	42	47	313	41
Couple with children under 15	32	36	272	35
Couple with no children under 15	8	9	76	10
One parent family with children under 15	7	8	59	8
One parent family with no children under 15	0	0	39	5
Other family	0	0	7	1
Total	89	100	766	100

Source: ABS (2006e; 2006f; 2006g; 2006h)

#### 5.2.1.4 Registered Marital Status

**Table 5-6** provides the registered marital status in the Barcaldine LGA. As at the 2006 Census, 1,537 (56 %) were married, 775 people (28 %) had never married and 262 (10 %) were separated or divorced.

**Table 5-6 Registered Marital Status in Barcaldine LGA, 2006**

Age Group	Number of People per Category					
	Married <sup>1</sup>	Separated	Divorced	Widowed	Never Married	Total
15-19 years	0	0	0	0	162	162
20-24 years	24	0	0	0	174	198
25-34 years	188	3	0	0	184	375
35-44 years	319	28	39	0	114	500
45-54 years	314	21	61	9	49	454
55-64 years	359	22	39	26	35	481
65-74 years	248	9	26	56	19	358
75-84 years	70	3	3	59	22	157
85 years and over	6	0	5	24	3	38
Overseas visitors	9	3	0	0	13	25
Total	1,537	89	173	174	775	2,748
QLD TOTAL	1,595,995	104,600	285,226	175,175	1,067,237	3,228,233

Source: ABS (2006i; 2006j; 2006k)

1 Excludes de facto marriages



**Table 5-7** provides the registered marital status in Alpha (L). Of the 288 people above the age of 15 in the 2006 Census, 146 persons (51 %) were married, 81 (28 %) had never married and 37 (13 %) were separated or divorced. The marital status statistics for Alpha (L) were comparable with the state of Queensland, with the exception of people widowed; the stated proportion for Queensland was approximately 5 % compared to 8 % within Alpha (L), (ABS, 2006l).

**Table 5-7 Registered Marital Status in Alpha (L), 2006**

Age Group	Number of People per Category					
	Married <sup>1</sup>	Separated	Divorced	Widowed	Never Married	Total
15-19 years	0	0	0	0	12	12
20-24 years	0	0	0	0	13	13
25-34 years	20	0	0	0	27	47
35-44 years	26	5	6	0	12	49
45-54 years	31	3	10	0	3	47
55-64 years	42	0	9	8	8	67
65-74 years	19	0	0	6	3	28
75-84 years	8	0	0	4	3	15
85 years and over	0	0	0	6	0	6
Overseas visitors	0	4	0	0	0	4
Total	146	12	25	24	81	288
QLD Total	1,595,995	104,600	285,226	175,175	1,067,237	3,228,233

Source: ABS (2006l)

<sup>1</sup> Excludes de facto marriages.

#### 5.2.1.5 Cultural and Ethnic Characteristics

The most common countries of birth recorded in the Barcaldine LGA during the 2006 Census were Australia (89 %), New Zealand (2 %) and the United Kingdom (1 %), with smaller numbers of people also from Germany, Netherlands, Malaysia, Italy, Papua New Guinea, Philippines, Thailand, south-eastern Europe and the United States of America (USA), (ABS, 2006m; 2006n; 2006o). There were 18 overseas visitors recorded during the 2006 Census.

Within the Barcaldine LGA, English was the only language spoken at home by 94 % of the population; the other languages spoken at home being Cantonese, Tagalog, French, German, Greek, Russian and 'other' (ABS, 2006p; 2006q; 2006r).

The most common countries of birth recorded in Alpha were Australia (91 %), United Kingdom (3 %) New Zealand (2 %), Germany (1 %) and the USA (1 %), (ABS, 2006s). English was spoken at home by 97 % of the population, with French (1 %) and 'other languages' (1 %) also spoken (ABS, 2006t).



#### 5.2.1.6 Indigenous Population, Age and Gender

As indicated in **Table 5-8**, 197 (6 %) people in the Barcaldine LGA identified as being Indigenous during the 2006 Census (ABS, 2006u; 2006v; 2006w).

Of the total population in Alpha in 2006, 22 people (6 %) identified as being Indigenous (ABS, 2006x).

**Table 5-8 Indigenous Status in Alpha (L) and Barcaldine, 2006**

Population	Alpha (L)		Barcaldine LGA	
	Number	%	Number	%
Indigenous	22	6	197	6
Non-indigenous	348	93	3,102	89
Not stated	3	1	174	5
Total	373	100	3,473	100

Source: ABS (2006u; 2006v; 2006w; 2006x)

The Indigenous age and gender composition for the Barcaldine LGA and Alpha (L) is presented in **Table 5-9**. Although there were more males than females in the Barcaldine LGA, this was not the case in Alpha (68 % females) (ABS, 2006u; 2006v; 2006w; 2006x). By comparison, the Indigenous gender ratio in the Queensland is roughly equal, with approximately 49 % of the total population being males and 51 % being females.

As indicated in **Table 5-9**, most Indigenous people in Alpha fell within the 0-14 years age group, whereas the most common age group in the overall population is 60-64 years (**Table 5-4**). This reflects a broader trend, with the median age of Indigenous people in Queensland in 2001 being 19 years, considerably younger than non-Indigenous people who had a median age of 36 years (OESR, 2008).

**Table 5-9 Indigenous Population by Age and Gender in Alpha (L) and Barcaldine, 2006**

Indigenous Population by Age	Alpha (L)				Barcaldine LGA			
	No. of Males	No. of Females	Total	% of Total	No. of Males	No. of Females	Total	% of Total
0-14 years	4	6	10	45	44	33	77	39
15-24 years	0	3	3	14	21	20	41	21
25-34 years	3	3	6	27	10	16	26	13
35-44 years	0	0	0	-	6	17	23	12
45-54 years	0	0	0	-	15	6	21	11
55-64 years	0	3	3	14	6	3	9	4

**Table 5-10 Indigenous Population by Age and Gender in Alpha (L) and Barcaldine, 2006, (cont.)**

Indigenous Population by Age	Alpha (L)				Barcaldine LGA			
	No. of Males	No. of Females	Total	% of Total	No. of Males	No. of Females	Total	% of Total
65 years +	0	0	0	-	0	0	0	-
Total	7	15	22	100	102	95	197	100

Source: ABS (2006u; 2006v; 2006w; 2006x)

## 5.2.2 Regional Study Area

### Inland Sub-group

As at 30 June 2010, the resident population of the CHRC area was 31,078 people, comprising 17,092 or 55 % males and 13,986 or 45 % females (OESR, 2010a). Between 2005 and 2010, the population experienced an increase of approximately 2.5 %. Population projections predict an approximate 2.4 % population increase over the next five years a rate comparable to the expected growth rate for Queensland (OESR, 2010i). As at 30 June 2031, the population for CHRC LGA is projected to be 50,742 persons (OESR, 2010i).

As at 30 June 2009, the median age for CHRC LGA was 31.4 years, an increase of 0.5 years over the five year period from 30 June 2004 to 30 June 2009 (OESR, 2011a).

At the time of the 2006 Census, there were 6,588 families in CHRC LGA, with 'Couple family with children' the dominant family type (OESR, 2011a).

The most common countries of birth recorded in the CHRC LGA during the 2006 Census were Australia (91 %), New Zealand (2 %) and the United Kingdom (OESR, 2010a).

At the time of the 2006 Census, there were 894 persons in CHRC LGA who stated they were of Aboriginal or Torres Strait Islander origin (3.4 % of the total population (OESR, 2010a).

### Coastal Sub-group

As at 30 June 2011, the estimated resident populations of the coastal sub-group LGAs were (OESR, 2010j; 2010b; 2010c; 2010d; 2010e):

- 96,936 persons in the Bundaberg Regional Council LGA;
- 168,251 persons in the Cairns Regional Council LGA;
- 102,080 persons in the Fraser Coast Regional Council LGA;
- 185,768 persons in the Townsville City Council LGA; and
- 34,765 persons in the Whitsunday Regional Council LGA.

The median age for each of the coastal sub-group LGAs as at 2009 was 37.8 (OESR, 2010j; 2010b; 2010c; 2010d; 2010e), comprising:

- 41.4 years in the Bundaberg Regional Council LGA;
- 42.9 years in the Fraser Coast Regional Council LGA;
- 35.1 years in the Cairns Regional Council LGA;
- 32.7 years in the Townsville City Council LGA; and
- 37.1 years in the Whitsunday Regional Council LGA.

The place of birth for residents of each of the coastal sub-group LGAs as at the 2006 Census is provided below (OESR, 2010j; 2010b; 2010c; 2010d; 2010e)<sup>1</sup>:

- approximately 11 % of people in the Bundaberg Regional Council LGA were born overseas and 82 % were born in Australia;
- approximately 18 % of people in the Cairns Regional Council LGA were born overseas and 71 % were born in Australia;
- approximately 13 % of people in the Fraser Coast Regional Council LGA were born overseas and 87 % were born in Australia;
- approximately 12 % of people in the Townsville City Council LGA were born overseas and 88 % were born in Australia; and
- approximately 13 % of people in the Whitsunday Regional Council LGA were born overseas and 75 % were born in Australia.

In comparison, approximately 18 % of the Queensland population were born overseas and 75 % were Australian-born (OESR, 2010a).

The proportion of the population that identified as Aboriginal or Torres Strait Island origin ranged from 2.7 % of the total population in the Fraser Coast Regional Council LGA to approximately 8 % of the total population in the Cairns Regional Council LGA (OESR, 2010j; 2010b; 2010c; 2010d; 2010e).

### **SEQ Sub-group**

As at 30 June 2010, the estimated resident population of the Brisbane City Council LGA was 1,067,279 persons, or 23.6 % of the state's population (OESR, 2010f). The average annual growth rate in the Brisbane City LGA between 2005 and 2010 was 1.8 %, and Brisbane City's population in 2031 is projected to be 1,272,272 persons (OESR, 2010f). The median age in the Brisbane City Council LGA was 34.6 years (OESR, 2010f).

At the time of the 2006 Census, there were 244,796 families in Brisbane City Council LGA and 'couple family with children' was the dominant family type (OESR, 2010f). Approximately 24 % of the total population in the Brisbane City Council LGA were born overseas and 70 % were born in Australia (OESR, 2010f).

As at 30 June 2010, the estimated resident population of Gold Coast City was 527,828 persons, or 11.7 % of the state's population (OESR, 2010g). The average annual growth rate in the region is quite high, 3.2 % between 2005 and 2010 compared with only 2.5 % for the state (OESR, 2010g).

The median age in the Gold Coast City Council LGA was 37.3 years (OESR, 2010g). There were 115,541 families in Gold Coast City Council LGA with 'couple family with no children' being the norm.

In 2006, 25 % of the total population in the Gold Coast City Council LGA was born overseas and 66 % was born in Australia (OESR, 2010g).

The percentage of the population that identified as being of Aboriginal or Torres Strait Island origin was relatively similar within the SEQ sub-group, 1.4 % in the Brisbane City Council LGA and 1.1 % in the Gold Coast City Council LGA (OESR, 2010g).

### **5.3 EDUCATION AND TRAINING**

This section profiles existing education and training within the study areas, by examining the following:

- level of education within the community;
- education and training facilities, including:

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<sup>1</sup> These statistics do not include persons whose responses included 'Inadequately Described', 'At Sea', 'Not Elsewhere Classified' and 'Not Stated Response'.

- early childhood education facilities;
- primary and secondary schools;
- tertiary education facilities;
- school enrolments; and
- index of education and occupation.

### 5.3.1 Local Study Area

#### 5.3.1.1 Level of Education

The highest level of schooling attained by people in the LSA is provided in **Table 5-10**. For the Barcaldine LGA and the township of Alpha (L), the highest level of schooling completed by most people was Year 10, followed by Year 1, then Year 8 (ABS, 2006y; 2006z; 2006aa; 2006ab). A greater percentage of students left secondary schooling in Year 10 in Alpha and fewer remained to complete Year 12 than in the greater Barcaldine LGA area.

OESR (2010j) indicates that the proportion of people in the Barcaldine LGA who stated that their highest level of schooling was Year 11 or Year 12 was lower than the proportion for all of Queensland.

**Table 5-11 Highest Level of School Completed in Alpha (L) and Barcaldine, 2006**

Schooling Level	Alpha (L)		Barcaldine	
	Number	% of Population	Number	% of Population
Year 12 or equivalent	63	22	802	29
Year 11 or equivalent	25	9	219	8
Year 10 or equivalent	111	39	847	31
Year 9 or equivalent	16	6	204	8
Year 8 or equivalent	50	17	406	15
Did not go to school	4	1	6	0.2
Highest year of schooling not stated	18	6	251	9
Total	287	100	2,735	100

Source: ABS (2006y; 2006z; 2006aa; 2006ab)

**Table 5-11** provides an indication of the non-school qualifications held by people in the LSA.

**Table 5-12 Non-school Qualifications Completed in Alpha (L) and Barcaldine, 2006**

Non-school Qualification	Alpha (L)		Barcaldine	
	Number	%	Number	%
Postgraduate Degree	3	3	15	1
Graduate Diploma and Graduate Certificate	0	-	13	1
Bachelor Degree	15	13	162	15
Advanced Diploma and Diploma	13	11	136	13
Certificate	61	53	421	40
Certificate nfd	6	5	30	3
Certificate III and IV1	52	45	361	34
Certificate I and II2	3	3	30	3

**Table 5-13 Non-school Qualifications Completed in Alpha (L) and Barcaldine, 2006, (cont.)**

Non-school Qualification	Alpha (L)		Barcaldine	
	Number	%	Number	%
Level of education inadequately described	3	3	20	2
Level of education not stated	21	18	292	28
Total	116	100	1,059	100

Source: ABS (2006ac; 2006ad; 2006ae; 2006af)

<sup>1</sup> Includes Certificate III and IV, nfd.

<sup>2</sup> Includes Certificate I and II, nfd.

Non-school qualifications were held by almost one third of the population in both the Barcaldine LGA and Alpha (L), the most common types of which were Certificates I to IV (ABS, 2006ac; 2006ad; 2006ae; 2006af).

The most common field of non-school study in the Barcaldine LGA was 'engineering and related technologies' (16 %), followed by 'education' (11 %), 'management and commerce' (11 %) and health (10 %) (ABS, 2006ag; 2006ah; 2006ai). The most common field of study in Alpha (L) was 'engineering and related technologies' (22 %), followed by 'agriculture, environmental and related studies' (10 %) and 'health' (10 %), (ABS, 2006aj).

#### 5.3.1.2 Education and Training Facilities

##### 5.3.1.2.1 Early Childhood Facilities

At 30 April 2011, the Barcaldine LGA had a total of six early childhood education and care services (OESR, 2010j). The early childhood education and care facilities included limited hours care and kindergarten services (OESR, 2010j).

The C&K Jelly Beans Community Centre provides a kindergarten/day care service in Alpha two days per week. The centre has the capacity to take up to 14 children (3 years and over) per day (URS, 2010). Changes to the Queensland education system mean that at the start of the 2012 school year, the Jelly Beans Community Centre will become pre-Prep and will require a qualified Early Childhood teacher (K. Gray, pers. comm., 28 July 2011). The program is currently provided by a TAFE-qualified local resident with a Certificate in Early Childhood (K. Gray, pers. comm., 28 July 2011).

The BRC also operates a day care centre two days per week for children from six weeks to school age. Although the centre is licensed to cater for up to 21 children, its current capacity is only 14 due to staff limitations (URS, 2010).

##### 5.3.1.2.2 Primary and Secondary Schools

As indicated in **Table 5-12**, there are six schools in the Barcaldine LGA as well as the Wanpa-rda Matildas Outback Education Centre. Enrolment numbers at schools within the LSA are provided in **Table 5-12**.

The Alpha State School is strongly valued by the community. Residents feel that a good education up to Year 10 is available in Alpha, although people also recognised that local education options are limited (Cavaye Community Development, 2009). Many people recognised the need for greater educational choice but increased student numbers depend on industry, employment and population (Cavaye Community Development, 2009).

In a Community Survey undertaken for the SGCP, many respondents indicated that a key area for improvement of local services would be the provision of senior schooling in Alpha. As students cannot access Year 11 and 12 locally, they either have to attend boarding school or travel long distances to Barcaldine State School in order to complete secondary schooling. Cavaye Community Development

(2009) indicates that this is often a point where families leave the local community to access education for their children.

Barcaldine is seen to offer quality education with a range of options and subjects for students. Class sizes are relatively small, allowing teachers to provide personal attention. There are very high levels of student progression, with many students gaining places in university, and apprenticeships.

A number of children from the Barcaldine LGA attend boarding schools at major regional locations (e.g. Rockhampton, Charters Towers and Toowoomba). Boarding school is expensive and disrupts family life and students have to make social adjustments in larger settings.

Limited employment opportunities tend to result in young people leaving Alpha with very few returning (Cavaye Community Development, 2009).

Current Education Queensland staffing protocols result in small rural schools struggling to retain teachers. People mentioned the need for Education Queensland to review this policy with regard to small rural schools to make staffing more feasible in regional areas (Cavaye Community Development, 2009). Small communities have greater expectations of teachers (e.g. involvement in fundraising, etc.).

#### *5.3.1.2.3 Tertiary Education Facilities*

In 2009, the Barcaldine LGA had a total of 291 vocational education and training (VET) students, 0.1 % of total VET students in Queensland (OESR, 2011a). This was made up of 203 students commencing a VET course and 88 students continuing a VET course (2011a).

The Emerald campus of the Australian Agricultural College Corporation caters to several specialties including beef, cattle, cotton, horses and horticulture (Australian Agricultural College Corporation, 2011).

The Central Queensland Institute of TAFE recognises its role in enabling students to excel in education, training and learning, skilling and work for personal, community and economic prosperity. Crucial to Central Queensland Institute of TAFE's success is the development of dynamic partnerships with industry.

Central Queensland Institute of TAFE campuses are located at (DET, 2011a):

- Barcaldine;
- Blackwater;
- Biloela;
- Yeppoon;
- Emerald;
- Clermont;
- Gladstone;
- Longreach;
- Mackay;
- Moranbah; and
- Rockhampton.

TAFE Queensland (TQ) Mining Services is an industry-focused delivery unit administered by the Central Queensland Institute of TAFE. TQ Mining Services was formed in 2001 in an effort to maximise skilling opportunities for Queensland's mining industry (DET, 2011b).

TQ Mining Services delivers qualifications ranging from Certificate I to Advanced Diploma level, as well as specialised short courses that enable employers to meet regulatory and licensing requirements. TQ Mining Services currently collaborates with numerous large-scale mining organisations and contractors to provide quality training and assessment services to enhance their operations (DET, 2011b).

The closest universities to the LSA are the Central Queensland University (CQU) and James Cook University (JCU). CQU provides a network of campuses in Central Queensland and on the coast of Australia, including in Rockhampton, Mackay, Gladstone, Bundaberg, Emerald, Noosa, Brisbane, Gold Coast, Sydney and Melbourne (Central Queensland University, undated).

JCU is also a multi-campus university with campuses located in Townsville, Cairns, Mackay, Mt Isa, Brisbane, Thursday Island and Singapore (James Cook University, 2011).

#### *5.3.1.2.4 Other Education and Training Facilities*

In addition to schools and tertiary education facilities there are numerous private education and training providers located in the wider region, particularly in Emerald.

**Table 5-14 Primary and Secondary School Profiles, Barcaldine LGA**

	Alpha State School	Aramac State School	Barcaldine State School	Jericho State School	Muttaborra State School	St Joseph's Catholic Primary School	Wanpa-rda Matildas Outback Education Centre
School Sector	Government	Government	Government	Government	Government	Non-government	Joint project between Education Queensland and the Australian Workers Heritage Centre
School Type	Combined	Combined	Combined	Primary	Primary	Primary	Outback Education Centre
Year Range	P - 10	P - 10	P - 12	P - 7	P - 7	Kindergarten - 7	N/A
Location	Alpha	Aramac	Barcaldine	Jericho	Muttaborra	Barcaldine	Australian Workers Heritage Centre, Barcaldine
Teaching Staff	8	7	32	2	2	5	1
Full-time Equivalent Teaching Staff	7.8	6.3	26.1	1.2	1.2	5	1
Non-teaching Staff	10	7	17	5	2	4	0
Full-time Equivalent Non-teaching Staff	5.5	4.5	11.9	2.2	1.3	1.7	0
Total Enrolments	62	50	271	19	14	36	N/A



**Table 5-12 Primary and Secondary School Profiles, Barcaldine LGA (cont.)**

	Alpha State School	Aramac State School	Barcaldine State School	Jericho State School	Muttaborra State School	St Joseph's Catholic Primary School	Wanpa-rda Matildas Outback Education Centre
Number of Girls Enrolled	29	26	145	11	5	17	N/A
Number of Boys Enrolled	33	24	126	8	9	19	N/A
Proportion of Indigenous Students (%)	5	6	14	16	14	11	N/A
Proportion of Language Background Other Than English (%)	0	0	0	0	0	0	N/A
Student Attendance Rate (%)	90	88	92	91	77	91	N/A
Senior Secondary Certificate Awarded	-	-	15	-	-	-	N/A
Completed Senior Secondary School	-	-	17	-	-	-	N/A

**Table 5-12 Primary and Secondary School Profiles, Barcaldine LGA (cont.)**

	Alpha State School	Aramac State School	Barcaldine State School	Jericho State School	Muttaborra State School	St Joseph's Catholic Primary School	Wanpa-rda Matildas Outback Education Centre
Achieved VET Units of Competence	-	-	15	-	-	-	N/A
Number of Australian School-based Apprenticeships	-	-	8	-	-	-	N/A
Proportion of Students at University (%)	-	-	40	-	-	-	N/A
Proportion of Students at TAFE/Vocational Study (%)	-	-	40	-	-	-	N/A
Proportion of Students in Employment (%)	-	-	20	-	-	-	N/A

**Table 5-12 Primary and Secondary School Profiles, Barcaldine LGA (cont.)**

	Alpha State School	Aramac State School	Barcaldine State School	Jericho State School	Muttaborra State School	St Joseph's Catholic Primary School	Wanpa-rda Matildas Outback Education Centre
Additional Notes	<p>Offers after-school sport, chess, art and craft and youth programs.</p> <p>Some Year 8, 9 and 10 students participate in Certificate II Agricultural Studies at the Longreach Pastoral College for one week each term. The program involves the participation of students from Aramac, Tambo, Richmond State Schools and Longreach School of Distance Education and their teachers.</p>	<p>School has been open since 1878.</p>	<p>Offers a broad senior curriculum delivered face-to-face and via Distance Education and Virtual Schooling.</p> <p>Supported by the community to provide vocational opportunities for students.</p> <p>TAFE and Agricultural courses are also available.</p> <p>Indigenous outcomes are a key area for school improvement.</p>	<p>School has been open since 1888.</p> <p>Years 8 to 12 is via bus to Barcaldine.</p>	<p>School has been open since 1884.</p> <p>Specialist teachers regularly travel from Longreach.</p> <p>The Outback Advantage started as a network of nine one-teacher schools, which worked together through IDEAS and with the Staff College to enhance the quality and sustainability of initiatives in their schools.</p> <p>The Outback Advantage is now an alliance of 13 one and two teacher schools that have created an active, support and challenging network.</p>	<p>Established by the Sisters of Mercy in 1896.</p>	<p>The facility provides the base from which to explore the many sites of educational significance in the region.</p> <p>Designed to accommodate the needs of visiting school children and their carers.</p> <p>The Wanpa-rda Matildas Outback Education Centre does not run a full time curriculum with a full time student population.</p>

Source: Australian Curriculum, Assessment and Reporting Authority (2010)

### 5.3.1.3 *Index of Education and Occupation*

The Socio-Economic Indexes for Areas (SEIFA) tool is a demographic profiling tool developed by the ABS which allows geographic areas across Australia to be assessed and ranked relative to their socio-economic conditions (ABS, 2009).

SEIFA utilises a suite of four indices, each of which combines variables derived from ABS Census data to determine a single index value (ABS, 2009):

1. Index of Disadvantage - derived from variables like income, educational attainment, unemployment, and dwellings without motor vehicles.
2. Index of Advantage/Disadvantage - continuum of advantage (high values) to disadvantage (low values). It takes into account variables like the proportion of families with high incomes, people with a tertiary education, and employees in skilled occupations.
3. Index of Economic Resources - focuses on variables like the income, expenditure and assets of families (like family income, rent paid, mortgage repayments and dwelling size).
4. Index of Education and Occupation - includes variables relating to the educational and occupational characteristics of communities, like the proportion of people with a higher qualification or those employed in a skilled occupation.

The SEIFA score is standardised against a mean of 1,000 with a standard deviation of 100, so geographic areas can be compared in terms of their SEIFA score, rank, decile or percentile (DEEWR, 2008).

The ABS recommends that SEIFA deciles be used for most analyses (DEEWR, 2008). SEIFA deciles divide the distribution of scores into ten equal groups. The lowest scoring 10 % of areas is given a decile number of one, the second lowest scoring 10 % of areas is given a decile number of two and so on, up to the highest 10 % of areas which are given a decile number of 10 (DEEWR, 2008). Based on 2006 Census data, Barcaldine LGA was given a decile number of six (ranking within Australia) and nine (ranking within Queensland).

**Table 5-13** provides the Index of Education and Occupation generated from 2006 Census data.

**Table 5-15 Index of Education and Occupation, 2006**

2006 LGA Name	Ranking within Australia				Ranking within QLD		
	Score	Rank	Decile	Percentile	Rank	Decile	Percentile
Aramac (S)	952	341	6	52	119	8	76
Barcaldine (S)	961	390	6	59	130	9	83
Brisbane (C)	1065	604	10	91	157	10	100
Bundaberg (C)	896	87	2	14	34	3	22
Caboolture (S)	914	145	3	22	58	4	37
Cairns (C)	981	481	8	73	145	10	92
Caloundra (C)	961	394	6	59	131	9	83
Emerald (S)	949	333	5	50	116	8	74
Esk (S)	916	148	3	23	59	4	38

**Table 5-13 Index of Education and Occupation, 2006 (cont.)**

2006 LGA Name	Ranking within Australia				Ranking within QLD		
	Score	Rank	Decile	Percentile	Rank	Decile	Percentile
Gold Coast (C)	980	478	8	72	144	10	92
Hervey Bay (C)	917	154	3	24	62	4	40
Ipswich (C)	926	190	3	29	75	5	48
Jericho (S)	937	249	4	38	93	6	59
Logan (C)	923	180	3	27	72	5	46
Maroochy (S)	988	498	8	75	146	10	93
Maryborough (C)	895	84	2	13	33	3	21
Rockhampton (C)	940	271	5	41	97	7	62
Whitsunday (S)	957	366	6	55	123	8	78

Source: ABS (2008)

### 5.3.2 Regional Study Area

#### 5.3.2.1 *Inland Sub-group*

At the time of the 2006 Census, there were 8,881 persons in the CHRC LGA, aged 15 years and over who indicated that their highest level of schooling was Year 11 or 12 (or equivalent) (44.9 % of all persons aged 15 years and over), (OESR, 2010a).

There were 1,670 persons with a bachelor degree or higher, 909 persons with an advanced diploma or diploma and 4,317 persons with a certificate (OESR, 2010a).

#### 5.3.2.2 *Coastal Sub-group*

In 2006, 45 % of individuals aged 15 years and over in the coastal sub-group stated their highest level of schooling was Year 11 or 12 (OESR, 2010k; 2010b; 2010c; 2010d; 2010e).

In the coastal sub-group, there were 38,404 persons (20 %) with a bachelor degree or higher, 22,103 persons with an advanced diploma or diploma (12 %), and 76,176 persons (40 %) with a certificate (OESR, 2010k; 2010b; 2010c; 2010d; 2010e).

#### 5.3.2.3 *SEQ Sub-group*

As at 30 June 2010, there were 414 schools located within the SEQ sub-group (OESR, 2010f; 2010g). Approximately 59 % of persons aged 15 years and over indicated that their highest level of schooling was Year 11 or 12 (or equivalent), which was significantly higher than the Queensland level of 49.5 % (OESR, 2010f; 2010g).

In the SEQ sub-group, approximately 35 % of persons held a bachelor degree or higher, 14 % of persons had an advanced diploma or diploma, and 28 % of persons had a certificate (OESR, 2010f; 2010g).

## **5.4 ECONOMY, EMPLOYMENT AND INCOME**

The following section describes the current economy, employment and income trends within the study areas, using the following statistics:

- industry breakdown;
- number of businesses;
- labour force status;
- employment by occupation;
- gross individual income; and
- index of relative socio-economic advantage and disadvantage.

### **5.4.1 Local Study Area**

#### *5.4.1.1 Industry Breakdown*

**Table 5-14** provides an industry breakdown by age within Alpha (L) and Barcaldine LGA.

The main industries within the Barcaldine LGA were 'agriculture, forestry and fishing' (32 %), 'public administration/safety' (11 %), 'health care and social assistance' (10 %) and 'retail trade' (7 %) (ABS, 2006ak; 2006al; 2006am). A greater proportion of those employed in the 'agriculture, forestry and fishing' industry were in older age brackets (e.g. 55-85+ years), than in other industries. Notably, only nine people were employed in the mining industry.

Beef and wool production are the major agricultural industries in the area. In consultation undertaken to inform the Barcaldine Community Plan, the local community indicated that incentives were needed to attract and retain primary producers and employees and their families in the area (e.g. promotion of rural lifestyles, tax incentives or other financial benefits), (Cavaye Community Development, 2009).

The main industries in Alpha (L) were 'public administration/safety' (16 %), 'health care and social assistance' (14 %), 'retail trade' (10 %), 'transport, postal and warehousing' (10 %) and 'agriculture, forestry and fishing' (9 %), (ABS, 2006an). The lower number of people employed in the 'agriculture, forestry and fishing' industry when compared to the Barcaldine LGA is likely to be because many people in this industry live on large properties outside of the Alpha (L) area. Unlike in the greater Barcaldine LGA, no one working in the 'agriculture, forestry and fishing' industry was over the age of 64. Only three people were employed in the mining industry.

OESR (2010i) indicates that regional Queensland is disproportionately affected by economic cycles and events, particularly where economies are exposed to or dependent on the fortunes of resource and agricultural industries.

**Table 5-16 Industry Breakdown in Alpha (L) and Barcaldine LGA, 2006**

Industry Category	Number of People per Age Group (years)																			
	Alpha (L)										Barcaldine LGA									
	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total
Agriculture, forestry and fishing	0	0	3	5	6	3	0	0	0	17	23	45	83	122	107	73	46	18	3	520
Mining	0	0	3	0	0	0	0	0	0	3	0	0	3	6	0	0	0	0	0	9
Manufacturing	0	0	3	0	4	3	0	0	0	10	0	6	8	13	9	3	0	0	0	39
Electricity, gas, water and waste services	0	0	0	0	0	0	0	0	0	0	0	6	3	0	4	6	0	0	0	19
Construction	0	0	0	4	0	4	0	0	0	8	6	20	16	25	25	10	3	0	0	105
Wholesale trade	0	3	0	3	0	3	0	0	0	9	3	6	3	12	3	13	0	0	0	40
Retail trade	0	0	0	3	9	6	0	0	0	18	27	8	19	26	23	13	0	0	0	116
Accommodation and food services	0	0	0	0	0	6	0	0	0	6	5	0	7	15	18	16	3	3	0	67

**Table 5-14 Industry Breakdown in Alpha (L) and Barcaldine LGA, 2006 (cont.)**

Industry Category	Number of People per Age Group (years)																			
	Alpha (L)										Barcaldine LGA									
	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total
Transport, postal and warehousing	0	0	4	7	0	7	0	0	0	18	3	8	19	24	22	16	0	0	0	92
Information media and telecommunications	0	0	3	3	0	0	0	0	0	6	0	0	3	6	6	0	0	0	0	15
Financial and insurance services	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
Rental, hiring and real estate services	0	0	0	0	4	0	0	0	0	4	0	3	0	0	6	0	3	0	0	12
Professional, scientific and technical services	0	0	3	0	0	0	0	0	0	3	0	0	13	7	4	3	3	0	0	30
Administrative and support services	0	0	0	0	0	0	0	0	0	0	3	0	0	0	6	0	0	0	0	9
Public administration/ safety	0	3	7	6	8	6	0	0	0	30	8	14	36	53	40	30	4	0	0	185



**Table 5-14 Industry Breakdown in Alpha (L) and Barcaldine LGA, 2006 (cont)**

Industry Category	Number of People per Age Group (years)																			
	Alpha (L)										Barcaldine LGA									
	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total
Education and training	0	0	8	0	0	6	0	0	0	14	3	18	36	26	15	11	0	0	0	109
Health care and social assistance	0	3	3	6	8	6	0	0	0	26	0	9	23	43	41	35	6	0	0	157
Arts and recreation services	0	0	0	0	0	0	0	0	0	0	0	3	9	0	6	0	3	0	0	21
Other services	0	0	3	3	0	0	0	0	0	6	9	3	3	10	7	6	0	0	0	38
Inadequately described/not stated	3	0	0	3	3	0	0	0	0	9	3	5	3	13	6	3	0	4	0	37
Total	3	9	40	43	42	50	0	0	0	187	93	154	287	404	348	238	71	25	0	1,623 0

Source: ABS (2006ak; 2006al; 2006am; 2006an)

#### *5.4.1.2 Local Businesses*

In 2008-2009, there were 566 businesses in the Barcaldine LGA, representing 0.1 % of all Queensland businesses (OESR, 2010j). Of these, 563 were small businesses (99.5 % of the total, compared with 95.2 % in Queensland) and three were medium-sized businesses. There were no large businesses.

The turnover of these businesses is summarised below (OESR, 2010j):

- 227 businesses recorded a turnover of less than \$100,000;
- 211 businesses recorded a turnover between \$100,000 and \$500,000;
- 77 businesses recorded a turnover of between \$500,000 and \$1,000,000; and
- 51 businesses recorded turnover of \$1 million or more.

Approximately 66 % (or 376) of all businesses within the Barcaldine LGA 2008-2009 were in the 'agriculture, forestry and fishing' industry (OESR, 2010j). Other industries with relatively large numbers of businesses included 'construction' (42 businesses or 7.4 %) and 'rental, hiring and real estate services' (34 businesses or 6 %), (OESR, 2010j). The highest specialisation ratios in the region occurred in the industries of 'agriculture, forestry and fishing' (5.98), 'other services' (2.09) and 'education and training' (1.52), (OESR, 2010j).

The community identified the possibility of providing services to the mining industry (e.g. a mechanics workshop) if it expanded in the area (Cavaye Community Development, 2009). Residents felt that a more entrepreneurial spirit was needed in the business community as well as greater acceptance of new ideas and innovation and accessing information and support (Cavaye Community Development, 2009).

A list of businesses based in Alpha is provided in **Appendix A**. Members of the local community feel that Alpha has a good small shopping centre with shops that other communities the same size haven't got (Cavaye Community Development, 2009). In a Community Survey undertaken for the SGCP between 2010 and 2011, respondents indicated that local shopping facilities are a key area in need of improvement, especially the prices and choice available. Survey respondents indicated that a supermarket is a necessity.

Cavaye Community Development (2009) found that local residents wanted to see local businesses operating well and being profitable and sustainable. However, many people felt that there are substantial barriers to establishing a business in remote rural areas like Alpha and that more could be done by the BRC to (Cavaye Community Development, 2009):

- encourage tradespeople to establish businesses;
- stimulate development by offering more trade traineeships;
- encourage economic development by helping businesses access information;
- lobby for economic development incentives; and
- establish an economic development officer position.

Community members indicated that the attraction of high quality employees is often difficult and subsidised rural training would help to increase the availability of skilled and reliable employees (Cavaye Community Development, 2009).

#### *5.4.1.3 Labour Force Status*

Detailed breakdowns of the labour force status for Barcaldine LGA and Alpha (L) are provided in **Table 5-15** and **Table 5-16**, respectively. The majority of people in the Barcaldine LGA (97 %) and Alpha (94 %) have full-time or part-time employment.

Cavaye Community Development (2009) found that employment is seen by the local community as being a key issue. Alpha has very little career-entry employment, particularly as many beef properties have substantially reduced employment due to recent droughts and narrow margins and now rely on family and contract labour (Cavaye Community Development, 2009.) Consultation undertaken with members of the local community as part of the SGCP CEP confirmed this; opportunities for employment were perceived to be limited and long-term employment is needed to retain and expand population and services. Many local people look to the mining industry to provide sustainable employment, but others see opportunities for small business and agricultural development. A lack of local employment opportunities means that young people often leave the district for work (reflected in the age composition statistics in **Section 5.2.1.2** and **Table 5-4**).

Indigenous employment statistics for the LSA collected by the Census are not available due to confidentiality constraints (ABS National Information Referral Service, pers. comm., 13 December 2011).

**Table 5-17 Labour Force Status for Barcaldine LGA, 2006**

Labour Force Status	Number of People Per Age Category									Total	% of Total Labour Force
	15-19 Years	20-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65-74 Years	75-84 Years	85+ Years		
Employed, worked:											
Full-time <sup>1</sup>	54	123	201	303	271	160	55	11	3	1,181	71
Part-time	34	32	61	75	66	56	13	10	0	347	21
Employed, away from work <sup>2</sup>	3	0	4	3	4	22	3	0	0	39	2
Hours worked not stated	0	3	23	22	7	0	0	3	0	54	3
Total	91	158	285	403	348	238	71	24	3	1,621	97
Unemployed, looking for:											
Full-time work	7	0	8	4	11	7	0	0	0	37	2
Part-time work	3	0	8	0	0	3	3	0	0	17	1
Total	10	0	16	4	11	10	3	0	0	54	3
Total labour force	101	158	301	407	359	248	74	24	3	1,675	-
Not in the labour force	56	33	54	69	65	106	258	113	36	890	-
Labour force status not stated	13	5	21	24	33	29	24	17	0	166	-
Total	170	196	276	500	457	483	356	154	39	4,873	100

Source: ABS (2006ao; 2006ap; 2006aq)

<sup>1</sup> 'Employed, worked full-time' is defined as having worked 35 hours or more in all jobs during the week prior to Census night.

<sup>2</sup> Comprises employed persons who did not work any hours in the week prior to Census night.

**Table 5-18 Labour Force Status for Alpha (L), 2006**

Labour Force Status	Number of People Per Age Category									Total	% of Total Labour Force
	15-19 Years	20-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65-74 Years	75-84 Years	85+ Years		
Employed, worked:											
Full-time <sup>1</sup>	0	7	28	27	33	35	3	0	0	133	67
Part-time	3	4	10	10	9	5	3	0	0	44	22
Employed, away from work <sup>2</sup>	0	0	0	0	0	3	0	0	0	3	2
Hours worked not stated	0	0	0	3	3	0	0	0	0	6	3
Total	3	11	38	40	45	43	6	0	0	186	94
Unemployed, looking for:											
Full-time work	3	0	0	0	3	0	0	0	0	6	3
Part-time work	0	0	0	0	0	6	0	0	0	6	3
Total	3	0	0	0	3	6	0	0	0	12	6
Total labour force	6	11	38	40	48	49	6	0	0	198	-
Not in the labour force	0	5	8	9	3	18	22	16	5	86	-
Labour force status not stated	0	0	0	3	0	0	0	0	0	3	-
Total	6	16	46	52	51	67	28	16	5	287	100

Source: ABS (2006ar)

<sup>1</sup> 'Employed, worked full-time' is defined as having worked 35 hours or more in all jobs during the week prior to Census night.

<sup>2</sup> Comprises employed persons who did not work any hours in the week prior to Census night.

#### 5.4.1.4 Employment by Occupation

**Table 5-17** provides an overview of employment by occupation in Alpha (L) and the Barcaldine LGA. The most common occupation was 'managers', which made up approximately 17 % of employment in Alpha (L) and 29 % in the Barcaldine LGA (ABS, 2006as; 2006at; 2006au; 2006av). This was a significantly higher proportion than for Queensland, where managers make up only 12 % of all

occupations. Most managers in Alpha worked in either the 'agriculture, forestry and fishing' industry or the 'retail trade' industries (ABS, 2006av). In the Barcaldine LGA, approximately 70 % of all managers worked in the 'agriculture, forestry and fishing industry.

Other common occupations were 'labourers' (16 % of employment in Alpha and 20 % in the Barcaldine LGA), 'technicians and trades workers' (15 % of employment in Alpha and 12 % in the Barcaldine LGA) and 'machinery operators and drivers' (14 % of employment in Alpha), (ABS, 2006as; 2006at; 2006au; 2006av).

**Table 5-19 Employment by Occupation in Alpha (L) and Barcaldine, 2006**

Occupation	Alpha (L)		Barcaldine LGA	
	Number of Employees	%	Number of Employees	%
Managers	32	17	467	29
Professionals	18	10	146	9
Technicians and trades workers	28	15	200	12
Community and personal service workers	20	11	135	8
Clerical and administrative workers	18	10	136	8
Sales workers	15	8	72	5
Machinery operators and drivers	27	14	121	8
Labourers	30	16	315	20
Inadequately described/not stated	0	-	23	1
Total	188	100	1,615	100

Source: ABS (2006as; 2006at; 2006au; 2006av)

#### 5.4.1.5 Income

**Table 5-18** presents a summary of gross weekly individual incomes in Alpha (L) and Barcaldine LGA. In 2007-2008, the average annual personal income in the Barcaldine LGA was \$35,383, which was lower than the average for Queensland (\$41,911), (OESR, 2010j).

**Table 5-20 Gross Individual Weekly Income in Alpha (L) and Barcaldine, 2006**

Gross Individual Weekly Income Range	Alpha (L)		Barcaldine LGA	
	Number of People <sup>1</sup>	%	Number of People <sup>1</sup>	%
Negative/Nil income	12	4	204	8
\$1-\$149	16	6	180	7
\$150-\$249	32	11	416	15
\$250-\$399	47	16	406	15
\$400-\$599	50	17	457	17
\$600-\$799	44	15	298	11
\$800-\$999	21	7	182	7
\$1,000-\$1,299	19	7	163	6
\$1,300-\$1,599	3	1	81	3
\$1,600-\$1,999	10	4	41	2
\$2,000 or more	9	3	42	2
Income not stated	23	8	249	9
Total	286	100	2,719	100

Source: ABS (2006aw; 2006ax; 2006ay; 2006az)

1 Count of persons aged 15 years and over.

The average weekly individual income was \$672 (OESR, 2010j). The gross household weekly income in the LSA is provided in **Table 5-19**. The majority of households (16 %) in Alpha and Barcaldine (12 %) have a gross weekly income of \$1,000-\$1,199 (ABS, 2006ba; 2006bb; 2006bc; 2006bd).

**Table 5-21 Gross Household Weekly Income in Alpha (L) and Barcaldine, 2006**

Gross Household Weekly Income Range	Alpha (L)				Barcaldine LGA			
	No. of Family Households	No. of Non-family Households <sup>1</sup>	Total	%	No. of Family Households	No. of Non-family Households <sup>1</sup>	Total	%
Negative/Nil income	0	3	3	2	17	14	31	2
\$1-\$149	0	0	0	-	0	17	17	1
\$150-\$249	3	8	11	7	0	82	82	6
\$250-\$349	0	17	17	11	22	94	116	9
\$350-\$499	4	3	7	5	64	29	93	7
\$500-\$649	13	4	17	11	76	76	152	11
\$650-\$799	3	13	16	10	52	46	98	7
\$800-\$999	9	6	15	10	54	42	96	7
\$1,000-\$1,199	20	5	25	16	119	40	159	12
\$1,200-\$1,399	0	0	0	-	47	0	47	3
\$1,400-\$1,699	3	0	3	2	55	22	77	6
\$1,700-\$1,999	8	3	11	7	43	10	53	4
\$2,000-\$2,499	5	0	5	3	44	3	47	3
\$2,500-\$2,999	4	0	4	1	18	10	28	2
\$3,000 or more	0	0	0	-	21	0	21	2
Partial income stated <sup>2</sup>	13	0	13	8	167	6	173	13
All income not stated <sup>3</sup>	0	8	8	5	31	39	70	5
Total	85	70	155	100	830	530	1,360	100

Source: ABS (2006ba; 2006bb; 2006bc; 2006bd)

<sup>1</sup> Comprises 'Lone Person', 'Group' and 'Visitors only' households.

<sup>2</sup> Comprises households where at least one, but not all, member(s) aged 15 years and over did not state an income and/or was temporarily absent on Census night.

<sup>3</sup> Comprises households where no members present stated an income.

#### 5.4.1.6 Index of Relative Socio-economic Advantage and Disadvantage

As described in **Section 5.3.1.3**, the SEIFA tool includes an Index of Advantage/Disadvantage which ranks geographical regions to reflect disadvantage of social and economic conditions (**Table 5-20**).



The index takes into account income, educational attainment, unemployment and dwellings without motor vehicles. Low index values represent areas of most disadvantage and high values represent areas of least disadvantage.

**Table 5-22 Index of Relative Socio-economic Advantage and Disadvantage, 2006**

2006 LGA Name	Score	Ranking within Australia			Ranking within QLD		
		Rank	Decile	Percentile	Rank	Decile	Percentile
Aramac (S)	938	323	5	49	99	7	63
Barcaldine (S)	937	321	5	49	98	7	63
Brisbane (C)	1,063	611	10	92	157	10	100
Bundaberg (C)	908	165	3	25	62	4	40
Caboolture (S)	956	408	7	62	119	8	76
Cairns (C)	1,001	540	9	81	142	9	90
Caloundra (C)	993	525	8	79	140	9	89
Emerald (S)	1,013	558	9	84	147	10	94
Esk (S)	924	246	4	37	81	6	52
Gold Coast (C)	1,023	571	9	86	151	10	96
Hervey Bay (C)	933	291	5	44	90	6	57
Ipswich (C)	954	401	7	61	118	8	75
Jericho (S)	931	277	5	42	87	6	56
Logan (C)	962	430	7	65	123	8	78
Maroochy (S)	1,013	560	9	84	148	10	94
Maryborough (C)	903	140	3	21	56	4	36
Rockhampton (C)	945	353	6	53	109	7	69
Whitsunday (S)	996	531	8	80	141	9	90

Source: ABS (2008)

## **5.4.2 Regional Study Area**

### *5.4.2.1 Inland Sub-group*

Mining is the largest industry of employment in the CHRC LGA, although large numbers of people are also employed in the 'agriculture, forestry and fishing' and 'construction' industries (OESR, 2010a).

The most common occupation is 'machinery operators and drivers', although there are also many people employed as 'technicians and trades workers' and 'managers' (OESR, 2010a). In March 2011, the CHRC LGA had an unemployment rate of 2.5 % (OESR, 2010a).

During 2008-2009 the average annual personal income in CHRC LGA was \$58,642 (OESR, 2010a).

### *5.4.2.2 Coastal Sub-group*

At the time of the 2006 census, 'retail trade' was the largest industry of employment for the coastal sub-group, employing approximately 12 % of the region's labour force (OESR, 2010k; 2010b; 2010c; 2010d; 2010e). Other important industries included 'health care and social assistance' and 'construction'.

'Technicians and trades workers' were the most common occupation, followed by 'professionals' and 'clerical and administrative workers' (OESR, 2010k; 2010b; 2010c; 2010d; 2010e).

The unemployment rate of persons aged 15 years and over in the coastal sub-group in the June quarter of 2011 was 6.4 % (OESR, 2010k; 2010b; 2010c; 2010d; 2010e). The Townsville City Council LGA recorded the lowest unemployment rate in the region (4.1 %) and Cairns Regional Council LGA recorded the highest unemployment rate at 8.2 % (OESR, 2010k; 2010b; 2010c; 2010d; 2010e).

During 2008-2009, the average annual personal income in coastal sub-group was \$41,203, slightly lower than the state average of \$44,239 (OESR, 2010k; 2010b; 2010c; 2010d; 2010e). Within the region, the Townsville City Council had the highest average income, followed by the Whitsunday Regional Council.

### *5.4.2.3 SEQ Sub-group*

At the time of the 2006 Census, 'retail trade' was the largest industry of employment in the SEQ sub-group; other major industries included 'health care and social assistance' and 'manufacturing' (OESR, 2010f; 2010g).

'Professionals' was the most common occupation (23 %), followed by 'clerical and administrative workers' (16 %) and 'technicians and trades workers' (13 %), (OESR, 2010f; 2010g).

The unemployment rate as at June quarter 2011 was substantially higher in the Gold Coast City Council LGA (6.3 %) than in the Brisbane City Council LGA (4.3 %), (OESR, 2010f; 2010g).

During 2008-2009 the average annual personal income in SEQ sub-group was \$48,499, which was higher than the Queensland average of \$44,239 (OESR, 2010f; 2010g).

## **5.5 INFRASTRUCTURE AND SERVICES**

In the Community Survey undertaken for the SGCP, all respondents indicated that the quality and accessibility of services in the local area could be improved.

### **5.5.1 Transport**

#### *5.5.1.1 Road*

Travel by private vehicle is the most popular mode of transport in the Barcaldine LGA as well as in Alpha (OESR, 2010j). Only approximately 10 % of occupied dwellings did not have at least one vehicle (OESR, 2010j).

Given the high usage of road transport, and the isolated location, road infrastructure is very important in the region. The local community indicated that road infrastructure was a key area requiring upgrade or improvement. It was also considered important to maintain and expand bus services to Rockhampton and Mt Isa (Cavaye Community Development, 2009). It was noted that the road from Clermont to Tambo via Alpha was a particular priority for road upgrade; this was seen as a potentially

important route that would improve tourist access from the north and south and reduce travel times for trucks substantially.

#### *5.5.1.2 Rail*

Alpha is serviced by the Central Line Railway, although freight services are considered expensive and unreliable. The local community indicated that it is important to maintain and expand transport services including the Queensland Rail freight service (Cavaye Community Development, 2009).

#### *5.5.1.3 Air*

The BRC owns and maintains the following aerodromes/airstrips:

- Alpha Aerodrome - listed as a registered aerodrome with Civil Aviation Safety Authority (CASA), (Registration Number R076);
- Aramac Airfield - used by suppliers bringing goods into the town and is also used by the locals to fly to major towns or cities in their own planes or by booking a private plane;
- Barcaldine Aerodrome - certified public transport facility (Certification Number 1-C3FZA), Qantaslink currently services the Shire with three flights per week;
- Jericho Airfield; and
- Muttaborra Airfield - mainly used for bringing in supplies, used by the Royal Flying Doctor Service of Australia and the local property owners.

The Royal Flying Doctor Service provides a call out service to these airports. The nearest major airports are located at Longreach and Emerald.

Due to the cost and reliability of the existing rail network, several people have called for increased use of the Alpha Aerodrome for services linked to major towns. Air services have been identified as an important transport service to maintain and expand (Cavaye Community Development, 2009).

### **5.5.2 Power**

Alpha's power supply is regarded as unreliable largely due to the age of the power lines, weather and debris affecting distribution lines. A reliable power supply is seen to be a high priority for residents and to support business and industry investment (Cavaye Community Development, 2009).

### **5.5.3 Water**

Alpha's existing water supply is provided by a sub-artesian basin. Many residents have suggested investigating alternative water sources that would improve water quality and reduce reliance on the local basin (Cavaye Community Development, 2009).

### **5.5.4 Telecommunications and Media**

At the time of the 2006 Census, there were 306 dwellings in the Barcaldine LGA with and 560 dwellings without an internet connection (OESR, 2010j). In Alpha, there were more dwellings without internet connection than with one (OESR, 2010j). The majority of dwellings with an internet connection had broadband internet and the remainder had dial-up connections (OESR, 2010j).

Improving access to technology is important, particularly for businesses and young people. Locals have raised a range of areas of improvement for infrastructure and facilities including enhanced access to high-speed broadband and mobile phone coverage (Cavaye Community Development, 2009).

There are a number of commercial newspapers whose coverage includes the Central Queensland region, including the Central Queensland News. The Central Queensland News is published twice weekly and the Friday edition includes the Rural Weekly Central Queensland. The BRC also publishes the Galilee Gazette and Galilee News to provide an update on activities and events from across the region. The local Alpha News is printed intermittently by the Alpha District Tourism & Development Association. Digital TV and radio is available as well as FM radio.

### 5.5.5 Social Infrastructure

Social infrastructure refers to the community facilities, services and networks which help individuals, families, groups and communities meet their social needs, maximise their potential for development and enhance community wellbeing (DIP, 2005). The relevant aspects of social infrastructure are discussed in the following sections:

- education and training (including facilities/services for children) – **Section 5.3**;
- health, safety and emergency services (including aged care and disability services) - **Section 5.7**; and
- arts and cultural facilities - **Section 5.8**.

### 5.6 HOUSING AND ACCOMMODATION

This section provides an overview of housing and accommodation within the LSA, focussing on the following:

- household type and tenure;
- household size;
- rental market;
- median house price, availability and housing repayments;
- new building approvals (residential and non-residential); and
- availability of social housing.

#### 5.6.1 Local Study Area

##### 5.6.1.1 Household Type and Tenure

**Table 5-21** provides a summary of the dwelling types in the Barcaldine LGA and Alpha (L).

**Table 5-23 Dwelling Structure in Alpha (L) and Barcaldine, 2006**

Dwelling Structure <sup>1</sup>	Alpha (L)		Barcaldine LGA	
	Number	%	Number	%
Separate house	132	92	1,187	91
Semi-detached, row or terrace house, townhouse	0	-	16	1
Flat, unit or apartment	6	4	35	3
Other dwelling	6	4	45	3
Dwelling structure not stated	0	-	25	2
Total	144	100	1,308	100

Source: ABS (2006be; 2006bf; 2006bg; 2006bh)

<sup>1</sup> Count of occupied dwellings, excludes 'Visitors only' and 'Other not classifiable' households.

In both the Barcaldine LGA and Alpha (L), the most common type of dwellings are 'separate houses', followed by 'other dwellings' and 'flats, units or apartments'. There are no semi-detached, row or terrace houses or townhouses in Alpha.

The tenure type of dwellings in the Barcaldine LGA and Alpha (L) is presented in **Table 5-22**. Of the 144 dwellings recorded in Alpha in 2006, 57 separate dwellings were fully owned, 26 were being purchased and 51 dwellings were being rented.

**Table 5-24 Tenure and Landlord Type in Alpha (L) and Barcaldine, 2006**

Tenure and Landlord Type	Alpha (L)		Barcaldine LGA	
	Number of Dwellings <sup>1</sup>	%	Number of Dwellings <sup>1</sup>	%
Fully owned	57	40	528	44
Being purchased <sup>2</sup>	26	18	240	20
Total rented, comprising:	51	35	368	30
Real estate agent	0	-	12	1
State or territory housing authority	7	5	48	4
Person not in same household <sup>3</sup>	19	13	92	8
Housing cooperative/community/church group	3	2	20	2
Other landlord type <sup>4</sup>	18	13	138	11
Landlord type not stated	4	3	58	5
Other tenure type <sup>5</sup>	4	3	25	2
Tenure type not stated	6	4	46	4
TOTAL	144	100	1,207	100

Source: ABS Census (2006bj; 2006bj; 2006bk; 2006bl)

- <sup>1</sup> Count of occupied private dwellings, excludes 'visitors only' and 'other not classifiable' households.
- <sup>2</sup> Includes dwellings being purchased under a rent/buy scheme.
- <sup>3</sup> Comprises dwellings being rented from a parent/other relative or other person.
- <sup>4</sup> Comprises dwellings being rented through a 'residential park (includes caravan parks and marinas)', 'employer-government (includes Defence Housing Authority)' and 'employer-other employer (private)'.
- <sup>5</sup> Includes dwellings 'being occupied under a life tenure scheme'.

#### 5.6.1.2 Rental Market

As described in **Table 5-22**, of the houses being rented in the Alpha, the majority are being rented by a 'person not in the same household' (e.g. a parent, relative or other person), followed by 'other landlord type' comprising dwellings being rented through a 'residential park (includes caravan parks and marinas)', 'employer-government (includes Defence Housing Authority)' and 'employer-other employer (private)'. **Table 5-23** provides a summary of weekly rental payments in the Barcaldine LGA and Alpha (L). Weekly rental payments in Alpha (L) are relatively low with 37 % of rental payments in the lowest bracket of \$0-\$49. Based on the average individual weekly income (**Section 5.4.1.5**), a weekly rental payment of \$49 would account for approximately 7 % of this amount. All of the Alpha (L) weekly rental payments indicated were contained within the five lowest payment brackets (i.e. under \$139/week).

A similar trend was found in the Barcaldine LGA, with approximately 87 % of indicated weekly rental payments contained within the five lowest payment brackets (i.e. under \$139/week).

Alpha has many vacant houses which were purchased relatively cheaply and are not available for rent as owners can afford to have them vacant. These houses may have been purchased by speculators in anticipation of a mining "boom". However, on the basis of consultation undertaken by URS (2010) there are actually very few vacant houses in Alpha.

**Table 5-25 Weekly Rental Payments in Alpha (L) and Barcaldine, 2006**

Weekly Rental Payments <sup>1</sup>	Alpha (L)		Barcaldine LGA	
	Number of Dwellings	%	Number of Dwellings	%
\$0-\$49	20	37	182	47
\$50-\$74	12	22	74	19
\$75-\$99	0	-	16	4
\$100-\$119	10	19	48	12
\$120-\$139	4	7	17	4
\$140-\$159	0	-	13	3
\$160-\$179	0	-	0	-
\$180-\$199	0	-	0	-
\$200-\$224	0	-	0	-
\$225-\$249	0	-	0	-
\$250-\$274	0	-	0	-
\$275-\$299	0	-	0	-
\$300-\$349	0	-	0	-
\$350-\$449	0	-	0	-
\$450-\$549	0	-	0	-
\$550 and over	0	-	8	2
Not stated	8	15	28	7
Total	54	100	386	100

Source: ABS (2006bm; 2006bn; 2006bo; 2006bp)

<sup>1</sup> Count of occupied private dwellings being rented (including being occupied rent free).

#### 5.6.1.3 House Price, Availability and Repayments

**Table 5-24** shows the trends in average and median house prices in Alpha and Barcaldine between February 2010 and October 2011.

House and land prices have increased substantially in Alpha over recent years due to speculation related to mining development. Consultation with local real estate agents indicates that land availability in Alpha is very restrictive and local agents are unaware of any new development or land release proposals (Wood, E., pers. comm., 13 December 2011). Of the 20 lots recently released for land development by the BRC, only 10 remain and these are expected to be publicly auctioned in May 2012 (Wood, E., pers. comm., 13 December 2011).

**Table 5-25** summarises the monthly housing loan repayments in Alpha and the Barcaldine LGA. The majority of people making housing loan repayments for occupied private dwellings in Alpha pay between \$250 and \$399 per month (ABS, 2006bq; 2006br; 2006bs; 2006bt). This was less than in the Barcaldine LGA, where the majority of people pay \$400-\$549 per month.

**Table 5-26 House Prices in Alpha and Barcaldine, February 2010 to October 2011**

Period	Alpha			Barcaldine		
	No. of Sales	Average Price (\$AUD)	Median Price (\$AUD)	No. of Sales	Average Price (\$AUD)	Median Price (\$AUD)
October 2011	1	230,000	230,000	1	60,000	60,000
September 2011	-	-	-	2	240,000	240,000
August 2011	-	-	-	4	97,500	94,000
July 2011	1	90,000	90,000	5	165,200	170,000
June 2011	-	-	-	6	260,167	304,000
May 2011	8	89,031	88,000	3	164,667	200,000
April 2011	1	265,000	265,000	3	982,667	103,000
March 2011	-	-	-	5	294,000	260,000
February 2011	1	214,500	214,500	6	125,000	107,500
January 2011	-	-	-	2	200,000	200,000
December 2010	2	707,500	707,500	2	1,103,500 <sup>2</sup>	1,103,500 <sup>2</sup>
November 2010	2	200,000	200,000	3	200,167	192,5000
October 2010	-	-	-	2	163,000	163,000
September 2010	1	2,275,000 <sup>1</sup>	2,275,000 <sup>1</sup>	4	603,500	169,000
August 2010	1	208,000	208,000	6	185,833	155,000
July 2010	1	170,000	170,000	8	206,064	203,283
June 2010	1	121,000	121,000	8	369,950	131,300
May 2010	11	119,159	121,000	3	213,333	200,000
April 2010	4	171,625	112,500	3	95,000	75,000
March 2010	1	307,000	307,000	11	745,000	180,000
February 2010	4	232,250	232,000	5	273,000	65,000

<sup>1</sup> Represents a single sale of a property 41,000,000 m<sup>2</sup> in size.

<sup>2</sup> Includes the sale of a property for \$2,102,000.

Source: Property Data Solutions Pty Ltd (2011a; 2011b)



**Table 5-27 Monthly Housing Loan Repayments, Alpha (L) and Barcaldine LGA, 2006**

Monthly Repayment	Number of Dwellings <sup>1</sup>			
	Alpha (L)	%	Barcaldine LGA	%
\$1-\$99	0	-	0	-
\$100-\$149	4	12	8	3
\$150-\$249	0	-	10	4
\$250-\$399	10	30	28	11
\$400-\$549	5	15	37	15
\$550-\$649	3	9	19	8
\$650-\$749	0	-	22	9
\$750-\$849	0	-	19	8
\$850-\$949	3	9	10	4
\$950-\$1,049	0	-	7	3
\$1,050-\$1,199	0	-	3	1
\$1,200-\$1,399	0	-	8	3
\$1,400-\$1,599	0	-	0	-
\$1,600-\$1,999	0	-	3	1
\$2,000-\$2,399	0	-	11	4
\$2,400-\$2,999	0	-	4	2
\$3,000-\$3,999	0	-	3	1
\$4,000 and over	0	-	0	-
Not stated	8	24	56	23
Total	33	100	248	100

Source: ABS (2006bq; 2006br; 2006bs; 2006bt)

<sup>1</sup> Count of occupied private dwellings being purchased, includes being purchased under a rent/buy scheme.

<sup>2</sup> Forty-eight dwellings in the Barcaldine LGA and seven dwellings in Alpha were rented by the State Housing Authority for community housing purposes (Table 5-22).

#### *5.6.1.4 New Building Approvals*

In the 12 months ending 30 June 2011, there were 13 residential dwelling unit approvals in Barcaldine LGA, valued at \$3.0 million (OESR, 2010j). The value of non-residential building approvals in the 12 months ending 30 June 2011 was \$0.4 million (OESR, 2010j).

Access to additional land for housing and industrial development was an issue. People wanted Council to encourage more land to be developed, encourage the subdivision of large blocks and attract a housing developer/house builder (Cavaye Community Development, 2009).

#### *5.6.1.5 Social Housing*

Within Alpha, there are 14 social housing dwellings (comprising four public housing dwellings, one Aboriginal and Torres Strait Islander housing dwelling and nine community housing dwellings), (Waratah Coal Pty Ltd, 2011)

### **5.6.2 Regional Study Area**

#### *5.6.2.1 Inland Sub-group*

At the time of the 2006 Census there were 8,548 occupied private dwellings counted in CHRC LGA, 87 % of which were separate houses (OESR, 2010a).

Almost half of all dwellings were being rented (43 %), with approximately 25 % fully owned and 28 % being purchased (OESR, 2010a).

In the 12 months ending 30 June 2011, there were 190 residential dwelling unit approvals in the CHRC LGA, valued at \$44.9 million (OESR, 2010a). The value of non-residential building approvals during the same period was \$46.1 million (OESR, 2010a).

#### *5.6.2.2 Coastal Sub-group*

At the time of the 2006 Census there were 175,716 occupied private dwellings in the coastal sub-group, of which slightly more were being purchased or rented (32.5 % and 32.4 %, respectively) than were fully owned (31 %), (OESR, 2010k; 2010b; 2010c; 2010d; 2010e). Approximately 80 % of all dwellings were separate houses.

In the 12 months ending 30 June 2011, there were 2,753 dwelling units in new residential buildings approved in coastal sub-group, valued at \$698.7 million (OESR, 2010k; 2010b; 2010c; 2010d; 2010e). The total value of non-residential building approvals in the 12 months ending 30 June 2011 was \$766.5 million (OESR, 2010k; 2010b; 2010c; 2010d; 2010e).

#### *5.6.2.3 SEQ Sub-group*

At the time of the 2006 Census there were 512,500 occupied private dwellings in SEQ sub-group, the majority of which were separate houses. Approximately 34 % of dwellings were being rented, 33% were being purchased and 30 % were fully owned (OESR, 2010f; 2010g).

In the 12 months ending 30 June 2011, there were 8,927 dwelling units in new residential buildings approved in SEQ sub-group, valued at \$2,484 million (OESR, 2010f; 2010g). The total value of non-residential building approvals in SEQ sub-group region in the 12 months ending 30 June 2011 was \$4,114.3 million (OESR, 2010f; 2010g).

## **5.7 COMMUNITY HEALTH AND SAFETY**

This section provides an overview of community health and safety, by examining the following:

- health and wellbeing;
- health infrastructure and services;
- disability prevalence; and
- community safety statistics and services.

## 5.7.1 Local Study Area

### 5.7.1.1 Health and Wellbeing

There were 133 same day patient admissions for medical emergencies and 395 overnight admissions to the Barcaldine Hospital between July 2009 and June 2010 (Australian Institute of Health and Welfare, 2011a). Approximately 26 % of all admissions were discharged on the same day, with the average length of stay for overnight admissions requiring acute care being 3.7 days (Australian Institute of Health and Welfare, 2011a).

Between July 2009 and June 2010, there were 51 same-day patient admissions for medical emergencies and 62 overnight admissions at the Alpha Hospital (Australian Institute of Health and Welfare, 2011b). Approximately 45 % of all admissions to the Alpha Hospital during this period were discharged on the same day with the average length of stay for overnight admissions requiring acute care being 2.1 days (Australian Institute of Health and Welfare, 2011b).

### 5.7.1.2 Health Infrastructure and Services

This section provides an overview of the currently available health care within the LSA. Health care services include hospitals, referral hospitals, disability, aged and auxiliary health care services.

#### 5.7.1.2.1 Barcaldine

Health care services in Barcaldine (i.e. resident doctors, the Barcaldine Hospital, ambulance service and a chemist and health system) are considered by the community to be 'good' (Cavaye Community Development, 2009). Services such as Home and Community Care (HACC), Home Assist Secure, HACC Home Modifications Program and Meals on Wheels are considered valuable, particularly for elderly people (Cavaye Community Development, 2009).

The Barcaldine Hospital provides a crucial set of services to the whole region, and a profile is provided in **Table 5-26**. Doctors from Barcaldine service Muttaborra, Aramac, Jericho and Alpha.

**Table 5-28 Barcaldine Hospital Facilities and Services**

Facilities	Services Offered	Frequency
Hospital	Accident and Emergency	Permanent
	General Hospital Care	Permanent
	Medical Clinic Services	Permanent
	Multipurpose Health Services	Permanent
	Dental Services	Visiting service every six weeks under an arrangement with a practice in Coopers Plains
Allied Health	Physiotherapist	Visiting from Longreach
	Occupational Therapist	Visiting from Longreach
	Speech Pathologist	Visiting from Longreach
	Social Worker	Visiting from Longreach

**Table 5-26 Barcaldine Hospital Facilities and Services (cont.)**

Facilities	Services Offered	Frequency
Community Health Services	Community Health Nurse	Permanent
	Home and Community Care Services	Permanent
	Diversional Therapy	Permanent
	Diabetic Educator	Visiting
	Well Women's Nurse	Permanent
	Aged Care Assessment Team	Permanent
	Child Health	Permanent
	Mental Health Team	Permanent
	Breast Cancer Nurse	Permanent
	Indigenous Health Team	Permanent
	Alcohol Tobacco and Other Drugs Service	Permanent
Specialists	Gastroenterology	Visiting
	Flying Surgeon	Visiting (consult only)
	Dermatologist	Visiting
	Physician	Visiting
	Flying Obstetrics and Gynaecologist	Visiting
	Ophthalmologist	Visiting
	Paediatrician	Visiting
	RFDS Women's Health Doctor	Visiting
	Optometrist	Visiting service from Rockhampton
	Psychiatrist	Visiting
	Psychologist	Visiting

Source: Cavaye Community Development (2009); State of Queensland (2010a)

The Barcaldine Hospital is currently fully staffed, although it is difficult to attract and retain qualified staff at the hospital due to its remote location (Cavaye Community Development, 2009). Many medical staff members are itinerant and contribute strongly while in Barcaldine but move on. The hospital is retaining graduate nurses but this appears to be cyclic.

According to discussions undertaken by Cavaye Community Development (2009), Queensland Health is planning to build new consulting rooms at the Barcaldine Hospital with six consulting rooms to attract another doctor.

#### 5.7.1.2.2 Aramac

**Table 5-27** provides a profile of the facilities and services offered by the Aramac Primary Health Care Centre.

**Table 5-29 Aramac Primary Health Care Centre Facilities and Services**

Facilities	Services Offered	Frequency
Hospital	Accident & Emergency	Permanent
	General Hospital Care	Permanent
	Medical Clinic services provided from Barcaldine	1 visit per week
	Rural Doctor Placement from Redcliffe/Caboolture	1 week in every 6 weeks
	Optometrist visit	Private
Allied Health Services	Social Worker	Permanent
	Speech Pathologist	Permanent
Community Health	Child Health	Visiting
	Mobile Women's Health	Visiting
	Mental Health Team (on request)	Visiting
	Immunisation Clinic (Child Health)	Visiting
	Breast Care Nurse	Visiting
	ATODS	Visiting

Source: State of Queensland (2011)

#### 5.7.1.2.3 Jericho

Spiritus Nursing operates out of Jericho (BRC, undated a).

#### 5.7.1.2.4 Alpha

The Alpha Hospital has a 10 bed capacity with a further five aged care beds (URS, 2010). A profile of the facilities and services offered is provided in **Table 5-28**. The Alpha Hospital provides a public pharmacy, delivery services and a patient transport service which offers subsidised travel to access more specialised medical attention.

Other hospital and health services available include the Alpha Private Surgery.

**Table 5-30 Alpha Hospital Facilities and Services**

Facilities	Services Offered	Frequency
Inpatient	General Hospital Care	Permanent
	Accident and Emergency	Permanent
	Medical Clinic services	Permanent
	Multipurpose Health Care	Permanent
Specialist	Physician	One to two visits per year
	RFDS Women's Health Doctor	Every two months
	RFDS Mental health	Monthly or as required
Allied Health	Women's Health Nurse	Every two months
	Occupational Therapist	Monthly
	Aged Care Assessment Team	Monthly
	Qld Health Mental Health Team	Monthly or as required
	Social Worker	Monthly or as required
	Dietician	Monthly
	Breast Cancer Nurse	As required
	Indigenous Health Team	Monthly
	Alcohol Tobacco & Other Drugs Service	As required
	School Based Youth Health Nurse	Monthly
	Child Health	Monthly
	Speech Pathologist	Every two months
	Diabetic Educator	Every 4-6 weeks
	Continence Advisor	Every 4-6 weeks
	Foot care Nurse	Provided from Alpha Nursing staff every four weeks
	Podiatrist	Visiting
	Psychologist	Visiting

Source: State of Queensland (2010b)

The Alpha Hospital is considered to be community-oriented with caring staff that provide a high and personal standard of emergency care (Cavaye Community Development, 2009). People strongly value health care services, particularly the Alpha Hospital and the HACC service.

The following key issues have been raised by the community in relation to health services in Alpha (Cavaye Community Development, 2009 and SGCP Community Survey undertaken 2010-2011):

- the lack of a permanent local doctor;
- the lack of a public dental service;
- limited nursing staff;
- need for improved ambulance service;
- need for improved access to children's health services;
- need for increased health promotion and illness/accident prevention; and
- need for improved access to day respite care in the district.

The lack of a permanent doctor has the following implications (Cavaye Community Development, 2009):

- the Alpha Hospital is unable to admit patients so people are transferred to Barcaldine, Emerald or Rockhampton Hospitals where they have little family or other support and are required to arrange their own transport back to Alpha;
- it is difficult to attract and retain qualified permanent nursing staff (the contract nurses are expensive and high turnover reduces the continuity of care);
- it is more difficult to attract and retain population to the district; and
- it is difficult for people to manage long-term chronic illness.

It is difficult to justify a doctor in Alpha due to the way health care statistics are gathered (i.e. local patient care statistics are low, largely as a result of patients being transferred to other centres).

#### Referral Hospitals

The closest referral hospitals to the LSA are the Longreach and Rockhampton Hospitals, located approximately 250 km west and 440 km east of Alpha, respectively.

Although not located within the LSA, a profile of the facilities and services offered at the Emerald Hospital is provided in **Table 5-29**, as some patients travel regionally for care.

**Table 5-31 Emerald Hospital Facilities and Services**

Facilities	Services Offered
Clinical - Surgical	Day Procedure unit/pre admission clinic
	Operating theatre – Gynaecology
	General Surgery
	Operating Rooms
	Central Sterilising and Supply Department



**Table 5-29 Emerald Hospital Facilities and Services (cont.)**

Facilities	Services Offered
Clinical - Medical	Acute Medical
	General Medicine
	Gastroenterology
	Rehabilitation
	Specialist Clinics
	Respiratory
	Diabetes Education
	Pacemaker Checking
	Pathology
	Paediatric
	Palliative
	Chemotherapy
Clinical Support	Anaesthetics
	Emergency Department
	Radiography
	Pathology
	Red Cross Blood Bank
Allied Health	Physiotherapy
	Occupational Therapy
	Speech Therapy
	Social Work
	Dietetics
Maternity Services	Maternity/Nursery and Extended Midwifery Service
Operational Services	Housekeeping and Linen
	Ward Services
	Food Services
	Grounds and Maintenance Services

Source: State of Queensland (2010c)

#### Aged Care Services

Queensland's aged care system offers a range of services designed to assist people to stay in their own homes, most of which have some form of Government subsidy. A summary of the available programs is provided below.

- The Home and Community Care (HACC) program provides services from a number of different agencies with the primary objective of enhancing the quality of life of frail aged people and people with a disability, enabling them to live as independently as possible. Services provided may include home help, personal care, home modification and maintenance, allied health and nursing services, respite care, social and carer support.
- Community Aged Care Packages (CACPs) are to meet individual needs and may include services such as personal care, social support, assistance with work around the home and social activities.

- Veterans Home Care offers similar services to the HACC program for veterans.
- Carer Support Services and Programs assist carers of people in the community and support them in their caring role. These services may include respite care, education services and financial assistance.

As at 30 June 2009, there were four aged-care service providers in the Barcaldine LGA (in Alpha, Jericho, Aramac and Barcaldine) with a total of 41 places available (OESR, 2010j).

During 2008-2009, the aged-care service providers in the Barcaldine LGA received \$1 million in Australian government recurrent funding, 0.1 % of total funding received in Queensland.

Aged care has been highlighted as a crucial need for the provision of health in the region (OESR, 2010j).

#### *5.7.1.2.5 Barcaldine Hospital*

The community feels that HACC, Meals on Wheels and Home Assist Secure provide excellent support. HACC also provides a bus service that takes people shopping and to medical services.

High-care support is available, but with an aging population, the current number of high-care places at the Barcaldine Hospital (i.e. six beds) is considered to be insufficient by the community (Cavaye Community Development, 2009). The hospital also does not have adequate facilities for people with dementia.

The gap between home-based care and high level care (i.e. the need for supported/independent residential aged care for people with mid-level care needs) has been identified by the community as being a high priority (Cavaye Community Development, 2009). Although typically older people want to stay in Barcaldine, as their requirement for care increases they are required to relocate to Longreach, Blackall or coastal cities (Cavaye Community Development, 2009).

#### *5.7.1.2.6 Alpha*

The community feels that aged care services are relatively good and enable the elderly to remain in their own town with their family (Cavaye Community Development, 2009). The Alpha Hospital provides a multipurpose aged care centre, although this is limited to four places.

The Alpha HACC program is managed by the BRC and provides an in-home health and aged care service, which is becoming more important to support the aging population. HACC also provides a transport service for people requiring transport to Emerald or Barcaldine. As at August 2011, the HACC group had 28 clients.

Residents consider the HACC service to be affordable and accessible and feel it reduces the number of people who require hospital attention (Cavaye Community Development 2009).

#### *Auxiliary Health Services*

The Alpha Hospital Auxiliary contributes financially to the services offered by the Alpha Hospital through community fundraising.

The Alpha Meals on Wheels group manages approximately 15 driver/delivery volunteers who deliver hospital-prepared meals to local residents.

While there has been an Al-Anon Association in Alpha (L) in the past, the closest group is located in Clermont and support is offered by Alcoholics Anonymous by phone.

In 2010, the Alpha Senior Citizens Association closed due to lack of members and funding.

#### *5.7.1.3 Disability Prevalence*

At the time of the 2006 Census, 96 people (or 2.9 % of the total population) in the Barcaldine LGA were in need of assistance due to a profound or severe disability (OESR, 2010j). By comparison, 154,707 people in Queensland (or 4.0% of the total population) were in need of assistance due to a disability (OESR, 2010j). The Barcaldine LGA represented 0.1 % of the total persons in need of assistance in Queensland.

#### 5.7.1.4 Community Safety Statistics and Services

The community considers the area to be very safe with virtually no crime and residents that look after each other (Cavaye Community Development, 2009). Most people know each other and police are well known and integrated into the community.

Although many people saw the community as being safe, they felt concerned about underage drinking and alcohol abuse, with people considered to be drinking at younger ages (Cavaye Community Development, 2009). Alcohol culture and alcohol abuse was seen by some as a rite of passage for young people or a result of boredom (Cavaye Community Development, 2009).

Suggestions from the community for addressing this problem included (Cavaye Community Development, 2009):

- progressing the youth space;
- developing more activities for young people; and
- greater enforcement by publicans and police to stop adults drinking outside hotels which attracts young people.

**Table 5-30** provides a summary of reported offences in the preceding five years within the Barcaldine Police District. The most commonly reported offences in 2010 were offences against property, followed by traffic and related offences, although generally crime rates are low (QPS, 2011).

**Table 5-32 Barcaldine LGA Crime Statistics 2006-2010**

Type of Offence	Number of Reported Offences				
	2006	2007	2008	2009	2010 <sup>1</sup>
Homicide (Murder)	0	0	0	0	0
Other Homicide	0	0	0	0	0
Assault					
Grievous Assault	0	0	0	0	1
Serious Assault	1	6	2	4	4
Serious Assault (Other)	0	1	0	1	1
Common Assault	3	4	6	3	2
Sexual Offences					
Rape and Attempted Rape	0	1	0	0	0
Other Sexual Offences	8	0	1	17	6
Robbery					
Armed Robbery	0	0	0	0	0
Unarmed Robbery	0	0	0	1	1

**Table 5-30 Barcaldine LGA Crime Statistics 2006-2010 (cont.)**

Type of Offence	Number of Reported Offences				
	2006	2007	2008	2009	2010 <sup>1</sup>
Other Offences Against the Person					
Kidnapping & Abduction etc.	0	0	0	0	0
Extortion	0	0	0	0	0
Stalking	0	1	0	0	0
Life Endangering Acts	1	4	4	3	1
Offences Against the Person	13	17	13	29	16
Unlawful Entry					
Unlawful Entry With Intent - Dwelling	4	7	5	1	3
Unlawful Entry Without Violence - Dwelling	4	7	5	1	3
Unlawful Entry With Violence - Dwelling	0	0	0	0	0
Unlawful Entry With Intent - Shop	4	1	3	3	5
Unlawful Entry With Intent - Other	16	6	5	7	4
Arson	0	0	0	0	0
Other Property Damage	4	11	8	19	14
Unlawful Use of Motor Vehicle	1	1	0	1	0
Other Theft (excl. Unlawful Entry)					
Stealing from Dwellings	3	1	2	1	1
Shop Stealing	1	0	0	0	0
Vehicles (steal from/enter with intent)	4	8	6	7	3
Other Stealing	14	8	7	8	10

**Table 5-30 Barcaldine LGA Crime Statistics 2006-2010 (cont.)**

Type of Offence	Number of Reported Offences				
	2006	2007	2008	2009	2010 <sup>1</sup>
Fraud					
Fraud by Computer	0	0	0	0	0
Fraud by Cheque	4	4	0	2	1
Fraud by Credit Card	0	1	0	1	0
Identity Fraud	0	0	0	0	0
Other Fraud	3	5	2	7	3
Handling Stolen Goods	1	0	0	2	1
Possess Property Suspected Stolen	0	0	0	0	0
Receiving Stolen Property	1	0	0	1	0
Possess etc. Tainted Property	0	0	0	1	1
Other Handling Stolen Goods	0	0	0	0	0
Offences Against Property	59	53	38	59	45
Drug Offences	8	2	11	16	24
Prostitution Offences	0	0	0	0	0
Liquor (excl. Drunkenness)	16	3	2	4	2
Gaming Racing & Betting Offences	0	0	0	0	0
Breach Domestic Violence Protection Order	1	2	5	2	2
Trespassing and Vagrancy	2	0	0	1	1
Weapons Act Offences	1	4	4	4	6
Good Order Offences	26	18	13	16	19
Stock Related Offences	7	9	11	2	13
Traffic and Related Offences	35	41	30	40	38
Miscellaneous Offences	1	1	1	0	1
Other Offences	97	80	77	85	106

Source: QPS (2011)

<sup>1</sup> This data are preliminary and may be subject to change.

#### *5.7.1.5 Community Safety Services*

The Queensland Department of Community Safety comprises four operational divisions - Queensland Ambulance Service (QAS), Queensland Corrective Services, Emergency Management Queensland (EMQ) and Queensland Fire and Rescue Service (QFRS).

#### *5.7.1.6 Queensland Ambulance Service*

The QAS provides emergency care to the public from seven regions across the state. The SGCP is located in QAS' central region.

As at 30 June 2010, there were five ambulance stations in the Barcaldine LGA (OESR, 2010j).

Although the Alpha community has access to an ambulance, it is staffed by hospital staff and driven by volunteers. Many people feel that there is justification for a full-time QAS position and ambulance (Cavaye Community Development, 2009).

All ambulance vehicles are fitted with defibrillators and Global Positioning System (GPS) devices.

#### *5.7.1.7 Queensland Police Service*

The QPS has eight regional operations divisions. The headquarters for the central region are located in Mackay, Rockhampton, Gladstone and Longreach.

As at 30 June 2010, there were five police stations in the Barcaldine LGA (OESR, 2010j).

Police officers are involved in local Crime Stoppers groups. This is a partnership between the community volunteer organisation Crime Stoppers Queensland Limited and the Queensland Police Service. Queensland Police also provide oversize, pilot and dangerous load escort services.

#### *5.7.1.8 Emergency Management Queensland*

EMQ has seven regions, which are aligned to the other operational divisions of the Department during normal business activity and aligned with Local Government boundaries and Police Districts for disaster management coordination. The Central Region covers approximately 419,510 km<sup>2</sup> and includes the LGAs of Gladstone and Banana, Barcaldine, Barcoo, Longreach and Winton, Isaac, Mackay and Whitsunday, Central Highlands, Woorabinda and Rockhampton (Department of Community Safety, 2009a).

The State Emergency Service (SES), part of Emergency Management Queensland, is a volunteer-based organisation designed to help Queensland communities in times of emergency and disaster. SES Units are made up of local people who have volunteered to prepare themselves and their communities to minimise the effects of a disaster. There are SES teams in Alpha, Aramac, Barcaldine, Jericho and Muttaborra (Department of Community Safety, 2009b).

#### *5.7.1.9 Queensland Fire and Rescue Service*

The QFRS is divided into seven regions. The Rural Fire Service, part of QFRS, is divided into 15 districts and two regions. The Rural Fire Service administers Queensland's volunteer fire wardens and Rural Fire Brigades, and assists with rural fire management. These volunteers are on call to attend emergencies.

As at 30 June 2010, there were three fire stations in the Barcaldine LGA (OESR, 2010j).

#### *5.7.1.10 Driver Reviver Station*

Driver reviver stations are a community-based road safety initiative of the Department of Transport and Main Roads and the QPS and are operated by volunteers. Barcaldine has one Driver Rest Area and Alpha (L) has one Driver Reviver station.

### **5.7.2 Regional Study Area**

A detailed breakdown of individual health services is not provided for the RSA due to its scale and inherent variation. The potential impacts on community health and safety in the RSA are, however, assessed in **Section 8.6.2**.

## **5.8 CULTURE AND COMMUNITY**

This section will examine the following aspects relating to culture and community:

- community identity, values and lifestyles;
- community vitality; and
- community aspirations.

### **5.8.1 Local Study Area**

#### *5.8.1.1 Community Identity, Values and Lifestyles*

The community feels that the Barcaldine LGA has many assets that contribute to its liveability and prosperity, including a relaxed rural lifestyle, friendly people and strong sense of community (Cavaye Community Development, 2009). Residents have a lot of freedom without congestion and with easy access to services. The town and district has clean air and a rural atmosphere. The town presents well with neat and tidy streets and gardens.

Community identity in the Barcaldine LGA and Alpha is strong and people are committed to maintaining and enhancing the town and district (Cavaye Community Development, 2009).

The local community considers Alpha to offer a lifestyle that is safe, comfortable and ideally suited to families and raising children. The following values have been identified as being particularly important (Cavaye Community Development, 2009):

- an easy-going small community lifestyle with basic services and facilities;
- children can be brought up in a safe and secure environment;
- people know each other and support the community strongly;
- it is a friendly community where people have relatives living nearby and where people care for each other;
- there is strong support for small community organisations; and
- the town is very clean and well maintained.

An analysis of comments from a Community Survey undertaken as part of the SGCP community engagement program, found that:

- approximately 64 % of respondents had lived in the Alpha area for over ten years;
- approximately 73 % of respondents intended to stay in the area indefinitely or had no plans to leave;
- when asked what they valued most about their lifestyle and surroundings, the key themes were:
  - quiet, country lifestyle;
  - small rural area, rather than a city;
  - sense of safety and freedom;
  - sense of community;
  - good area for families;
  - clean environment; and
  - low cost housing.

There is a strong artistic community with talented artists in many fields. People are encouraged to "have a go". The arts are accessible and affordable with music programs in schools, arts events and an active Cultural Association and Arts Council. There is a lot of enthusiasm for the arts and people are willing to share resources and ideas.

Young people, in particular, value local sport including touch football, rugby league and cricket. They appreciate their coaches and other adults who have developed and supported their sporting opportunities. Several community facilities were seen as assets including walking tracks at the park, the library, skate park and swimming pool.

#### *5.8.1.2 Community Vitality*

Cultural vitality is defined as evidence of creating, disseminating, validating, and supporting arts and culture as a dimension of everyday life in communities (Jackson *et al.*, 2006). Community Vitality focuses on the strengths and weaknesses of relationships and interactions within communities. It encompasses feelings of belongingness, nature of trust, vitality of relationships, feelings of safety in the home and community as well as giving and volunteering.

In Barcaldine, there are a number of community groups and associations including (BRC, undated b):

- Apex Club of Barcaldine;
- Barcaldine Aged Club;
- Barcaldine Rotary Club;
- Barcaldine & District Historical Society;
- Comet Masonic Lodge;
- Barcaldine Branch QCWA;
- Barcaldine Branch Red Cross;
- RSL Women's Auxiliary;
- Barcaldine Branch RSL;
- Barcaldine Club;
- Barcaldine P.H. & A. Society;
- Show Auxiliary;
- Barcaldine Tourist Association;
- Westech Field Days Committee;
- Catholic Fundraising Committee;
- Barcaldine Arts Council;
- Barcaldine Cultural Association;
- Central Western Aboriginal Co-op;
- Barcaldine 60 & Better;
- Barcaldine Senior Citizens Club;
- Barcaldine State School P & C;
- St Joseph's P&F;
- Barcaldine Kindergarten Association;
- Barcaldine Branch Cancer Council Qld;
- Diabetics Support Group;
- Local Ambulance Committee;
- Jenny Lockie Community Assistance;
- Barcaldine Hospital Auxiliary;
- Girl Guides;



- Scouts Association;
- Barcaldine Branch ALP; and
- Barcaldine Branch National Party.

Alpha also has a number of community groups and associations, including (BRC, undated b):

- Alpha District Tourism & Development Association;
- Hospital Auxiliary;
- Alpha Historical Society;
- Alpha Show Society;
- Alpha Cultural Group;
- Alpha QCWA;
- Anglican Church Association;
- Catholic Church Association;
- Combined Churches Association; and
- Jane Neville-Rolfe Art Gallery and Alpha museum.

Alpha sporting clubs and facilities include golf, tennis, netball, swimming, little athletics, a pony club, a jockey club and a rodeo association.

Major community events held each year include the Alpha Show, the Bullarama and the Alpha Campdraft/Gymkhana.

There is a strong sense of community and people actively support the community through a culture of volunteering, which is perceived to foster a self-reliant, cooperative community. **Table 5-31** highlights the significance of volunteer work within Alpha (L), where approximately 80 % of the total population identified as a volunteer. This statistic has a significant positive impact on social cohesion.

**Table 5-33 Number of Volunteers in Alpha (L) and Barcaldine LGA, 2006**

Age Group	Alpha (L)		Barcaldine LGA	
	No. of Male Volunteers	No. of Female Volunteers	No. of Male Volunteers	No. of Female Volunteers
15-19 years	6	3	82	81
20-24 years	5	9	102	94
25-34 years	24	25	176	204
35-44 years	32	17	264	237
45-54 years	30	19	237	219
55-64 years	38	27	242	243
65-74 years	12	17	192	169
75-84 years	4	11	89	66
85 years +	0	7	8	31
Total	151	135	1,392	1,344

Source: ABS (2006bu; 2006bv; 2006bw; 2006bx)

#### *5.8.1.3 Community Aspirations*

Although the Barcaldine area offers a good lifestyle for young children, there are limited opportunities for young people and the community facilities and services for young people require improvement (Cavaye Community Development, 2009).

Although seniors appreciated the safety, friendly service and easy-going rapport of the community, community facilities and services for seniors could be improved.

In some instances, community aspirations seem to conflict and growth and development in the region requires careful management to achieve these aspirations. For example, the community has identified a desire for population increase and greater community vitality, but at the same time, they also want Alpha to retain the values and lifestyle of a sustainable small community and to maintain the community values and quiet, safe lifestyle (Cavaye Community Development, 2009).

A key aspiration for the Alpha community is to maintain community representation in decision-making and keep decisions local (e.g. maintain community boards, retain the local BRC office), (Cavaye Community Development, 2009). In a Community Survey undertaken for the SGCP, some respondents stated that Alpha was too small and isolated and was therefore easily ignored – “we need a greater population if we want to access greater choice and more services”.

Although very few people in the LSA are presently employed in the mining industry (**Section 5.4.1**), Cavaye Community Development (2009) found that residents welcomed this development provided it is managed to avoid the creation of ‘mining towns’ that could threaten the values and lifestyle of the community.

### **5.8.2 Regional Study Area**

A detailed breakdown of culture and community is not provided for the RSA due to its scale and inherent variation. The potential impacts on culture and community in the RSA are, however, assessed in **Section 8.7.2**.

## **5.9 SOCIAL POLICY OBJECTIVES**

#### *5.9.1.1 Barcaldine Regional Council Community Plan 2009*

The *BRC Community Plan 2009* (Barcaldine Community Plan) was developed with local community input to guide decision-making and investment, provide a common set of priorities for the region and help mobilise a range of service providers (Cavaye Community Development, 2009).

The outcomes of the Barcaldine Community Plan have been considered and incorporated into this SIA, as relevant.

#### *5.9.1.2 Central West Regional Plan*

The *Central West Regional Plan* (Queensland Government, 2009) will contribute to the objectives of building a sustainable, liveable and prosperous rural Queensland by:

- addressing key economic, social and environmental issues;
- prioritising infrastructure and service needs;
- maximising benefits and managing impacts of major projects;
- driving innovation and productivity;
- mobilising the public, private and community sectors; and
- aligning efforts across agencies and all levels of government.

The *Central West Regional Plan* describes the regional vision for the central west region and provides strategic direction and regional policies. The objectives and strategies provided in the *Central West Regional Plan* will be considered and/or addressed as relevant in this SIA.

#### 5.9.1.3 *Local Industry Policy*

The *Local Industry Policy* aims to support a range of key industries to create a diverse economy that is responsive to changes in global demand and to ensure that local Queensland industry is given every opportunity to participate in government-funded infrastructure and resource based projects (DEEDI, 2011a). Local industry support and participation will be achieved through cooperation involving project proponents, industry and key service providers to promote innovation, flexibility and best practice initiatives. The objectives of the *Local Industry Policy* are:

- maximising employment and business growth within Queensland by expanding market opportunities for local industry;
- providing agencies and Government-owned corporations with access to a wide range of capable local industry in Queensland that can deliver value for money;
- supporting regional and rural development in Queensland;
- developing local industry, long-term international competitiveness and flexibility in responding to changing global market, by giving local industry a fair opportunity to compete against foreign suppliers of goods and services;
- promoting local industry's involvement in value-adding activities in Queensland; and
- driving technology transfer, research and development, innovation and improved productivity for local industry in Queensland, to enhance value for money.

As described in **Table 8-4** and the draft SIMP, AMCI will develop a Local Industry Participation Plan (LIPP) and:

- attempt to recruit locally, wherever practicable;
- develop a procurement policy which encourages the use of local businesses where they are technically capable and commercially competitive;
- develop relationships with local businesses; and
- ensure that local businesses are aware of the company's expectations and requirements for accreditation.

#### 5.9.1.4 *Major Resource Projects Housing Policy*

The objective of the *Major Resource Project Housing Policy* (the MRPHP) is to make clear the Queensland Government's expectations of the accommodation and housing issues that project proponents submitting an EIS will need to consider (Queensland Government, 2011b). The MRPHP applies to SGCP, as a major project assessed under the *State Development and Public Works Organisation Act 1971*. The policy sets out core principles to guide the identification and assessment of accommodation and housing impacts and the development of mitigation and management strategies, including:

- growth management and liveable resource communities;
- environmental and Social Impact Assessment;
- stakeholder engagement;
- housing, planning, infrastructure and environmental sustainability;
- project workforce accommodation;
- housing market impacts; and
- cumulative impacts.

An EIS has been prepared for the SGCP, including this SIA component. This SIA describes the existing social environment and assesses project-related and cumulative impacts on key social areas, including housing and accommodation (**Section 8.5**). This SIA and the project description information provided in the SGCP EIS provide a summary of the proposed accommodation village, to be located within MLA

70453. As described in **Section 4**, community engagement has been undertaken throughout the EIS and SIA process. Mitigation measures are provided in this SIA and the draft SIMP (**Appendix R** of the EIS).

#### 5.9.1.5 *Queensland Infrastructure Plan*

The *Queensland Infrastructure Plan* sets the strategic platform to guide the planning, prioritisation and sequencing of infrastructure (Queensland Government, 2011a). It aims to improve the way that existing infrastructure is managed and provide a pipeline of targeted investment to deliver infrastructure where and when it is needed. The *Queensland Infrastructure Plan* is focused on building stronger regions and ensuring that growth and other economic opportunities are shared throughout Queensland. To address the challenges infrastructure development decisions will be guided by the following principles:

- make smarter use of existing infrastructure;
- focus on whole-of-network solutions which support long-term planning;
- manage the impacts of climate change and achieve sustainability;
- make bold large-scale infrastructure decisions based on sound evidence; and
- strengthen partnerships.

#### 5.9.1.6 *Queensland Regionalisation Strategy*

The Queensland Government's vision is for a regionalisation strategy that helps drive appropriate investment and development to make regions better places to live, work and visit, and to create stronger, more resilient and prosperous centres (Queensland Government, 2011b). The *Queensland Regionalisation Strategy* describes Queensland's regions, and provides key features and local opportunities. The SGCP will be located within the 'Central Queensland' region; a local opportunity for this region is its proximity to the Galilee Basin.

The SGCP will support the regionalisation of Queensland by generating employment opportunities and recruiting employees from numerous regional centres throughout the state. The SGCP will also contribute to the development and utilise regional infrastructure and services.

#### 5.9.1.7 *Skilling Queenslanders for Work*

*Skilling Queenslanders for Work* is a key component of the *Queensland Skills Plan 2008* aimed at giving workers the right mix of training, vocational skills and associated assistance (DEEDI, 2010). Maximising workforce participation is the key priority of *Skilling Queenslanders for Work*. A network of providers has been developed across Queensland, each of whom receives funding to run projects to help identified groups of people.

#### 5.9.1.8 *Sustainable Resource Communities Policy*

The Sustainable Resource Communities Policy aims to strengthen the SIA within existing EIS processes in order to enable a coordinated response by the Government to mining tenure applications and to make better decisions when planning for future resource development (Queensland Government, 2008a). The proposed initiatives associated with this policy include:

- strengthening the Government's coordination role;
- improving linkages between SIA and regional planning;
- fostering partnerships with local government industry and community; and
- enhancing regulatory environment for SIA.

This SIA and the draft SIMP (**Appendix R** of the EIS) assess potential social impacts in accordance with the SIA Factsheet (DIP, undated), *SIA: Guideline to Preparing a Social Impact Management Plan* (DIP, 2010) and other relevant policies and publications. AMCI is committed to working with the State Government and other mining proponents in the region to facilitate cross-sector communication about key issues and to develop local solutions to local challenges.

*5.9.1.9 Sustainable Resources Communities Partnership Agreement*

The *Sustainable Resources Communities Partnership Agreement* is an agreement between the Queensland Government, the Queensland Resources Council and the Local Government Association of Queensland (Queensland Government, 2008b). The objective of the agreement is to develop prosperous regions and liveable communities throughout the State. The parties recognise that liveable resource communities are crucial to enhancing the resource sector's capacity to attract and retain a skilled workforce and to maintain the community support required for the resource sector to operate. This agreement will be progressively implemented state-wide across resource areas (including the Galilee Basin). Collaboration between government parties, relevant community groups and mining proponents such as the SGCP will work towards developing and implementing regional strategies that enhance the benefits and address the negative social and economic consequences associated with resource development to local communities. This will be achieved by the following actions:

- targeted and coordinated responses to current issues in the region;
- comprehensive regional planning and infrastructure coordination;
- SIA;
- innovative solutions to the provision of affordable housing and high quality health and education services; and
- improved communication and collaboration between sectors.

Although not directly party to this agreement, AMCI fully supports these key focus areas and will endeavour to contribute towards cross-sector coordination.

## 6 WORKFORCE PROFILE

As described in **Section 1**, up to approximately 1,600 employees will be required during the construction stage of the SGCP. The construction phase is expected to commence in 2013 and will involve land clearing, earthworks and construction of the Coal Handling and Preparation Plant (CHPP), accommodation village, road and rail infrastructure. Construction activities will be undertaken progressively to facilitate the staged ramp-up in coal production.

The project execution during the operations stage will involve a staged ramp-up to the maximum production level of 17 Mtpa, as described below:

- Stage 1 - expected to commence in 2015, involves open cut mining, approximate yield of up to 5 Mtpa;
- Stage 2 - expected to commence in 2017, involves both open cut and underground mining, approximate yield of up to 10 Mtpa; and
- Stage 3 - expected to commence in 2019, involves both open cut and underground mining approximate yield of up to 17 Mtpa.

While the actual composition of the SGCP workforce will be determined during the Definitive Feasibility Study (DFS), **Table 6-1** provides an indication of the anticipated workforce requirements for the operational stage of the SGCP. A more detailed indicative breakdown of the SGCP workforce is provided in **Appendix C**.

**Table 6-1 Projected SGCP Workforce during Operations Phase**

Position	2015 Stage 1	2017 Stage 2	2019 Stage 3
Management	11	12	12
Technical Services	25	35	49
Underground Operation	0	310	619
Open Cut Operation	214	214	214
CHPP & Maintenance	174	194	214
Safety Department	20	23	28
HR Department	18	18	18
Commercial	23	26	28
FTE Contractors	0	21	21
Miscellaneous	22	33	85
Total	507	886	1,288

Source: AMCI and Bandanna Energy (2011)

The SGCP will utilise a FIFO workforce for the following reasons:

- the region has limited capacity to supply an appropriately skilled workforce, particularly when considered in the broader context of mining development in the Galilee Basin;
- given the remote location of the SGCP, attracting workers to the region is anticipated to be extremely difficult and not economically viable;

- this approach is consistent with that adopted by other Galilee Basin proponents;
- this approach is consistent with existing operations in the adjacent Bowen Basin and broader industry trends;
- the region in general and the township of Alpha in particular, has significant infrastructure constraints which limit its capacity to house the SGCP workforce;
- limited housing and land availability in Alpha limits its capacity to house the SGCP workforce; and
- the use of an on-site accommodation village to house the SGCP employees will minimise potential social impacts.

In addition to the above, consultation with the CRG members suggests that the community would prefer FIFO workforce arrangements.

The workforce will be FIFO between the Alpha Aerodrome and the proposed source locations described in **Section 1**. To minimise the volume of road transport, a bus service will transfer personnel from the Alpha Aerodrome to the accommodation village. A limited number of people will live in Alpha and drive to site.

The proposed sources of the SGCP workforce are outlined in **Table 6-2**.

**Table 6-2 Proposed Workforce Sources**

Source Location	Number of Personnel				
	Construction	2015 Stage 1	2017 Stage 2	2019 Stage 3	Decommissioning
SEQ	960	304	532	773	180
Townsville	240	76	133	193	45
Cairns	152	48	84	122	29
Bundaberg	75	25	44	64	15
Maryborough	75	25	44	64	15
Proserpine/ Whitsunday/Bowen	75	25	44	64	15
Alpha	8	3	4	6	2
Total	1,600	507	886	1,288	300

The life of the project will be 35 years. The decommissioning stage is expected to require a workforce of approximately 300 personnel.

SGCP rosters are anticipated to be 21 days on/seven days off during construction and seven days on/seven days off during operations.

The SGCP construction workforce will be housed in the accommodation village. Following the construction period, the village will be modified to form a permanent accommodation village. The village will therefore be sized for the peak overlap of 1,600 personnel. The village will be located in the north-eastern corner of MLA 70453, where the potential for disturbance from noise, vibration and light will be minimal for off-duty employees.

The village will include additional beds for specialists and consultants. Permanent five day shift staff will have dedicated rooms and personnel on continuous rotation will have hotel-style accommodation.

The village will include ensuite accommodation, laundry facilities, multi-purpose sports courts, gymnasium, swimming pool, restaurant and stores. It will also include maintenance and service buildings and limited parking.

Except for a limited number of senior employees who will be required to relocate to Alpha, accommodation will not be provided off-site. All personnel housed at the accommodation village will be required to stay on-site for the duration of their roster.

Indicative workforce numbers associated with other mining proposals in the region are provided in **Section 8.1.1**.



## **7 RECRUITMENT**

Queensland is currently experiencing near-full employment levels and skills shortages within the mining and trades industries. As described in **Section 6**, the SGCP workforce will be FIFO due to the remote location and lack of adequate local labour and local accommodation. It is acknowledged that use of FIFO workforces has been the subject of much debate in recent times and the potential impacts associated with FIFO are assessed in **Section 8.1 to 8.7**.

More flexible work arrangements are part of a larger global trend in the pattern of employment in a post-industrial world (Louis *et al.*, 2006). Andrew Fraser, Deputy Premier of Queensland has indicated that 'FIFO is here to stay, and will increase into the future... It will be – and must be – a key part of the industry's capacity to get the skilled labour they need' (Department of the Premier and Cabinet, 2011).

AMCI has undertaken consultation with Skills Queensland, the Department of Education and Training (DET) and the DEEDI to discuss the recruitment and training needs associated with the SGCP and will continue to consult with relevant training and recruitment organisations/agencies in the lead up to commencement of the project.

AMCI will develop comprehensive workplace policies and procedures to promote the recruitment, management and training of personnel and to minimise any impacts on the existing community. For example, AMCI will prepare a Human Resources Strategy to promote the recruitment of Indigenous people, women, people from linguistically/culturally diverse backgrounds and people with a disability.

A number of existing programs which may be applicable to recruitment for the SGCP are described below.

### **7.1 STRATEGIC INVESTMENT FUND**

The Strategic Investment Fund was established as part of the formation of Skills Queensland. The fund provides up to \$50 million of funding per year and provides industry and enterprises with the capacity to directly influence where public funding for skills and workforce development is invested (Skills Queensland, 2011). Skills Queensland will partner with key enterprises, industry sectors and regional supply chains to address priority skills needs and local demand for skilled labour in areas critical to the continued development of Queensland's economy. This funding is supported by industry co-investment.

### **7.2 SKILLS FORMATION STRATEGIES**

Through the *Queensland Skills Plan 2008*, DET will continue to implement a range of engagement strategies to better partner with industries to address their skilling needs. *Skills Formation Strategies* provide a framework to develop an industry or community network capable of planning and fostering a workforce relevant to its future (Queensland Government, undated).

Additionally, skills formation strategies focus on identifying issues common to an industry or community that are best addressed by their combined efforts or that cannot be addressed as an individual enterprise. The DET is currently working with a number of Queensland's industries and communities to address their labour supply issues using the skills formation strategy approach.

Many industries and communities throughout the State have developed and are implementing skills formation strategies. These strategies focus on a process of change within an industry or community that encourages participants to own, and be responsible for, the attraction, development, utilisation and retention of their staff. The process also fosters close collaboration between Queensland Government agencies.

### **7.3 GATEWAY SCHOOLS PROGRAM**

The Gateway Schools Program is a key industry-school engagement program of Skills Queensland. The Program aims to ensure young people make a successful transition from school to work or further education, and are engaged in education and training for the long-term (DET, 2011c).

#### **7.4 QUEENSLAND MINERALS AND ENERGY ACADEMY**

The Queensland Minerals and Energy Academy (QMEA) is a partnership between the Queensland Government (led by Skills Queensland) and the Queensland Resources Council (QRC). The QMEA was developed in response to skills shortages in the State's minerals and energy sector and the anticipated strong demand for Queensland's mineral commodities in the future.

The QMEA addresses the growing demand for a skilled workforce in the Queensland minerals and energy sector by developing career pathways for secondary school students to enter the industry (key pathways include skilled operators, trades, paraprofessional and professional).

The QMEA registers teachers and students from Years 8 to 12 in the 28 schools within the Academy (DET, 2011d). The QMEA engages teachers from those schools, and industry mentors from the large number of sponsor companies operating across Queensland.

#### **7.5 INDIGENOUS EMPLOYMENT STRATEGY**

A number of initiatives are available under the *Indigenous Employment Strategy*, to stimulate economic development and address Indigenous training needs. The *Indigenous Employment Strategy* is jointly funded by proponents and State/Federal Governments. Typically, this involves training programs delivered to small groups for approximately 20 weeks, although there is scope for development of sub-programs within the *Indigenous Employment Strategy* framework, tailored to meet specific project needs (G. Bell, pers. comm., 4 July 2011).

## **8 POTENTIAL IMPACTS**

Social impacts refer to all changes in the way people live, work, relate to each other, organise to meet their needs and cope with the challenges presented by greater society. Impacts may be positive or negative, small or large or short or long-term. An assessment of the potential impacts on each key aspect is provided in **Section 8.1** to **Section 8.7**.

### **8.1 DEMOGRAPHIC IMPACTS**

#### **8.1.1 Local Study Area**

The most significant demographic impact associated with the SGCP is growth in the resident population. Many of the other potential social impacts of the SGCP are a consequence of this growth.

The resident population increase in the LSA is comprised of the following components:

- natural population increase unrelated to the development of the SGCP;
- direct population growth associated with SGCP employees who relocate to Alpha (up to eight people during construction and up to six people during operation);
- cumulative direct population growth associated with employees of multiple Galilee Basin mining proposals who relocate to Alpha (up to 66 people during construction and up to 100 people during operation);
- secondary population growth associated with the relocation of employees from the SGCP and other mining proposals (e.g. employees' partners or families); and
- indirect population growth as a result of mining in the region (e.g. business relocation, development or expansion, additional education and health service providers, etc.).

Although the direct population increase as a result of the SGCP and other mining proposals is relatively straightforward to quantify (**Table 8-1**), secondary and indirect population growth is hard to predict due to the following factors:

- uncertainty associated with predicting future workforce composition (including age, gender, marital status and family composition of future employees);
- isolated geographic location;
- distance from larger regional service centres;
- coastal migration trends in Australia;
- levels and availability of services;
- limitations of schooling options;
- opportunities of employment outside of mining;
- housing supply;
- provision of infrastructure and services such as electricity, water and sewage;
- personal choice; and
- limited business opportunities.

As shown in **Table 8-1**, individually the SGCP is unlikely to result in significant direct demographic impacts as a result of relocation of employees. However, the cumulative direct impacts associated with multiple resource projects in the region will have a far greater impact on population (e.g. up to 66 people during construction and up to 100 people during operations).

Although SGCP employees will be sourced from within Queensland, other projects intend to source employees from within Australia and overseas. Employees will be predominately in the 20-35 years old age group and the majority will be male. Socio-cultural impacts associated with overseas employees are assessed in the relevant SIAs (SIA & Development Pty Ltd, 2010; URS, 2010).

Secondary and indirect population growth cannot be accurately quantified, although this growth will add to direct demographic impacts.

Population increase will have both positive and negative impacts. Although population increase may counter-act existing demographic trends (e.g. ageing and declining population), provide increased revenue to the BRC in the form of rates and increase the allocation of State Government funding, it also has the potential to adversely impact on housing, culture and community and existing services, facilities and infrastructure. Many community members have indicated that they would welcome population growth to sustain and improve on current service levels.

The FIFO workforce is not included in this discussion of demographic impacts, as these employees will be accommodated on-site and will not directly influence the demographics of the study area. However, potential social impacts associated with the FIFO workforce are considered for the other key aspects below, as relevant.

Preliminary mitigation measures to address demographic impacts are provided in **Table 8-2** and more detailed measures have been developed as part of the draft SIMP process (**Appendix R** of the EIS).

### 8.1.2 Regional Study Area

The SGCP is expected to result in minor population increases in regional centres within the RSA. AMCI's approach to determining the workforce source locations aimed to minimise demographic impacts by considering existing population size, workforce pressures and trends (e.g. types of industries and other workforce demands), workforce availability (e.g. existing unemployment, stagnation of existing industries like tourism etc.) and existing social infrastructure. Potential growth in the RSA may serve to counteract existing demographic trends in some areas (e.g. population decline due to diminished tourism demand).

The FIFO workforce arrangements would result in altered family structures in the RSA, as workers would be accommodated in the SGCP accommodation village for the duration of their roster.

**Table 8-1 Breakdown of Direct Population Growth in Alpha Associated with Galilee Basin Mining**

Project	Proponent	Construction Workforce		Operations		Life of Mine
		Total	No. to Reside in Alpha	Total	No. to Reside in Alpha	
SGCP	AMCI	1,600	8	1,288	6	35 years
Alpha Coal Project	Hancock Coal Pty Ltd	1,400	8 <sup>1</sup>	2,400	24 <sup>2</sup>	33 years
Kevin's Corner	Hancock Galilee Pty Ltd	2,500	25 <sup>3</sup>	2,000	20 <sup>3</sup>	30+ years
Galilee Coal Project (Northern Export Facility) (also known as the China First Coal Project)	Waratah Coal Pty Ltd	4,750 (2,500 for the mine, 1,000 for rail and 2,500 for port facilities)	25 <sup>4</sup>	1,710 (1,500 for the mine, 60 for rail and 150 for port facilities)	50 <sup>4</sup>	30 years
Galilee Power Station	Galilee Power (a subsidiary of Waratah Coal Pty Ltd)	1,000	0	60	0	
Carmichael Coal Mine & Rail Project	Adani Mining Pty Ltd	4,000	0 <sup>5</sup>	5,000	0 <sup>5</sup>	150 years
<b>Total</b>	-	-	<b>66</b>	-	<b>100</b>	-

Source: Galilee Power (2009); Hancock Prospecting Pty Ltd (2009); GHD (2010); SIA & Development Pty Ltd (2010); URS (2010)

- <sup>1</sup> Based on 1 % of the mine construction workforce (URS, 2011). An additional 50 people will be sourced from the greater BRC LGA.
- <sup>2</sup> Number of employees to reside in Alpha not provided by URS (2011) – 1 % operational workforce assumed to reside in Alpha.
- <sup>3</sup> Although Hancock Prospecting Pty Ltd (2009) indicates that Kevin's Corner staff will primarily be accommodated at an on-site accommodation camp, 1 % of the workforce was assumed to reside in Alpha. This conservative assumption was made for the purposes of this SIA only and was based on the proportion of employees at the Alpha Coal Project to reside in Alpha (URS, 2011).
- <sup>4</sup> M. Finlayson, pers. comm., 9 December 2011.
- <sup>5</sup> The Carmichael Coal Mine and Rail Project is expected to heavily rely on a FIFO workforce and any residential component of the workforce would be based in existing towns in the Isaac Regional Council, Mackay Regional Council or Whitsunday Regional Council LGAs (GHD, 2010).

**Table 8-2 Social Impact Assessment - Demography**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Local Study Area						
Cumulative direct population increase in Alpha associated with relocation of permanent staff from multiple Galilee Basin mining proposals	All	Positive	High	Medium	High	AMCI will work with other proponents, government agencies and service providers to plan for increased demand for infrastructure and services due to increased population.
Cumulative direct population increase in Alpha associated with relocation of permanent staff from multiple Galilee Basin mining proposals	All	Negative	High	Medium	High	AMCI will work with other proponents, government agencies and service providers to plan for increased demand for infrastructure and services due to increased population.
Secondary population increase associated with the relocation of employees from the SGCP and other mining proposals (e.g. employees' partners or families)	All	Positive	High	Medium	High	AMCI will work collaboratively with other proponents, government agencies and service providers to plan for increased demand for infrastructure and services due to increased population.
Secondary population increase associated with the relocation of employees from the SGCP and other mining proposals (e.g. employees' partners or families)	All	Negative	High	Medium	High	AMCI will work collaboratively with other proponents, government agencies and service providers to plan for increased demand for infrastructure and services due to increased population.

**Table 8-2 Social Impact Assessment – Demography (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Minor direct population increase in Alpha associated with relocation of permanent SGCP staff	All	Positive	High	Low	Medium	Self-contained on-site accommodation village will house the FIFO workforce during construction, operation and decommissioning. AMCI will work with other proponents, government agencies and service providers to plan for increased demand for infrastructure and services due to increased population.
Minor direct population increase in Alpha associated with relocation of permanent SGCP staff	All	Negative	High	Low	Medium	Self-contained on-site accommodation village will house the FIFO workforce during construction, operation and decommissioning. AMCI will work with other proponents, government agencies and service providers to plan for increased demand for infrastructure and services due to increased population.
Indirect population growth as a result of mining in the region (e.g. business relocation, development or expansion, additional education and health service providers, etc.)	All	Positive	Medium	Medium	Medium	Outside of AMCI's direct control. AMCI will work collaboratively with other proponents, government agencies and service providers to plan for increased demand for infrastructure and services due to increased population.
Indirect population growth as a result of mining in the region (e.g. business relocation, development or expansion, additional education and health service providers, etc.)	All	Negative	Medium	Medium	Medium	Outside of AMCI's direct control. AMCI will work collaboratively with other proponents, government agencies and service providers to plan for increased demand for infrastructure and services due to increased population.

**Table 8-2 Social Impact Assessment – Demography (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Regional Study Area						
Source centres for SGCP workforce would experience minor population increase	All	Positive	Medium	Low	Medium	N/A.
Source centres for SGCP workforce would experience minor population increase	All	Negative	Medium	Low	Medium	AMCI's approach to sourcing FIFO workforce aims to minimise social impacts. Source centres are more likely than Alpha to have the capacity and infrastructure to absorb population increases. AMCI will work with the Workforce Management Plan (WMP) Working Group to develop a WMP to promote recruitment of people from under-represented groups (e.g. people of linguistically/ethnically diverse backgrounds, Indigenous people, women and people with a disability), ( <b>Appendix R</b> of the EIS).
Changes to family structure in source locations	All	Negative	High	Low	Medium	As source locations are large regional centres/capital cities, support would be available to families, if required.
Population growth may counteract existing demographic trends (e.g. population decline due to diminished tourism demand) and support/facilitate regional population growth in some source locations	All	Positive	Medium	Medium	Medium	AMCI's approach to sourcing FIFO workforce aims to maximise social benefits.



## **8.2 EDUCATION AND TRAINING IMPACT**

### **8.2.1 Local Study Area**

The secondary and indirect population growth associated with the SGCP is anticipated to result in increased pressure on local childcare and primary/secondary schooling facilities. This would occur in Alpha and possibly in Barcaldine, unless secondary schooling in Alpha is extended to include Years 11 and 12. Conversely, education facilities have been identified by the community as a key area for improvement, and population growth may justify additional resources/services. As described in **Section 8.1.1**, secondary and indirect population growth is very difficult to accurately predict. When considered in a cumulative context, education impacts are likely to be high.

The development of mining in the region is likely to increase demand for mining-related vocational training and qualifications, although this is likely to be serviced by facilities in the RSA (**Section 8.2.2**). The local community is likely to benefit from some forms of training provided to mine personnel such as first aid response training.

Preliminary mitigation measures to address education and training impacts are provided in **Table 8-3** and more detailed measures have been developed as part of the draft SIMP process (**Appendix R** of the EIS).

### **8.2.2 Regional Study Area**

The development of the SGCP and other mining proposals in the region is likely to generate considerable demand for mining-related vocational training and qualifications which will be primarily serviced by existing facilities in the RSA. This training demand is anticipated to be short-term and intermittent, predominantly focussed in the period leading up to the commencement of construction and operations.

Due to population growth in the LSA, increased pressure may be experienced at some boarding schools within the RSA, unless secondary schooling at Alpha is extended to include Years 11 and 12.

**Table 8-3 Social Impact Assessment – Education and Training**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Local Study Area						
Increased pressure on education facilities (e.g. childcare, schools) associated with secondary and indirect population growth	All	Negative	Medium	Medium	Medium	AMCI will provide project information to education and training providers and work collaboratively with relevant agencies and other proponents to forecast cumulative demand and plan for future growth.  AMCI will establish a Social Infrastructure Working Group to inform a Community Partnerships Program ( <b>Appendix R</b> of the EIS).
Increased demand for mining-related vocational training and qualifications	Construction and Operation	Positive	Medium	Low	Low	AMCI will continue to consult with Skills Queensland, training providers and other relevant stakeholders to address demand for training.  AMCI will work with the WMP Working Group to develop a WMP to address training needs ( <b>Appendix R</b> of the EIS).
Increased opportunity for traineeships/apprenticeships	Operation	Positive	Medium	Low	Low	N/A.
Regional Study Area						
Increased demand for mining-related vocational training and qualifications	Construction and Operation	Positive	Medium	Medium	Medium	AMCI will continue to consult with Skills Queensland, training providers and other relevant stakeholders about upcoming training opportunities and community needs and coordinating efforts when possible.  AMCI will work with the WMP Working Group to develop a WMP to address training needs ( <b>Appendix R</b> of the EIS).
Increased pressure on boarding schools associated with secondary and indirect population growth	Construction and Operation	Negative	Low	Low	Low	AMCI will provide project information to education and training providers and work collaboratively with relevant agencies and other proponents to forecast cumulative demand and plan for future growth.

### **8.3 ECONOMICS, EMPLOYMENT AND INCOME IMPACT**

#### **8.3.1 Local Study Area**

The key potential economic benefits of the SGCP for the LSA include:

- increase in personal income levels due to direct employment at the SGCP (up to 8 people during construction and up to 6 people during operations);
- flow-on economic impacts (e.g. increased spending, opportunities for local business development/expansion); and
- diversification of the local economy.

Although there is some opportunity for business development in the service/support industries, this impact is of low overall significance due to the proposed use of Emerald as the major regional service centre.

The SGCP also has the potential to result in negative economic impacts in the LSA, including the following:

- income disparity between mining and non-mining employees;
- increased cost of living due to inflationary pressure from higher disposable incomes (particular impact on low income groups);
- loss of skilled local labour from other industries which generally cannot afford to pay the same salaries as mining companies;
- difficulty in attracting non-mining employees to the area; and
- heavy economic reliance on the mining industry.

When considered cumulatively with other projects, these impacts are anticipated to be highly significant.

The use of a FIFO workforce means that Alpha may miss out on some of the benefits from mining in the region, as workers are predominantly sourced from the RSA. Economic benefits associated with servicing the mining boom will be concentrated in regional centres such as Emerald.

As described in **Section 3.1.1**, the SGCP will directly affect a number of landholders. It is anticipated that the surface rights will be required over most of the properties of the 'Creek Farm' and 'Sapling Creek' properties and part of the 'Chesalon' and 'Betanga' properties. Where a substantial portion of land will be required for mining operations (e.g. the 'Creek Farm' and 'Sapling Creek' properties), AMCI proposes to acquire land by negotiation, where possible. Surface rights will also be required over part of the 'Chesalon' and 'Betanga' properties.

The impact on the agricultural industry as a whole as a result of direct impacts associated with the SGCP is not considered to be significant, however, mitigation measures to address this impact at a local level are provided in **Table 8-4**.

Preliminary mitigation measures to address economic, employment and income impacts are provided in **Table 8-4** and more detailed measures have been developed as part of the draft SIMP process (**Appendix R** of the EIS).

#### **8.3.2 Regional Study Area**

A comprehensive Economic Assessment has been prepared for the SGCP and is provided as **Appendix S** of the EIS.

Significant employment opportunities will be generated within the RSA, as the majority of the SGCP workforce will be sourced from this region. The SGCP will also facilitate business development/opportunities, predominantly in Emerald which will act as the major service centre.

The RSA will experience significant flow-on economic impacts, predominantly due to it being the source of SGCP workers, but also due to increased spending in the service and support industries.

**Table 8-4 Social Impact Assessment – Economics, Employment and Income**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Local Study Area						
Increase in personal income levels in the LSA, particularly Alpha	Construction and Operation	Positive	High	Medium	High	N/A.
Contribution to government incomes (via royalties, income taxes etc.)	All	Positive	High	High	High	N/A.
Increased cost of living due to inflationary pressure from higher disposable incomes (particular impact on low income groups)	Construction and Operation	Negative	Medium	High	High	SGCP employees will be FIFO and will be housed in an on-site accommodation village. AMCI will work with the Housing and Accommodation Plan (HAP) Working Group to develop a HAP, which will include strategies to address social housing impacts ( <b>Appendix R</b> of the EIS).
Income disparity between mining and non-mining employees	Construction and Operation	Negative	High	High	High	N/A.
Loss of skilled local labour from other industries (who generally cannot afford to pay the same salaries as mining operators) or difficulty in attracting employees to the area	Construction and Operation	Negative	High	Medium	High	AMCI will recruit workers with a range of skills, including people with limited or no experience in the mining industry. AMCI hopes that this strategy will assist in reducing the potential for local businesses to experience skills shortages. AMCI will work with the WMP Working Group to develop a WMP. The WMP will include strategies to address the impact of the SGCP on other industries ( <b>Appendix R</b> of the EIS).

**Table 8-4 Social Impact Assessment – Economics, Employment and Income (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Creation of employment opportunities	All	Positive	Medium	Medium	Medium	<p>AMCI will attempt to recruit locally, wherever practicable.</p> <p>AMCI will work closely with Skills Queensland and other relevant organisations/agencies to recruit personnel with the required skills and experience, utilising existing initiatives where practicable.</p> <p>AMCI will develop HR policies and procedures to facilitate recruitment (including Equal Opportunities Policy and Workforce Diversity Strategy).</p> <p>AMCI will work with the WMP Working Group to develop a WMP to promote the recruitment of people from under-represented groups (e.g. people of linguistically/ethnically diverse backgrounds, Indigenous people, women and people with a disability), (<b>Appendix R</b> of the EIS).</p>
Flow-on economic impacts (e.g. increased spending, opportunities for local business development/ expansion)	All	Positive	Medium	Medium	Medium	<p>AMCI will work with the LIPP Working Group to develop a LIPP which encourages the use of local businesses where they are technically capable and commercially competitive (<b>Appendix R</b> of the EIS).</p>
Diversification of the local economy and greater range of local businesses (e.g. buffer for the local economy in future economic downturns)	All	Positive	Medium	Medium	Medium	<p>AMCI will work with the LIPP Working Group to develop a LIPP which encourages the use of local businesses where they are technically capable and commercially competitive (<b>Appendix R</b> of the EIS).</p>
Promotion of Indigenous business opportunities and increased training/employment for Indigenous Australians	All	Positive	Medium	Medium	Medium	<p>AMCI will consult with relevant agencies/organisations to promote Indigenous business opportunities and provide training/employment for Indigenous Australians.</p> <p>AMCI has developed a Cultural Heritage Management Plan (CHMP) which covers financial arrangements with the Wangan and Jagalingou People (e.g. employment, training, funding etc.).</p> <p>AMCI will work with the LIPP Working Group to develop a LIPP which encourages the use of local businesses where they are technically capable and commercially competitive (<b>Appendix R</b> of the EIS). AMCI will develop relationships with local businesses.</p> <p>AMCI will ensure that local businesses are aware of the company's expectations and requirements for accreditation.</p>

**Table 8-4 Social Impact Assessment – Economics, Employment and Income (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Decrease in agricultural production in those areas directly affected by the SGCP	All	Negative	High	Low	Medium	<p>AMCI will negotiate acquisition/compensation agreements with directly affected landholders.</p> <p>AMCI will negotiate access protocols with affected landholders within MLA 70453 and the infrastructure corridor.</p> <p>AMCI will develop a Landholder Management Plan to address potential impacts specific to landholders, including:</p> <ul style="list-style-type: none"> <li>• access notification processes;</li> <li>• vehicle inspection and washdown requirements;</li> <li>• information sharing;</li> <li>• rehabilitation of disturbance; and</li> <li>• monitoring programs.</li> </ul> <p>Land disturbed by the SGCP would be returned to a combination of grazing and native bushland where practicable, following the cessation of mining activities.</p> <p>AMCI will continue to undertake community engagement throughout the life of the project.</p> <p>AMCI would maintain a 24-hour freecall community complaints hotline and all complaints would be recorded, addressed and reported.</p>
Increased economic vulnerability due to reliance on the mining industry	All	Negative	Low	High	Medium	<p>AMCI will prepare a detailed Mine Closure Plan to assess the impacts on the LSA and develop management strategies well in advance of closure and decommissioning of the project. The Mine Closure Plan will be developed in consultation with appropriate community and government stakeholders.</p>

**Table 8-4 Social Impact Assessment – Economics, Employment and Income (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Economic benefits of mining 'taken away' from the local community through FIFO	All	Negative	High	Medium	Medium	<p>The local community would, however, experience a number of benefits as a result of mining in the area, including the following:</p> <ul style="list-style-type: none"> <li>• improved services (e.g. water supply);</li> <li>• upgraded airport with more frequent flight schedules;</li> <li>• local employment; and</li> <li>• collaborative community investment by mining proponents.</li> </ul>
Business development and employment opportunities in service and support industries	Construction and Operation	Positive	Low	Medium	Low	<p>AMCI will work with the LIPP Working Group to develop a LIPP which encourages the use of local businesses where they are technically capable and commercially competitive (<b>Appendix R</b> of the EIS). AMCI will develop relationships with local businesses.</p> <p>AMCI will ensure that local businesses are aware of the company's expectations and requirements for accreditation.</p>
Regional Study Area						
Creation of employment opportunities	All	Positive	High	High	High	<p>AMCI will work closely with Skills Queensland and other relevant organisations/agencies to recruit personnel with the required skills and experience, utilising existing initiatives where practicable.</p> <p>AMCI will develop HR policies and procedures to facilitate recruitment (including Equal Opportunities Policy and Workforce Diversity Strategy).</p> <p>AMCI will work with the WMP Working Group to develop a WMP to promote the recruitment of people from under-represented groups (e.g. people of linguistically/ethnically diverse backgrounds, Indigenous people, women and people with a disability) (<b>Appendix R</b> of the EIS).</p>

**Table 8-4 Social Impact Assessment – Economics, Employment and Income (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Business development and employment opportunities in service and support industries	Construction and Operation	Positive	Medium	High	High	<ul style="list-style-type: none"> <li>AMCI will work with the LIPP Working Group to develop a LIPP which encourages the use of local businesses where they are technically capable and commercially competitive (<b>Appendix R</b> of the EIS). AMCI will develop relationships with local businesses.</li> <li>AMCI will ensure that local businesses are aware of the company's expectations and requirements for accreditation.</li> </ul>
Flow-on economic impacts (e.g. increased spending etc.)	Construction and Operation	Positive	High	Medium	High	<ul style="list-style-type: none"> <li>FIFO employees will reside in the RSA.</li> <li>AMCI will work with the LIPP Working Group to develop a LIPP which encourages the use of local businesses where they are technically capable and commercially competitive (<b>Appendix R</b> of the EIS).</li> </ul>
Loss of skilled local labour from other industries, who generally cannot afford to pay the same salaries as mining operators	Construction and Operation	Negative	Medium	Medium	Medium	<ul style="list-style-type: none"> <li>AMCI would recruit workers with a range of skills, including people with limited or no experience in the mining industry. AMCI hopes that this strategy will assist in reducing the potential for local businesses to experience skills shortages.</li> <li>AMCI proposes to work collaboratively with local/regional training providers to develop and build on long-term training and up-skilling plans.</li> <li>AMCI will work with the WMP Working Group to develop a WMP. The WMP will include strategies to address the impact of the SGCP on other industries (<b>Appendix R</b> of the EIS).</li> </ul>



## **8.4 INFRASTRUCTURE AND SERVICES IMPACT**

### **8.4.1 Local Study Area**

Given that the SGCP workforce will be housed in an on-site accommodation village, the direct population growth associated with the SGCP is unlikely to impact on local infrastructure and services or affect community members' access to these facilities.

However, cumulative direct population growth and the indirect and secondary population growth associated with the SGCP (**Section 8.1.1**) will impact on infrastructure and services in the following ways:

- affect road transport (e.g. disruptions associated with the transport of construction materials, bus services between the Alpha Aerodrome and the SGCP, delivery vehicles etc.);
- increased traffic leading to the accelerated degradation of roads;
- increased potential for traffic accidents;
- increased demand for emergency services, impacting on capacity and/or staffing (discussed further in **Section 8.6**); and
- increased demand on community infrastructure (e.g. power, water, sewerage, waste infrastructure).

As described in **Section 5.5**, much of the infrastructure and many local services are already strained and would require improvement to facilitate future growth.

The SGCP is also expected to have some positive impacts on infrastructure. The Alpha Aerodrome would be upgraded and the increased flight schedule is expected to result in increased accessibility for the local community.

Non-residents are not currently counted by ABS as 'usual residents' of an area, and these people are therefore not included in the official resident population estimates which are used as the basis for justifying funding allocation for local governments, despite the fact that they may still place some additional demand on services and infrastructure (McEwan, 2006). Although it is recognised that the provision of community infrastructure is the responsibility of governments, AMCI is committed to supporting the local community and/or the BRC in their efforts to acquire funding for the provision of services from State and Federal governments.

Preliminary mitigation measures to address infrastructure impacts are provided in **Table 8-5** with more detailed measures developed as part of the draft SIMP process (**Appendix R** of the EIS).

### **8.4.2 Regional Study Area**

The increase of mining activity in the region will result in an increase in heavy vehicle traffic, particularly during construction periods, leading to potential disruption of other road users, degradation of roads and increased potential for traffic accidents.

The SGCP may also result in minor impacts on infrastructure at source centres for SGCP workforce associated with minor population increase. AMCI's approach to determining the workforce source locations aimed to minimise these impacts by considering existing population size and the capacity of physical/social infrastructure.

**Table 8-5 Social Impact Assessment – Infrastructure and Services**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Local Study Area						
Disruption to road users (e.g. transport of construction materials, bus services between the Alpha Aerodrome and the SGCP, delivery vehicles etc.)	All	Negative	High	Low-Medium	Medium	Preparation and implementation of a Transport Management Plan. Utilisation of the existing rail infrastructure to transport as much construction equipment/materials as practicable. All over-sized loads would be coordinated with relevant local governments, DTMR and QPS. Delivery of over-sized loads would be undertaken outside of school drop-off and pick-up times to minimise potential impacts on traffic levels/travel times.
Increased traffic leading to accelerated degradation of roads	Construction and Operation	Negative	Medium	Medium	Medium	Preparation and implementation of a Transport Management Plan. Utilisation of the existing rail infrastructure to transport as much construction equipment/materials as practicable. AMCI would fund any road/rail upgrades required for the SGCP to ensure public safety and would make any required road maintenance/improvement contributions. The majority of SGCP employees would be transported to and from site by bus, reducing the number of vehicles on the road. AMCI will establish a Social Infrastructure Working Group to inform a Community Partnership Program ( <b>Appendix R</b> of the EIS).

Table 8-5 Social Impact Assessment – Infrastructure and Services (cont.)

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Increased potential for traffic accidents	Construction and Operation	Negative	Low	High	Medium	<p>Preparation and implementation of a Transport Management Plan.</p> <p>Appropriate safeguards and mitigation measures including:</p> <ul style="list-style-type: none"> <li>• bus transport;</li> <li>• employee and contractor education and training;</li> <li>• avoid travel on school bus routes during pick up and set down times;</li> <li>• appropriate management of night-time transport;</li> <li>• speed restrictions; and</li> <li>• vehicle signage, lights, warning lights etc.</li> </ul> <p>AMCI would fund any road/rail upgrades required for the SGCP to ensure public safety and would make any required road maintenance/improvement contributions.</p> <p>The majority of SGCP employees would be transported to and from site by bus, reducing the number of vehicles on the road.</p>
Upgraded airport and increased flight schedule to Alpha Aerodrome may lead to increased accessibility for the local community	Construction and Operation	Positive	Medium	Medium	Medium	N/A.
Increased demand for emergency services impacting on capacity and/or staffing (either as a direct result of the SGCP or as a result of cumulative demand)	Construction and Operation	Negative	High	Medium	Medium	<p>SGCP would have its own emergency services facilities.</p> <p>SGCP emergency services facilities would be available to support existing services in the event of an emergency.</p> <p>AMCI will establish a Social Infrastructure Working Group to inform a Community Partnership Program (<b>Appendix R</b> of the EIS).</p>

**Table 8-5 Social Impact Assessment – Infrastructure and Services (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Increased demand for community infrastructure (e.g. sewerage, waste infrastructure, etc.) associated with direct, indirect and secondary population growth in Alpha	All	Positive	Medium	Medium	Medium	<p>AMCI will work with other proponents, government agencies and service providers to plan for increased demand for infrastructure and services due to increased population.</p> <p>AMCI will support local communities in their efforts to acquire funding for the provision of services from State and Federal governments.</p> <p>AMCI will establish a Social Infrastructure Working Group to inform a Community Partnership Program (<b>Appendix R</b> of the EIS).</p>
Increased demand for community infrastructure (e.g. sewerage, waste infrastructure, etc.) associated with direct, indirect and secondary population growth in Alpha	All	Negative	Medium	Medium	Medium	<p>AMCI will work with other proponents, government agencies and service providers to plan for increased demand for infrastructure and services due to increased population.</p> <p>AMCI will support local communities in their efforts to acquire funding for the provision of services from State and Federal governments.</p> <p>AMCI will establish a Social Infrastructure Working Group to inform a Community Partnership Program (<b>Appendix R</b> of the EIS).</p>
Increased demand for utilities (e.g. power, water) as a result of population growth	All	Positive	Medium	Medium	Medium	<p>AMCI will work with other proponents, government agencies and service providers to plan for increased demand for infrastructure and services due to increased population.</p> <p>AMCI will support local communities in their efforts to acquire funding for the provision of services from State and Federal governments.</p> <p>AMCI will establish a Social Infrastructure Working Group to inform a Community Partnership Program (<b>Appendix R</b> of the EIS).</p>

**Table 8-5 Social Impact Assessment – Infrastructure and Services (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Increased demand for utilities (e.g. power, water) as a result of population growth	All	Negative	Medium	Medium	Medium	<p>AMCI will work with other proponents, government agencies and service providers to plan for increased demand for infrastructure and services due to increased population.</p> <p>AMCI will support local communities in their efforts to acquire funding for the provision of services from State and Federal governments.</p> <p>AMCI will establish a Social Infrastructure Working Group to inform a Community Partnership Program (<b>Appendix R</b> of the EIS).</p>
Regional Study Area						
Disruption to road users (e.g. heavy vehicles and wide loads)	All	Negative	High	Low	Medium	<p>Preparation and implementation of a Transport Management Plan.</p> <p>Utilisation of the existing rail infrastructure to transport as much construction equipment/materials as practicable.</p> <p>All over-sized loads would be coordinated with relevant local governments, DTMR and QPS.</p> <p>Delivery of over-sized loads would be undertaken outside of school drop-off and pick-up times to minimise potential impacts on traffic levels/travel times.</p>
Increased traffic leading to accelerated degradation of roads	Construction and Operation	Negative	Low	Medium	Low	<p>Preparation and implementation of a Transport Management Plan.</p> <p>Utilisation of the existing rail infrastructure to transport as much construction equipment/materials as practicable.</p> <p>AMCI would fund any road/rail upgrades required for the SGCP to ensure public safety and would make any required road maintenance/improvement contributions.</p> <p>The majority of SGCP employees would be transported to and from site by bus, reducing the number of vehicles on the road.</p>

**Table 8-5 Social Impact Assessment – Infrastructure and Services (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Increased potential for traffic accidents	Construction and Operation	Negative	Low	High	Medium	<p>Preparation and implementation of a Transport Management Plan.</p> <p>Appropriate safeguards and mitigation measures including:</p> <ul style="list-style-type: none"> <li>• bus transport ;</li> <li>• employee and contractor education and training;</li> <li>• avoid travel on school bus routes during pick up and set down times;</li> <li>• appropriate management of night-time transport;</li> <li>• speed restrictions; and</li> <li>• vehicle signage, lights, warning lights etc.</li> </ul> <p>AMCI would fund any road/rail upgrades required for the SGCP to ensure public safety and would make any required road maintenance/improvement contributions.</p> <p>The majority of SGCP employees would be transported to and from site by bus, reducing the number of vehicles on the road.</p>
Impacts on infrastructure at source centres for SGCP workforce associated with minor population increase	All	Negative	Medium	Low	Low	<p>AMCI will work with other proponents, government agencies and service providers to plan for increased demand for infrastructure and services due to increased population.</p>

## **8.5 HOUSING AND ACCOMMODATION IMPACT**

### **8.5.1 Local Study Area**

The remote nature and location of the project, combined with the lack of available workforce, has resulted in the FIFO approach being proposed for the SGCP. The lack of accommodation in the local area and a desire to minimise social impacts are the basis for the majority of the SGCP workforce being housed in an on-site accommodation village.

The SGCP will result in increased demand for housing (from direct, indirect and secondary population growth). Although the impact of the SGCP in isolation is relatively minor, the cumulative demand for housing will be a highly significant impact. This demand for housing will result in reduced availability, suitability and affordability of housing, both for purchase and rent.

Speculation about growth in the region has already led to increases in the price of land and houses and this is likely to continue. Inflation in the cost of housing and accommodation can result in a significant number of people being forced to live in sub-standard accommodation, having to commute long distances to work or spending an unusually high proportion of their income on accommodation. This will impact most on those not employed in the mining industry, particularly low income earners that are renting (e.g. elderly, unemployed and single parents). This can in turn affect the demographics of a community, where the group that remains are those with employment and higher incomes. This may also create a requirement for an increased level of community housing.

The SGCP and other mining projects will also increase the number of people seeking short-term accommodation. Short-term accommodation in Alpha is currently extremely limited and limited availability may reduce the number of tourists that overnight in Alpha and Jericho (SIA & Development Pty Ltd, 2010). The Alpha Caravan Park has already expanded the number of on-site vans to take advantage of this business opportunity with plans for more in 2012.

Compounding these issues is the limited availability of land for new housing developments and capacity of the BRC to process large numbers of Development Applications quickly. The recruitment of skilled tradespeople by the mining industry may also impact on the availability of tradespeople to undertake repair work or new construction.

No additional commercial or industrial land is required for the SGCP.

Preliminary mitigation measures to address housing and accommodation impacts are provided in **Table 8-6** and more detailed measures have been developed as part of the draft SIMP process (**Appendix R** of the EIS).

### **8.5.2 Regional Study Area**

Although housing prices in the RSA may also increase as a result of increased demand generated by the SGCP and other Galilee Basin projects, this impact is expected to be modest in the context of wider housing trends.

The RSA may also experience minor reductions in availability, suitability and affordability of rental accommodations as a result of cumulative demand for housing.

The RSA is a complex, variable study area and these impacts are likely to vary depending on the region/population centre.

**Table 8-6 Social Impact Assessment – Housing and Accommodation**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Local Study Area						
Increased demand for housing/accommodation	All	Negative	High	High	High	<p>The SGCP employees would be housed in the on-site accommodation village.</p> <p>AMCI will work with relevant government agencies, organisations and other proponents to predict and plan for future growth, identify housing market issues, forecasts and possible responses.</p> <p>AMCI will work with the HAP Working Group to develop a HAP (<b>Appendix R</b> of the EIS).</p>
Reduced availability, suitability and affordability of housing due to cumulative demand and speculation	All	Negative	Medium	High	High	<p>The SGCP employees would be housed in the on-site accommodation village.</p> <p>AMCI will work with relevant government agencies, organisations and other proponents to predict and plan for future growth, identify housing market issues, forecasts and possible responses.</p> <p>AMCI will work with the HAP Working Group to develop a HAP (<b>Appendix R</b> of the EIS).</p>
Reduced availability, suitability and affordability of rental accommodation	Construction and Operation	Negative	High	High	High	<p>The SGCP accommodation village will include capacity for short-term contractors/consultants to minimise demand in the surrounding area.</p> <p>AMCI will work with the HAP Working Group to develop a HAP (<b>Appendix R</b> of the EIS).</p>



**Table 8-6 Social Impact Assessment – Housing and Accommodation (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Increased demand for short-term accommodation associated with support services/staff travelling to site	All	Negative	Medium	Medium	Medium	SGCP will support opportunities for developers and investors to increase the short-term accommodation options.  The SGCP accommodation village will include capacity for short-term contractors/consultants to minimise demand in the surrounding area.  AMCI will work with the HAP Working Group to develop a HAP ( <b>Appendix R</b> of the EIS).
Delays for obtaining building permits	All	Negative	Medium	Medium	Medium	N/A – outside of AMCI's control.
Limited availability of land for new housing developments and limited housing availability	All	Negative	Medium	Medium	Medium	Outside of AMCI's control.  AMCI will work with relevant government agencies, organisations and other proponents to predict and plan for future growth, identify housing market issues, forecasts and possible responses.
Reduced availability of tradespeople	All	Negative	Medium	Low	Low	N/A – outside of AMCI's control.
Regional Study Area						
Increased house prices	All	Negative	Low	Medium	Low	AMCI's approach to sourcing FIFO workforce aims to minimise social impacts.  AMCI will work with relevant government agencies, organisations and other proponents to predict and plan for future growth, identify housing market issues, forecasts and possible responses.
Reduced availability, suitability and affordability of rental accommodation	All	Negative	Low	Medium	Low	AMCI will work with relevant government agencies, organisations and other proponents to predict and plan for future growth, identify housing market issues, forecasts and possible responses.

## **8.6 IMPACT ON COMMUNITY HEALTH AND SAFETY**

### **8.6.1 Local Study Area**

The potential impact of the SGCP on existing health services (described in **Section 5.7.1**) can be broken down into three key areas, as described below.

1. Impacts on local health services associated with population growth.

In many other areas, including the Bowen Basin, the population growth associated with mining has not been accompanied with an adequate increase in health services (Rolfe *et al.*, 2011).

As described in **Section 8.1.1**, the anticipated direct population growth associated with the SGCP is up to eight people during the construction phase and six people during the operations phase. The direct population growth associated with all Galilee Basin projects is up to 66 people during the construction phase and 65 people during the operations phase. Secondary and indirect population growth is also anticipated, although the exact number of people is not known. These people would use local health services, including the Alpha and Barcaldine Hospitals, ambulance service and Royal Flying Doctor Service.

As described in **Section 5.7**, current health care services in the region are limited and appear to be insufficient to cater for future population growth.

2. Impacts on local health services associated with servicing non-emergency health needs of the SGCP workforce accommodated on-site.

Scholtz and Nieuwoudt (2011) found that the percentage of non-resident patients seen at private general practices in Moranbah has increased over the past five years. Similarly, Katz (2011) studied the impact of non-resident workforces on the Moranbah Hospital and found that approximately one third of all admissions and emergency presentations were non-resident patients, of which 50 % lived in work camps. Katz (2011) also found that a shortage of General Practitioners meant the many non-resident workers presented inappropriately to the Moranbah Hospital Emergency Department with non-urgent problems more suitably dealt with in a general practice setting.

Given the existing constraints at the Alpha Hospital and the absence of a permanent General Practitioner, non-emergency health needs of the SGCP workforce would be either addressed by the on-site emergency services personnel or personnel would be flown to health centres at their source location for treatment (L. Bowers, pers. comm., 13 December 2011). In the event of cardiac emergencies, patients would be transferred to the Prince Charles Hospital in Brisbane (L. Bowers, pers. comm., 13 December 2011).

3. Impacts on health services at regional hospitals associated with treating emergency health needs of the SGCP workforce accommodated on-site (this impact is addressed in **Section 8.6.2**).

As the SGCP will have on-site emergency services personnel, impacts on the operations of the Queensland Fire and Rescue Service and ambulance service as a result of the on-site workforce are anticipated to be minor. SGCP emergency services facilities and personnel will be available to support local emergency service providers in the event of an incident, if required.

AMCI has consulted with the QPS regarding potential impacts of the SGCP on policing issues. Potential impacts include the following:

- police resourcing to facilitate wide load transport;
- increase in general policing demand due to population growth (e.g. crime, domestic violence, drink driving, drug and alcohol use etc.);
- increase in general policing demand to address any potential issues at the SGCP accommodation village; and
- road safety, including fatigue.

The QPS has identified that a new police station is needed in Alpha. The BRC has offered a combined emergency services building if the proposed Galilee Basin mining projects are developed.

The SGCP will increase the potential for transport incidents by increasing the volume of traffic on local roads. Potential transport impacts are assessed in detail in the Transport Assessment prepared for the SGCP EIS. As discussed with the QPS and DMTR, the potential road safety impacts associated with fatigue (Queensland Courts, 2009) will be managed utilising a FIFO workforce and setting a maximum of a 20 minute drive time to work for locally based employees.

Numerous studies have been conducted to examine the impact of FIFO workforces on local communities. The outcomes of these studies are varied and at times contradictory, which suggests the impacts are likely to be subjective and context-specific. However, potential impacts reported include (Carrington *et al.*, 2010; RSDC, 2011):

- real or perceived increase in anti-social behaviour (e.g. violence, prostitution, sexual harassment, etc.);
- real or perceived increase in crime; and
- real or perceived increase in drug and alcohol abuse, often associated with gender imbalance and masculinisation of the workforce.

A three-year study undertaken by a Brisbane-based recovery centre indicated that many mine workers turn to drugs and alcohol in isolated environments where there is little opportunity for leisure activities or social interaction (Green, 2011).

The Regional Social Development Centre (RSDC), (2011) indicates that mine workers are often blamed for a disproportionate share of criminal and anti-social behaviour. Recent research into rates of family violence in the Bowen Basin suggests that rates of family violence are not higher than elsewhere or connected with mining (Nancarrow *et al.*, 2008).

Potential safety impacts associated with the SGCP workforce have been given a low overall significance, primarily because the direct FIFO workforce will be housed on-site and mostly isolated from local communities, but also due to the policies and codes of conduct that SGCP employees would be contractually bound to comply with.

Preliminary mitigation measures to address community health and safety impacts are provided in **Table 8-7** and more detailed measures have been developed as part of the draft SIMP process (**Appendix R** of the EIS).

### **8.6.2 Regional Study Area**

Where SGCP employees experience serious or emergency health problems beyond the capacity of the on-site emergency services personnel to treat, personnel would be flown to health centres at their source location for treatment. This will reduce potential impacts on the Alpha Hospital.

As described in **Section 5.7.1**, patients from Alpha requiring hospital admission are often transferred to the Emerald Hospital. With the increased population, it is anticipated that an increased number of people would be transferred to the Emerald Hospital.

Impacts associated with FIFO workforces are summarised in **Section 8.6.1**. Research also suggests that FIFO arrangements may result in workers experiencing health impacts. Fatigue is a commonly reported impact, generally as a result of working block rosters and long-distance travel (Carrington and Pereira, 2011). Carrington and Pereira (2011) also suggest that routine separation from family, support and informal social controls and a sense of belonging to a community can have negative impacts on the wellbeing of FIFO workers and their families. The separation of families due to work rosters can also place significant stress and pressure on family relationships. Social isolation among workers living in camp accommodation can result in increased demand for counselling and other services from those seeking help to cope with living away from their family and friends. This can also lead to increases in substance abuse and in family violence.

**Table 8-7 Social Impact Assessment – Community Health and Safety**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Local Study Area						
Increased demand for medical services associated with population growth (e.g. Alpha and Barcaldine Hospitals, ambulance service and Royal Flying Doctor Service)	All	Negative	High	High	High	<p>Minor injuries on-site would be dealt with by first aid officers employed on-site and more serious injuries would be transported to health centres at employees' source location for treatment.</p> <p>AMCI would work collaboratively with other proponents, local service providers, relevant agencies to share information, conduct appropriate planning for cumulative impacts and predict future growth in order to plan for provision of medical services.</p> <p>AMCI will establish a Social Infrastructure Working Group to inform a Community Partnerships Program (<b>Appendix R</b> of the EIS).</p> <p>AMCI will actively promote healthy lifestyles through education, training and provision of recreational facilities on-site.</p> <p>AMCI will actively promote occupational health and safety through education and training in order to minimise the incidence of workplace accidents.</p> <p>AMCI supports the inclusion of non-resident population in the official resident population estimates by ABS, which would better inform healthcare planning. AMCI recognises the cumulative impact of mining on existing health care services in Alpha, and proposes to work collaborative with other proponents to address this impact.</p> <p>AMCI has consulted with Queensland Health during the SGCP planning and assessment phase regarding health impacts and requirements and will continue to work with health providers and other proponents to address impacts on health services.</p> <p>AMCI will proposes to work collaboratively with other Galilee Basin mining proponents to address identified health impacts, including directing community contributions appropriately.</p>

**Table 8-7 Social Impact Assessment – Community Health and Safety (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Additional demand on QPS resourcing due to wide load transport, general policing requirements and road safety						<p>AMCI proposes to transport as much construction material/equipment on the existing rail network as practicable, in order to minimise requirement for police escort of wide loads and impacts on road safety.</p> <p>AMCI proposes to transport as much material/equipment as practicable on the common user rail network during operations.</p> <p>AMCI proposes to transport as much material/equipment as practicable using small trucks, in order to minimise the requirement for QPS escort.</p> <p>AMCI intends to involve the QPS in the Social Infrastructure Working Group (<b>Appendix R</b> of the EIS).</p> <p>AMCI will establish relationships with QPS staff prior to the commencement of construction in order to manage incidents effectively.</p>
Increased traffic and traffic hazards	All	Negative	Medium	Medium	Medium	<p>AMCI will develop a Transport Management Plan in consultation with QPS.</p> <p>AMCI will minimise potential road safety impacts associated with fatigue by utilising a FIFO workforce and minimising the drive time of locally employees to 20 minutes.</p> <p>AMCI will minimise road transport as described above.</p> <p>AMCI will undertake/fund upgrades of the public road network required for the SGCP.</p>

**Table 8-7 Social Impact Assessment – Community Health and Safety (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Potential to increase the likelihood or severity of natural hazards (e.g. bushfire, flood, slope instability etc.)	All	Negative	Low	Medium	Medium	<p>SGCP emergency services facilities and personnel will be available to support local emergency service providers in the event of an incident, if required.</p> <p>Hazard and risk has been assessed as part of the SGCP EIS and appropriate controls will be put in place to reduce hazard to an acceptable level.</p> <p>A Surface Water Assessment has been conducted for the SGCP EIS. The Surface Water Assessment included an assessment of flooding and proposed mitigation measures to manage flooding impacts.</p>
Impacts on emergency services	All	Negative	Low	Low	Low	<p>SGCP emergency services facilities and personnel will be available to support local emergency service providers in the event of an incident, if required.</p> <p>AMCI will establish a Social Infrastructure Working Group to inform a Community Partnerships Program (<b>Appendix R</b> of the EIS).</p>
Potential environmental health and safety impacts (e.g. air quality, noise, subsidence etc.)	All	Negative	Medium	Medium	Medium	<p>Baseline and impact monitoring to identify and quantify impacts to enable appropriate mitigation/management measures to be implemented.</p> <p>Engineering design and development of operational procedures to minimise air and noise emissions.</p> <p>Development and implementation of a Landholder Management Plan.</p> <p>Development and implementation of a Dust Management Plan and Noise and Vibration Management Plan.</p>

**Table 8-7 Social Impact Assessment – Community Health and Safety (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Potential safety impacts (e.g. increased crime, violence, drug and alcohol use etc.)	All	Negative	Low	Medium	Low	<p>The employees at the SGCP would be bound by contractual obligation to comply with the Workforce Management Plan (including Drug and Alcohol Policy, Accommodation Village Behavioural Policy, Code of Conduct).</p> <p>Continuation of the CRG forum.</p> <p>AMCI will employ Community Liaison staff as a point of contact for the local community.</p> <p>AMCI will establish a Social Infrastructure Working Group to inform a Community Partnerships Program (<b>Appendix R</b> of the EIS).</p>
Regional Study Area						
Increased number of people admitted to the Barcaldine and Emerald Hospitals due to population increase in Alpha	All	Negative	Medium	Medium	Medium	AMCI will establish a Social Infrastructure Working Group to inform a Community Partnerships Program ( <b>Appendix R</b> of the EIS).
Impact on family relationships from FIFO / stress of shift work hours	Construction and Operation	Negative	Low	Low	Low	Provide copies of <i>The Survival Guide for Mining Families</i> to all miners as part of relocation service and encourage them to use link to <a href="http://www.miningfm.com.au">www.miningfm.com.au</a> and access support services.
Real or perceived health and safety impacts (e.g. recreational drug and alcohol use)	Construction and Operation	Negative	Low	Low	Low	The employees at the SGCP would be bound by contractual obligation to comply with the Workforce Management Plan (including Drug and Alcohol Policy, with random drug and alcohol testing to be undertaken prior to boarding flights to Alpha).

## 8.7 IMPACT ON CULTURE AND COMMUNITY

### 8.7.1 Local Study Area

Alpha is a small rural town with a strong identity and sense of community. Mining development in the Galilee Basin will change the identity of the region and the way that it is perceived. A “changing sense of place” was identified by stakeholders as a concern related to potential changes in the local, physical and social environment due to mining. It is likely that some changes to or dilution of local culture may occur due to direct, indirect and secondary population growth through immigration to the area and shift in profile of the area from predominantly agricultural to a mix of agriculture and mining. During consultation undertaken as part of the EIS process, local community members stressed the importance of retaining their lifestyle and sense of community.

FIFO workforces are generally associated with a lack of social integration which creates a strong sense of ‘us’ versus ‘them’ (RSDC, 2011). Although it minimises social impacts, this lack of social integration means that workers’ sense of community lies elsewhere. FIFO workers tend not to contribute significantly to the community they work in (Carrington and Pereira, 2011).

However, there is also a positive sentiment attributed to mining and as evidenced by the following key consultation findings:

- the SGCP is expected to provide employment opportunities and opportunities for local/regional businesses;
- the SGCP is expected to generate growth and improvement of services, amongst other socio-economic benefits;
- there is a need to balance the benefits of the project with the potential adverse impacts;
- the SGCP has the potential to impact on existing infrastructure (e.g. transport infrastructure, housing, sewerage, water and power infrastructure) and services (e.g. health, education, emergency services);
- the SGCP will contribute to cumulative impacts from multiple mining projects in the Galilee Basin; and
- it is important to assess and manage environmental and social impacts.

Existing social networks observed in the LSA are considered to be resilient and the change in community identity is anticipated to be greatest in the early stages of the SGCP.

Although the construction and operational workforce will be accommodated in facilities on-site, it is anticipated that SGCP employees who move to Alpha will interact with the community.

As described in **Section 8.6.1**, social impacts associated FIFO workers have recently been the subject of much controversy and media speculation (Central Queensland News, 2011). The outcomes of relevant studies are varied and at times contradictory, suggesting that the impacts are likely to be subjective and context-specific. Some studies indicate that FIFO workforces are associated with real or perceived increases in anti-social behaviour (e.g. violence, prostitution, sexual harassment etc.) and crime, drug and alcohol abuse (Carrington *et al.*, Carrington and Pereira, 2011; Central Queensland News, 2011; RSDC, 2011). As indicated in **Table 8-8**, these impacts will largely be mitigated by the SGCP FIFO employees being accommodated on-site and the requirement for the workforce to comply with a Code of Conduct and Drug and Alcohol Policy. AMCI will provide inductions to all employees to make them aware of acceptable standards of behaviour.

Overall the SGCP is anticipated to have a slight to moderate impact on culture and community values of the region.

Preliminary mitigation measures to address education and training impacts are provided in **Table 8-8** and more detailed measures have been developed as part of the draft SIMP process (**Appendix R** of the EIS).



### 8.7.2 Regional Study Area

The economic impacts on the RSA associated with the SGCP (**Section 8.3.2**) are expected to contribute positively to the sense of community in this study area.

Potential health impacts associated with FIFO workforce arrangements are described in **Section 8.6.2**. These may include fatigue, stress associated with family isolation, community fragmentation, domestic violence and drug and alcohol use. It should be acknowledged that work rosters may create advantages for some families and individuals and not everyone will be affected in the same way. Research by Petkova *et al.* (2009) indicates that most Bowen Basin employees favour FIFO or drive-in, drive-out (DIDO) arrangements. FIFO workers often find it difficult to contribute to the community they live in (Carrington and Pereira, 2011).

There is no conclusive evidence to suggest that work rosters will impact significantly on the broader community.

**Table 8-8 Social Impact Assessment – Culture and Community**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Local Study Area						
Introduction of new cultural values, aspirations, lifestyles and sense of community	All	Positive	Medium	Medium	Medium	<p>The SGCP FIFO employees would be housed in an on-site accommodation village. In order to minimise any potential anti-social behaviour, employees will be required to remain on-site for the duration of their roster, unless required to travel for work duties.</p> <p>AMCI would prepare a Code of Conduct which would be strictly enforced for all SGCP employees and contractors and would apply to behaviour in and outside of the workplace.</p> <p>Provision of induction training to all SGCP employees which would describe acceptable behaviours and the requirements of the Code of Conduct.</p> <p>AMCI would prepare and strictly enforce a Drug and Alcohol Policy. SGCP employees and contractors would be contractually obliged to comply with all company policies, guideline and standards of behaviour. FIFO employees would be subject to drug and alcohol testing at the source locations (i.e. prior to boarding flights to Alpha). Random drug and alcohol testing would also be conducted on-site, with a zero drug and alcohol tolerance.</p> <p>Company expectations including the need to maintain good relations with the local communities will be communicated regularly to the SGCP employees and contractors.</p> <p>The SGCP accommodation village will be designed to offer a range of recreational facilities and activities.</p> <p>AMCI would maintain a 24-hour freecall community complaints hotline and all complaints would be recorded, addressed and reported.</p>

**Table 8-8 Social Impact Assessment – Culture and Community (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Disconnection between mining and non-mining residents	All	Negative	Low	Low	Low	<p>The SGCP FIFO employees would be housed in an on-site accommodation village. In order to minimise any potential anti-social behaviour, employees will be required to remain on-site for the duration of their roster, unless required to travel for work duties.</p> <p>AMCI would prepare a Code of Conduct which would be strictly enforced for all SGCP employees and contractors and would apply to behaviour in and outside of the workplace.</p> <p>Provision of induction training to all SGCP employees which would describe acceptable behaviours and the requirements of the Code of Conduct.</p> <p>AMCI would prepare and strictly enforce a Drug and Alcohol Policy. SGCP employees and contractors would be contractually obliged to comply with all company policies, guideline and standards of behaviour.</p> <p>Company expectations including the need to maintain good relations with the local communities will be communicated regularly to the SGCP employees and contractors.</p> <p>The SGCP accommodation village will be designed to offer a range of recreational facilities and activities.</p> <p>AMCI would maintain a 24-hour freecall community complaints hotline and all complaints would be recorded, addressed and reported.</p>
People that relocate to Alpha may experience a period of adjustment and isolation	Operation	Negative	Low	Low	Low	<p>AMCI will provide support for any employees required to relocate to Alpha.</p>

**Table 8-8 Social Impact Assessment – Culture and Community (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Small direct and indirect resident population increases could result in increase in the membership and viability of some recreational, sporting and cultural pursuits	All	Positive	Medium	Low	Low	Direct FIFO employees would utilise the self-contained accommodation village facilities and would not require access to services provided in Alpha.
Perception that purpose-built accommodation camps (typically housing proportionally higher numbers of single males) may detrimentally impact the social values of local townships (e.g. potential to increase threats to property and public safety)	All	Negative	Low	High	Medium	<p>The SGCP FIFO employees would be housed in an on-site accommodation village. In order to minimise any potential anti-social behaviour, employees will be required to remain on-site for the duration of their roster, unless required to travel for work duties.</p> <p>AMCI would prepare a Code of Conduct which would be strictly enforced for all SGCP employees and contractors and would apply to behaviour in and outside of the workplace.</p> <p>AMCI would prepare and strictly enforce a Drug and Alcohol Policy. SGCP employees and contractors would be contractually obliged to comply with all company policies, guideline and standards of behaviour.</p> <p>Company expectations including the need to maintain good relations with the local communities will be communicated regularly to the SGCP employees and contractors.</p> <p>The SGCP accommodation village will be designed to offer a range of recreational facilities and activities.</p> <p>AMCI would maintain a 24-hour freecall community complaints hotline and all complaints would be recorded, addressed and reported.</p>

**Table 8-8 Social Impact Assessment – Culture and Community (cont.)**

Potential Impact	Phase	Type of Impact (positive or negative)	Probability (high, medium or low)	Consequence (high, medium or low)	Overall Impact Significance	Mitigation Measures
Impacts on cultural heritage sites due to project activities	Construction and Operation	Negative	Low	Medium	Low	The management of cultural heritage at the SGCP will be undertaken in accordance with the requirements of the CHMP.
Impacts on access to land for cultural purposes	All	Negative	High	High	High	Access to culturally important areas within the SGCP area would be arranged, where practicable, in accordance with the requirements of the CHMP.
Increased involvement by Traditional Owners in cultural heritage management activities	Construction and Operation	Positive	Medium	Medium	Medium	Involvement of Traditional Owners in cultural heritage management activities would be facilitated in accordance with the requirements of the CHMP.
Stress for landholders associated with uncertainty/delays with decisions (e.g. inability to sell properties)	All	Negative	Medium	Low	Low	AMCI will continue to consult with landholders and the local community and will share information in an open and transparent manner.
<b>Regional Study Area</b>						
Positive economic impacts will contribute to the sense of community	Construction and Operation	Positive	High	Medium	Medium	N/A.
Employees away from home for extended periods of time, spending less time with their families and less time participating in community activities	Construction and Operation	Negative	High	Medium	Medium	Provide copies of The Survival Guide for Mining Families to all miners as part of relocation service and encourage them to use link to <a href="http://www.miningfm.com.au">www.miningfm.com.au</a> and access support services.

## **9 MITIGATION AND MANAGEMENT**

Mitigation and management measures have been developed to minimise potential negative impacts and capitalise on positive impacts. General mitigation and management measures are presented in **Table 8-3** to **Table 8-8**. Where practicable, mitigation measures have been built on or linked to existing programs/initiatives established by governments and service providers.

More detailed mitigation and management measures have been developed as part of the draft SIMP process (**Appendix A**).

As many potential impacts are cumulative in nature or are exacerbated by the number of projects in the region, there is a need for collaboration between mining proponents and other external agencies to improve the outcomes of social impact management. AMCI has actively advocated for collaborative approaches between mining proponents.

AMCI is a signatory to the Co-operation and Regional Development Agreement for the Galilee Basin (**Appendix C**). This voluntary agreement established the Galilee Basin Co-operation and Development Working Group to facilitate efficient and timely development of infrastructure and services and access to a skilled workforce in order successfully develop the Galilee Basin. Other signatories to the agreement include Adani Mining Pty Ltd, Waratah Coal Pty Ltd and Vale.

AMCI proposes to approach other mining proponents to develop a collaborate approach to addressing social impacts. AMCI proposes the development of a collaborative Community Assistance Committee to manage, allocate and monitor the allocation of community funding.

AMCI will continue to implement its comprehensive community engagement program throughout the life of the SGCP, as described in the draft SIMP.

## **10 MONITORING**

Monitoring of specific social mitigation and management measures is detailed in the draft SIMP (**Appendix R** of the EIS).

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**APPENDIX A**  
**SUPPORTING BASELINE DATA**

### Alpha (L) Business Listings

Name of Business	Operating Days/Hours
Agents – Stock & Station, Industrial gas	
Alpha Merchandise P/L & courier service	Monday - Friday 7.30am to 5.00pm
Belyando Livestock & Property Sales	As required
Bakery	
Snows Bread	
Banking	
Bank of Queensland	Monday – Thursday 10.00am to 4.00pm Friday 10.00am to 4.30pm (closed at lunch – 12.45 to 1.15) Saturday 9.15am to 11.45am
Commonwealth Agency/Post Office	Monday - Friday 9.00am to 1.00pm 2.00pm to 5.00pm
Mail contractors x 4	
Building/ Home Renovations	
Fuentes M & RE	Retired, as required
Butcher	
Alpha Meats & Deli	Monday - Friday 8.30am to 5.00pm Saturday 8.30pm to 12noon
Caravan Park	
Alpha Caravan Park & Villa Park	7 days 7.00am to 7.00pm
Computer Sales & Service / Music/Whitegoods	
Gerard P	Monday - Friday 8.00am to 4.30pm
Concreter/Bobcat &Dingo Hire	
Peckett VG	Contractor (BRC) Project work
Earthmoving & Dam sinking / Water truck hire	
Williams PW	Contractor (BRC) Project work
Fencing & Earthmoving Contractors	
Bowyer R	Project work
Fuel & Gas Outlets	

### Alpha (L) Business Listings

Name of Business	Operating Days/Hours
Alpha Gateway / Caltex	Monday - Saturday 6.30am to 9.00pm Sunday 7.30am to 8.00pm
Tilson's Garage / BP / Motor repairs / tyres	7 days 6.00am to 6.30pm
RACQ	RACQ callouts 24/7
Groceries	
5 Star Groceries	Monday - Friday 8.30am to 5.00pm SAT 6.30am to 12.30pm
Hair Salon	
M'Ladies	Monday - Friday (not Tuesday) 9.00am to 5.00pm Saturday 9.00am to 12 noon
Hardware/ Plumbing & Service	
Brown Dog Concreting & Hardware Office/plant in Alpha	Project work 7 days 6.00am to 6.00pm
Aqua Plumbing & Hardware Suppliers only. Service centre and business owner in Rockhampton	Monday - Friday 8.00am to 5.00pm Saturday 9.00am to 12 noon
Heavy Haulage Equipment & Truck Repairs/ Hire	
TopLine Mechanical	Monday - Friday (workshop) 6.30am to 5.00pm 24/7 roster (field team)
Hotels / Motels	
Alpha Hotel Motel Criterion Motel	7 days 10.00am to midnight
Licensed Clubs	
Alpha Golf Club	Monday - Thursday 4.00pm to midnight Friday and Saturday 3.00pm to midnight Sunday 11.00am to midnight
Livestock Carriers	
Alpha Freight Lines (mainly to Rockhampton)	7 days As required

### Alpha (L) Business Listings

Name of Business	Operating Days/Hours
Newsagent	
Whites (shoes & gifts)	Monday - Friday 8.30am to 5.30pm Saturday and Sunday 9.00am to 12.30pm
Painting Contractor	
McQuillan R G Lives/works in Clermont	Contract, as required
Pharmacy	
Alpha Pharmacy	
Photography/Journalist	
Austin W (Alpha News/Longreach Leader)	Contract, as required
Septic Tank Cleaning	
Connolly's (Travels from Blackall/quarterly)	
Souvenirs & Gifts/Tourism	
Alpha District Tourism & Development Association	Monday - Saturday 8.30am to 12.30pm
Water Truck Hire	
McDonnell T&C	As required, contractor

Source: Alpha District Tourism and Development Association (2011) and personal communications 2011

## **APPENDIX B**

### **CO-OPERATION AND REGIONAL DEVELOPMENT AGREEMENT FOR THE GALILEE BASIN**



# Co-operation and Regional Development Agreement for the **Galilee Basin**

Efficient and timely development of infrastructure and services and access to a skilled workforce is critical to the successful development of the Galilee Basin.

## Development **Regional** Communities



## Opportunities **Co-Operation** Working Group

The parties confirm that they have formed the regional **Galilee Basin Co-operation and Development Working Group** and are committed to working together to explore opportunities to collaborate that benefit both the individual projects and also the broader regional communities of Queensland.

Jignesh Derasari  
**Chief Executive Officer**  
Adani Mining Pty Ltd



Nui Harris  
**Managing Director**  
Waratah Coal Pty Ltd



First & Last Name  
**Title of Above**  
Vale



Rob McNamara  
**General Manager-Project Development**  
AMCI





## APPENDIX C

### BREAKDOWN OF SGCP PERSONNEL LEVELS

Position	Construction	Operations			Decommissioning
		Stage 1	Stage 2	Stage 3	
<b>Management</b>	<b>7</b>	<b>11</b>	<b>12</b>	<b>12</b>	<b>4</b>
Mine General Manager	0	1	1	1	0
PA to Mine General Manager	0	1	1	1	0
Operations Manager	1	1	1	1	1
Mining Manager Underground	0	0	1	1	0
Mining Manager Open Cut	0	1	1	1	0
Technical Services Manager	1	1	1	1	1
Maintenance Manager	1	1	1	1	1
CHPP Manager	0	1	1	1	0
Safety Manager	1	1	1	1	1
Human Resources Manager	1	1	1	1	0
Commercial Manager	1	1	1	1	0
Administration Assistant	1	1	1	1	1
<b>Technical Services</b>	<b>18</b>	<b>25</b>	<b>35</b>	<b>49</b>	<b>21</b>
Senior Mine Surveyor	1	1	1	1	1
Surveyor Assistant	2	2	2	2	2
Geotechnical Engineer	1	1	1	1	1
Mine Geologist	0	1	1	1	1
Exploration Geologist	0	1	1	1	0
Coal Quality Geologist	0	1	1	1	0
Environmental Engineer	1	1	1	1	1
Environmental Officer	2	2	2	2	2
Engineering Planning Superintendent	1	1	1	1	1
Senior Mine Planning Engineer	1	1	1	1	0
Engineering Planners & Schedulers	2	2	2	2	0
Statistics Clerk	0	1	1	1	0
Mine Production Engineer	0	1	1	1	0
Graduate Mining Engineer	0	1	1	1	0
Surface Co-ordinator	1	1	1	1	1
Senior Mining Engineer	0	0	1	2	1
Mining Engineer	0	0	2	4	2
Ventilation Officer	0	0	1	2	1
Conveyor Engineer	1	0	1	2	1
Surveyor	1	0	1	2	0

Geologist	0	0	1	2	0
IT Specialist	1	0	1	1	0
Senior Clerical Staff	2	2	2	4	2
Junior Clerical Staff	0	3	3	5	2
Electrical Engineering Manager	1	2	1	2	1
Control Room Officer	0	0	3	5	1
<b>Underground Operations</b>	<b>0</b>	<b>0</b>	<b>310</b>	<b>619</b>	<b>0</b>
Shift Undermanagers	0	0	5	10	0
Development Coordinator	0	0	1	2	0
Development Mech. Eng.	0	0	1	2	0
Development Elec. Eng.	0	0	1	2	0
Longwall Coordinator	0	0	1	2	0
Longwall Mech. Eng	0	0	1	2	0
Longwall Elec. Eng.	0	0	1	2	0
Outbye Coordinator	0	0	1	2	0
Project Group Coordinator	0	0	1	2	0
Project Group Engineers	0	0	2	4	0
Fire Officer/Stat Compliance Officer	0	0	1	2	0
Training Coordinator	0	0	2	3	0
ERZ Controller (Deputy)	0	0	12	24	0
Supervisor	0	0	12	24	0
Mine Driver	0	0	24	48	0
Shuttle Car Driver	0	0	24	48	0
Bolter Operator	0	0	12	24	0
Roustabout	0	0	12	24	0
Mechanical Trade / Fitter	0	0	12	24	0
Electrician	0	0	12	24	0
ERZ Controller (Deputy)	0	0	12	24	0
Leading Hand Fitter	0	0	4	8	0
Leading Hand Electrician	0	0	4	8	0
Beltman	0	0	16	32	0
Pumpies	0	0	8	16	0
VCD Installation Crew	0	0	12	24	0
Road Maintenance Crew	0	0	8	16	0
Secondary Support Crew	0	0	12	24	0
Lamp Room / Bath Attendant	0	0	4	8	0

<b>Open Cut Operations</b>	<b>0</b>	<b>214</b>	<b>214</b>	<b>214</b>	<b>0</b>
Project Engineer	0	2	2	2	0
Site Engineer	0	4	4	4	0
Planning Engineer	0	1	1	1	0
Senior Production Supervisor	0	1	1	1	0
Shift Supervisor	0	5	5	5	0
Shift Foreman	0	5	5	5	0
OCE's	0	5	5	5	0
Production System Operator	0	4	4	4	0
Site Clerk	0	4	4	4	0
Dewatering Crew	0	8	8	8	0
Operator – Level 3	0	25	25	25	0
Operator – Level 4	0	3	3	3	0
Operator – Level 5	0	145	145	145	0
Operator – Level 6	0	2	2	2	0
<b>CHPP &amp; Maintenance</b>	<b>17</b>	<b>174</b>	<b>194</b>	<b>214</b>	<b>20</b>
Maintenance Superintendent	0	1	1	1	0
Maintenance Planner	0	4	4	4	0
Fitter Tradesman - Level 2	0	30	30	30	0
Fitter Tradesman - Level 4	0	20	20	20	0
Electrician - Level 4	0	15	15	15	0
Administration Assistant	0	2	2	2	0
CHPP Superintendent	0	1	1	1	0
Production Co-ordinator	0	1	1	1	0
Washplant Supervisor	0	1	1	1	0
Control Room and Trainloading	0	8	8	8	0
ROM and Product	0	8	8	8	0
CPP Plant Operator	0	16	16	16	0
Electricians	0	0	8	16	0
Mechanical / Fitter	0	0	12	24	0
Maintenance Supervisor	1	1	1	1	1
Metallurgist	0	1	1	1	0
Metallurgical Graduate	0	1	1	1	0
Quality Control Engineer	0	1	1	1	0
Quality Control Technician	0	8	8	8	0
Field Maintenance Superintendent	1	1	1	1	1
Deputies	2	10	10	10	4

Electricians	4	15	15	15	4
Fitters	4	15	15	15	5
Electrical Engineer	1	1	1	1	1
Mechanical Supervisor	1	1	1	1	1
Mechanical Engineer	1	1	1	1	1
Workshop Supervisor	1	4	4	4	1
Graduate Mechanical / Electrical Engineer	0	1	1	1	0
PCS Engineer	0	1	1	1	0
<b>Safety Department</b>	<b>21</b>	<b>20</b>	<b>23</b>	<b>28</b>	<b>12</b>
Safety Coordinator	2	2	4	4	1
Safety Officer	1	0	1	2	1
Health Rehabilitation Officer	1	1	1	1	1
Safety Administration Officer	1	1	1	1	1
Site Security	4	4	4	8	2
Ambulance Officer	5	5	5	5	2
OH&S Superintendent	1	1	1	1	1
OH&S Officer	1	1	1	1	1
First Aid (Site Nurse)	5	5	5	5	2
<b>Commercial</b>	<b>15</b>	<b>23</b>	<b>26</b>	<b>28</b>	<b>14</b>
Administration Assistant	1	1	1	1	1
Stores / Purchasing Manager	1	1	1	1	1
Stores Officer	1	0	3	5	1
Storeman	1	4	4	4	1
Warehouse Clerks	1	5	5	5	1
Purchasing Officer	1	1	1	1	1
Senior Site Accountant	1	1	1	1	1
Accounting	1	1	1	1	1
Information Management	0	1	1	1	1
Contracts Co-ordinator	1	1	1	1	1
Contracts Administrator	1	1	1	1	1
Reception and Mail	1	1	1	1	0
Business Analyst	1	1	1	1	0
Site Paymaster	1	1	1	1	1
Payroll clerk	1	1	1	1	1
IT Supervisor	1	1	1	1	1
<b>HR Department</b>	<b>11</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>11</b>
PA to HR Manager	1	1	1	1	1
Recruitment	1	1	1	1	1

IR Specialist	1	1	1	1	1
Operator /Trainer	1	8	8	8	1
HR Co-ordinator	1	1	1	1	1
HR Officer	1	1	1	1	1
HR Administration Officer	1	1	1	1	1
Community Liaison Officer	1	1	1	1	1
Training Co-ordinator	1	1	1	1	1
<b>FTE Contractors</b>	<b>1,410</b>	<b>0</b>	<b>21</b>	<b>21</b>	<b>177</b>
Development	0	0	1	1	0
Longwall	0	0	1	1	0
Ventilation	0	0	3	3	0
Gas Drainage	0	0	2	2	0
Conveyors	3	0	3	3	0
Longwall Moves	0	0	2	2	0
Cleaning and Servicing	2	0	2	2	2
CHPP Stockpiles	0	0	1	1	0
<b>Miscellaneous</b>	<b>101</b>	<b>22</b>	<b>33</b>	<b>85</b>	<b>41</b>
Cooks	48	10	14	40	9
Cleaners	48	10	14	40	9
Gardeners / maintenance work	5	2	5	5	5
<b>Total</b>	<b>1,600</b>	<b>507</b>	<b>886</b>	<b>1,288</b>	<b>300</b>