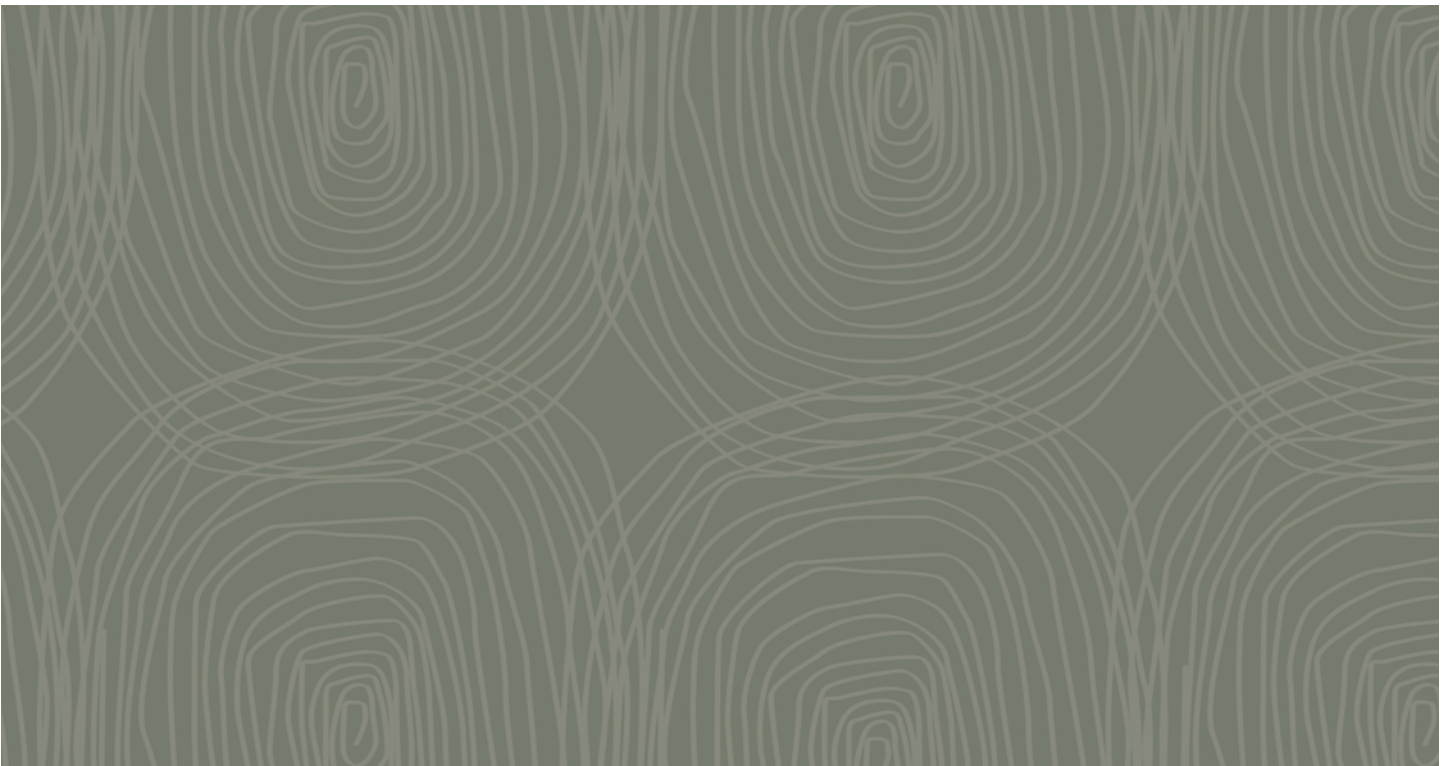


T | Social





Report

Kevin's Corner Coal Project (Mine) Social Impact Assessment

13 APRIL 2011

Prepared for
Hancock Galilee Pty Ltd
Level 8
307 Queen Street
Brisbane Qld 4000
42626678

URS

Project Manager:



.....
Chris Sunderland
Senior Sociologist &
Consultation Specialist

URS Australia Pty Ltd

**Level 17, 240 Queen Street
Brisbane, QLD 4000
GPO Box 302, QLD 4001
Australia**

T: 61 7 3243 2111

F: 61 7 3243 2199

Principal-In-Charge:



.....
Chris Pratt
Senior Principal

Date: **13 April 2011**
Reference: 42626678/01/01
Status: FINAL

© Document copyright of URS Australia Pty Limited.

This report is submitted on the basis that it remains commercial-in-confidence. The contents of this report are and remain the intellectual property of URS and are not to be provided or disclosed to third parties without the prior written consent of URS. No use of the contents, concepts, designs, drawings, specifications, plans etc. included in this report is permitted unless and until they are the subject of a written contract between URS Australia and the addressee of this report. URS Australia accepts no liability of any kind for any unauthorised use of the contents of this report and URS reserves the right to seek compensation for any such unauthorised use.

Document delivery

URS Australia provides this document in either printed format, electronic format or both. URS considers the printed version to be binding. The electronic format is provided for the client's convenience and URS requests that the client ensures the integrity of this electronic information is maintained. Storage of this electronic information should at a minimum comply with the requirements of the Commonwealth Electronic Transactions Act (ETA) 2000.

Where an electronic only version is provided to the client, a signed hard copy of this document is held on file by URS and a copy will be provided if requested.

Table of Contents

Executive Summary.....	xiii
1 Introduction	1
1.1 Project Description Summary – Social	1
1.2 Purpose.....	5
1.3 Key Sources	5
1.4 Assumptions and Limitations	6
2 Methodology.....	8
2.1 Desktop Scoping Study	11
2.1.1 Study Areas and Project Parameters	11
2.2 Baseline Assessment.....	12
2.2.1 Census Data	15
2.2.2 ABS Random Errors.....	16
2.3 Case Studies.....	16
2.4 Define Project Workforce and Company Policies	16
2.5 Impact Assessment.....	17
2.5.1 Impact Ranking	22
2.6 Mitigation and Management	23
2.7 Other Projects.....	24
2.8 Cumulative Impacts.....	24
2.9 SIMP	24
2.10 SIA Consultation	26
2.10.1 Approach	29
3 Study Areas	30
3.1 Regional Study Area	30
3.2 Local Study Area	33
3.2.1 Landholders	33
4 Baseline Profile	39
4.1 History and Settlement	39
4.1.1 Regional Study Area	39
4.1.2 Local Study Area.....	43
4.2 Demographic	44

4.2.1	Regional Study Area	44
4.2.2	Local Study Area	53
4.3	Culture and Community Dynamics	68
4.3.1	Regional Study Area	68
4.3.2	Local Study Area	73
4.4	Housing and Accommodation	87
4.4.1	Regional Study Area	87
4.4.2	Local Study Area	91
4.5	Health, Wellbeing and Social Infrastructure	97
4.5.1	Regional Study Area	97
4.5.2	Local Study Area	101
4.6	Education and Training	110
4.6.1	Regional Study Area	110
4.6.2	Local Study Area	113
4.7	Labour Market and Employment	116
4.7.1	Regional Study Area	116
4.7.2	Local Study Area	120
4.8	Industry and Business	124
4.8.1	Regional Study Area	124
4.8.2	Local Study Area	126
4.9	Income and Cost of Living	132
4.9.1	Regional Study Area	132
4.9.2	Local Study Area	134
4.10	Governance	138
4.10.1	Regional Study Area	138
4.10.2	Local Study Area	142
4.11	Primary Infrastructure and Access	153
4.11.1	Regional Study Area	153
4.11.2	Local Study Area	156
5	Case Studies	159
5.1	Insights and Lessons from the Mining Developments at Springsure and Rolleston	159
5.1.1	Comparing Similar Communities	159

5.1.2	Selecting a Similar Community for Comparative Purposes	159
5.1.3	Regional Context of Alpha, Springsure and Rolleston.....	161
5.1.4	Known impacts as a result of the mining operations	166
5.1.5	Implications for Alpha and identified responses	174
5.1.6	Conclusions	181
5.2	Lessons Learned from the Bowen Basin History and Development for the Galilee Basin.....	182
5.2.1	The Bowen Basin’s experiences of mining	182
5.2.2	Key lessons for the town of Alpha	184
5.2.3	Conclusions	185
5.3	Strategic Community Development – A Brief Study of Clermont	185
5.3.1	Background	185
5.3.2	Community Development	186
5.3.3	Implications for Kevin’s Corner Coal Project.....	186
6	Project Workforce Details.....	188
6.1	Construction Workforce.....	188
6.1.1	Workforce Numbers	188
6.1.2	Sourcing	189
6.1.3	Profile	189
6.1.4	Accommodation	190
6.1.5	Transport and Logistics.....	191
6.1.6	Scheduling and Rotations	191
6.1.7	Salary.....	192
6.2	Operation and Maintenance Workforce	192
6.2.1	Workforce strategy rationale	192
6.2.2	Workforce Numbers	205
6.2.3	Sourcing	206
6.2.4	Profile	207
6.2.5	Accommodation	207
6.2.6	Transport and Logistics.....	207
6.2.7	Scheduling and Rotations	208
6.2.8	Salary	208
6.3	Closure.....	208

7	Impacts Assessment	209
7.1	History and Settlement	214
7.1.1	Regional Study Area	214
7.1.2	Local Study Area	220
7.2	Demographic	225
7.2.1	Regional Study Area	225
7.2.2	Local Study Area	225
7.3	Culture and Community Dynamics	235
7.3.1	Regional Study Area	235
7.3.2	Local Study Area	236
7.4	Housing and Accommodation	242
7.4.1	Regional Study Area	243
7.4.2	Local Study Area	244
7.5	Health, Wellbeing and Social Infrastructure	249
7.5.1	Regional Study Area	249
7.6	Education and Training	270
7.6.1	Regional Study Area	270
7.6.2	Local Study Area	271
7.7	Labour Market and Employment	276
7.7.1	Regional Study Area	276
7.7.2	Local Study Area	279
7.8	Industry and Business	286
7.8.1	Regional Study Area	286
7.8.2	Local Study Area	288
7.9	Income and Cost of Living	295
7.9.1	Regional Study Area	295
7.9.2	Local Study Area	300
7.10	Governance	303
7.10.1	Regional Study Area	303
7.10.2	Local Study Area	308
7.11	Primary Infrastructure and Access	314
7.11.1	Regional Study Area	314

7.11.2	Local Study Area	317
8	Mitigation and Management	325
8.1	Kevin's Corner Consultative Committee	325
8.1.1	Draft Terms of Reference for the KCCC.....	327
8.2	Project Community Liaison	328
8.3	Social Impact Management Plan	328
8.4	Cumulative Impact Management	329
9	Other Projects	330
9.1	List of Existing Projects Considered	330
9.2	List of Proposed Projects Considered.....	331
10	Cumulative Impacts	332
11	Social Impact Management Plan.....	338
11.1.1	Social Impact Management Plan Development Strategy.....	338
11.1.2	Social Impact Management Plan (SIMP) – Action Plans.....	346
11.1.3	Phase 2 Social Impact Management Plan (SIMP) Roles and Responsibilities.....	347
11.1.4	Social Impact Management Plan (SIMP) Consultation and Reporting Time Frame.....	347
11.2	Section A - Project Overview	349
11.2.1	Project Location	349
11.2.2	Brief Project Summary.....	349
11.2.3	Social and Cultural Area of Influence.....	349
11.2.4	Social baseline summary.....	353
11.2.5	Potential Contribution to Regional Development	356
11.2.6	SIA Stakeholder Engagement.....	357
11.2.7	Project Monitoring Process	358
11.2.8	Proposed Workforce Profile	358
11.3	Section B - Social Impacts and Impact Management.....	361
11.3.1	Impact Categories and Context	361
11.4	Section C - Monitoring, Reporting and Review	378
11.4.1	Monitoring	378
11.4.2	Reporting.....	394

11.4.3	External Review.....	394
11.4.4	Amendment and Termination	394
11.5	Section D - Community and Stakeholder Engagement.....	395
11.5.1	Overview	395
11.5.2	Construction and Operations	397
11.5.3	Actions.....	397
11.6	Section E - Dispute Resolution.....	399
11.6.1	Complaints, Enquiries and Comments.....	399
11.6.2	Escalation and Dispute Resolution	401
11.6.3	Issues and Risks Register	402
11.6.4	Database software.....	404
12	References.....	405
13	Limitations	414

Tables

Table 1-1	Key Data Sources for the Social Impact Assessment.....	5
Table 2-1	Valued Social Component Assessment Guideline.....	21
Table 2-2	Impact Ranking	23
Table 4-1	Estimated Residential Population and Population Growth by Statistical Local Area	46
Table 4-2	Key Demographic Profile of Clermont and Emerald (2006 census)	48
Table 4-3	Changes to non-resident worker populations by LGA, 2007-10	49
Table 4-4	Estimated Resident Population by Urban Centre/Locality, Isaac and Central Highlands Regional Councils, 30 June 2009p	50
Table 4-5	Key Demographic profile of Alpha and Barcaldine (2006 census)	55
Table 4-6	Estimated Resident Population by Statistical Local Area, Barcaldine Regional Council - 2004, 2008 and 2009p.....	56
Table 4-7	Estimated resident population by urban centre/locality, Barcaldine Regional Council, 30 June 2009p	60
Table 4-8	Age Distribution in Alpha (State Suburb) by Gender, 2006 Census	63
Table 4-9	Local Area Crime Profile Emerald (S), Bauhinia (S), Peak Downs (S) LGAs, Fitzroy SD, and Queensland.....	71
Table 4-10	Socio-Economic Indexes for Areas, Isaac and Central Highlands Regional Council LGAs	72
Table 4-11	Key Demographic profile of Alpha and Barcaldine Regional Council (2006 census)	78

Table 4-12	Local Area Crime Profile, Barcaldine Regional Council, Blackall (S), Isisford (S), Tambo (S) LGAs.....	79
Table 4-13	Alpha Real Estate Sales, 18 August 2008 to 18 August 2010.....	96
Table 4-14	Emerald Hospital Facility Services.....	97
Table 4-15	Births and Deaths, Isaac Regional Council and Central Highlands Regional Council, 2008.....	99
Table 4-16	Alpha Hospital Facility Services.....	101
Table 4-17	Barcaldine Hospital Facility Services	102
Table 4-18	Primary and Secondary Schools and Enrolment, Regional Study Area	111
Table 4-19	Primary and Secondary Schools and Enrolment, Local Study Area.....	114
Table 4-20	Highest Level of Schooling Completed (a) (b), Barcaldine Regional Council	115
Table 4-21	Labour Force Participation, Clermont and Emerald (2006 Census)	117
Table 4-22	Labour Force Participation, Alpha and Barcaldine, 2006 Census	121
Table 4-23	Businesses by Employee Number and Turnover – Isaac Regional Council and Central Highlands Regional Council (2006 Census).....	125
Table 4-24	Value of Agricultural Production – Isaac Regional Council, Central Highlands Regional Council and Queensland	126
Table 4-25	Businesses by Employee Number and Turnover – Barcaldine Regional Council (2006 Census)	127
Table 4-26	Value of Agricultural Production (a) (b), Barcaldine Regional Council, 2005–06	130
Table 4-27	Median Incomes Levels and Housing Costs, Clermont and Emerald (2006 Census) ..	133
Table 4-28	Median Incomes and Repayments, Alpha (State Suburb) and Barcaldine Regional Council (2006 Census)	134
Table 5-1	Comparisons of Alpha at Present and Springsure & Rolleston Prior to the Minerva and Rolleston Mines.....	160
Table 5-2	Comparisons of existing and proposed mining operations - Minerva, Rolleston, Kevin's Corner and Alpha	165
Table 5-3	Changes in key demographic variables in Springsure and Rolleston prior to and post the introduction of mining in the local area.....	168
Table 5-4	Recent trends in the housing market, Springsure and Rolleston.....	169
Table 5-5	Changes in key variables relating to the labour market and employment, Springsure and Rolleston.....	171
Table 5-6	Income and cost of housing comparisons in Springsure and Rolleston prior to and post the introduction of mining in the local area.....	173
Table 6-1	Approximate Construction Personnel Summary Data by Year.....	188
Table 6-2	Annualised Labour Costs	192
Table 6-3	Award Labour Annual Costs	192
Table 6-4	Percentage Population Change by Settlement Zone: 1971-2001	197

Table 6-5	Local and Regional Study Areas (including Emerald(S)): Population change 1996-2006	198
Table 6-6	Kevin's Corner Coal Project, Operation Workforce Numbers.....	205
Table 9-1	Existing projects relevant to the Kevin's Corner Coal Project	330
Table 9-2	Proposed projects relevant to the Kevin's Corner Coal Project.....	331
Table 10-1	Key Considerations for the Study Areas regarding Cumulative Impacts	335
Table 11-1	SIMP reporting - Phase 2	347
Table 11-2	Project Impacts Assessed Based on an Impact Ranking of Medium or High	367
Table 11-3	Overview of Action plans for Local and Regional Study Areas	377
Table 11-4	Potential Monitoring Programs.....	378
Table 11-5	Community and Stakeholder Engagement Plan – Stakeholders.....	397
Table 11-6	Community and Stakeholder Engagement Plan – Tools and Actions	398

Figures

Figure 1-1	Study Areas	3
Figure 2-1	Flow Chart of the Methodology	9
Figure 2-2	Baseline Data Analysis Flow Chart	13
Figure 2-3	Impact Assessment Flow Chart	19
Figure 2-4	International Association for Public Participation Spectrum of Public Participation.....	27
Figure 3-1	Regional Study Area	31
Figure 3-2	Local Study Area.....	35
Figure 3-3	Mining Lease Area	37
Figure 4-1	Population Growth in Regional Study Area 1996 - 2009.....	47
Figure 4-2	Gender Breakdown by Age Group – Isaac Regional Council, Central Highlands Regional Council and Queensland 2006	51
Figure 4-3	Medium Projected Population 2006 – 2026, Isaac Regional Council and Central Highlands Regional Council LGAs	53
Figure 4-4	Estimated Resident Population, Barcaldine Regional Council, 2001 to 2009p	57
Figure 4-5	Components of Population Change in Barcaldine Regional Council, 2002 to 2008r.....	58
Figure 4-6	Population by Age Group and Sex, Barcaldine Regional Council and Queensland, 30 June 2008p	61
Figure 4-7	Barcaldine Regional Council Population Pyramid Differences Compared to Queensland, Estimated 2008 Populations	62
Figure 4-8	Alpha (State Suburb) Population Pyramid, 2006 Census	63
Figure 4-9	Family Composition (a) (b), Barcaldine Regional Council, 2006	64

Figure 4-10	Projected population by local government area (a) (b), Barcaldine Regional Council, 2006 to 2026	65
Figure 4-11	Estimated Resident Population 2001 to 2009p and Population Projection 2011 to 2031 (Five Year Intervals)	66
Figure 4-12	Population Projection Age Distribution, Barcaldine Regional Council (Medium Series), 2006 and 2031	67
Figure 4-13	Barcaldine Regional Council by Former Local Council Local Government Areas - Summary, SEIFA Scores, 2006	84
Figure 4-14	Barcaldine Regional Council by Former Local Council Local Government Areas - Summary, SEIFA Deciles, 2006	85
Figure 4-15	SEIFA 2006 Socio-Economic Index of Disadvantage – Barcaldine Regional Council (Including former shires) and Queensland Quintile Comparison	86
Figure 4-16	Count of Occupied Private Dwellings (a), Barcaldine Regional Council, 2006.....	93
Figure 4-17	Persons in Occupied Private Dwellings, Barcaldine Regional Council, 2006.....	94
Figure 4-18	Tenure Type and Landlord Type by Dwelling Structure, Barcaldine Regional Council, 2006.....	95
Figure 4-19	Level of Educational Attainment, Isaac and Central Highland Regions.....	112
Figure 4-20	Post-School Qualifications by Level of Education (a) (b), Barcaldine Regional Council, 2006.....	116
Figure 4-21	Employment by Industry Sector	118
Figure 4-22	Employed by Occupation.....	119
Figure 4-23	Employment by Industry, Alpha (State Suburb), Barcaldine Regional Council, and Queensland 2006	122
Figure 4-24	Employment by Occupation (a) (b), Alpha (State Suburb), Barcaldine Regional Council, and Queensland 2006	123
Figure 4-25	Gross Individual Weekly Incomes, Isaac and Central Highland Regional Council Areas	133
Figure 4-26	Gross Individual Weekly Income (a) (b), Barcaldine Regional Council, 2006	135
Figure 4-27	Percentage of Occupied Private Dwellings Being Purchased (a), Barcaldine Regional Council, 2006	136
Figure 4-28	Count of Occupied Private Dwellings Being Purchased (a), Barcaldine Regional Council, 2006.....	137
Figure 5-1	Locality Map: Springsure, Rolleston and Alpha.....	163
Figure 6-1	Kevin’s Corner Coal Project Construction and Operations Workforce Numbers.....	189
Figure 6-2	Settlement Zones Queensland	195
Figure 6-3	Spheres of Influence	201
Figure 6-4	Workforce Sourcing Scenarios	204
Figure 6-5	Kevin’s Corner Coal Project, Operation Workforce Numbers.....	206
Figure 10-1	Locations of Projects	333

Figure 11-1	Kevin's Corner Coal Project - SIMP approach.....	339
Figure 11-2	Proposed SIMP Phase 2 Consultations	342
Figure 11-3	Study Area Map	351
Figure 11-4	Kevin's Corner Coal Project Construction and Operations Workforce Numbers.....	359
Figure 11-5	Kevin's Corner Coal Project Operation Workforce Numbers, 30 Year Mine Life	360
Figure 11-6	IAP2 Spectrum	396

Appendices

Appendix A	International Association for Impact Assessment – Social Impact Assessment International Principles
Appendix B	Impact Tables
Appendix C	A.104.2 Socio-Economic Indexes for Areas – Background

Abbreviations

Abbreviation	Description
AARC	Austral-Asian Resource Consultants
ABS	Australian Bureau of Statistics
ALP	Australian Labor Party
BA	Blair Athol
BIBO	Bus-in, Bus-out
BMA	BHP Billiton Mitsubishi Alliance
BRC	Barcaldine Regional Council
CCC	Clermont Community Consultation Committee
CCMP	Clermont Coal Mine Project
CHPP	Coal Handling and Preparation Plant
CHMP	Cultural Heritage Management Plan
CHRC	Central Highlands Regional Council
CHSS	Central Highlands Safety Services
CQU	Central Queensland University
DEEDI	Department of Employment, Economic Development and Innovation
DIDO	Drive-in, Drive-out
DIP	Department of Infrastructure and Planning
EIS	Environmental Impact Statement
ESB	English Speaking Backgrounds
FIFO	Fly-in, Fly-out
GCBF	Gambling Community Benefit Fund
GP	General Practitioner
GRP	Gross Regional Product
GSCP	Galilee South Coal Project
HACC	Home and Community Care
HCC	Hancock Consultative Committee
HKCCP	Hancock Kevin's Corner Coal Project
HGPL	Hancock Galilee Propriety Limited
IAIA	International Association for Impact Assessment
IAP2	International Association for Public Participation
IAS	Initial Advice Statement
ILUA	Indigenous Land Use Agreement
IRC	Isaac Regional Council
JCCBF	Jupiter's Casino Community Benefit Fund
KCCC	Kevin's Corner Consultative Committee
KCCP	Kevin's Corner Coal Project
LGA	Local Government Area (same as SLA for study areas)
MRQ	Main Roads Queensland
OESR	Queensland Office of Economic and Statistical Research
QAS	Queensland Ambulance Service
QPS	Queensland Police Service
QRC	Queensland Resources Council
QSNTS	Queensland South Native Title Services
RADF	Regional Arts Development Fund

Abbreviation

Description

RAPAD	Remote Area Planning and Development Board
RFDS	Royal Flying Doctor Service
RSL	Returned Service League
RTCA	Rio Tinto Coal Australia
RTO	Registered Training Organisation
SEIFA	Socio-Economic Indexes for Areas
SES	State Emergency Services
SIA	Social Impact Assessment
SIA U	Social Impact Assessment Unit (DEEDI)
SIMP	Social Impact Management Plan
SLA	Statistical Local Area (same as LGA for study areas)
TOR	Terms of Reference
UK	United Kingdom
USA	United States of America
VSCs	Valued Social Components

Executive Summary

The social impact assessment (SIA) for the Kevin's Corner Coal Project (the Project) was undertaken as part of the environmental impact statement (EIS). Hancock Galilee Pty Ltd (HGPL), (the Proponent), conducted the EIS process through the Queensland Department of Employment, Economic Development and Innovation (formerly the Department of Infrastructure and Planning) in accordance with the Project terms of reference (TOR).

The Project aims to develop a 30 million tonnes per annum (Mtpa) capacity open cut and underground thermal coal mine to target the coal seams in the Upper Permian coal measures of the Galilee Basin, Queensland, Australia. The coal mine will be supported by privately owned and operated rail and port infrastructure facilities which are to be developed as part of the Alpha Coal Mine. At the Project site the coal will be mined, washed and conveyed to a train load-out facility where it will be transported to the east coast of Australia to the port facility of Abbot Point for export.

The Project will look to employ a combined workforce of approximately 2,500 at the peak of construction in 2014. Long-term employment during operations will be maintained at approximately 1,500 people per year for the Life of Mine (LOM), scheduled across a 30 year span. The Project will also create flow-on (indirect) employment opportunities for the region. The Project will accommodate the construction and operational workforce in an on-site accommodation village within the Project boundary. The workforce is anticipated to be predominantly fly in, fly out (FIFO) due to the location and distances to population centres capable of accommodating such a large workforce. The Project will also have bus in, bus out (BIBO) opportunities from key regional centres, and drive in, drive out (DIDO) opportunities for some local residents on a case-by-case basis. FIFO workers will be collected from key regional centres throughout Queensland based on workforce sourcing realities at the time, and flown to the on-site airport for their work rotations. FIFO personnel will be transferred from the on-site airport to the on-site accommodation village via a mine-provided bus service.

The regional study area includes Isaac Regional Council (IRC) (where the closest community to the mine is Clermont), and Central Highlands Regional Council (CHRC) (closest service centre to the mine is Emerald). The local study area includes Barcaldine Regional Council (BRC) with the closest community to the mine being Alpha. Regional centres include communities like Brisbane, Rockhampton, Mackay, Townsville and Cairns; however, these regional centres have not been determined for the Project. Potential FIFO airports will be identified based on workforce numbers from various regions throughout Queensland, and possibly Australia as a whole.

A baseline assessment was undertaken using a combination of primary (qualitative) and secondary (quantitative) source data. This enabled the SIA team to identify data from various sources and better triangulate data for accuracy. The time since the last census (2006) provided a significant challenge as much of the data was out of date. Compounding the issue was the size of the local study area population, and the fact that low population data sets tend to generate more errors than larger ones. Another issue was the amalgamation of councils in 2008, which resulted in the former shires of Aramac, Barcaldine and Jericho merging to form Barcaldine Regional Council. As a result various data sets and collection areas were used to present data. Data was corroborated or disputed through targeted consultation in order to provide explanation, fill gaps, or provide alternative information. This was primarily achieved through councils.

Case studies were developed to assist the SIA team in understanding similar changes in Queensland, particularly the Bowen Basin, and providing reviewers of the SIA with a contextual understanding of what else the SIA was considering. These case studies provided significant insight into the formulation and assessment of impacts.

Executive Summary

Potential social impacts during the construction and operational stages of the Project include the following key social areas:

- History and Settlement;
- Demographic;
- Culture and Community Dynamics;
- Housing and Accommodation;
- Health, Wellbeing and Social Infrastructure;
- Education and Training;
- Labour Market and Employment;
- Industry and Business;
- Income and Cost of Living;
- Governance; and
- Primary Industry and Access.

The purpose of the impact assessment is to identify and assess key potential impacts associated with the Project and how they will affect the population in the study areas. A brief overall assessment of the potential impacts is provided below, followed by a more thorough assessment of the individual impacts assessed in the sub-sections for each valued social component (VSC) – SIA category based on similarities.

The impact assessment found that the impacts in both study areas will be able to be managed provided an effective social impact management plan (SIMP) is developed prior to construction. There were no key impacts identified that indicate the Project should be delayed, postponed or re-structured due to social issues. Consultation with key stakeholders including all three regional councils found that the councils were capable of managing potential changes and all were encouraged by the prospect of economic and employment opportunities associated with the development of the Galilee Basin. Open and ongoing consultation and collaboration with councils (by the Project) was identified as the primary driver for managing potential impacts.

The SIMP is proposed to be developed as a three phase process. Phase 1 is included in the EIS (Volume 2, Section 29) and this SIA (Section 11). Phase 2 should occur between EIS submission to the government and construction with the objective to develop benchmarks, and establish roles and responsibilities. This will enable the Project to develop the SIMP in collaboration with regional councils and to position councils and the Project to manage impacts proactively. Phase 3 is the finalisation, implementation and ongoing management of the SIMP. This phase should also occur prior to construction commencement.

Key impacts attributed to the regional study area were primarily positive and focussed around employment, and business opportunities. These in turn resulted in potential population stability through increased opportunities or population growth. Sustainable, manageable population growth was identified by IRC and CHRC as a core regional council goal. Increased population for both regions could help them achieve critical mass in services like education and health, which would be of benefit to the community as a whole, particularly for Clermont in IRC and Emerald in CHRC, but not limited to those communities. Benefit for Clermont was more dependent on increased access to the Project area either through road upgrades (not part of the Project scope), or Project policies like DIDO/BIBO options or even a FIFO option from Clermont to Alpha (currently no such route exists or is planned). Emerald is a land transportation hub for the Project as well as the closest centre with a

Executive Summary

population over 10,000. Emerald is likely to experience some level of growth as a result of the Project, though likely less than 5.0% based on the current community size and proximity to the Project site.

Negative impacts attributed to the regional study area are manageable provided the Project and the councils stay on top of potential impacts and implement relevant programs. The main potential negative impact is the increase in traffic and thus the potential for accidents and road damage. The vehicle movements associated with the Project were determined to be within the current range acceptable to the road standards; however, the increase is sufficient to warrant the Project and councils exploring road safety programs in conjunction with local police and emergency service providers. Education programs and company policies are proven means for reducing traffic accidents, and can include reduced shift lengths on the last rotation day to allow travel time, and fatigue management plans. The Proponent is also looking at implementing maximum work days to reduce the potential for fatigue and maintain worker health and safety. For more information on the potential traffic issues see the Transport technical report in Volume 2, Appendix R.

At the regional scale, unmanageable population growth is not anticipated to occur as a result of the Project; however, Phase 2 of the SIMP will identify indicators and mitigation options should this eventuate. This is more likely to be a result of cumulative impacts than directly attributable to the Project, though the removal of key limiting factors in the region could change that.

Housing and accommodation could also be impacted by the Project, more so in Emerald than Clermont. Clermont currently has some available land though limited and Rio Tinto may also potentially have accommodation available for sale or lease; however, Clermont does not have direct access to the Project due to the poor condition of the Alpha-Clermont Road. As such workers from the Clermont area would need to commute via Emerald and Alpha to reach the Project site. Emerald on the other hand is very short on available land and the result is increased housing prices. Supply is not keeping up with demand. Both councils could benefit from a more efficient land release process from the State government. This will be explored further in phase two of the SIMP. Emerald also currently has a limited supply of temporary accommodation in the form of hotels, motels, bed and breakfasts, and other short-term accommodation. This again is attributed to demand outstripping supply. The Project is more likely going to result in a slight amplification of the current housing and accommodation situation; however, the issue is such in Emerald that it could be a limiting factor in the community maximising potentially beneficial impacts associated with the Project.

The local study area is expected to experience both positive and negative impacts. The Project is far enough away from the community of Alpha to not have direct impacts associated with the accommodation village housed workforce. There are also significant limiting factors in the community that reduce the likelihood of an unmanageable population boom. These are:

- Limited land available for expansion – the south and west area of Alpha town is flood prone;
- Limited electricity available to supply the community;
- Limited water supply for the community;
- Lack of an integrated community sewerage system;
- Limited businesses to support an increased population;
- Limited available services;
- Limited schooling and child care – the school is only up to Year 10 (Year 11 and Year 12 can take distance education or else commute to a school in Barcaldine or elsewhere, and the child care centre is limited by staff numbers, not spaces); and
- Limited opportunities for spouses/partners and families of potential mine workers.

Executive Summary

Council is already developing plans and solutions to some of these factors and sees the Project as a catalyst to reducing others. The removal of some of these limiting factors gives the potential for Alpha's population to increase but there are no real indications that an unmanageable population boom would occur at present. Council indicated that they would like to see the Project act as a stabilising force for the area and potentially encourage some people who have left the area to return. This is a reasonable expectation given the current situation.

Traffic is seen as a positive and a negative in the local study area. The negatives reflect the same assessment for the regional study area identified above. The positives focus on the business opportunities associated with increased activity in the area. Since the Project workforce will be situated on site, the most likely source of potential economic gain for the community comes from servicing the transportation component or the accommodation village. Conversely Project attributed infrastructure upgrades and Project contributions to infrastructure upgrades will increase access to the area, which is a benefit to the population, businesses and the tourism industry.

Housing and accommodation impacts have already been experienced in the Alpha community due to the speculation derived from the proposed mining projects. The fact that houses have sold at inflated prices will encourage some people to maintain high prices regardless of the supply – demand ratio. This speculation scenario tends to last longer in small population centres with limited population migration to the area than larger centres. The development of the Project (or any project in the Galilee Basin) is expected to exacerbate the situation; however, the high prices have both positive and negative effects on the population. Owners and landholders tend to gain, but only if they sell and relocate to a more affordable area. Newcomers, renters and new starters in the housing market tend to lose. A release of more land for development is the mostly likely way speculation will decrease and the more predictable market indicators of supply and demand will return to the market. Otherwise the speculative housing prices become another limiting factor to population stability or growth in the area.

Increased demand on social infrastructure is likely to be a negative impact in the event of unmanageable population growth within Alpha. To mitigate this potential impact, the SIMP will provide a mechanism to monitor population growth, and through a consultative process, will benchmark levels of service for a range of potentially impacted social infrastructure types to key population levels. Increased demand on social infrastructure also has the potential to result in greater ability to leverage funding from the State and Federal governments for additional service delivery.

Barcaldine Regional Council is anticipated to experience both positive and negative impacts. The positive impacts are upgrades to infrastructure or assistance on upgrades to infrastructure, an increased priority profile from the State and Federal government, and potential increases in revenue/rates from a higher population. There is potential that the council may lose staff to the Project. Council has expressed an awareness of this potential, though it is obviously not a desired outcome. There is also the potential for the council to attract new staff and/or new skill sets, particularly through partners of mine employees who may relate to the area.

A number of properties within the mining lease will have significant impacts attributed to a loss of the use of considerable portions of their property. This is likely to result in those agricultural businesses becoming unsustainable. The Proponent is in the process of negotiations with these landholders. These discussions and the outcomes of those negotiations are confidential and are not included in the SIA because individuals cannot be protected from identification. The negotiations and the compensation packages are the basis of the Proponent mitigation process.

Executive Summary

Traffic impacts will also be experienced by properties along the transportation corridor, though these are limited by the proximity of the homestead/station to the road and the landholder's amount of use of those roads. There are also ongoing discussions between council, State and Project representatives regarding alternative transportation routes and options. The Proponent will continue to work with relevant stakeholders regarding traffic and transportation, including government, emergency service providers and area residents.

The primary impacts to the landholders are the most difficult to quantify or assess. These are the stresses they are experiencing to varying degrees, categorised as:

- Uncertainty stress; and
- Negotiation stress.

The stress is actually an outcome of the impact, which is Project location; however the impacts assessment focuses on the subsequent stress as a result since the Project location cannot be changed or mitigated. Uncertainty stress is generally a direct result of the consultation program but can also be attributed to other factors like:

- The level of trust the individual has in the messages;
- Poor communication;
- A lack of desire to be consulted;
- External factors like relationship and family concerns compounding issues;
- Rumours and innuendoes;
- The current impacts and their effective management (like traffic);
- Multiple projects affecting multiple areas (or the same areas) differently; and
- A lack of understanding of one's rights.

Consultation records indicate there are varying levels of uncertainty amongst people within the local study area and the mining lease area. This was particularly the case with regard to the movement of vehicles along the Alpha-Clermont road between Alpha and the Alpha project site (Alpha test pit). This is the same transportation corridor for the Project. Consultation with landholders along this route indicated an unclear understanding of the operating procedure and the need for clearer lines of communication between Hancock and landholders in this regard. The main issues were clarification on road maintenance, understanding by project vehicles of the common-courtesy road rules for locals and an understanding by locals of some changes to those rules due to load weights and the ability of drivers to oblige by those rules in certain situations, and a clear understanding of the grievances/complaints mechanism for landholders and how the system works. These were all lessons experienced for the Alpha Coal Project but are directly applicable to the Project (Kevin's Corner) because of the use of the same route, and because the local population knows Hancock is developing both projects at present. Ongoing consultation is the most effective means for addressing this uncertainty; however, the consultation needs to be considerate of the needs of the individual. The Proponent has an ongoing consultation program outside the EIS process to manage mining lease stakeholders.

Negotiation stress, as discussed above, is a confidential matter and cannot be fully defined in the SIA. It is important to recognise it is occurring and the Proponent has made efforts to reduce the stresses on the landholders and their families by conducting consultation and negotiations in a manner more acceptable in rural areas. The Proponent has employed local land managers and makes frequent visits to the area to nurture relationships and trust.

Executive Summary

Other concerns raised in the local study area were the potential for crime and decreased security. This was seen as a medium likelihood, primarily because the workforce will be isolated from the community by being housed in the on-site accommodation village, and because the initial population growth (if it occurs) is likely to be either former residents of the area or people who are from a rural background and thus share similar social norms and values. This also ties in to the low potential for changes to community values and social cohesion. If population change occurs at a higher rate than mitigation measures like Block Watch and welcoming committees may help integrate people into the community and establish community norms.

All three councils acknowledged the potential for other issues to manifest like drug and alcohol use/abuse, and domestic violence. These were seen to be issues often attributed to miners; however, further discussion and analysis did not identify a rate of occurrence above the background societal levels. Regardless, it is important to recognise that any rise in population, and changes in a community have the potential to increase these issues, and any level of abuse and violence should be addressed. The Proponent intends to implement random drug and alcohol testing for employees as per relevant standards and will explore the availability of counselling service opportunities. The Proponent will also work with key stakeholders including councils, social service providers and emergency service providers to address the potential for increased substance abuse and violence in the Project affected communities.

Introduction

1.1 Project Description Summary – Social

The proposed Kevin's Corner Coal Project (the Project) aims to develop a 30 million tonnes per annum (Mtpa) product open cut and underground thermal coal mine to target the coal seams in the Upper Permian coal measures of the Galilee Basin, Queensland, Australia. The coal mine will be supported by the privately owned and operated rail and port infrastructure facilities developed for the Alpha Coal Mine. At the Project site the coal will be mined, washed and conveyed to a train load-out facility where it will be transported to the east coast of Australia to the port facility of Abbot Point for export.

The Project will look to employ a combined workforce of approximately 2,500 at the peak of construction in 2014. Long-term employment during operations will be maintained at approximately 1,500 people per year for the Life of Mine (LOM), scheduled across a 30 year span. The Project will also create flow-on (indirect) employment opportunities for the region.

The Project will accommodate the construction and operational workforce in an on-site accommodation village within the Project boundary. The workforce is anticipated to be predominantly fly in, fly out (FIFO) due to the location and distances to population centres capable of accommodating such a large workforce. The Project will also have bus in, bus out (BIBO) opportunities from key regional centres, and drive in, drive out (DIDO) opportunities for some local residents on a case-by-case basis. FIFO workers will be collected from key regional centres throughout Queensland based on workforce sourcing realities at the time, and flown to the on-site airport for their work rotations. FIFO personnel will be transferred from the on-site airport to the on-site accommodation village via a mine-provided bus service.

The Proponent prefers to hire locally and regionally but has designed a mainly FIFO project with on-site accommodation in anticipation of the high likelihood workers will need to be sourced outside the region, and the majority of whom it has been assumed will be reluctant to relocate to the region particularly in the early stages of the mine. The rationale behind this predominantly FIFO workforce strategy is based on the existing low population base within the district as well as the limited relevant work experience within the local community. It is also likely that there will have been a drain on the potential pool of local workers as a result of the Alpha Coal Project. Further, Alpha is limited in its ability to attract new residents given its lack of essential and other services, its proximity to the larger service centre of Emerald, and the existing nationwide trend of population movements away from rural towns to the cities and the coastal centres.

The regional study area includes Isaac Regional Council (closest community to the mine is Clermont), and Central Highlands Regional Council (closest service centre to the mine is Emerald). The local study area includes Barcaldine Regional Council with the closest community to the mine being Alpha. Figure 1-1 below shows the proposed Kevin's Corner mine site as well as the local and regional study areas. Regional centres include communities like Brisbane, Rockhampton, Mackay, Townsville and Cairns; however, the exact regional centres to be used have not been determined for the Project at this stage. Potential FIFO airports will be identified based on workforce numbers from various regions throughout Queensland, and possibly Australia as a whole.

1 Introduction

SOCIAL IMPACT ASSESSMENT

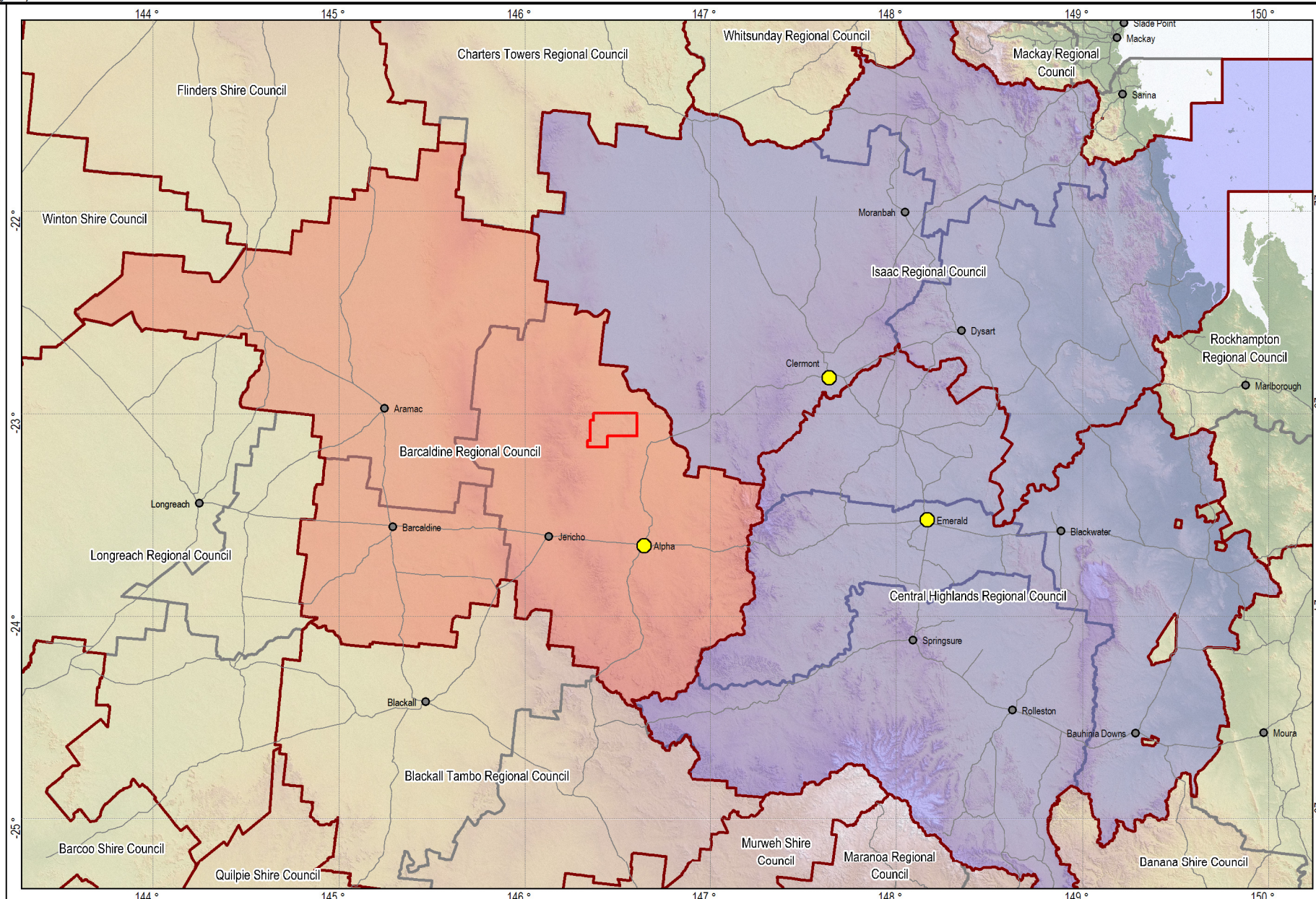
Figure: 1-1

Kevin's Corner Project
Environmental Impact Statement

STUDY AREAS

This drawing is subject to COPYRIGHT.

Eng Maps © 2009 Microsoft Corporation and its data suppliers, ESRI ArcGIS Online 2011, © MapInfo Australia Pty Ltd and PSMA Australia Ltd, © Commonwealth of Australia (Geoscience Australia) 2006, State of Queensland (Department of Environment & Resource Management) 2010, © The State of Queensland (Department of Mines and Energy) 2010, © Hancock Coal Supplies Data 2011.
Where necessary, URS has taken reasonable care to ensure the accuracy of the digital data. URS makes no representation or warranties about the accuracy, reliability, completeness, suitability for any particular purpose and decisions all responsibility, and liability in respect of any expenses, losses, damages (including interest or consequential damage) and costs which may be incurred as a result of data being provided in any way for any reason. Electronic data are provided for information only. The data in these files is not considered to be suitable for use outside of URS.



- Mining Lease Application (MLA70425) Boundary
- Local Study Area
- Regional Study Area
- Local Government Boundary
- Pre 2008 Local Government Boundary
- Major Road
- Community
- Primary Study Community

1 Introduction

The construction and operational stages of the Project are likely to have impacts on:

- History and Settlement;
- Demographics;
- Culture and Community Dynamics;
- Housing and Accommodation;
- Health, Wellbeing and Social Infrastructure;
- Education and Training;
- Labour Market and Employment;
- Industry and Business;
- Income and Cost of Living;
- Governance; and
- Primary Industry and Access.

The SIA for this Project is a cumulative assessment of the social impacts of the Kevin's Corner Project in addition to the social impacts that are deemed to be likely to have occurred as a result of the Alpha Coal Project. The rationale for this approach is that to be a viable project, the Kevin's Corner Coal Project is dependent on the rail infrastructure of the Alpha Coal Project. As such the scope of the SIA for the Kevin's Corner Project includes the Alpha Coal Project, and this SIA focuses on the successive, incremental and combined social impacts (Franks et al, 2010) that are likely to occur as a result of the Kevin's Corner project in addition to the Alpha Coal project.

1.2 Purpose

The purpose of the Social Impact Assessment (SIA) is to address the Part B, Section 4 of the Terms of Reference (TOR), titled "Social values and management of impacts". The SIA focuses on the successive, incremental and combined social impacts (Franks et al, 2010) of the Kevin's Corner Coal Project as well as the Alpha Coal Project)

A social impact assessment is required for all projects declared significant under the *State Development and Public Works Organisation Act 1971* and for projects requiring an EIS under the *Environment Protection Act 1994*. As the Project is declared significant, an SIA was undertaken.

1.3 Key Sources

The SIA was developed based on key sources of information. Table 1-1 identifies key data sources used in the SIA. The objective was to acquire sufficient relevant information from various sources to inform the baseline and assessment of potential impacts.

Table 1-1 Key Data Sources for the Social Impact Assessment

Data Source	Type of Data and Information	Category
Department of Employment, Economic Development and Innovation (DEEDI) Social Impact Assessment Unit (SIA Unit)	Records of Consultation	Primary
Literature review and internet searches	Statistics, historical records, other social research	Secondary
Australian Bureau for Statistics (ABS)	Demographic and socio-economic statistics	Secondary
Office for Economic and Statistical Research (OESR)	Statistics, projections	Secondary

1 Introduction

Data Source	Type of Data and Information	Category
Consultation with SIA stakeholders: <ul style="list-style-type: none"> Regional councils; Emergency service providers; Landholders; Private citizens; Service providers; Businesses; and Key interest groups and organisations. 	Consultation records, qualitative, filling in data gaps, explanation of statistical data, anecdotal information	Primary
Local government Corporate, community, and recreational plans	Community information, plans, values, visions, goals, aspirations	Secondary
Regional plans (where applicable)	Community information, plans, values, visions, goals, aspirations	Secondary
Questionnaires/feedback forms/website/free call 1300	Qualitative, quantitative	Primary
DEEDI – Galilee Basin Economic and Social Impact Assessment Study	Consultant report	Secondary

A multiple information sourcing approach was undertaken for the Project for the following reasons:

- Length of time since last census (2006);
- Small population size;
 - A few individuals can influence large changes;
 - Random errors impact data; and
 - Higher probability of inaccurate information.
- Lack of published data;
- Triangulation of data produces more accurate results (reduces likelihood of incorrect data, analysis and conclusions);
- Geographic location;
- Population and societal norms; and
- It is an internationally recognised approach for technical rigor.

The SIA offered multiple opportunities for stakeholders to participate in the consultation process, in addition to multiple sources. This included community information sessions, pavilions at shows, questionnaires/feedback forms, targeted consultation, and random conversations. A website and free call 1300 phone number were also established as additional methods for stakeholders to provide input. The Proponent also provided handouts to the communities and posted newspaper articles and messages on message boards updating the communities and advertising community events.

1.4 Assumptions and Limitations

Data contained in this report has been drawn from publicly available sources, SIA stakeholders and specialist advice from the Proponent. While all due care has been taken when applying the data, URS accepts no responsibility for the accuracy of data provided by third parties.

The SIA was developed in consideration of the International Association for Impact Assessment (IAIA) Social Impact Assessment principles; including the precautionary and uncertainty principle when predicting social impacts (see Appendix A). The predicted social impact may change as more

1 Introduction

information about the Project is known (during the feasibility study, e.g. detailed design) and the while the Project is being constructed and operated. In addition, external variables or changing conditions may create different circumstances to those present during the assessment process. A social impact management plan (SIMP) has been developed in order to provide information on whether potential social impacts actually occur or not. The monitoring program within the SIMP will assist in tracking impacts, and the adaptive structure of the SIMP will allow for modifications to align with societal and other changes as the Project and communities evolve.

Workforce numbers and characteristics provided in Section 6 are based on estimates only and could change as the Project moves into the detailed design phase. Operational workforce numbers are dependent on the mine production, with increases in production leading to a greater need for mine workers.

The level of SIA consultation was sufficient to inform the impacts assessment and meet ToR requirements; however, the total amount of consultation required to complete the SIMP was determined by URS to be unnecessary at this stage in the Project.

A three phase SIMP process was identified as an appropriate method for this component of the EIS, and was presented to the regional councils during meetings with the SIA team in August 2010, and with the Department of Employment, Economic Development and Innovation (formerly DIP) SIAU throughout 2010 and 2011. Phase 1 is the development of the framework around the valued social components (VSCs) identified in the SIA, and is included in the EIS. Phase 2 of this process will require significant consultation with key stakeholders including regional councils to determine the details of the SIMP. This level of detail is premature for the EIS and requires public and regulatory comments on the details of the SIA before in-depth discussions and negotiations on the SIMP details can get underway. This phase requires significant effort from all parties participating in the development, and should not be undertaken unless there is a high probability of the project being developed. The result of this level of consultation effort without the Project being developed will result in consultation fatigue and a potential reluctance by councils and other key stakeholders to undertake such a process in the future. Phase 3 is the implementation and ongoing management of the SIMP in an adaptive and evolving process.

The details of Phase 1 are presented in the SIA. The details of Phase 2 and Phase 3 will be determined in consultation with key stakeholders after public/regulatory comment, or the supplementary EIS (SEIS) if so required.

Methodology

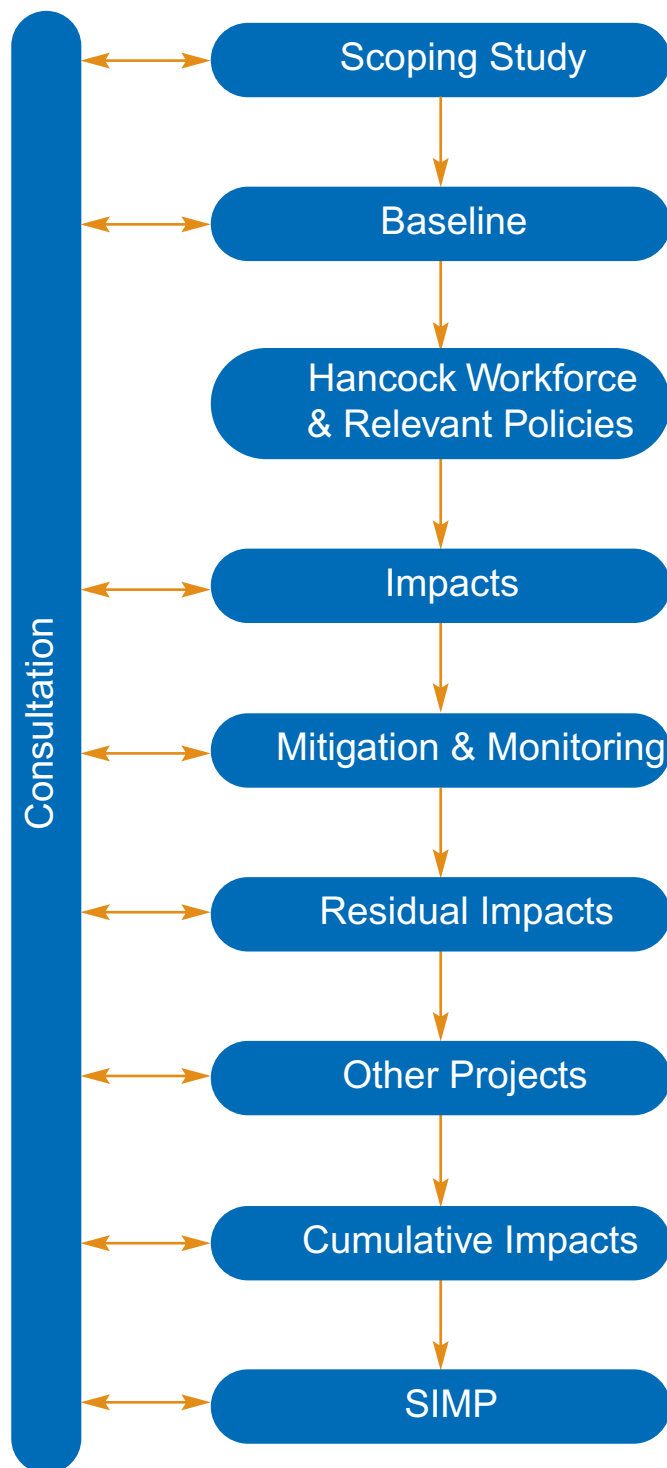
The Kevin's Corner Coal Project social impact assessment (SIA) has been developed as part of the environmental impact statement (EIS) for the Coordinator-General, Government of Queensland. The assessment is based on the Terms of Reference (TOR) from the Coordinator-General's office within the Department of Local Government and Planning (DLGP) – formerly Department of Infrastructure and Planning (DIP).

The SIA assessed the potential project impacts based on an assessment of study areas. Two study areas were identified – the Regional Study area and the Local Study Area. Details outlining how the two study areas were identified and determined are included in Section 2.1.1 and Section 3.1 and 3.2. The SIA is structured using the valued social components (VSCs) model outlined in Section 2.5 and Section 7. This allows baseline data to be grouped into VSCs which can then be examined as a group in the impacts assessment and carried through to the social impact management plan (SIMP) outlined in Section 2.9 and Section 11.

The SIA has adopted the relevant International Association for Impact Assessment (IAIA) SIA principles, including the precautionary principle (i.e. a lack of understanding of social threats does not mean that there are no social threats) and the uncertainty principle (i.e. a recognition that knowledge of the social domain will always be incomplete) when predicting social impacts. The predicted social impact may change as more information about the Project is known (during the detailed design) and the Project is being constructed and operated. An initial monitoring program has been developed within the SIMP in order to provide information on whether potential social impacts actually occur or not (see Section 11).

Figure 2-1 illustrates the methodology used for the SIA. The process is a standard SIA methodology for developing an SIA in a logical, staged approach. This process enables the assessor to build a foundation of knowledge about the study areas and communities prior to application of the Project details and subsequent impact assessment.

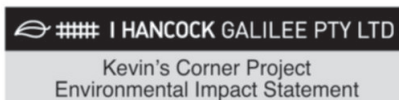
The Kevin's Corner Project is reliant on infrastructure including the railway line proposed for construction under the Alpha Coal Project. Without this infrastructure, Kevin's Corner Project will not be able to proceed. As such, the assessment of social impacts for the Kevin's Corner Project focuses on the successive, incremental and combined social impacts (Franks et al, 2010) of this Project in addition to the Alpha Coal Project. Thus impacts need to be assessed with that consideration in mind.



This drawing is subject to COPYRIGHT.

Source: Bing Maps © 2009 Microsoft Corporation and its data suppliers. ESRI ArcGIS Online 2011, © Mapinfo Australia Pty Ltd and PSMA Australia Ltd., © Commonwealth of Australia (Geoscience Australia) 2006, © The State of Queensland (Department of Environment & Resource Management) 2010, © The State of Queensland (Department of Mines and Energy) 2010, © Hancock Coal Supplied Data 2011.

Whilst every care is taken by URS to ensure the accuracy of the digital data, URS makes no representation or warranties about its accuracy, reliability, completeness, suitability for any particular purpose and disclaims all responsibility and liability (including without limitation, liability in negligence) for any expenses, losses, damages (including indirect or consequential damage) and costs which may be incurred as a result of data being inaccurate in any way for any reason. Electronic files are provided for information only. The data in these files is not controlled or subject to automatic updates for users outside of URS.



FLOW CHART OF
THE METHODOLOGY



2 Methodology

2 Methodology

2.1 Desktop Scoping Study

The purpose of the scoping study was three-fold:

- To develop a high level understanding of the proposed study area;
- To gather information on the people and communities potentially affected by the Project; and
- To identify what appropriate methods of social assessment and data collection would be implemented.

The study areas and Project parameters were demarcated through the identification of the proposed Project infrastructure and specific impact areas. This allowed for the characterisation of similarities and differences between the various Project areas and phases, and thus formed the basis for identifying the most appropriate programs and strategies required to conduct the SIA. This in itself would determine the level of detail to be collected for the baseline and other SIA components.

It was determined, based on the findings from the scoping study, that the standard URS SIA template would be implemented. Figure 2-1 outlines the sequence of study tasks leading to the development of the SIMP.

2.1.1 Study Areas and Project Parameters

The SIA focused on the communities and regional councils likely to experience potential Project impacts associated with construction and operation of the mine, as well as directly impacted homesteads whose properties overlay or neighbour the mining lease.

Context

The majority of the workforce is anticipated to be sourced from outside the study area in regional centres like Rockhampton, Mackay, Cairns and Brisbane or may be drawn from the nearby Bowen Basin, where mining experience is extensive. The workforce is anticipated to be distributed throughout these urban centres. These communities have fairly large populations, with statistical division populations ranging from ~80,000 to ~2 million and combined should absorb workforce numbers without resulting in a noticeable change in the regions. This conclusion is based on experiences with other coal projects throughout Queensland. Noticeable is considered to be a (+ or –) 5% change in the most recent population / population trend (Burdge, 2004). For these reasons, and because the exact location of potential construction and operation workers is not known, the SIA concentrated on the potential impacts to the local and regional settings.

The SIA focussed on the communities and regional councils likely to experience potential Project impacts associated with the construction and operation of the mine.

Study Areas

Study areas were defined based on the anticipated impacts likely to occur as a result of the Project. The following variables were considered in determining the study areas:

- Geographic context;
- Duration of impacts;
- Types of impacts;
- Access – transportation networks;
- Social networks; and

2 Methodology

- Governmental jurisdiction.

Two study areas were identified and assessed based on the variables and initial discussions with stakeholders:

- Regional Study Area (see Section 3.1); and
- Local Study Area (see Section 3.2).

The study areas attempted to identify locations and regions where specific impacts were likely to occur, and with similar effects. Ideal study areas are not always possible due to the complexity of impacts and the differing characteristics of communities and regions; however, the study areas identified for this Project do include sufficient similar characteristics. The baseline (see Section 4) and impacts (see Section 7) assessment explore the similarities and differences within each study area in more detail.

2.2 Baseline Assessment

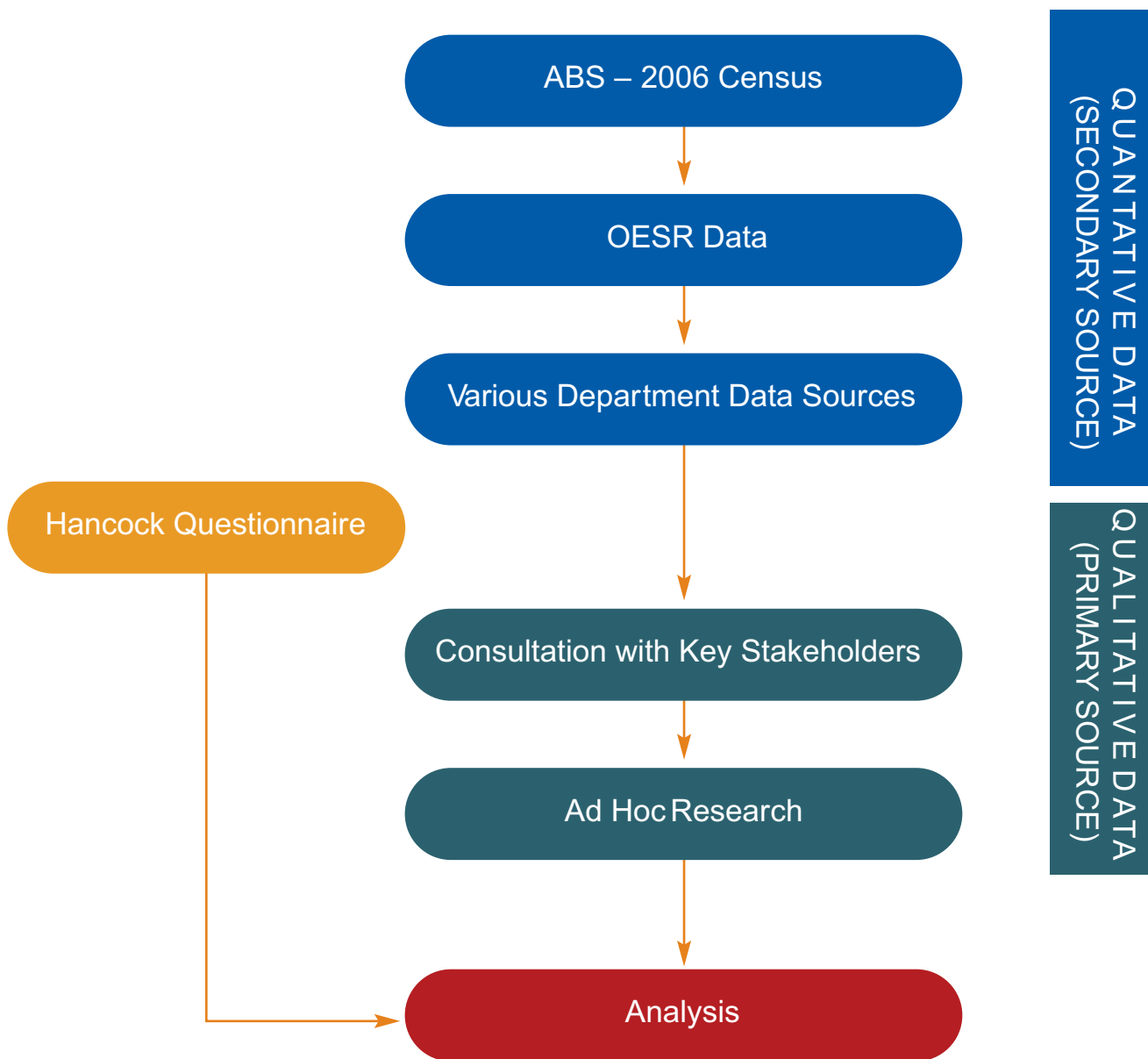
The purpose of collecting baseline data was to establish a level of understanding of the study areas to meet the requirements outlined in the TOR. This was achieved by capturing the overall community characteristics which later informed the analysis of potential impacts associated with the Project on the social environment

The type of information required, the level of detail, and ratio between qualitative and quantitative data varies from project to project and community to community. A mixture of historical background, statistical information and local knowledge was collected with a focus primarily on the aspects of the community that could be impacted by the Project.

Targeted information was collected to answer specific questions and fill data requirements. This was generally achieved through interviews and questionnaires. Indirect information was also collected to identify aspects of the community not available through statistics and available information sources. This generally covered the intangible characteristics of the community such as community outlook, attitude, and emotions.

As it is not possible to know the exact nature and description of impacts that will arise from the Alpha Coal Project, it is also not possible to know the exact nature of the effects that these changes will have on baseline environmental and social conditions for the Kevin's Corner Project. For the purposes of this analysis, baseline conditions remain the same as from those identified as part of the Alpha Coal Project. The Alpha Coal Project will be considered to have proceeded for the purpose of the impacts assessment however.

Figure 2-2 outlines the methodology for baseline data collection and analysis.



This drawing is subject to COPYRIGHT.

Source: Bing Maps © 2009 Microsoft Corporation and its data suppliers. ESRI ArcGIS Online 2011, © Mapinfo Australia Pty Ltd and PSMA Australia Ltd., © Commonwealth of Australia (Geoscience Australia) 2006, © The State of Queensland (Department of Environment & Resource Management) 2010, © The State of Queensland (Department of Mines and Energy) 2010, © Hancock Coal Supplied Data 2011.

Whilst every care is taken by URS to ensure the accuracy of the digital data, URS makes no representation or warranties about its accuracy, reliability, completeness, suitability for any particular purpose and disclaims all responsibility and liability (including without limitation, liability in negligence) for any expenses, losses, damages (including indirect or consequential damage) and costs which may be incurred as a result of data being inaccurate in any way for any reason. Electronic files are provided for information only. The data in these files is not controlled or subject to automatic updates for users outside of URS.



BASELINE DATA ANALYSIS FLOW CHART



SOCIAL IMPACT ASSESSMENT

File No: 42626660-g-2112.cdr

Drawn: RG

Approved: CP

Date: 12-09-2011

Figure: **2-2**

Rev.A



2 Methodology

2 Methodology

A profile of the existing social environment in the Kevin's Corner Coal (mine) Project (The Project) target area was prepared in order to establish the baseline conditions. This included the following information sources:

- The Australian Bureau of Statistics (ABS);
- The Queensland Office of Economic and Statistical Research (OESR) including the 2006 Census of Population and Housing and annual updates;
- The Queensland Department of Health;
- The Queensland Department of Transport & Industry
- Regional councils in the Project target area - Barcaldine Regional Council (BRC), Central Highlands Regional Council (CHRC) and Isaac Regional Council (IRC);
- Barcaldine Regional Council Corporate Plan 2009-2014 and the Barcaldine Regional Council Community Plan October 2009;
- IRC and CHRC plans and relevant reports;
- Community member survey responses; and
- Local government and social service providers.

One-on-one consultation meetings were conducted in Alpha, Barcaldine, Emerald, Clermont and surrounds to engage potentially affected landowners, local government representatives and members of the broader Alpha and Central West communities. At these meetings, a number of questions were raised, outlining a broad range of issues.

An information package containing a fact sheet on the proposed mine, a printed questionnaire and reply-paid envelope was also distributed to stakeholders during the face-to-face consultation. Copies of the information package were also delivered personally to business owners, State Government offices and local government representatives in Alpha, Barcaldine, Emerald and Clermont. A copy of the questionnaire and summary of stakeholder consultation is contained in Volume 1, Section 21.

Ad hoc information was also collected during interviews and discussions with key stakeholders. This is generally information that was provided to the study by individuals or organisations that may have been outside their area of expertise, classified as hearsay, or required third party verification. An example of this could be members of the community and the Department of Communities indicating the price of housing is high without having direct knowledge of all the contributing variables. The study has identified such information as *ad hoc* research because it was volunteered by the various stakeholders and may have required verification where possible. When possible or applicable, *ad hoc* information was discussed with other sources to acquire a better understanding of its scale and scope, particularly with an expert or professional in that field. Some *ad hoc* information is stakeholder opinion that can not be independently verified though it is still relevant to the individual who conveyed it. Therefore identification as *ad hoc* research is important to acknowledge the comment as well as add some context to the statement.

2.2.1 Census Data

It is acknowledged that since the last Australian Census was conducted in 2006, high levels of activity in resource development and infrastructure construction have occurred in the regional study area since then. While every effort has been made to present the most recent statistics pertinent to the region, in many instances, the 2006 Census is the most recently available source. Census data was updated with data releases from the Office for Economic and Statistical Research (OESR) within the

2 Methodology

Queensland Treasury, where possible, and qualitative data from key stakeholders including regional councils.

2.2.2 ABS Random Errors

Many classifications used in ABS statistics have an uneven distribution of data throughout their categories. Random adjustment of the data is considered the most satisfactory technique for avoiding the release of identifiable census data. These adjustments result in small introduced random errors, but the information value of the table as a whole is not impaired. This has an impact on accuracy occasionally in small population areas, and can result in different values for the same statistic in different ABS data tables.

The method of random errors is designed to disable viewers of the statistics to identify individuals. The SIA maintained this level of anonymity by not publishing the names of individuals who asked to remain nameless, and by not including sensitive information collected by the Proponent during landholder consultation and negotiations.

2.3 Case Studies

Case studies were developed for similar areas in order to identify analogous situations to the impacts that could potentially occur in the study area. Similarities were primarily based on coal mining development in the Bowen Basin, with specific examples for areas that experienced some impacts that could potentially materialise for the Project. Communities with comparable pre-mining baseline conditions to Alpha have been identified. An assessment of the impacts that occurred when mining was established was undertaken to provide insight into the potential impacts that could occur in the Alpha area. Recommendations on successful management and mitigation strategies were obtained to inform social impact management strategies.

The following case studies were developed and considered in the drafting of the baseline and assessment of potential impacts:

- Insights and lessons for Alpha from the Mining Developments near Springsure and Rolleston;
- Lessons Learned from the Bowen Basin History and Development for the Galilee Basin; and
- Strategic Community Development – A Brief Study of Clermont.

2.4 Define Project Workforce and Company Policies

The purpose of defining the Project workforce was to develop an understanding of the workforce for various phases of the Project (construction, operation and maintenance, and closure) by identifying the following variables where possible:

- Workforce numbers and timelines;
- Workforce sourcing:
 - Local/Regional (within the Alpha, Barcaldine, Clermont and wider IRC and Emerald, Capella and wider CHRC area); or
 - Non-local (outside the region).
- Workforce profile;
- Workforce accommodation;
- Workforce transportation and logistics;

2 Methodology

- Workforce scheduling and rotations; and
- Anticipated workforce salary ranges.

Policies were then discussed and developed where possible to shape the interaction between the workforce and the general public throughout the various phases. The objective was to develop a level of Project workforce understanding to enable an impact assessment to be conducted.

Closure was not discussed in detail because of the time between the EIS and the actual event. Closure could be discussed but the level of confidence in the assessment is very low given the details of the development have not materialised. Several variables that presently do not exist for the Project and in the community should be considered in a closure assessment including:

- Inputs into and impacts on the community;
- Programs implemented and Project contribution; and
- The economic and employment climate once construction and operation phases are underway.

Closure plans should be developed shortly after operation commencement to address planned and unplanned closures in more detail. These plans should be adaptive and reassessed at regular intervals throughout the operation phase to ensure they remain relevant at all stages in the Project. The SIMP will also include a closure component however this will also be in a basic form and will be reviewed once the Project commences as it is more appropriate to develop closure plans during operations when the realities of the Project have eventuated and are better understood.

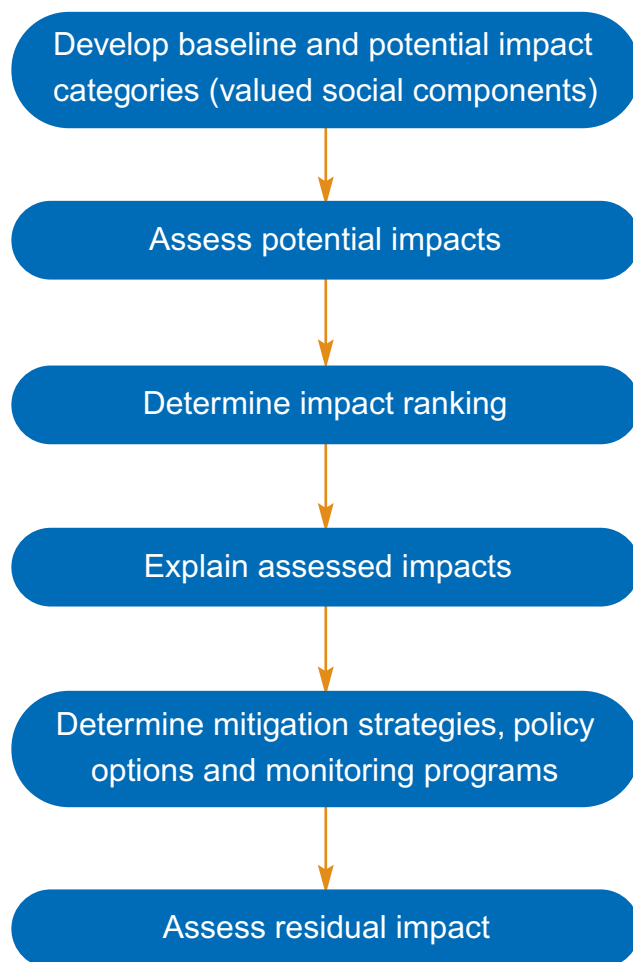
It is important to note that early closure, particularly in the early stages of operations can have significant impacts on the community. The community of Ravensthorpe in Western Australia for example, recently went through this experience with the sudden closure of the Ravensthorpe Nickel Mine. For this reason, closure planning should be considered early in order to have at least a basic plan for dealing with potential impacts that could arise in the event of an unexpected closure. The cumulative impacts of other projects may negate the impact if it is isolated to the Project, or may amplify the impacts if it is experienced by two or more of the projects. This may be an appropriate task for the Project's Consultative Committee which the Project has committed to developing in the absence of a similar entity. More details on the KCCC can be found throughout Section 7 and Section 8.1.

The Project workforce details section provides a description of the key workforce details relevant to the Project SIA. Information was collected for anticipated workforce figures based on the Proponents experience and recent similar projects in Queensland. The data is based on a probable scenario and may change when actual contracts are negotiated.

2.5 Impact Assessment

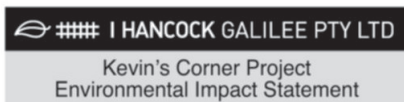
The purpose of the impact assessment is to identify and evaluate the significance of any potential positive and negative impacts the Project could have on the community. The objective is to identify potential real and perceived impacts to the community and assess the magnitude and likelihood of each across spatial and temporal boundaries. The flow chart in Figure 2-3 illustrates the process used to categorise and assess potential positive and negative impacts.

2 Methodology



Source: Bing Maps © 2009 Microsoft Corporation and its data suppliers. ESRI ArcGIS Online 2011, © Mapinfo Australia Pty Ltd and PSMA Australia Ltd., © Commonwealth of Australia (Geoscience Australia) 2006, © The State of Queensland (Department of Environment & Resource Management) 2010, © The State of Queensland (Department of Mines and Energy) 2010, © Hancock Coal Supplied Data 2011.

Whilst every care is taken by URS to ensure the accuracy of the digital data, URS makes no representation or warranties about its accuracy, reliability, completeness, suitability for any particular purpose and disclaims all responsibility and liability (including without limitation, liability in negligence) for any expenses, losses, damages (including indirect or consequential damage) and costs which may be incurred as a result of data being inaccurate in any way for any reason. Electronic files are provided for information only. The data in these files is not controlled or subject to automatic updates for users outside of URS.



IMPACT ASSESSMENT FLOW CHART



2 Methodology

2 Methodology

An impacts workshop was conducted in October 2010 with key SIA team members to identify and evaluate the impacts. Consideration was given to information collected in the baseline and solicited from stakeholders in the various consultation events. Team members used a combination of quantitative and qualitative data, personal experience with similar projects, and regional and other Queensland experiences to add weight to the information available and make assumptions about potential impacts. This workshop was conducted over three days and was followed by additional meetings and discussions with key stakeholders and the Project team.

The impact assessment categorises each potential impact in accordance with the VSC. VSCs are groupings of baseline data variables and potential impacts on common themes. The VSCs identified for the Project are:

- History and Settlement;
- Demographic;
- Culture and Community Dynamics;
- Housing and Accommodation;
- Health, Wellbeing and Social Infrastructure;
- Education and Training;
- Labour Market and Employment;
- Industry and Business;
- Income and Cost of Living;
- Governance; and
- Primary Infrastructure and Access.

The following impact assessment guideline was used to characterise impacts and assess their potential effects (see Table 2-1). The specific key mitigation or policies are discussed in the mitigation and monitoring section after the impacts assessment (see Section 8), otherwise they are within the analysis of each potential impact in Section 7. The guidelines are tailored for the assessment of potential negative impacts. Positive impacts are assessed; however, they are not considered in the negative context outlined in Table 2-1.

The impact ranking method is adapted from the AS/NZ4360 environmental risk assessment standard. The impact ranking is derived from examining the magnitude and likelihood of the impact with consideration given to the geographic context and duration of impact. The magnitude is defined as the outcome or impact of an event while the frequency is defined as a general description of probability or likelihood of an event occurring in the study area as a result of the Project and how often that might occur.

Table 2-1 Valued Social Component Assessment Guideline

Factor	Parameter	Significance Criteria
Magnitude	Insignificant	Slight or unnoticeable socioeconomic effect
	Minor	Some interference with the socioeconomic environment but within normal community variance or tolerable thresholds. Results in minor changes to existing socioeconomic environment.
	Moderate	Clearly visible effect to the socioeconomic environment. Requires localised remediation. Results in noticeable changes to existing socioeconomic environment.

2 Methodology

Factor	Parameter	Significance Criteria
	Major	Damage to the socioeconomic environment requires significant remediation. Results in serious changes or disruption to the existing socioeconomic environment.
	Severe	Damage to the socioeconomic environment is irreversible, of high impact or widespread. Results in societal change or considerable socioeconomic repercussions in the community.
Geographic Context	Mining Lease	Impacts on individual landholder or localised group of landholders
	Local	Impacts on the local study area
	Regional	Impacts on the regional study area as a whole
	National / International	Impacts extend beyond the regional area
Duration of Impact	Feasibility	Impact occurs during feasibility phase
	Construction	Impact occurs during the construction phase
	Operation	Impact occurs during the operation phase
	Closure	Impact occurs during the closure phase
	Life of Project	Impact occurs through all phases
	Beyond Project	Impact extends beyond the life of the Project
Frequency of occurrence	Rare	Will only occur in exceptional circumstances
	Unlikely	Could occur but not expected
	Possible	Could occur at some time
	Likely	Will probably occur in most circumstances
	Almost Certain	Expected to occur in most circumstances
Impact Ranking	Low	No mitigation required
	Medium	Some mitigation may be required
	High	Mitigation and monitoring required
	Very High	Increased mitigation and monitoring required. Enhancement of offsets should be considered, as well as alternatives to reduce the risk

Source: URS

Potential significant impacts for each of these VSCs are listed and described in Section 7. Impacts are categorised as positive or negative (or both individually), then assessed and summarised in the table. The key potential impacts identified in this process are presented at the start of each VSC section in Section 7. The full description of the impact is presented in the subsequent sub-sections for each VSC. The full assessment of all potential impacts assessed can be found in Appendix B.

2.5.1 Impact Ranking

Each potential impact was designated a risk rating. A combination of the consequences and likelihood assigned to each measure was used to calculate the overall risk rating, which is classified as either one of the following:

- Low – No mitigation required;
- Medium – Some mitigation may be required;
- High – Mitigation and monitoring required; and
- Very High – Increased mitigation and monitoring required. Enhancement of offsets should be considered, as well as alternatives to reduce the risk.

Enhancement strategies will be considered for all positive impacts.

2 Methodology

Table 2-2 illustrates how impacts were ranked based on the frequency of the occurrence and the magnitude of the potential impact.

Table 2-2 Impact Ranking

Frequency	Magnitude				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Low	Medium	High	Very High	Very High
Likely	Low	Medium	High	Very High	Very High
Possible	Low	Low	Medium	High	Very High
Unlikely	Low	Low	Medium	High	Very High
Rare	Low	Low	Medium	High	Very High

Source: Adapted from the AS/NZ4360 environmental risk assessment standard

Potential negative impacts given medium to very high rankings were identified as requiring mitigation. Positive impacts were identified as enhancement opportunities within the community but do not require mitigation.

A residual impact rating was assigned to each impact based on the premise that relevant mitigations would be applied. Residual impacts represent the result after application of mitigation to potential negative impacts providing an indication of what is anticipated to occur if the mitigation and monitoring programs are implemented. The purpose of the residual impacts is to give stakeholders an understanding of what changes are likely to occur if the impacts assessed materialise. Residual impacts are captured in Section 7 at the end of the summary tables. Determining residual impacts was based on the social team, stakeholder input and similar experiences in other areas, as was done for the pre-mitigation impacts assessment.

For more information on the analogous case studies used to assist the impacts and residual impacts assessment see Section 2.3 and Section 5.

For more information on the mitigation and monitoring process see Section 2.6 and Section 8.

For more information on the cumulative impacts assessment see Section 2.8 and Section 10.

2.6 Mitigation and Management

This section examines two separate components of the SIA:

- Mitigation and management strategies; and
- Monitoring / tracking programs.

The purpose of having mitigation and enhancement strategies is to minimise the effects of potential negative impacts where possible while capitalising on the effects of positive impacts. Mitigation strategies for this Project focus on reducing potential negative impacts assessed specifically to be in the medium to very high range. Whilst potential negative impacts assessed at a low level were not considered significant as to warrant mitigation. Possible strategies to enhance the benefits stemming from potential positive impacts were also identified as part of this process.

2 Methodology

Mitigation and enhancement strategies were linked to existing local and State government, local service providers and private businesses programs and strategies where applicable. Best practices and successful strategies adopted in other projects and regions were included or identified as potential models.

Monitoring and tracking programs have the potential means to observe changes in the communities associated with the Project. Use of State and local government services specialising in the particular 'impact area' to be tracked was identified as the most appropriate mechanism for monitoring and tracking purposes, with input and review by the proponent.

2.7 Other Projects

Projects identified by DEEDI and the Proponent as likely to occur in the area during the same time frame as the Project, were reviewed in order to inform the cumulative effects assessment. A list of the Projects considered can be found in Volume 1, Section 27 of the EIS.

2.8 Cumulative Impacts

The cumulative impacts assessment was based on the Project construction, operation and maintenance impacts, plus other regional projects identified by DEEDI and the Proponent. Assumptions were made in order to conduct the assessment and are described in Section 10.

The purpose of the cumulative effects assessment was to identify areas of concern, areas of opportunity, and areas where cooperation could reduce potential negative impacts and enhance potential positive impacts from multiple projects.

2.9 SIMP

A draft social impact management plan (SIMP) was stipulated in the TOR as a requirement for the SIA. The SIMP is modelled on the SIA Unit SIMP Guidelines and discussions with the SIA Unit, and subsequent modifications have been made to the SIMP format to better align with the current SIA. The DEEDI SIA Unit (previously sitting within DIP) has been consulted regarding the SIMP layout and contents.

The SIMP is intended to support ongoing management of the potential social impacts of the Project. In recognition of the changing nature of impacts over the life of the Project, the SIMP should be adaptive and reassessed at regular intervals. Benchmarks should be established and monitored continuously throughout implementation and the management plan adapted as required. A review of the SIMP will be undertaken following each release of new census data and subsequently monitored using annual census updates to proactively identify any sudden or unexpected changes in the social environment or impacts.

The SIMP is based on a three phase approach:

- **Phase 1:** Develop the draft SIMP based on the SIA analysis and conclusions;
- **Phase 2:** Consult key stakeholders on the details of the SIMP, roles and responsibilities, benchmarks, reporting, monitoring and program evaluation; and
- **Phase 3:** SIMP implementation.

This approach was previously described to councils in the August and November 2010 consultation meetings as the preferred process for developing the SIMP for the Project. Councils were told that the

2 Methodology

phased approach for the SIMP would result in a foundation being developed for inclusion in the EIS SIA as Phase 1, the goal being to develop a template for Phase 2 rather than a complete SIMP. Phase 2 would occur between EIS submission to the government and construction commencement, and would detail the benchmarks, roles and responsibilities for the SIMP. Phase 3 would occur prior to construction, as the implementation and ongoing management of the SIMP. The implementation of this phased process was also used on the Alpha Coal Project.

The Proponent recognises that local council roles and inputs into the EIS and SIA process are currently limited. The Proponent has designed a three phase process for the Project SIMP in order to increase the involvement of local council and other relevant stakeholders in the development of key SIMP criteria (Phase 2) and implementation through ongoing monitoring, review and adaptation (Phase 3). The Proponent envisions a coordinated SIMP finalisation approach with BRC, IRC and CHRC as well as other relevant stakeholders (where appropriate) in order to align the SIMP with council plans and programs. The objective is to leverage off the systems already available rather than reinventing the wheel. This process is yet to be determined, but it is anticipated that it will be coordinated through the proposed Kevin's Corner Consultative Committee or similar body (see Section 8).

The draft SIMP submitted with the Project EIS is within Phase 1. Submission of the draft SIMP does not necessarily signify completion of Phase 1. Further consultation with the SIAU and local governments may be required to refine the template prior to expansion of the various components. It is important to note that the SIMP guidelines are only guidelines. The current version of guidelines available at the drafting of this SIA has some limitations in the context of this project including the suggestion to assess all potential impacts rather than key trigger impacts like population change and increased access. As a result the Project SIMP has been modified to better reflect the findings of the SIA (this report).

The draft SIMP in its current form is a template designed to be refined with input from key stakeholders, primarily from local government. The draft plan has identified the key indicators from each of the VSCs which should be tracked for the initial phases of the Project. The indicators that will trigger the need for the following actions could include:

- No change – no action required;
- Positive change – continue to monitor and explore opportunities to enhance; and
- Negative change (measureable):
 - Less than 5% change – continue to monitor and examine mitigation strategies; and
 - Greater than 5% change – implement mitigation strategies and increase monitoring to track effectiveness of mitigation and degree of change.
- Negative change (immeasurable) - implement mitigation strategies and increase monitoring to track effectiveness of mitigation and degree of change.

Some mitigation measures will be implemented immediately to reduce the likelihood of the negative change occurring. Others will be implemented as a secondary mitigation if a change occurs to reduce the possibility of the change becoming unmanageable. A hypothetical example of this could be housing, where a Project policy of on-site accommodation and a FIFO/DIDO/BIBO model limits the likelihood that workers would relocate to the area. If this strategy does not reduce the likelihood and workers start relocating at a rate that triggers noticeable change, the Project and council may examine alternative housing options like Project housing in Alpha, rezoning of Project land, or apartment style

2 Methodology

units to accommodate the new arrivals to the area. The details of secondary (and possibly tertiary mitigation strategies) should be developed in Phase 2, and re-evaluated periodically through Phase 3 to evolve with the natural changes in society.

The benchmarking exercise in Phase 2 will identify the parameters of manageable change and assign thresholds to achieve (positive) or avoid (negative). Benchmarks for critical mass for example can determine the conditions in a community that result in an expansion of certain services to the benefit of the community, like an additional teacher at the school. Conversely negative benchmarks for critical mass examine unmanageable change resulting in a decrease in liveability or standard of living, such as a community losing a teacher.

It is important to note that there are five major factors to consider for all three study areas (though to various degrees) which will influence change. These are:

- Increased population (a desired outcome if manageable by all three councils – note the definition of manageable is different for each and will be determined during the next phase of SIMP development);
- Increased access (bypasses, airport upgrades and increased services, road upgrades, FIFO/DIDO/BIBO, etc.);
- Primary infrastructure and services (more applicable to Alpha);
- Land and housing availability (and the subsequent impact on housing costs); and
- Governance and Project coordination (the ability of government to address change or potential change and the ability of the government and the Proponent to coordinate efforts effectively including program implementation and policy development).

2.10 SIA Consultation

This section addresses the SIA consultation only. For information on the EIS consultation process refer to Volume 1, Section 21.

The Project SIA consultation was performed in line with the International Association for Public Participation (IAP2) Spectrum for Public Participation and concepts and designs within their certification course. This is a world renowned organisation in the field of stakeholder engagement and public participation. The IAP2 spectrum is presented below in Figure 2-4. The majority of the SIA stakeholder engagement occurred in the inform/consult range for the SIA. Further SIMP efforts are intended to occur from consult to collaborate (see Section 11).



International Association
for Public Participation
Australasia

IAP2 Public Participation Spectrum

Developed by the International Association for Public Participation

INCREASING LEVEL OF PUBLIC IMPACT

INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
Public Participation Goal:	Public Participation Goal:	Public Participation Goal:	Public Participation Goal:	Public Participation Goal:
To provide the public with balanced and objective information to assist them in understanding the problems, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of the public.
Promise to the Public:	Promise to the Public:	Promise to the Public:	Promise to the Public:	Promise to the Public:
We will keep You informed.	We will keep you informed, listen to and acknowledge concerns and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for direct advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.
Example Techniques to Consider:	Example Techniques to Consider:	Example Techniques to Consider:	Example Techniques to Consider:	Example Techniques to Consider:
<ul style="list-style-type: none"> • Fact sheets • Web Sites • Open houses 	<ul style="list-style-type: none"> • Public comment • Focus groups • Surveys • Public meetings 	<ul style="list-style-type: none"> • Workshops • Deliberate polling 	<ul style="list-style-type: none"> • Citizen Advisory • Committees • Consensus building • Participatory decision-making 	<ul style="list-style-type: none"> • Citizen juries • Ballots • Delegated decisions

© 2004 International Association for Public Participation

This drawing is subject to COPYRIGHT.

Source: Bing Maps © 2009 Microsoft Corporation and its data suppliers. ESRI ArcGIS Online 2011, © Mapinfo Australia Pty Ltd and PSMA Australia Ltd., © Commonwealth of Australia (Geoscience Australia) 2006, © The State of Queensland (Department of Environment & Resource Management) 2010, © The State of Queensland (Department of Mines and Energy) 2010, © Hancock Coal Supplied Data 2011.

Whilst every care is taken by URS to ensure the accuracy of the digital data, URS makes no representation or warranties about its accuracy, reliability, completeness, suitability for any particular purpose and disclaims all responsibility and liability (including without limitation, liability in negligence) for any expenses, losses, damages (including indirect or consequential damage) and costs which may be incurred as a result of data being inaccurate in any way for any reason. Electronic files are provided for information only. The data in these files is not controlled or subject to automatic updates for users outside of URS.



HANCOCK GALILEE PTY LTD
Kevin's Corner Project
Environmental Impact Statement

INTERNATIONAL ASSOCIATION
FOR PUBLIC PARTICIPATION
SPECTRUM FOR
PUBLIC PARTICIPATION

URS

SOCIAL IMPACT ASSESSMENT

File No: 42626660-g-2114.cdr

Drawn: RG

Approved: CP

Date: 12-09-2011

Figure: **2-4**

Rev.A



2 Methodology

2 Methodology

Background

SIA consultation was largely conducted in concert with general EIS consultation. This strategy was used to limit the number of consultation events in order to produce a more efficient program and reduce the potential for stakeholder fatigue. The SIA team and EIS consultation team shared the same members, which assisted in categorisation, interpretation, and analysis of data. This sharing of members was a further reason to conduct the EIS and SIA consultation together in order to reduce stakeholder confusion. Stakeholders were informed if the conversation was strictly for the SIA.

The following means of stakeholder engagement were undertaken in order to inform the SIA:

- Community information sessions;
- Regional Council meetings;
- Regional shows;
- Targeted consultation; and
- Questionnaires.

There was also a 1300 free-call number, Project website and individual business cards with contact information available to stakeholders.

Initial consultation and mine specific consultation was recorded in consultation manager. Mine specific consultation was recorded in the consultation matrix (matrix). For more information on the EIS consultation process refer to Volume 1, Section 21.

2.10.1 Approach

The purpose of the SIA consultation was to provide qualitative (primary source) data to the SIA as well as consult with key stakeholders on potential issues and solutions (see Figure 2-2). Data was solicited from stakeholders for all phases of the SIA process (see Figure 2-1), most specifically the:

- Baseline (to fill gaps, explain data, and supplement information);
- Impacts (identify potential impacts and rationale why);
- Mitigation and monitoring (identify programs in place and opportunities); and
- SIMP (feedback on the three phase approach).

In addition, stakeholder feedback forms and questionnaires were distributed at community events in order to provide additional opportunities to provide comments and input into the SIA.

Study Areas

Two separate study areas were identified for assessment:

- Regional Study Area (see Section 3.1):
 - Central Highlands Regional Council:
 - Primary focus on Emerald; and
 - Secondary focus on the rest of council.
 - Isaac Regional Council:
 - Primary focus on Clermont; and
 - Secondary focus on the rest of council.
- Local Study Area (see Section 3.2):
 - Barcaldine Regional Council:
 - Primary focus on:
 - Alpha (State Suburb) and the Kevin's Corner Mining Lease Area;
 - Directly affected homesteads/stations and properties; and
 - Indirectly affected homesteads/stations and/or properties.
 - Secondary focus on the rest of council.

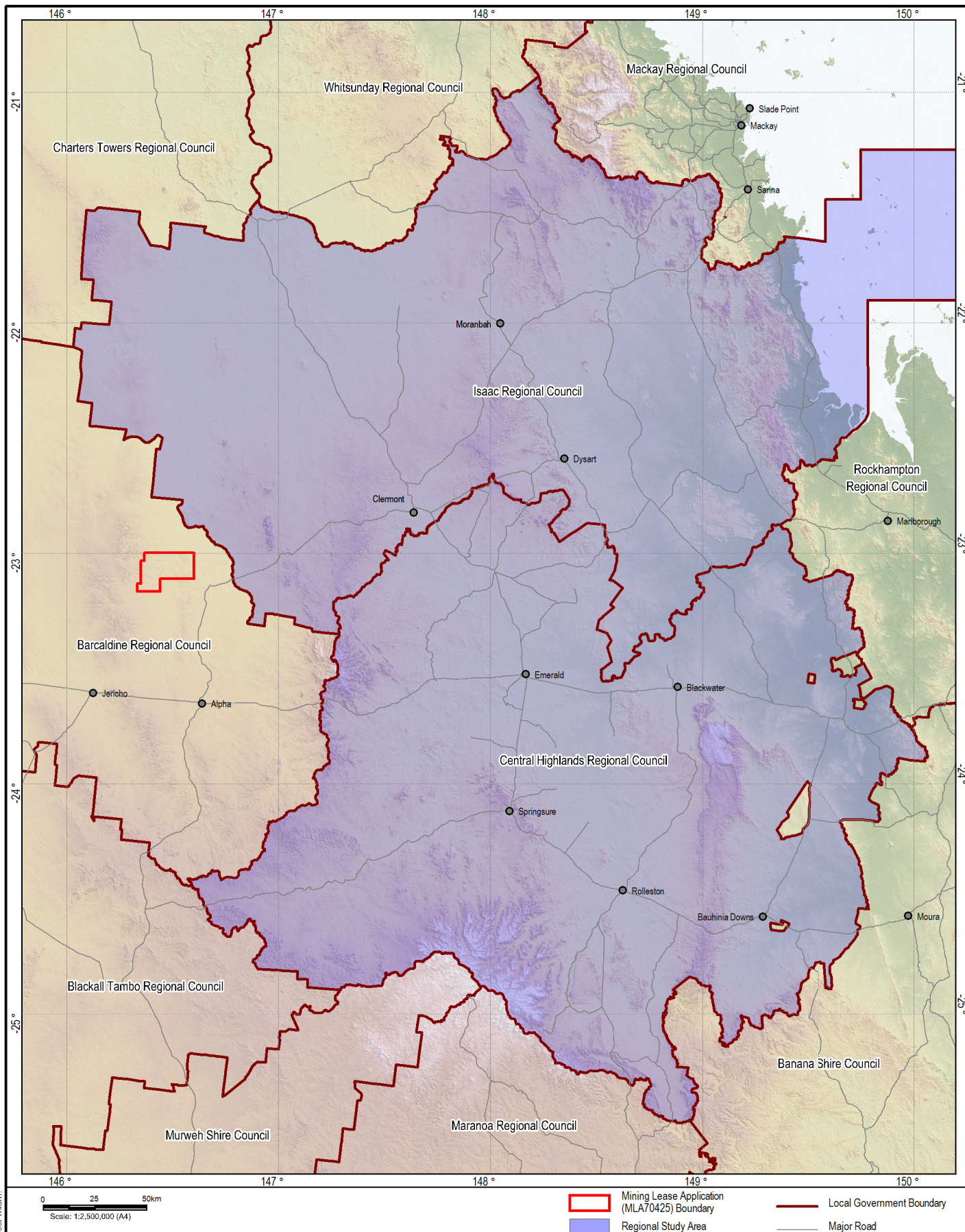
3.1 Regional Study Area

The regional study area includes the following regional councils as illustrated in Figure 3-1:

- Central Highlands Regional Council (CHRC); and
- Isaac Regional Council (IRC).

The two regional councils were included due to their proximity to the Project area, road networks connecting to the Project area, populations and relevant skill sets, and social networks identified in the preliminary baseline site assessment. Each of the regional councils has distinct baseline profiles as well as different ways in which they will interact and potentially be impacted by the Project. The councils are mainly compared with each other through figures, graphs and tables highlighting ABS statistics (see Section 4). The impacts assessment (see Section 7) assesses the councils based on the potential impacts likely to occur for each.

Primary focus within the two councils is on the communities of Emerald in CHRC, and Clermont in IRC, as they are the most likely areas to experience potential direct and indirect impacts associated with the Project. The study is not limited to these two communities but they are the primary focus within the councils. These communities are the most likely to be impacted by the Project given their size, location and predicted relationship with the Project. Other communities within the regional councils including Capella (CHRC), Blackwater (CHRC), Springsure (CHRC), and Moranbah (IRC) were considered, though not specifically discussed. The councils as a whole were assessed, as well as the communities of Emerald and Clermont in more detail due to their increased potential relationship with the Project compared to the rest of the respective council communities.



This drawing is subject to COPYRIGHT.

Source: Bing Maps © 2009 Microsoft Corporation and its data suppliers. ESRI ArcGIS Online 2011, © Mapinfo Australia Pty Ltd and PSMA Australia Ltd., © Commonwealth of Australia (Geoscience Australia) 2006, © The State of Queensland (Department of Environment & Resource Management) 2010, © The State of Queensland (Department of Mines and Energy) 2010, © Hancock Coal Supplied Data 2011.

Whilst every care is taken by URS to ensure the accuracy of the digital data, URS makes no representation or warranties about its accuracy, reliability, completeness, suitability for any particular purpose and disclaims all responsibility and liability (including without limitation, liability in negligence) for any expenses, losses, damages (including indirect or consequential damage) and costs which may be incurred as a result of data being inaccurate in any way for any reason. Electronic files are provided for information only. The data in these files is not controlled or subject to automatic updates for users outside of URS.



I HANCOCK GALILEE PTY LTD
Kevin's Corner Project
Environmental Impact Statement

KEVINS CORNER REGIONAL STUDY AREA

URS

SOCIAL IMPACT ASSESSMENT

Figure: **3-1**

File No: 42626660-g-2022.wor

Drawn: **RG**

Approved: **CP**

Date: **12-09-2011**

Rev. **A**

A4



3 Study Areas

3 Study Areas

3.2 Local Study Area

The local study area is Barcaldine Regional Council (BRC), with primary focus on the community of Alpha. The local study area examines the regional council directly affected by the Project as well as Alpha, the community closest to the Project. Project associated traffic will not likely access highways and roads to the west of Alpha and is therefore less likely to impact the community of Jericho or Aramac to the same extent. Some impacts could occur in Barcaldine however these are likely to be minor and are captured in the regional council as a whole. The regional council is included due to the impact of the Project on government and associated decision-making, which will impact the whole council area regardless of where the impact occurs.

3.2.1 Landholders

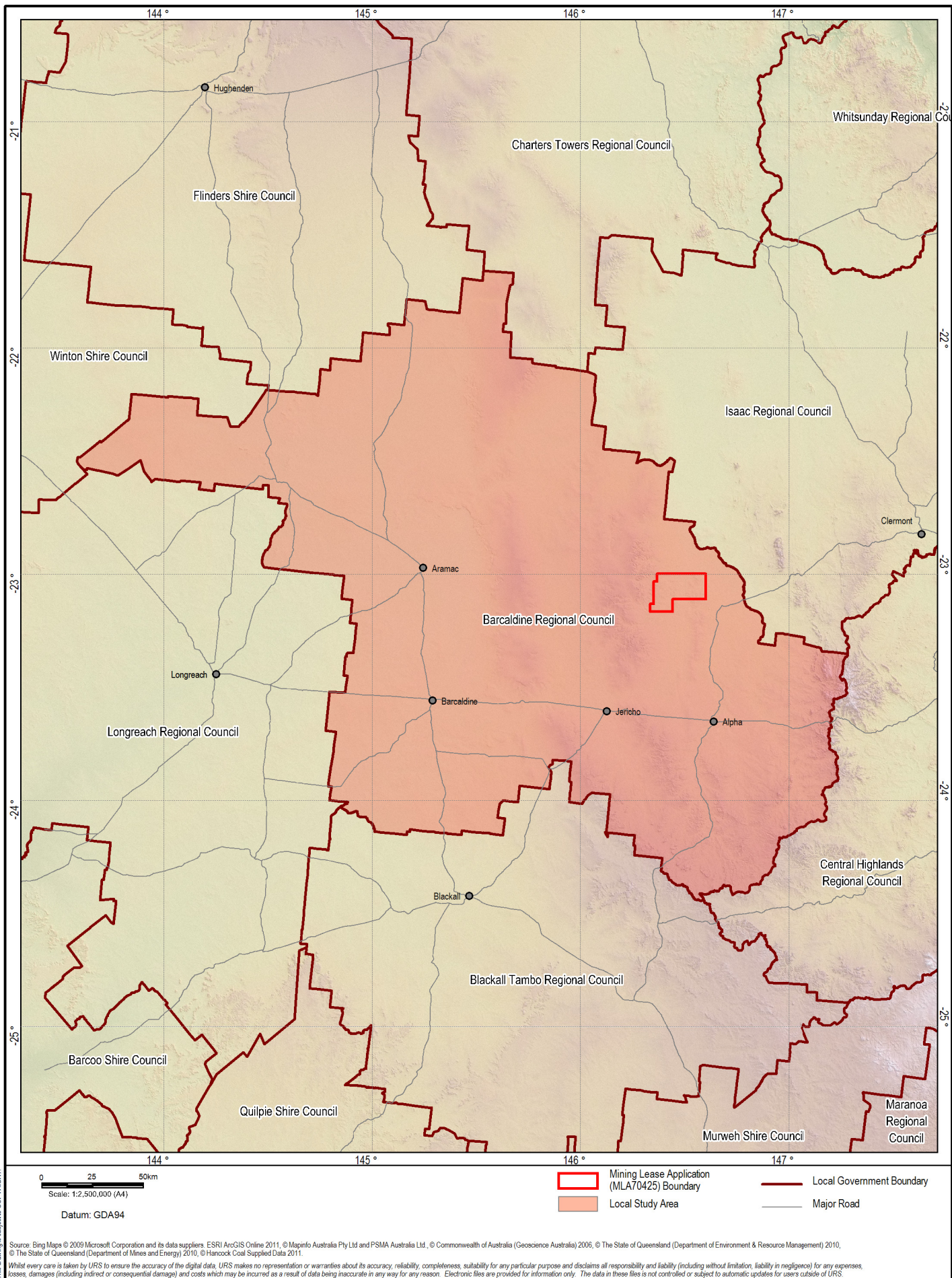
The local study area will also highlight information specific to landholders and properties directly and indirectly affected by the mine. These properties lie within or adjacent to the mining lease area. To the extent possible, these landholders and properties will be considered and specific baseline data provided. The impacts on these landholders have been assessed separately to recognise the direct Project impacts that they will experience that the local study area as a whole will not. Landholders adjacent to the Project were assessed based on their proximity to the site, access, line of site and definitions of sensitive receptors from other studies including noise and vibration, air quality, visual amenity, and traffic and transport.

Limited baseline data specific to the mining lease was collected as part of the SIA. Some data may have been collected as part of the land use and compensation negotiations however the nature and detail of these discussions are confidential. Wherever possible, *ad hoc* data and information specific to the mining lease is provided.

A number of properties are located within the mining lease area (see Figure 3.3).

Figure 3-2 illustrates the boundaries and communities examined for the local study area. Figure 3.3 shows the mining lease area with the location of the accommodation village.

3 Study Areas



I HANCOCK GALILEE PTY LTD
Kevin's Corner Project
Environmental Impact Statement

KEVINS CORNER LOCAL STUDY AREA

URS

SOCIAL IMPACT ASSESSMENT

Figure: **3-2**

File No: 42626660-g-2023.wor

Drawn: **RG**

Approved: **CP**

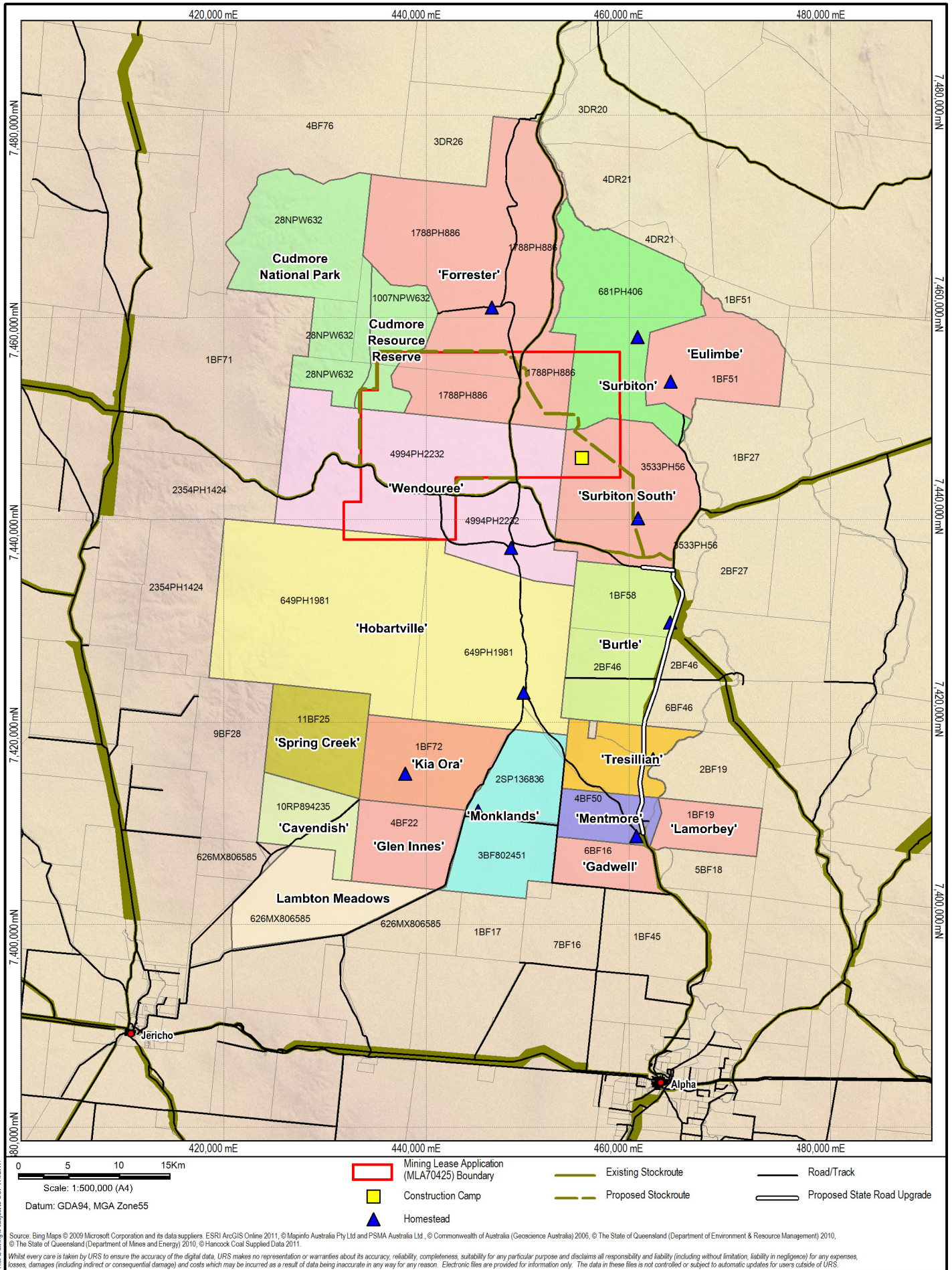
Date: **12-09-2011**

Rev. **A**

A4



3 Study Areas



I HANCOCK GALILEE PTY LTD
Kevin's Corner Project
Environmental Impact Statement

MLA WITH
SURROUNDING
LAND TENURE

URS

SOCIAL IMPACT ASSESSMENT

Figure: **3-3**

File No: 42626660-g-2024.wor

Drawn: **RG**

Approved: **CP**

Date: 12-09-2011

Rev. **A**

A4



3 Study Areas

Baseline Profile

The baseline profile provides quantitative and qualitative information on the study areas and communities as a contextual reference for the impacts assessment. The purpose of the baseline is to establish a level of understanding about the study areas based on available information and targeted information collection through consultation. The following sources were used to collect and analyse baseline data:

- Quantitative Secondary Data:
 - Australian Bureau of Statistics (ABS) Census 2006;
 - Office of Economic and Statistical Research (OESR), Queensland Treasury;
 - Various government departments; and
 - Hancock Alpha/Kevin's Corner Questionnaire.
- Qualitative Primary Data (see consultation section of the EIS – Volume 1 Section 21):
 - Information sessions in various communities;
 - Targeted stakeholder engagement with key stakeholders;
 - Meeting with local councils; and
 - Hancock Alpha/Kevin's Corner Questionnaire.

Dated census and statistical data reinforced the need to capture inherent gaps through primary/qualitative data collection. In the absence of discernible facts, there is the risk that a reliance on qualitative data increases the likelihood of opinion and bias. However multiple sources of data were sought when possible in order to triangulate information and enhance the credibility of the information being collected and contextualise comments collected during consultation.

Ad hoc information or data refers to inexperienced stakeholder perceptions and opinions. For example, individuals commented on the dramatic increase in home prices in Alpha in the past six months and attributed a lot of it to speculation on the potential mining boom in the area. This was recorded as *ad hoc* research because the source was not involved in the real estate market and was therefore expressing an inexperienced opinion based on their perceptions and discussions with peers. This information was then discussed with realtors and council who corroborated the information.

4.1 History and Settlement

4.1.1 Regional Study Area

The following sections summarises the history and settlement of the regional study area to provide context to the SIA.

Central Highland Regional Council

The Central Highlands Regional Council (CHRC) area was created in March 2008 following a recommendation by the Report of the Local Government Reform Commission released in July 2007 (Local Government Reform Commission, 2007). The CHRC covers an area of 59,888 km² from Arcadia Valley in the south, to the Peak Ranges in the north and in the east from Boolburra to Bogantunga in the west. CHRC accounts for 3.5% of the total area of Queensland and is made up of the former shires of Bauhinia, Duaringa, Emerald and Peak Downs and townships include Blackwater, Bluff, Capella, Dingo, Duaringa, Emerald, Rolleston, Springsure and Tieri. The council also covers the villages/ communities of Anakie,

4 Baseline Profile

Bogantungan, Bauhinia, Cornet, Fernless, Gindie, Rubyvale, Sapphire, the Willows, Withersfield and Yamala.

The first European to visit the Central Highlands Region was Ludwig Leichardt who in 1844/45 camped alongside, and named the Comet River (after seeing a comet from this location). After Leichardt's glowing report about the fertility of the region, land was taken up by pastoralists in around 1860, followed shortly by the development of service townships and villages. In the 1880s gold and copper were discovered in various locations throughout what is now the CHRC. Subsequently there was a brief flurry of early mining activities in the area. However, for at least the next century, agriculture remained the dominant industry. Cattle and sheep husbandry shifted to crops with the establishment of sorghum production by the British Food Industry Corporation near Capella in 1948 and the development of the Fairbairn Dam in 1972. The region is now also a significant producer of cotton, fruit and vegetables.

Leichardt first espoused the coal mining potential of the Central Highlands area writing what turned out to be a prophetic statement in his 1845 diary that coal around Blackwater looked like the rich seams identified in the Newcastle area. Mining quickly became an important industry in Blackwater, as is evidenced by the historical mining displays in town, where most of the equipment dates back to the 1920s (Duarina Shire, 2010). Coal reserves around Blackwater are now been exploited by BHP Billiton Mitsubishi Alliance (BMA) and other companies including Curragh Queensland Mining, Cook Resources Mining Pty Ltd, Jellinbah Mine, Kenmore & Yarabee Coal. Coal extracted from the Blackwater mines is transported via electric train to Gladstone.

Capella, located 50km north of Emerald, was originally built around the British Food Corporation, however now services three mines – Gregory, Crinum and Oaky Creek. Tieri in Peak Downs Shire, 38km east of Capella was established in 1983 by M.I.M Holdings Limited and its joint venture partners service the nearby German Creek, Oaky Creek and Gregory Crinum Mines. A proposed Xstrata thermal coal mine located between Rolleston and Springsure is expected to bring significant changes to both towns if it proceeds (Mining Communities Research Exchange, 2010).

Blackwater was at the heart of a critical development in the Bowen Basin history, when in late 1950s Utah Construction and Mining Company beginning a search for a commodity that could be used for large scale mining activities. Utah was granted a significant prospecting area near Blackwater in anticipation of increasing coal demand from Japan, and by 1967 extensive open-cut mining had commenced and future prospects had been identified.

The success of Utah at establishing large scale operations in the region encouraged other mining companies and by the 1970s other mines were being established and the region was experiencing significant population growth. In 1983 BHP purchased Utah Coal in what was the single largest trading transaction in Australia's history to that time (Mining Communities Research Exchange, 2010).

Emerald

Emerald is a large, modern country town that was established in 1879 as a base for building the western railway. The town is named after 'Emerald Downs Hill', a lush emerald-green hill located just north of town. Nearby Emerald Downs Station was established in 1860. During the 1880s the economy of the local area was largely dependent on gems, which continued to be mined commercially within the council's boundaries. Soon after however, cattle and sheep grazing became the dominant industry. Emerald is now considered the 'hub' for the Central Highlands and the 'gateway' to the Sapphire Gemfields; the largest and one of the richest sapphire fields in the southern hemisphere. The town is located 917km north-west of Brisbane and about 280km west of Rockhampton (About Australia, 2010).

4 Baseline Profile

Community consultations indicated that the area around Emerald was subject to extensive clearing 1880s and 1890s. During this time Indigenous communities were shifted towards the coast. As such, there are no continuous Indigenous communities now living the Emerald area. In some CHRC towns however a high proportion of the population are Indigenous, for example Bluff where estimates state up to 50% are Aboriginal or Torres Strait Island Origin (pers. comm., August, 2010).

In 1972, the construction of Fairbairn Dam (Lake Maraboon) and the Emerald Irrigation Scheme allowed for the significant development and expansion of agriculture across the region. The dam construction also enabled large-scale coal mining within the Bowen Basin since the 1970s. The Bowen Basin currently contributes a significant proportion of Queensland's total coal exports.

Emerald is the largest town in the southern Bowen Basin and services a number of coal mines located nearby. Since 2000 the mining boom has resulted in significant activity in and around Emerald. There are a large number of Fly-in, Fly-out (FIFO) workers and young families who have increasingly moved to the area to take up employment opportunities. Similarly a strong mining service industry which includes transport, technical support, maintenance activities as well as education and training has developed. Steady population growth has resulted with the exception of a minor decrease as a result of the global financial crisis in 2007 and the associated downturn in mining. This has since reversed and activities appear to have resumed to the higher levels of 2006 (pers. comm., August, 2010).

Citrus growers around Emerald were severely affected by a Citrus Canker. The outbreak which commenced in 2004 was not declared as completely over until 2009 and resulted in more than 500,000 citrus trees being destroyed (ABC News, 23 January 2009).

On 19 January 2008 Fairbairn Dam overflowed for the first time in more than 18 years, sending water flooding into the Nagoa River (ABC News, 19 January 2008). Shortly after the flood waters reached Emerald in what observers called a 1 in 100 year flood. More than 1,000 houses were affected and some 2,500 residents needed to be evacuated (ABC News 23 January 2010). A survey conducted by CHRC revealed that the floods had a direct cost of \$27m with one third of businesses suffering damage which was not covered by insurance (ABC News, 16 September 2009). Emerald flooded again in December 2010 under similar circumstances with 95% of businesses damaged including one of the local supermarket complexes. Once again over 1,000 houses were affected, including the new residential estate of 'Blue Gums' (ABC News, 3 January 2011).

Isaac Regional Council

Isaac Regional Council (IRC) came into existence in March 2008 as a result of the amalgamation of the Belyando, Broadsound and Nebo shires following the Local Government Reform Commission report released in July 2007. All three shires had traditional links to grazing, agriculture and mining (Isaac Regional Shire, 2010).

Located in central Queensland, the IRC covers an area of 58,862.0 km² representing 3.4% of the total area of the state (OESR, 2 July 2010). IRC stretches from "Coal to Coast" in central Queensland and includes the townships of Clermont, Dysart, Glenden, Middelmount, Moranbah, Nebo, Coppabella, St Lawrence, Camila, Clairview, Greenhill and Ilbilbie.

Records indicate that the former Nebo shire appears to be the first area in IRC explored by westerners when Ludwig Leichardt followed the Isaac River in 1845 and named many features located in the south and west of the former shire (Isaac Regional Council, 2010).

4 Baseline Profile

The Bowen Basin which contains significant mining reserves and associated mining communities, covers an area of approximately 60,000 km² of central Queensland, from Collinsville in the north to Theodore in the south and has the largest coal reserves in Australia. The Bowen Basin provides approximately 83.0% of Queensland's total coal production, the state's most important export commodity. Much of the Bowen Basin lies within IRC boundaries. While many of the currently operating mines have only opened in the last decade, the Bowen Basin has been a major force in mining for well over a century (Mining Communities Research Exchange, 2010).

The area was first settled by pastoralists in the 1860s, however shortly after the discovery of copper and particularly gold brought droves of prospectors to the area. Battles between Chinese and European miners emerged over subsequent decades, and the area became Australia's own Wild West Queensland (Travelmate.com.au, 2010).

Although coal was identified by Leichardt and his crew of European explorers, the first deposit was discovered in the Bowen Basin in 1864 by accident when a well-borer searching for water struck coal 20m below the surface at Blair Athol homestead, near Clermont. It wasn't until the 1950s however that coal mining commenced in earnest.

The recent history of the area is one of highly successful mining operations, with some 49 coal mines and 25 mineral mines currently operating in the IRC area. The IRC reported that mining accounted for 76.1% of the region's Gross Regional Product (GRP) in 2007 – 2008 (Regional Economic Development Forum February 2009).

Clermont

Although Clermont was first explored by Ludwig Leichardt in 1845, it was William and Charles Archer (from the family who established the port of Rockhampton) who recognised the area's grazing potential and in 1856-57 returned to claim large tracks of land. In 1861 a group of shepherds found gold by the side of Hoods Lagoon and prospectors were lured to the area and Clermont established, forming the first inland settlement north of the Tropic of Capricorn.

The name Clermont, gazetted in 1864, comes from Clermont-Ferrand in France, the home of Oscar de Satge, who owned Wolfgang Downs (a nearby station) at the time (SMH, 2008). Soon after settlement, copper was discovered and during the 1880s up to 4,000 Chinese lived in Clermont mining for gold and copper. Like many similar communities at this time, Clermont experienced some nasty race riots. Culminating in 1888 when Chinese prospectors were removed from the region (SMH, 2004). The railway line was extended north to Clermont from Emerald in 1884; however no passenger trains run on this route.

The town, which was originally located next to a lagoon or billabong in a low lying area, was subject to a number of floods. The biggest flood in 1916 killed 65 people out of a total population of approximately 1,500 and remains one of Australia's worst natural disasters. Following the 1916 flood traction engines moved many of the town's buildings to a new site located on higher ground (Queensland Places, 2010).

Today Clermont serves as a hub for the surrounding coal mines and agricultural holdings. Rio Tinto is currently constructing Clermont mine, located 12 km north of Clermont, which will produce up to 12.2 mtpa of thermal coal when it mine reaches full capacity (expected in 2013). The mine, which is expected to have a life of 17 years, holds 190 million tonnes. The mine is managed by Rio Tinto on behalf of joint venture partners Mitsubishi Development Pty Ltd, J-Power Australia Pty Ltd and JCD Power Australia Pty Ltd (Rio Tinto, 2010).

4 Baseline Profile

Despite having one of Queensland's oldest coal mines (Blair Athol) which has been in operation for over 50 years, Clermont residents think of the town as more agricultural than mining. The Blair Athol mine is scheduled for closure in 2016; however, the Clermont mine is currently ramping up production and could act as a replacement for many workers. Beginning construction as a FIFO operation, Clermont has now commenced operations and has implemented a strong regional employment incentive scheme, whereby all positions require local residency unless special approval is granted by the General Manager. Rio Tinto Coal Australia (RTCA) is offering incentives to encourage prospective employees to help them meet this local recruitment target. Incentives have included the payment of an additional month salary to support relocation and assistance packages for house mortgages (Isaac Regional Council – Consultations August 2010).

4.1.2 Local Study Area

The following sections summarises the history and settlement of the local study area to provide context to the rest of the SIA.

Barcaldine Regional Council

Barcaldine Regional Council (BRC) encompasses an area of approximately 53,677 km² - 3.1% of the total State area (OESR, 2010). The council was created in March 2008 with the amalgamation of the former shires of Aramac, Barcaldine and Jericho. BRC area is made of small rural centres and a number of agricultural properties. The area was initially settled by pastoralists, and then expanded through the rail push west from Rockhampton in the 1880s. The main communities in Barcaldine include Barcaldine town, Alpha, Jericho and Aramac.

The area is heavily reliant on agriculture, forestry and fishing which accounted for approximately 33.5% of employment in the region. Agriculture, particularly cattle grazing is significant, generating approximately \$109.6 million in revenue in 2009 (OESR, 2010). Consultations with the council advised that while there is some sheep grazing in the more western parts of BRC, the economy of the former Jericho shire is centred almost entirely on cattle grazing. This leaves the area susceptible to market fluctuations and weather conditions and also leaves limited room for value adding.

Over recent years margins in cattle grazing have decreased and operations have changed. Less people are employed with tasks such as mustering which are now being undertaken using helicopters and light aircraft, rather than teams of drovers. Many family farms in BRC now only require a couple of people to work them, reducing opportunities for the children to stay on the land. Council advised that as a result of these changes many of the region's youth have moved to the coast or to areas where mining is dominant in order to seek employment opportunities (pers. comm., August, 2010).

Alpha

Alpha is a small community in BRC and is located approximately 450 km west of Rockhampton and 250 km east of Longreach on the Capricorn Highway. Clermont is 184 km to the north of Alpha, with Tambo 134 km to the south on a gravel/dirt road which can become inaccessible in wet conditions.

Alpha was settled in 1884, taking its name from an early property in the area, Alpha Station (1863). The town is located to the south of the Belyando River system, which was partly explored by the New South Wales Surveyor-General, Thomas Mitchell, in 1846 (Alpha Queensland, 2010).

4 Baseline Profile

Mitchell's report on the region's prospects attracted pastoral explorers in the 1850s. The town of Rockhampton wanted to capture the beef trade and so began the construction of its central railway line in 1867. The line reached Emerald in 1879 and tackled the Drummond Range to Alpha in 1884. In addition to the railway station, Alpha became a coach stop for the service to Tambo and its settlement proceeded many years of good rainfall. It also had a source of underground water.

A school opened in 1886 and churches were built. A convent school opened in 1904, coinciding with the return of drought. Several selectors lived in Alpha, along with graziers and station managers. A sawmill opened – there were three by 1915 – and refreshments were taken at the Criterion and Comet hotels. A hospital was established in 1913 (Alpha Queensland, 2010).

The Alpha district was divided into Belyando and Tambo Shires. In 1917, it was severed from both shires to form Jericho Shire, which also included some of Aramac and Barcaldine. The shire offices were based in Jericho, west of Alpha.

During the 1950s and 1960s, good wool and beef prices brought with them sustained prosperity. Alpha gained a new hall (1957), a golf course (1964), a secondary school department (1967) and a swimming pool (1980). A Jockey Club and Show Society were formed in 1967. Rural depression in the 1970s led to the closure of the lay-staffed Catholic school in 1979. Government help, however, saw the bush-nursing hospital replaced with a modern building (Queensland Places, 2010).

Barcaldine

Barcaldine which took its name from a nearby station, Barcaldine Downs, is located at the junction of the Capricorn and Matilda (Landsborough) Highways, approximately 520 km to the west of Rockhampton and is the administrative centre for the Barcaldine Region.

Barcaldine was established in 1886 as part of the great railway push into the outback. Barcaldine played an important role in the Australian Labour Movement and establishment of the Australian Labor Party (ALP) in 1891 when the town was at the centre of the Great Shearer's Strike. The strike saw more than 1,000 shearers stop work in a defiant protest that quickly engulfed Australia. The outcome of the strike was the formation of the ALP and a grazier's group who later become the National Party. Barcaldine was also home to one of the world's first May Day marches, when shearers marched on foot and horseback advocating for labour rights and an 8-hour working day on 1 May 1891 (Queensland Holidays 2010).

The Tree of Knowledge, a 170-year old ghost gum in front of the Barcaldine train station was where the striking shearer's held their meetings and became a memorial for the shearer's strike and the impact it had on the Australian labour movement (Barcaldine Regional Council I, 2010). For further information on the Tree of Knowledge (see section 4.8.2 Industry and Trade, Tourism Attractions).

4.2 Demographic

4.2.1 Regional Study Area

The following key points about the IRC and CHRC were identified (ABS, 2010a, b):

- As at 30 June 2009 the estimated population of the IRC Area was 22,417 and CHRC 30,403;
- At the time of the 2006 Census, 419 people or 2.1% of the population in IRC and 894 people or 3.4% of the population in CHRC stated they were of Aboriginal or Torres Strait Islander origin;

4 Baseline Profile

- As at 30 June 2008 71.1% of the population in IRC and 70.2% of the population in the CHRC were working aged (i.e. 15 – 64);
- At the time of the 2006 Census, 55.8% of families in IRC were couples with children, while only 8.0% were single-parent families. In the CHRC 53.3% were couple families with children, and 8.9% were one-parent families; and
- At the time of the Census, the population of IRC was expected to grow at an average rate of 2.2% per annum between 2006 and 2026. In CHRC an average annual population growth rate of 2.1% is projected over the same period.

Estimated Residential Population

At 30 June 2009, the estimated residential population of the IRC was 22,417. The area had experienced a 2.7% per annum average population growth rate over the five years since 2004, on par with Queensland as a whole. The Nebo shire statistical area was an exception to this, recording average annual population growth rates of 4.2% per annum over the same period (OESR, 2010a). Population growth in the IRC can be largely accounted for by a natural increase (births exceeding deaths). The remainder is net migration to the area from outside. The high rate of natural increases is reflective of a young population – the average age is 31. In-migration is the result of continued growth in the mining sector luring people to move to the region in search of employment.

At 30 June 2009, the estimated residential population of the CRHC was 30,403, having increased from 26,861 in 2004. This represents an annual average population growth rate of 2.6%. Again, this is largely attributable to the growth in mining, particularly coal, throughout the Southern Bowen Basin in CHRC (OESR, 2010b). While these levels were slightly lower than the Queensland average over the same period, Emerald local statistical area was an exception with average annual growth of 3.8%. Consultations indicated however that the population was not just increasing during this time, with minor blips associated with the Citrus Canker in 2005 and then the GFC in 2008 resulting in people leaving the area (pers. comm., August, 2010).

The two areas have a relatively low population, representing a combined total of 1.2% of Queensland's population. The estimated residential population of the regional study area, by local shire from 2004 - 2009 is presented in Table 4-1.

4 Baseline Profile

Table 4-1 Estimated Residential Population and Population Growth by Statistical Local Area

Statistical Local Area (SLA)	Estimated resident population as at 30 June			Average annual growth rate	
	2004	2008	2009p	2004-2009p*	2008-2009p
	Number			Percentage	
Isaac Regional Council					
Belyando Shire	10,591	11,629	11,876	2.3%	2.1%
Broadsound Shire	6,742	7,505	7,552	2.3%	0.6%
Nebo Shire	2,431	2,873	2,989	4.2%	4.0%
Central Highlands Regional Council					
Bauhinia Shire	2,271	2,347	2,367	0.8%	0.9%
Duaringa Shire	6,908	6,917	7,256	1.0%	4.9%
Emerald Town	14,384	16,616	17,298	3.8%	4.1%
Peak Downs Shire	3,298	3,463	3,482	1.1%	0.5%
Queensland	3,900,910	4,308,570	4,425,103	2.6	2.7
Isaac as % of QLD	0.5%	0.5%	0.5%	n/a	n/a
Central Highlands as % of QLD	0.7%	0.7%	0.7%	n/a	n/a

Note: p = preliminary

Source: OESR, 2010

At the time of the 2006 census the residential population of the Emerald Suburb (Emerald Shire) was 11,575. Of this population 51.9% were male, while 48.1% were female, again indicative of the number of mine workers living in Emerald. 3.2% of Emerald's population reported they were of Aboriginal or Torres Strait Islander origin (ABS, 2006d). *Ad hoc* consultations indicated that the population of Emerald has increased to around 14,000 people by 2010 (pers. comm., August 2010). According to OESR population estimates, the 2009 total estimated population for the former Emerald town was 17,298 (OESR 2010).

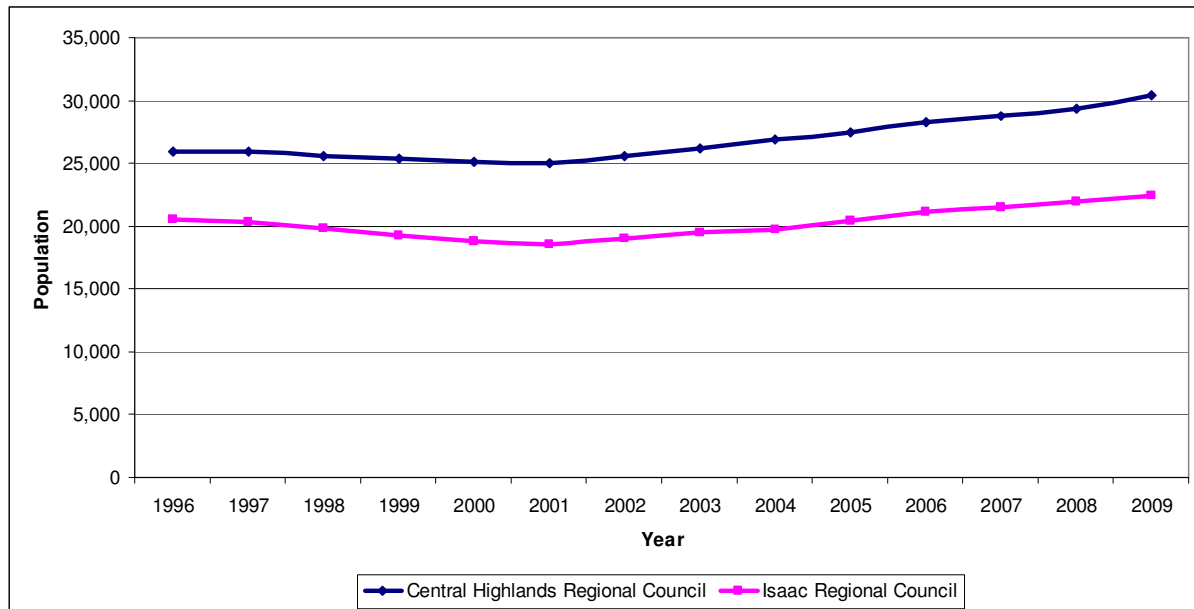
At the same time, the residential population of Clermont in Belyando shire was 2,496 people, of which 49.7% were male, 50.3% female. Of Clermont's population 1.7% reported that they were of Aboriginal or Torres Strait Islander origin, below the Australian rate of 2.3% (ABS, 2006c).

While the population of the regional study area has experienced strong population growth over the last ten years, the population was actually in decline over the last few years of the 1990s and early 2000s. This was reversed in the early 2000s and has continued to increase ever since. Figure 4-1 shows the population changes in IRC and CHRC between 1996 and 2009. Population declined by 946 in CHRC between 1996 and 2001, going from 26,007 in 1996 to 25,061 in 2001. The population began increasing again 2002, and had reached 30,403 by 2009 (an increase of 5,342).

Over the same time (between 1996 and 2001), the IRC population also decreased by 2,044 people. Since 2002 the population has increased by 3,893 to a total of 22,417 people (OESR 2010). This decrease may be explained by a combination of economic downturn and the long drought which affected agricultural producers across Australia. By 2004, economic growth had returned to 30-year record levels and mining was booming, bringing with it population growth for the regional study area (pers. comm., CHRC, August 2010).

4 Baseline Profile

Figure 4-1 Population Growth in Regional Study Area 1996 - 2009



Source: OESR Population (ERP) (a) by Age and Sex (1996 - 2009) Region LGA 10/2270 - Central Highlands (R) Region LGA 10/3980 - Isaac (R)

Table 4-2 summarises the key demographic characteristics of Clermont and Emerald suburbs based on the 2006 census. The differences between the two communities are quite pronounced. Clermont is a rural centre with a strong mining and agricultural influence. This contributes to the higher median age than Emerald, which is primarily a service centre with mining and agricultural influences.

4 Baseline Profile

Table 4-2 Key Demographic Profile of Clermont and Emerald (2006 census)

Census Characteristics	Clermont	Emerald
Population:		
• Number (persons)	2,496	11,576
• Ratio male: female (approximate)	50:50	52:48
Aboriginal and Torres Strait Islanders:		
• Number (persons)	42	373
• Proportion of all people (as %)	1.7%	3.2%
Birthplace / Languages:		
• Born in Australia (as %)	89.1%	84.4%
• English speaking only (as %)	94.2%	91.4%
Age:		
• Median age (in years)	36	28
• 14 years or less (as %)	23.7%	26.4%
• 65 years or more (as %)	11.9%	4.2%
Households:		
• Family households (as %)	60.6%	80.6%
• Single-persons (as %)	24.2%	24.2%
Families:		
• Couples with children (as %)	46.8%	55.2%
• Couples without children (as %)	41.2%	33.3%
• One-parent families (as %)	11.4%	10.1%
• Other Family (as %)	0.6%	1.4%

Source: ABS, 2006c and ABS, 2006d

Full Time Equivalent Population

Both the CHRC and IRC have large-scale mining industries. Many of the workers reside in other regional locations such as Rockhampton, Mackay and Brisbane and are engaged on a FIFO or DIDO arrangement. These workers were not counted when considering residential populations during the census. High proportions of these workers are in the area and therefore are within the area of responsibility for local services. These workers are important when considering actual population and demand on services, particularly health and accommodation.

DIP conducted a study in 2010 into the Full-Time Equivalent (FTE) population of the Bowen Basin which found that as of June 2010, there were 14,613 non-resident workers in the Bowen Basin. This represented an increase of 31.95% on 2007 suggesting strong growth continued in the mining sector over this period (OESR, 2010k). Based on consultation this would have been expected to fall slightly to coincide with the GFC and the slight decline in the mining sector in 2009/10, before increasing again when the magnitude of the impact (or lack thereof) was known in Australia.

Table 4-3 shows the non-resident population at 31 July 2007 and June 2010, and the annual change. It is useful to note that in both relevant local government areas (i.e. Belyando (Clermont) and Emerald) there were large increases in non-resident workers of 74.27% and 42.30% respectively.

4 Baseline Profile

Table 4-3 Changes to non-resident worker populations by LGA, 2007-10

LGA	Non-resident worker population at 31 July 2007* (persons)	Non-resident worker population at June 2010** (persons)	Change 2007-10 (persons)	Change 2007-10 (percentage)
Banana (s)	1,278	1,006	-272	-21.28%
Bauhinia (s)	65	270	205	315.38%
Belyando (s)	1,881	3,278	1,397	74.27%
Broadsound (s)	2,441	2,911	470	19.25%
Bowen (s)	248	479	231	93.15%
Duaringa (s)	1,028	1,379	351	34.14%
Emerald (s)	636	905	269	42.30%
Nebo (s)	2,868	3,714	846	29.50%
Peak Downs (s)	623	671	48	7.70%
Total	11,075	14,613	3,538	31.95%

Source: * PIFU, Survey of Accommodation Providers 2007 in DIP 2007, *Bowen Basin Population Report: Full-Time Equivalent Population at 31 July 2007***OESR, survey of accommodation providers, 2011 in OESR 2010, *Bowe Basin Population Report: Full-time equivalent (FTE) population estimates, June 2010*

Urban Centres and Locations

The regional study area consisting of IRC and CHRC contains several urban centres and/or localities. The urban centre with the highest population as of 30 June 2009 was Emerald in CHRC (13,118) followed by Moranbah in IRC (8,326) (see Table 4-4). The urban centre with the highest population density is Moranbah (1,003.1 persons per square kilometre).

4 Baseline Profile

Table 4-4 Estimated Resident Population by Urban Centre/Locality, Isaac and Central Highlands Regional Councils, 30 June 2009p

Urban centre/locality	Estimated Resident Population	Area	Population Density
	Number	Km ²	Persons / Km ²
Isaac Regional Council			
Moranbah	8,326	8.3	1,003.1
Dysart	3,444	8.3	414.9
Middlemount	2,249	4.7	478.5
Clermont	1,940	7.2	269.4
Glenden	1,313	4.7	279.4
Nebo (L)	342	1.3	263.1
Total	22,417	58,862.0	0.4
Central Highlands Regional Council			
Emerald	13,118	16.8	780.8
Blackwater	5,420	14.4	376.4
Tieri	1,661	8.0	207.6
Capella (L)	903	6.3	143.3
Springsure (L)	670	17.1	39.2
Rubyvale (L)	529	7.3	72.5
Bluff (L)	414	2.0	207.0
Duaringa (L)	265	1.9	139.5
Willows Gemfields (L)	100	0.4	250.0
Total	30,403	59,888.9	0.5
Queensland	4,425,103	1,734,174.0	2.6
Isaac Regional Council as % of Qld	0.5	3.4	0.1
Central Highlands Regional Council as a % of QLD	0.7%	3.5	0.2

Note: p = preliminary, (L) = locality. In broad terms, an urban centre is a population cluster of 1,000 or more people while a locality is a population cluster of between 200 and 999 people. For statistical purposes, people living in urban centres are classified as urban while those in localities are classified as rural. Each urban centre or locality has a clearly defined boundary and comprises one or more whole census collection districts. Based on ASGC 2006.

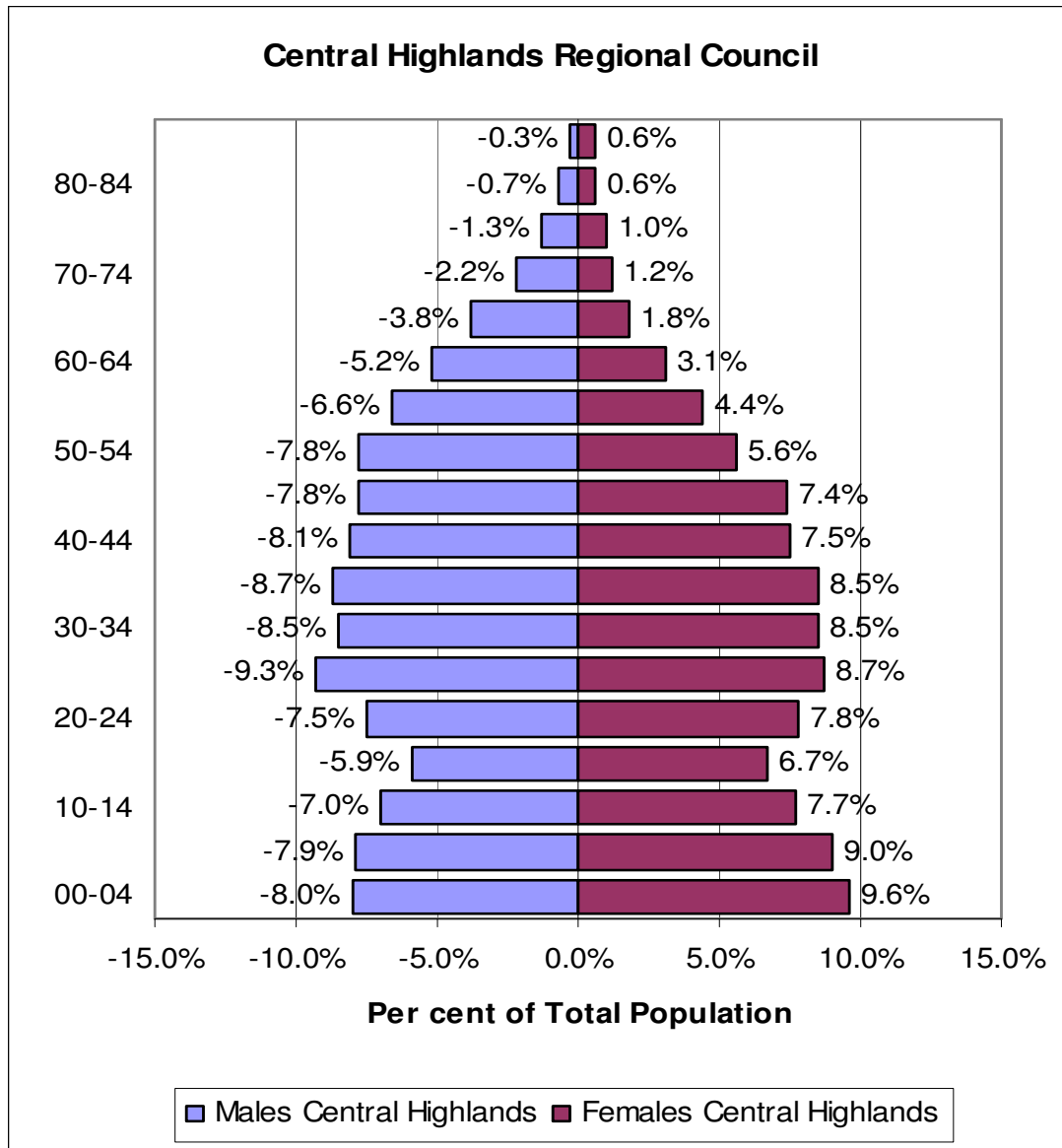
Source: ABS, 2006 Census Data

Age Profile

In the regional study area 24.75% of people are aged 0-14 years, 70.6% aged 15-64 and 4.65% are aged 65 or over. When compared to the Queensland rates of 20.1% aged 0-14, 67.6% aged 15 – 64 and 12.3% aged 65 and over, this shows the dominance of young families in both IRC and CHRC.

4 Baseline Profile

Figure 4-2 Gender Breakdown by Age Group – Isaac Regional Council, Central Highlands Regional Council and Queensland 2006



Source: OESR (2010) Regional Profile, Isaac Regional Council & Central Highlands Regional Council

4 Baseline Profile

Figure 4-2 depicts the population pyramid for the IRC and CHRC. The pyramids for both areas show a higher than normal concentration of people in the 25 – 39 age group – the prime working group. In IRC there were also a higher than normal number of females aged 0-4. This may be explained by a high number of female babies born during a short-period in combination with the relatively small population. In larger population centres the likelihood of such an anomaly would be a lot lower because over the course of the year the number of boys born would reduce the scale of the large number of girls and smooth out the ratio. In other words, the higher the volume of births, the less likelihood of disproportionate birth rates per gender. There are no environmental or societal explanations evident for the discrepancy.

Family Composition

In both study areas, couples with children represented the most significant proportion of all family households (55.8% in Isaac and 53.3% in Central Highlands) which is higher than the state average and indicative of the dominance of traditional family values in the area. Both Isaac (8.0%) and Central Highlands (8.9%) have a much lower percentage of single parent households than Queensland as a whole (15.9%). Consultations indicated that this is likely because of the strong emphasis placed on traditional family values and relationships in the area. Many of the people who come to live in the area are actively seeking a good place to raise families. It is common for family sizes to be larger in urban areas and for mothers to stay at home until their children are at high school. The wages offered by the mining industry allow them to pursue such family life (pers. comm., August, 2010).

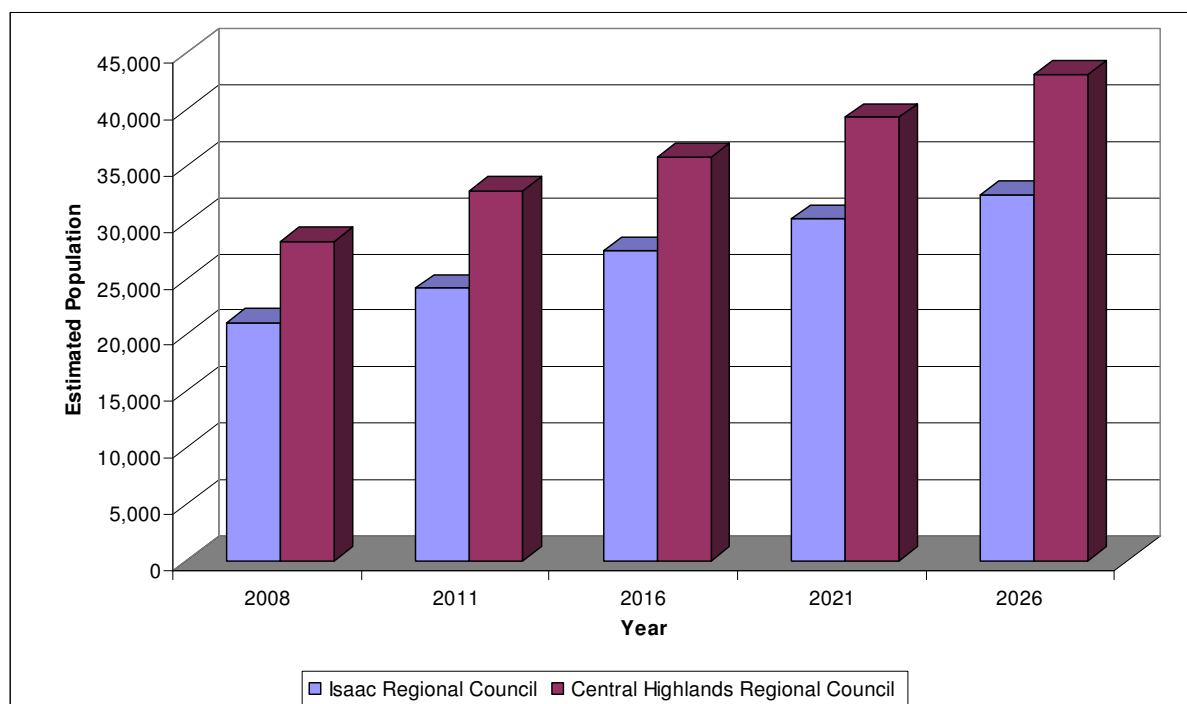
Population Projections

The projected 2026 population for the CHRC is 43,053.0 persons, representing an average annual growth rate of 2.1% from 2006 – 2026 and accounting for 0.7% of the entire state's population. The population projection for IRC in 2026 is 32,432 – 0.6% of the total state population at that time. This would represent an average annual population growth rate of 2.2% between 2006 and 2026.

Figure 4-3 shows the projected population for IRC and CHRC from 2006 to 2026. Both populations are anticipated to grow over the next 20 years (since 2006) based primarily on projected expansion of the mining areas of the Bowen Basin. At the rate of population increase anticipated by PIFU, both councils would hit critical mass in key areas like education and medical services which would contribute to raising the desirability of people migrating to the area. It would also contribute to out-migration from the area, also known as population retention.

4 Baseline Profile

Figure 4-3 Medium Projected Population 2006 – 2026, Isaac Regional Council and Central Highlands Regional Council LGAs



Source: OESR, 2010a and OESR, 2010b

4.2.2 Local Study Area

The following key points on the demography of BRC were identified (OESR, 2010):

- As at 30 June 2009, the estimated resident population of BRC was 3,376 persons, or 0.1% of the state's population;
- At the time of the 2006 Census, there were 194 persons in BRC who stated they were of Aboriginal or Torres Strait Islander origin, or 5.9% of the total population;
- At the time of the 2006 Census, in BRC, 36.8% of persons were living (usually residing) at a different address five years earlier;
- At the time of the 2006 Census, there were 4.6% of persons in BRC who stated they were born overseas; and
- In BRC, 45.7% of the 2006 usual resident population were in the most disadvantaged quintile and 6.5% of the population of BRC were in the least disadvantaged quintile.

Key Demographic Profile

The estimated population of BRC as at 30 June 2009 is 3,376 residents. Since 2004, Barcaldine has experienced negative population growth of approximately 0.4% per annum, peaking at 0.9% in 2008-2009. Forecasts suggest there will be a population increase of 0.4% by 2011 which will bring the expected total population to 3,515. This population is expected to remain steady until 2021 before declining by 2026 representing an average growth rate of 0.0% compared to the Queensland state average of 1.8% over the same period. The majority of the population are aged between 25 and 44 (28.4%) and 45 and 64 (25%).

4 Baseline Profile

The proportion of the population aged between 15 and 24 (11.5%) is lower than the Queensland average (14.2%). This may be because of the limited career and education opportunities available in the region.

The Indigenous population of BRC is estimated at 194 persons, or 5.9% of the areas total population. 151 people (4.6% of the total population) were born overseas.. Of those born overseas, the majority (97) were born in English speaking countries, with 22 people reporting that they speak a language other than English at home.

The population of BRC is made up of 832 families, with couples with children being the most common (382). One-parent families represent 12% of all families in the region (100). The remaining 350 families are couples without children.

The estimated population of Alpha (locality) at 30 June 2009 was 416 people. The population had grown by 11 people or 2.7% since 2001. Although there has been an overall increase since 2001, the population of Alpha State Locality peaked at 425 in 2006 before declining to 416 by 2009 (OESR, 2010j). At the time of the 2006 Census the population of the Alpha Suburb was 611 (ABS, 2006a). Alpha Suburb also includes a number of properties surrounding the township.

Table 4-5 summarises the key demographic characteristics of Alpha and Barcaldine based on the 2006 census statistics.

4 Baseline Profile

Table 4-5 Key Demographic profile of Alpha and Barcaldine (2006 census)

Census Characteristics	Alpha (Approximate Values)	Barcaldine Regional Council (Approximate Values)
Population:		
• Number (persons)	610	3,264
• Ratio male: female	53:47	51:49
Aboriginal and Torres Strait Islanders:		
• Number (persons)	31	195
• Proportion of all people (as %)	5.1%	6.0%
Birthplace / Languages:		
• Born in Australia (as %)	92.8%	89.5%
• English speaking only (as %)	96.1%	94.3%
Age:		
• Median age (in years)	36	38
• 14 years or less (as %)	24.4%	22.4%
• 65 years or more (as %)	12.6%	13.9%
Households:		
• Average household size (number)	2.5	2.5
• Family households (as %)	60.4%	68.4%
• Single-persons (as %)	28.9%	29.7%
Families:		
• Couples with children (as %)	49.3%	45.2%
• Couples without children (as %)	40.4%	41.8%
• One-parent families (as %)	10.3%	11.9%
• Other Family (as %)	0.0%	1.1%

Note: Barcaldine Regional Council calculated by determining the average from each of the three former shires. The proportional average for each shire was determined by multiplying the population by the value and dividing by the total population of the council.

Source: ABS, Local Suburb Profiles Alpha (Jericho Shire) and Barcaldine Regional Council, OESR h 2006

Estimated Residential Population

The estimated residential population of the local study area is presented in Table 4-6. The region has a relatively low population and makes up approximately 0.1% of the total Queensland population. Annual growth rates from 2004 to 2009 indicate the area's population is in decline.

The populations in the former shires of BRC have been experiencing minor population declines from 2004 to 2009 (preliminary population estimate), with the exception of Aramac shire which experienced a minor population increase of 0.9% per annum over that period. The region as a whole experienced a 0.4% population decrease from 2004 to 2009. The 2008-2009 period experienced a 0.9% population decrease. In contrast, Queensland experienced a 2.6% and 2.7% population increase over the same periods respectively.

4 Baseline Profile

Table 4-6 Estimated Resident Population by Statistical Local Area, Barcaldine Regional Council - 2004, 2008 and 2009p

Statistical Local Area (SLA)	Estimated resident population as at 30 June			Average annual growth rate	
	2004	2008	2009p	2004-2009p*	2008-2009p
	Number			Percentage	
Aramac	732	769	764	0.9	-0.7
Barcaldine	1,694	1,676	1,644	-0.6	-1.9
Jericho	1,017	961	968	-1	0.7
Barcaldine Regional Council	3,443	3,406	3,376	-0.4	-0.9
Queensland	3,900,910	4,308,570	4,425,103	2.6	2.7
Region as % of Qld	0.1	0.1	0.1	n/a	n/a

Note: p = preliminary, * = average annual growth rate, n/a = not applicable. Based on ASGC 2006. The sum of the statistical local areas may not be equivalent to the region total due to confidentialisation of the statistical local area data.

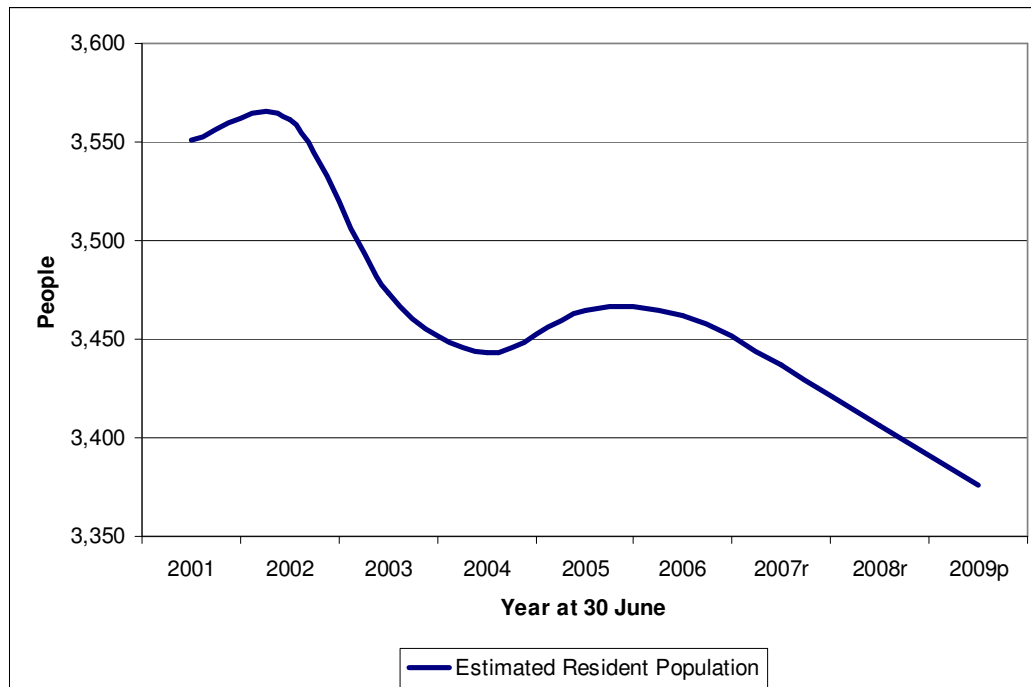
Source: Australian Bureau of Statistics, Regional Population Growth (Cat no. 3218.0) and unpublished data.

During consultations the BRC indicated that the current population decline evident in Alpha is of concern as it threatens the sustainability of the town's current services, namely the school and the hospital. The main reasons suggested for the population decline were the decreasing margins in beef farming as well as recent changes to less labour intensive farming techniques. The ten-year vision for Alpha and BRC more generally is for sustained growth to ensure the continuation of at least the current service level (pers. comm., August, 2010).

Figure 4-4 illustrates the downward population trend in the council throughout the decade.

4 Baseline Profile

Figure 4-4 Estimated Resident Population, Barcaldine Regional Council, 2001 to 2009p



Note: r = revised, p = preliminary

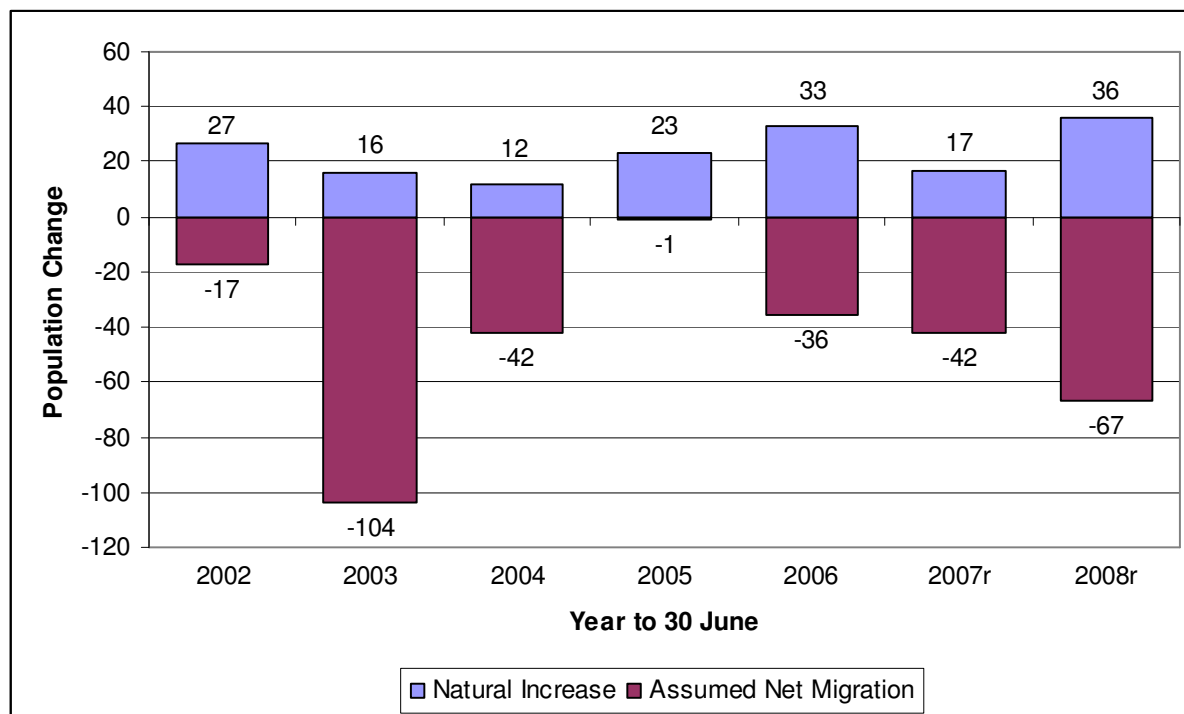
Source: PIFU, Population and Housing Profile, Barcaldine Regional Council, April 2010

The graph indicates a rapid, dramatic population decline; however it is important to consider the population size and scale of the figure. Between 2001 and 2009p the population declined by 174 people, or roughly 4.9% from 2001. Significant population changes are generally defined as + or –5.0% in a single year. BRC experienced approximately 5.0% population decline over the decade. It is important to recognize that any population decline in an area with a population the size of BRC is justification for some concern. Population change per annum for BRC on average is a decrease of 22 people from 2001 to 2009p.

Figure 4-5 graphically illustrates the relationship in the area between natural increases in population and the effects of assumed net out-migration. The range in values for natural increases is indicative of the small population in the area, which is more susceptible to year-to-year fluctuations. The assumed net out-migration is indicative of the international urbanisation trend being experienced by rural areas. Large portions of the population are migrating to larger centres for a variety of reasons including increased educational and employment opportunities. The result is that while the population as a whole is increasing in Queensland, the study area is struggling to retain its current population, particularly in the school aged children and young adult age groups. There is also difficulty in luring former residents back to the area or attracting new ones due to low levels of employment opportunities and diversity of options in the area.

4 Baseline Profile

Figure 4-5 Components of Population Change in Barcaldine Regional Council, 2002 to 2008r



Note: r = revised.

Source: ABS cat nos 3201.3, 3218.0, 3235.3; ABS unpublished births and deaths data; ABS unpublished dwelling approvals data; ABS Census of Population and Housing 1996, 2001, and 2006; QDIP *Queensland's future population 2008 edition*; *Queensland government population projections 2008*. Copyright 2010 OESR; Australian Bureau of Statistics.

In Queensland there is also a tendency to migrate to the coastal areas. Although this is where most of the larger urban centres are, the allure to the coast is often more attributed to lifestyle choices and is more frequently experienced in retiree age groups. Coastal migration is another factor in the assumed net out-migration in the study area.

Indigenous Population

At the time of the 2006 Census, there were 194 persons, ~6% of the population, in BRC who stated they were of Aboriginal or Torres Strait Islander origin (compared with 3.3% in Queensland). Of those who stated they were of Indigenous origin, 171 persons stated they were of Aboriginal origin, 10 persons stated they were of Torres Strait Islander origin, and 13 persons stated they were of both Aboriginal and Torres Strait Islander origin (OESR, 2010). Although the Indigenous population is small, it is proportionally larger in the BRC area than in Queensland as a whole.

The Project is situated wholly within the Wangan and Jagalingou native title claim (QUD 85/04). This claim, registered in July 2004, covers approximately 30,000 km². According to the Queensland South Native Title Services (QSNTS) there are 12 people from this claim group within the total Indigenous population in the Alpha area. The remainder of the Wangan and Jagalingou People claimants live in Clermont, Mackay, Townsville, Barcaldine, Longridge, Townsville, Rockhampton, Brisbane and Cherbourg (pers. comm., QSNTS, 14 July 2010). Therefore the Project's social and cultural area of influence is much larger than the

4 Baseline Profile

local study area. For the purposes of the EIS the Indigenous component therefore focuses on the local study area Indigenous population as a whole while the Wangan and Jagalingou People are addressed within the Cultural Heritage Management Plan (CHMP) discussed in Volume 2 Section 18 of the EIS.

Since 2009, the Wangan and Jagalingou People and the Proponent have successfully negotiated a number of agreements, including a State approved CHMP. The Wangan and Jagalingou People and the Proponent have reached an in principle agreement regarding an Indigenous Land Use Agreement (ILUA) and are in the process of negotiating a native compensation package associated with the mining lease applications. The details of both these agreements are confidential.

HCPL has taken into account the wide distribution of the Wangan and Jagalingou people in the Project's consultation. The Proponent sponsored a claim wide meeting in February 2010 which informed the native title claimants about the Project; and also held information sessions regarding the rail corridor ILUA in Rockhampton, Brisbane, Cherbourg and Woorabinda throughout August 2010. These sessions informed and answered questions and concerns regarding the proposed Project.

The level of integration of the Indigenous population within the Alpha community was found to be high, and this was corroborated through consultation with council (pers. comm., Barcaldine Regional Council, August 2010). Based on this analysis the population in Alpha was assessed as a whole with no distinction made between Indigenous and non-Indigenous unless differences relevant to the EIS were identified to comply with the TOR (see Section 4.5.2). More details on the Wangan and Jagalingou People are discussed in the Cultural Heritage sections of the EIS.

Urban Centres and Localities

BRC contains several urban centres and/or localities. The urban centre or locality in the BRC LGA with the largest population at 30 June 2009 was the urban centre of Barcaldine, with a population of 1,349 persons (see Table 4-7). Barcaldine has the highest population density of the urban centres and localities within BRC with 269.8 persons per square kilometre (OESR, 2010). The community of Alpha has approximately 416 persons, which is approximately 12.3% of the population of BRC as at 30 June 2009.

Barcaldine is the capital for the regional council and location of the majority of council services and programs. Although Barcaldine is classified as an urban centre for statistical purposes, the isolation from the other urban centres, the size of the community, and the size of the neighbouring communities means in terms of rural to urban population trends, Barcaldine is seen more as a rural centre than an urban one.

There are also regional centres in Longreach and Emerald which provide additional services (primarily State) to support the local area. Many residents also have family connections to the Clermont area which also provides additional shopping and general services.

4 Baseline Profile

Table 4-7 Estimated resident population by urban centre/locality, Barcaldine Regional Council, 30 June 2009p

Urban centre/locality	Estimated resident population	Area	Population density
	Number	Km ²	Persons / Km ²
Barcaldine	1,349	5.0	269.8
Alpha (L)	416	2.3	180.9
Aramac (L)	365	1.5	243.3
Barcaldine Regional Council	3,376	53,677.3	0.1
Queensland	4,425,103	1,734,174	2.6
Region as % of Qld	0.1	3.1	N/A

Note: p = preliminary, (L) = locality. In broad terms, an urban centre is a population cluster of 1,000 or more people while a locality is a population cluster of between 200 and 999 people. For statistical purposes, people living in urban centres are classified as urban while those in localities are classified as rural. Each urban centre or locality has a clearly defined boundary and comprises one or more whole census collection districts. N/A = not applicable. Based on ASGC 2006.

Source: Australian Bureau of Statistics, Regional Population Growth (Cat no. 3218.0) and unpublished data

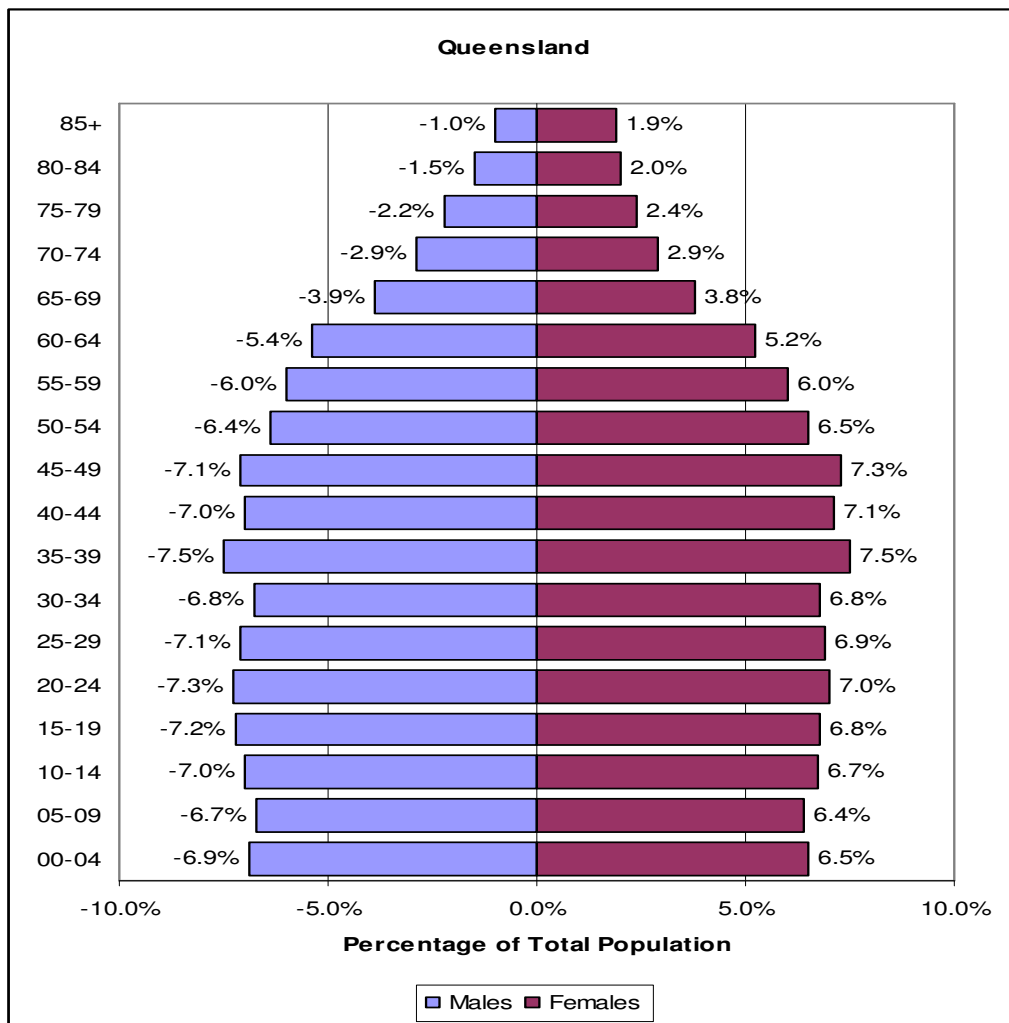
Age Profile

In the BRC Local Government Area (LGA) as at 30 June 2008, 20.7% of persons were aged 0 to 14 years, 65.2% were aged 15 to 64 years and 14.1% were aged 65 years and over (OESR, 2010).

Figure 4-6 illustrates the population pyramid for the regional council compared to Queensland as of 30 June 2008. *Ad hoc* information indicated that there was a perception in the area that residents tended to be predominantly in their prime working ages of 30 to 65, with a significant number of school aged children attending schooling outside the area, and a large number of retirees and the elderly moving away. Although this is somewhat true, the population pyramids for BRC and Queensland indicate a lot more is occurring in the region. Queensland's pyramid has a fairly even distribution and is more indicative of a stable demographic profile by Western [World] standards. The even distribution applies to the total population between the age groups from birth to the 45-49 age grouping. Above this point the groups become gradually smaller as the population ages. The ratios between males and females are also fairly evenly matched, with slightly more young males and slightly more elderly females.

BRC's population pyramid suggests several different situations are occurring. The distribution of total population between the age groups is fairly uneven resulting in a wide base and middle in Figure 4-6. There are an unusually high number of boys aged 0-4 (8.5% of the total population) compared to girls (5.7%). The 35-54 age groups are again larger than the Queensland average, as is the 60-64 group for women and the 65-69 group for men. The retiree and elderly age groups see more men from 70-79 and less women in the same age groups than the Queensland average. The female population aged 80 years and over is proportionally equal to the Queensland average while that for males is slightly lower for ages 80-84 and significantly lower for ages 85 years and older.

Figure 4-6 Population by Age Group and Sex, Barcaldine Regional Council and Queensland, 30 June 2008p



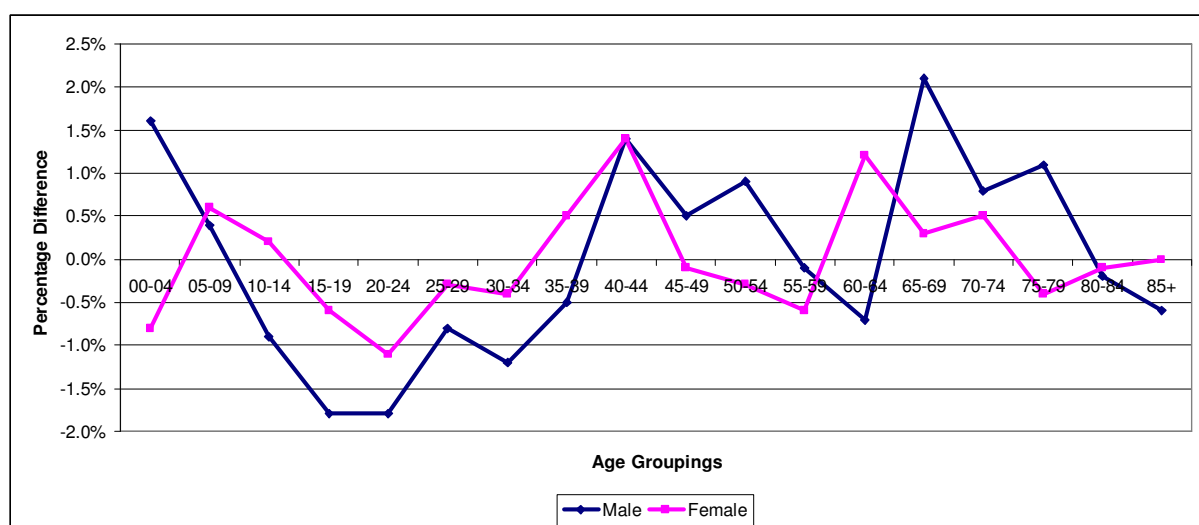
Note: p = preliminary. Based on ASGC 2006.

Source: Australian Bureau of Statistics, Population by Age and Sex, Regions of Australia (Cat. no. 3235.0)

4 Baseline Profile

Figure 4-7 shows the proportional gender and age differences between the population in BRC and the overall population in Queensland. From this figure it is evident that there are similarities between the male and female populations in BRC, and significant differences when compared to the Queensland average. Part of this can be attributed to the smaller population size in the area, which results in smaller age groupings and thus higher probabilities of significant differences due to population anomalies. The male and female lines generally follow the same trend, though at different rates/degrees. The fluctuation above and below the line indicate their differences to the Queensland averages.

Figure 4-7 Barcaldine Regional Council Population Pyramid Differences Compared to Queensland, Estimated 2008 Populations



Source: Australian Bureau of Statistics, Population by Age and Sex, Regions of Australia (Cat. no. 3235.0)

Annual population anomalies are generally averaged out in larger populations, for example when a large proportion of males are born in a specific year. Review of the population data from the ABS 2006 Census of Population and Housing for the former shires of Aramac (SLA), Barcaldine (SLA) and Jericho (SLA) – Age by Sex indicated that numerous anomalies occur in all three locations that would contribute to the wide variations seen in Figures 4-6 and 4-7. The most likely reasons for the anomalies are due to the low population in the area.

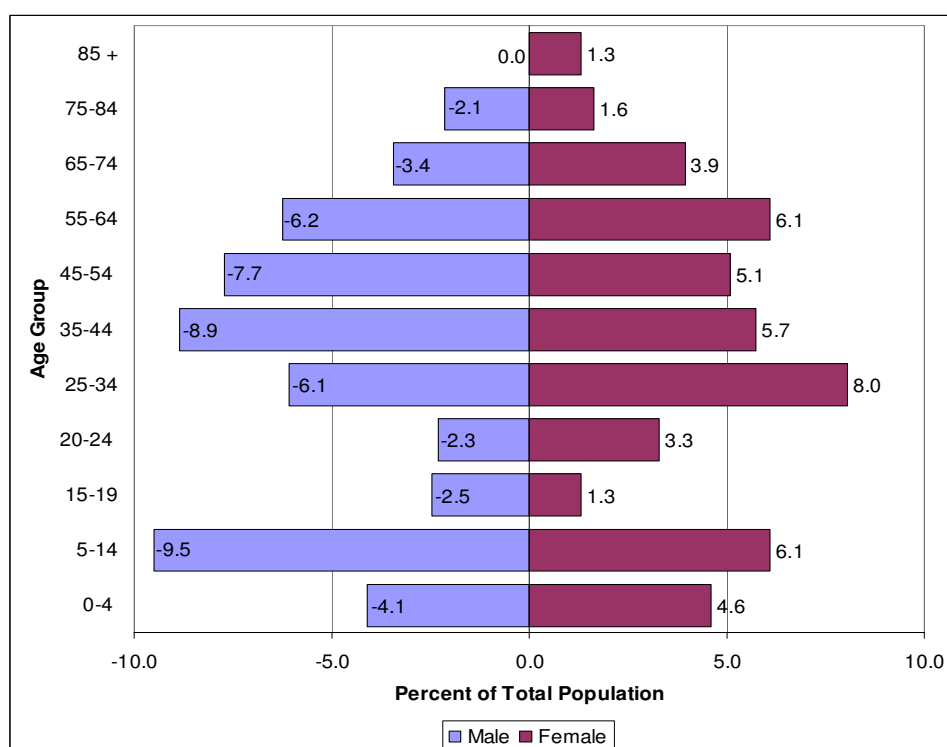
What the data does suggest is that the number of woman who leave the area is proportionally higher than their male counterparts. This is more prominent in recent times as the retiree and elderly patterns are more similar across the genders, though again there are proportionally more males until the graph moves closer to age expectancy levels, where women traditionally live longer. This is consistent with migration patterns throughout Queensland, where urban areas have higher proportions of females while rural areas have higher proportions of males. Employment opportunities, educational opportunities and lifestyle preferences are all contributing factors to migration from rural areas to urban centres.

For Alpha (State Suburb), the same age groupings were not available and the different age groupings affect the outcome and visual profile of the population pyramid. However, analysis is still comparable to the council as a whole. Figure 4-8 illustrates the significant reduction in the population aged 15 to 24, which is generally the age of high school children and university aged young adults. The figure

4 Baseline Profile

presents 10 year intervals with the exception of years 0 to 4, 15 to 19 and 20 to 24 which are all five year intervals. The 85 + category covers all ages over 85 years. School aged numbers remain lower than the groupings even when the school and university aged groups are combined to form a ten-year interval. This is directly attributable to the limited high school and lack of tertiary level schooling in the Alpha area, as well as the trend for young adults to move to the city. The bulk of the population is within the working ages of 25 to 64, with more females in the youngest age group (25 to 34) and more males in the next two (35 to 54). Within this whole group there are proportionally more men than women.

Figure 4-8 Alpha (State Suburb) Population Pyramid, 2006 Census



Note: Totals do not add up to 100.0% due to random rounding errors by ABS data.

Source: ABS, 2006 Census of Population and Housing: Alpha (Jericho Shire) (SSC 35055)

If all the age groups are separated into three groups the proportional over-representation of males is more evident, as seen in Table 4-8.

Table 4-8 Age Distribution in Alpha (State Suburb) by Gender, 2006 Census

Age Grouping	Males	Females
0 to 24	18.4%	15.3%
25 to 54	22.7%	18.8%
55 to 85+	11.7%	12.9%
Total	52.8%	47.0%

Note: Totals do not equal 100.0% due to random rounding errors within ABS data.

Source: ABS, 2006 Census of Population and Housing: Alpha (Jericho Shire) (SSC 35055)

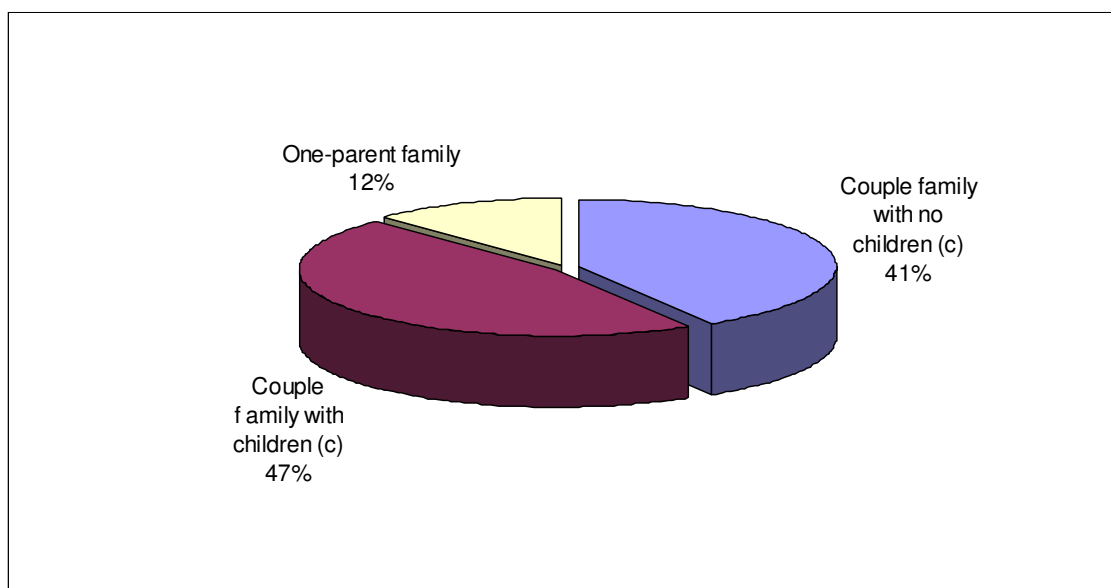
4 Baseline Profile

Family Composition

At the time of the 2006 Census, there were 832 families in BRC. Couples with children were the dominant family type in the region accounting for 382 families (~45.9%). There were 100 one-parent families, accounting for ~12.0% of all families in the region, and 341 couple families with no children (~41.0%). By comparison, in Queensland ~39.1% of the population were couples with children, ~15.9% was one-parent families, and ~43.3% were couples with no children (OESR, 2010). It is important to note that rounding errors result in the percentages not adding up to 100%, hence the approximate symbol before the percentages.

The data reflects the traditional norms of rural areas in BRC compared to Queensland as a whole. Societal pressures and support networks tend to result in fewer one-parent families in rural areas, which is reflected in the data. This is also evidence of the strong sense of family values with many people actively choosing to live in BRC because of the environment it affords to families. There also tends to be more families with children in rural areas, which is reflected in the higher percentage of couples with children in BRC.

Figure 4-9 Family Composition (a) (b), Barcaldine Regional Council, 2006



Note: (a) Based on place of usual residence. (b) Includes same-sex couple families. (c) Children are defined as children aged under 15 years of age or dependent students aged 15 to 24 years. Based on ASGC 2006. Data for reformed local government areas are derived from concorded population-based statistical local area data (ASGC 2006).

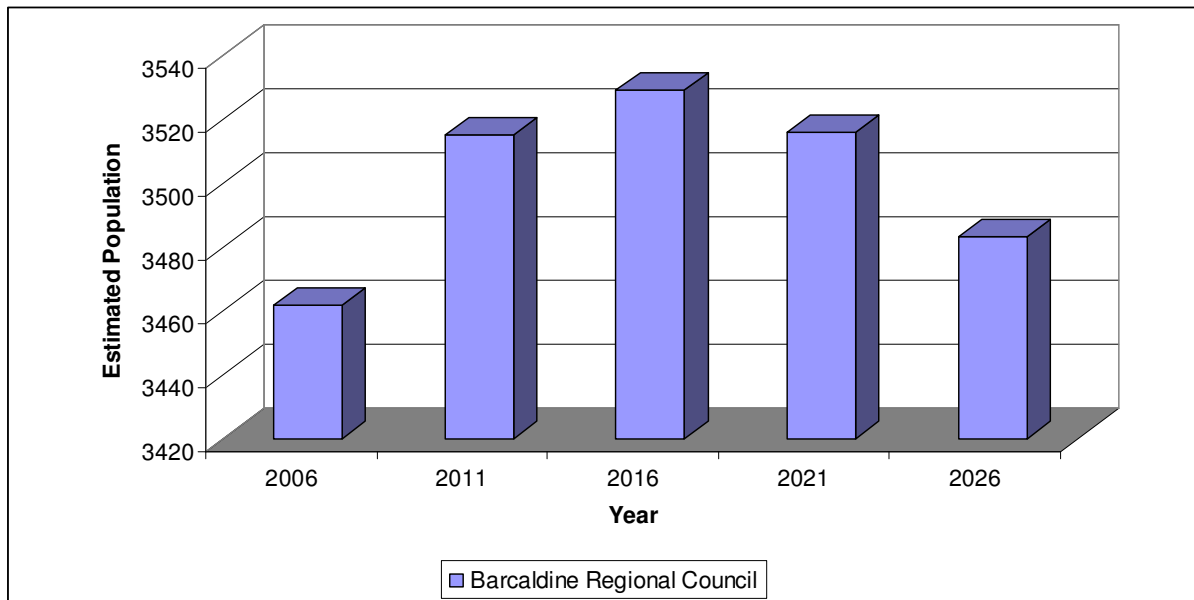
Source: Australian Bureau of Statistics, Census of Population and Housing, 2006, Basic Community Profile - B24

Population Projections

The population for BRC is projected to increase by an average annual growth rate of 0.0% (too small to record to a tenth of a percent) over the 20-year period between 2006 and 2026 as seen in Figure 4-10. In comparison, Queensland is projected to have an average annual growth rate of 1.8% over the same period. In 2026 the population for BRC is projected to be 3,483 persons, accounting for 0.1% of Queensland's total population at this time, consistent with its current proportion of the Queensland population (OESR, 2010i).

4 Baseline Profile

Figure 4-10 Projected population by local government area (a) (b), Barcaldine Regional Council, 2006 to 2026



Note: (a) 2006 figures are final release based on estimated resident population. (b) Projections for Aboriginal Communities and Islander Communities have not been included in the local government area estimates due to lack of input data. Aboriginal and Islander Communities are however included in the statistical division projections. Based on ASGC 2006. Data for reformed local government areas are derived from concurred population-based statistical local area data (ASGC 2006).

Source: Queensland Government Department of Infrastructure and Planning, Planning Information and Forecasting Unit (PIFU), SLA population projections 2008 edition (Medium series). Queensland Government, Population Projections to 2056: Queensland and Statistical Divisions, 3rd edition, 2008. Australian Bureau of Statistics, Population Estimates by Age and Sex, Australia and States (Cat. no. 3235.0.55.001)

The population projection in Figure 4-10 is based on the medium series as recommended by PIFU (pers. comm., PIFU, September 2010). This provides a fairly liberal estimate of population growth in the area given the recent history of population decline. Generally for a population of this size with recent migration patterns the most likely population projection series would be the low. The use of the medium series may become more appropriate in the future due to the potential for mineral developments in the area and the possible preference for people to live near where they work.

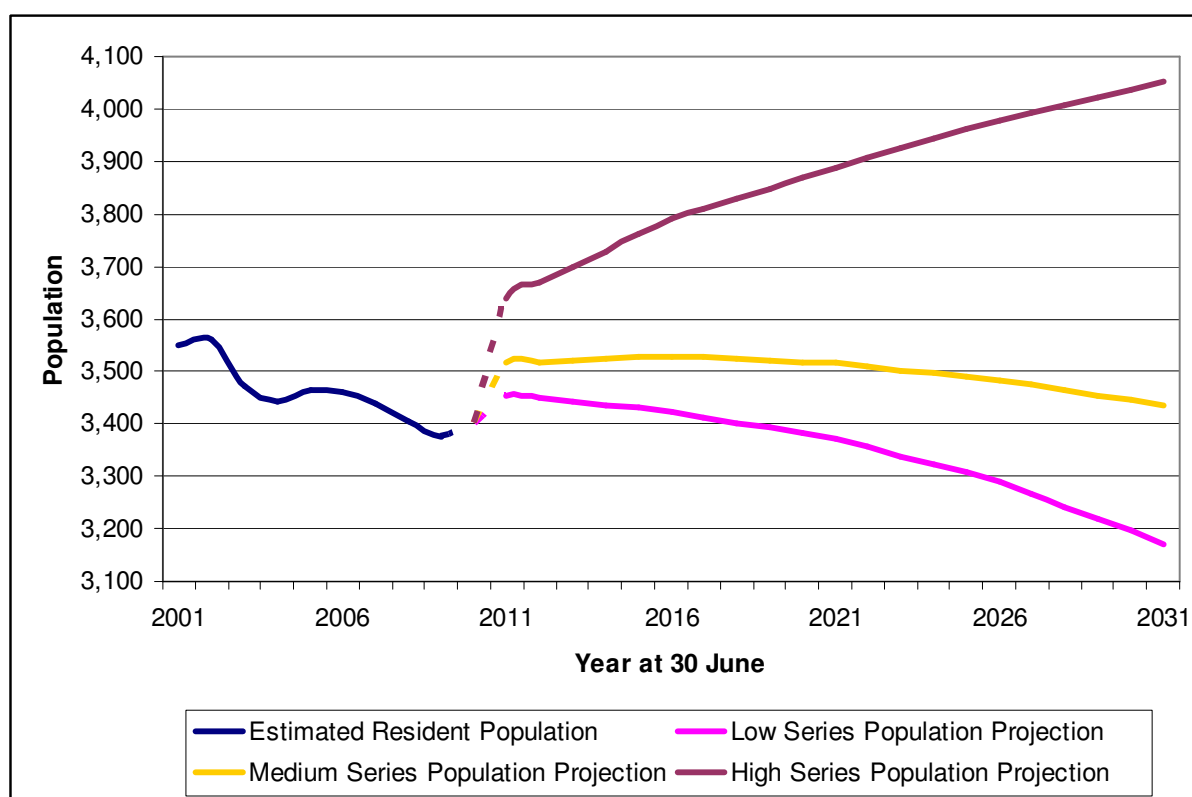
Figure 4-11 illustrates the three population projection series' for BRC up to 2031. The low and medium series are relatively similar, though population stability is longer in the medium series, and population decline comes sooner in the low series. The population is estimated to decline over time in both series. The high series by contrast estimates a consistent population increase over the next 20+ years.

PIFU examined the underlying trend for the area from the 2006 census data which showed older people moving out of the area to seek things such as medical attention, and young people moving out of the area to seek things such as schooling and other opportunities. Decline could be worse than the low series if this trend increased or continued. PIFU also factored in births, which has increased across Queensland as a whole recently. This is important because the projections are assessed from a top down perspective, where information is assessed for the State, then statistical divisions (SD),

4 Baseline Profile

LGAs, etc. Trends in the State and SD therefore influence projected trends in the LGAs. The assumptions regarding industry growth likely did not include the Galilee mining projects as these projections were developed based on 2008 data, when Project details were limited. Therefore the population projections are based on the area without significant mining development. PIFU will reassess population projections in 2011; however, the data available will still be based on the 2006 census, which was pre-global financial crisis (GFC) and will not be able to capture related trends (pers. comm., PIFU, September 2010).

Figure 4-11 Estimated Resident Population 2001 to 2009p and Population Projection 2011 to 2031 (Five Year Intervals)



Note: This figure is a combination of two PIFU figures for current estimated population and population projections. preliminary data only available for 2009. Revised data available for 2007 and 2008. Values for 2009 to 2011 have been manipulated for graphic purposes (dashed lines) as they are currently unknown and have been estimated to align with population projections (low, medium and high series) from Planning Information and Forecasting Unit (PIFU). PIFU population projections are provided for every 5 years from 2011 to 2031. Values for PIFU projections were averaged based on differences between values given in source data set to provide additional years (2 to 4) of 5 year set.

Source: ABS cat nos 3201.3, 3218.0, 3235.3; ABS unpublished births and deaths data; ABS unpublished dwelling approvals data; ABS Census of Population and Housing 1996, 2001, and 2006; QDIP *Queensland's future population 2008 edition*; *Queensland government population projections 2008*. Copyright 2010 OESR; Australian Bureau of Statistics.

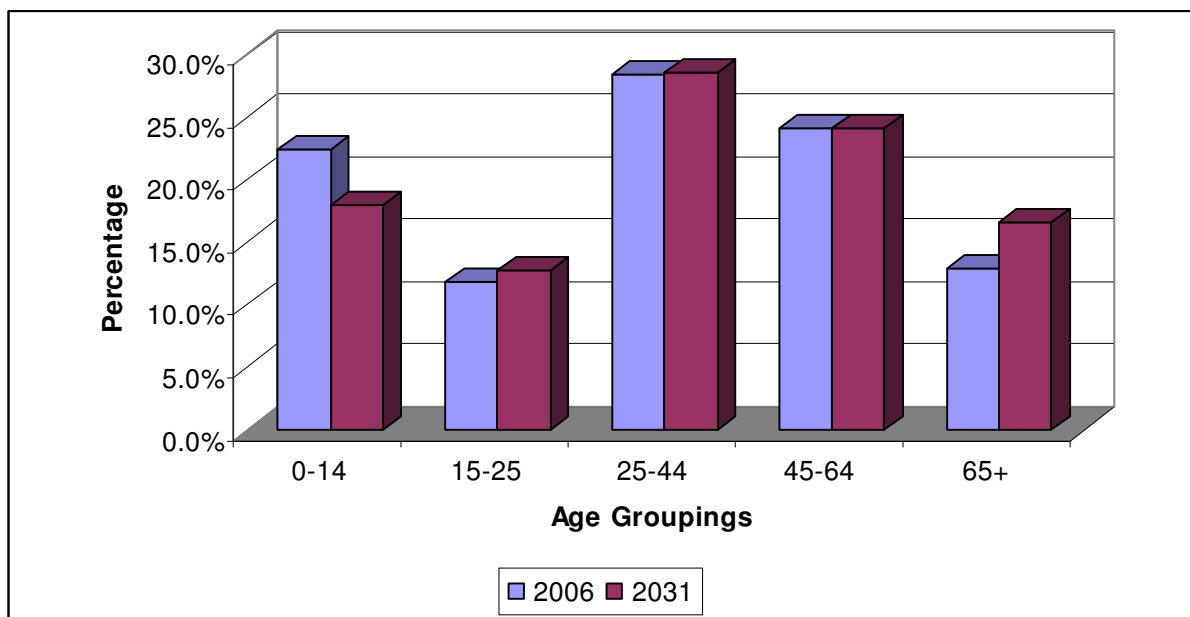
The variance in the population projections between the low and medium series', and the high series is indicative of the mining influence in the SD, not necessarily the Galilee Basin proposed projects (pers. comm., PIFU, September 2010). PIFU estimates suggest it is likely that the population will remain relatively consistent with a gradual decline over time in BRC. The potential mining developments in the

4 Baseline Profile

area have the potential to reverse that trend, though in a gradual way mirroring the estimated rate of decline from the low and medium series’.

Figure 4-12 shows how PIFU projects the population will change over time to 2031 by age grouping, based on the statistical data available in 2008. The population will continue to experience current trends, resulting in the population slowly getting older over time and transitioning from a high level of children in proportion to a higher level of adults, retirees and the elderly.

Figure 4-12 Population Projection Age Distribution, Barcaldine Regional Council (Medium Series), 2006 and 2031



Note: Based on the medium series population estimate.

Source: ABS cat nos 3201.3, 3218.0, 3235.3; ABS unpublished births and deaths data; ABS unpublished dwelling approvals data; ABS Census of Population and Housing 1996, 2001, and 2006; QDIP *Queensland's future population 2008 edition*; *Queensland government population projections 2008*. Copyright 2010 OESR; Australian Bureau of Statistics.

Although the values for adults remains relatively constant, the decrease in 0-14 year olds and increases in 15-25 and 65+ age groups indicate an aging population less likely to produce children than younger adults, and is therefore declining. This trend is not consistent with the council objectives to stabilise and increase the population but is indicative of trends mentioned above regarding urbanisation.

Mining Lease Area

Additional demographic data specific to the mining lease area was not collected for the SIA. Details may have been collected as part of ongoing landholder negotiations but are not recorded or assessed as part of the SIA. For general demographic information for the mining lease area see Section 4.2.2 for the local study area.

4 Baseline Profile

4.3 Culture and Community Dynamics

4.3.1 Regional Study Area

The following key points on the culture and community dynamics of IRC and CHRC were identified (OESR, 2010):

- At the time of the 2006 Census, of those aged 15 and over 22.6% in IRC and 23.2% in CHRC were volunteers with the regional council; and
- At the time of the 2006 Census, 50.5% of people in IRC and 54.3% of people in CHRC were living (usually residing) at a different address five years earlier;
- At the time of the 2006 Census, 7.4% of people in IRC and 8.3% in CHRC stated that they were born overseas; and
- At the time of the 2006 Census, 5.1% and 17.3% of people in IRC were in the most disadvantaged and least disadvantaged quintile respectively, while 8.5% and 19.6% of people in CHRC were in the most disadvantaged and least disadvantaged quintiles (respectively).

Social Cohesion and Networks

A community consultation meeting held in Clermont in May 2010 indicated that there is a strong, supportive community spirit in Clermont, the town has a low rate and is considered a safe and secure place to live. The survey of residents conducted as part of the 'Isaac 20:20 Vision' Community Planning process supported this view, identifying that many people, throughout the IRC and in all age groups stated they enjoyed living in the region because of the opportunities to spend time with family, build strong relationships with friends and neighbours, the relative safety of the area, and the connectivity and community spirit throughout the area.

There was a view that the ongoing development and provision of social and education programs for families, single people, children, young people and the aged will continue to connect families and communities. Using arts, culture and heritage development to create an IRC identity will also further unite the community (Isaac Community Council, 2009).

A 2008 survey of residents undertaken by the CHRC indicated that there is a high level of overall contentment among residents, and almost all respondents indicated they enjoyed living in the area. Community characteristics highlighted by the respondents included the friendliness, mix of people, and suitability for raising children particularly in terms of safety. Community spirit was a common response given when asked about what residents felt the best thing to be about living in the area. They also highlighted existing employment opportunities and the relaxed lifestyle.

When asked what they felt to be negative attributes of living in the area, respondents highlighted the distance and isolation from other regional centres, in particular focusing on access to medical services and facilities as well as a lack of entertainment and cultural activities, limited activities for youth and the high cost of living and/or housing.

In the survey, many respondents reported that they felt local government to be 'doing its best' to support communities in the region, with more than half believing council had a good knowledge of local issues and community desires. Further, the majority of respondents felt the mining industry has created cost burdens on CHRC who are required to provide increased services and facilities required by the increased populations (pers. comm., Hanley, 2009).

4 Baseline Profile

Cultural and Ethnic Characteristics

The regional study area has a strong sense of community and a typical rural Queensland culture, in unison with mining's increasing influence. Many people reported that they enjoy living in the area because of the healthy, outdoor lifestyle and the relative safeness of communities. Most people know one another, trust each other and try to support local businesses as much as possible (Isaac Regional Council 2009, pers. comm., May 2010).

At the time of the 2006 census, 23.1% of respondents in IRC reported that they have lived at a different address one year prior. In CHRC 24.6% had moved house in the year before the census. When considering those who have moved within the five years prior to the census, the percentages increased to 50.5% in Isaac and 54.3% in Emerald. These numbers are higher than the Queensland state average of 19.7% who had moved in the year before the census and 47.6% over the five years before, possibly indicating a level of transience in the population as a result of the growth in the mining sector.

A 2005 survey of residents in Emerald Shire undertaken to inform the development of the Emerald Open Space and Recreation Plan, benchmarked respondent results against previous surveys conducted in 1992, 1994, 1997, 1999, and 2001 revealed conflicting conclusions. The survey proponents deduced that the area was becoming more settled which was demonstrated by the longer average length of residence in the shire (SGL Consultants, March 2007).

Despite this high level of mobility amongst the population, there is a lower level of ethnic diversity across the regional study area than in Queensland as a whole, with most people having moved to the area from within Australia and only a small percentage of people immigrating from overseas, compared to the state average of 17.9%. Of those born overseas, only 2.4% of the population in IRC and 2.7 % in CHRC reported they were born in non-English speaking countries, and 2.2% in each area stated that they spoke English either not at all, or not very well. (OESR a & b, 2010)

Of those born overseas, the main countries of birth reported in Clermont (State Suburb) were New Zealand (1.3% of total population), England (1.2%), South Africa (0.6%), Scotland (0.3%) and the Netherlands (0.2%). In Emerald, the main countries of birth, other than Australia were New Zealand (3.1% of the total population), England (1.6%), South Africa (0.6%), Philippines (0.4%), and United States of America (0.3%).

Crime and Deviance

Small Area Crime Profiles 2002-2003 for the Emerald, Bauhinia and Peak Downs Local Government Areas (LGAs) (now a part of the CHRC) indicate that the region has a lower level of offences against the person and offences against properties than Queensland as a whole. The report however indicates there is a higher level of other offences, including drug, liquor, good order and stock related offences (OESR, 2003e).

Fitzroy SD (which includes the IRC) had higher rates of offences against the person and other offences in 2002-2003 than Queensland as a whole. The rate of offences against property however was significantly lower than the rest of the state. Rates of offences against the person and other offences increased significantly on 2001-2002 figures; however, rates of offences against property decreased over the same period. (OESR, 2003f).

Discussions with the IRC indicated that while crime in mining communities is often more perception based than actual occurrence, there were many cases where crimes are not reported to the police but

4 Baseline Profile

resolved through the perpetrator's employer and is therefore not counted in formal statistics. In particular they highlighted domestic violence (Dysart has one of the highest rates in Queensland); drink driving (however recent police crack-downs and company policies had reduced offence rates); gambling enabled by high disposable incomes; and substance abuse as common in mining communities (pers. comm., IRC, August 2010). These problems often extend to the towns where high proportions of workers reside.

Table 4-9 provides a summary of crime statistics for the two SDs and a comparison to Queensland.

4 Baseline Profile

Table 4-9 Local Area Crime Profile Emerald (S), Bauhinia (S), Peak Downs (S) LGAs, Fitzroy SD, and Queensland

Offences by type of offence, 2002-03 - Rates expressed per 100,000 persons			
Offences	Emerald, Bauhinia, Peak Downs LGAs Rates	Fitzroy Statistical Division Rates	Queensland Rates
Offences against the Person			
Homicide	0	8	6
Serious Assault	277	367	315
Other Assault	190	252	215
Sexual Offences	60	430	169
Armed Robbery	0	22	40
Unarmed Robbery	11	9	15
Extortion	0	0	1
Kidnapping etc	0	7	9
Other	375	344	340
Total against the Person	912	1,439	1,110
Offences against Property			
Unlawful entry with intent:			
— Dwelling	217	519	1,023
— Shop	109	149	204
— Other	337	507	367
Arson	33	54	66
Other Property damage	717	1,166	1,199
Motor vehicle theft	472	1,158	1,176
Stealing From:			
— Dwelling	125	203	223
— Shop	136	390	407
— Other	994	1,159	1,559
Fraud	272	496	727
Handling Stolen Goods	114	127	176
Total against property	3,633	6,197	7,787
Other			
Drug Offences	1,189	1,075	1,019
Prostitution Offences	0	2	31
Liquor (excl. drunkenness)	310	101	57
Good order offences	500	710	445
Stock related offences	22	12	6
Total Other Offences	3,296	3,911	3,331

Source: OESR 2003e, OESR 2003f

4 Baseline Profile

Volunteerism

At the time of the 2006 census, a higher proportion of people in the regional study area reported that they were volunteers with their local council compared with Queensland as a whole. In IRC, 22.6% of the population (3,332 people) stated they were council volunteers, and in CHRC 23.2% (or 4,593 people) reported they volunteered with the council. This is in comparison to 18.3% of the population (568,230) in Queensland as a whole (OESR, 2010a,b). Community consultations reported that there is a decline in volunteerism associated with ageing of volunteers and increasing commitments to work, while these levels are currently higher than across the State.

Socio-Economic Index for Areas

Socio-Economic Indexes for Areas (SEIFA) provides a summary measure of the social and economic conditions of geographic areas across Australia and comprise a number of indexes generated when an ABS Census of Population and Housing is conducted. At the time of the 2006 census, a Socio-Economic Index of Disadvantage, which ranked geographical regions to reflect social and economic conditions and disadvantage, was produced. The focus of the indexes are low-income earners, relatively lower educational attainment, high unemployment and dwellings without motor vehicles, where low index values represent areas of highest disadvantage and high values represent areas of least disadvantage.

By definition, 20% of Queensland's population lies in each quintile. The regional study area however has relatively low levels of disadvantage with less than 10% of the population in the most disadvantaged quintile (IRC 5.1% and CHRC 8.5%). There are also less people in the least disadvantaged (most advantaged) quintile with 17.3% of IRC residents and 19.6% in CHRC. In both Isaac and Central Highlands Regional Council LGAs, the majority of people are in Quintile 4, (IRC – 46.0% and CHRC 35.1%). Table 4-10 demonstrates the proportion of the population in each quintile in Isaac and Central Highlands Regional Council LGAs in comparison with the state of Queensland.

Table 4-10 Socio-Economic Indexes for Areas, Isaac and Central Highlands Regional Council LGAs

Local Government Area (LGA)	Quintile 1 (Most disadvantaged)	Quintile 2	Quintile 3	Quintile 4	Quintile 5 (Least disadvantaged)
	Percentage of the Population				
Isaac Regional Council	5.1	7.1	24.5	46.0	17.3
Central Highlands Regional Council	8.5	14.1	22.8	35.1	19.6
Queensland	20.0	20.0	20.0	20.0	20.0

Source: OESR, ABS 2006

Wages attributed to the mining industry are a major influencing factor to the percentage of the population in the higher quintiles for both councils. IRC has a higher proportion of mine employed residents than CHRC.

4 Baseline Profile

4.3.2 Local Study Area

The following key points on the culture, and community dynamics of BRC were identified (OESR, 2010):

- At the time of the 2006 Census, 32.7% of the population aged 15 years and over were volunteers with the BRC; and
- At the time of the 2006 Census, 36.8% of the BRC population lived (usually resided) at a different address five years earlier;
- At the time of the 2006 Census, 4.6% of people in BRC stated that they were born overseas; and
- At the time of the 2006 Census, 45.7% of people in BRC were in the most disadvantaged quintile while 6.5% of people in were in the least disadvantaged quintile (i.e. most advantaged).

Values

During site assessments, residents indicated that one of the significant attractions of the region is the presence of the strong family and friendship networks and a readiness by most to look out for one another. The majority of people prefer the quiet, rural lifestyle as opposed to the lifestyle afforded in the larger regional areas (Project Questionnaire May 2010).

BRC community values can be described as based on traditional family values, strengthened by country people who have an affinity with the land. Other attributes reported in stakeholder research include:

- Peace and tranquillity;
- Clean environment;
- Living among people we know and trust;
- Great place to bring up a family;
- Life based on good friends and family; and
- Feel safe and know children are safe as well.

The community plan for BRC (2009) identified the values for the Alpha area as having a lifestyle that is safe, comfortable and ideally suited to families. People enjoy easy-going small community lifestyle with basic services and facilities and appreciate the traditional family values of the community, appealing strongly to families. The cleanliness of the town and district was valued by residents. Young people, in particular, value local sport including touch football, rugby league and cricket. Several community facilities were seen as assets including walking tracks at the park, the library, Skate Park and swimming pool (Barcaldine Regional Council, Community Plan, 2009).

Preferred Future

Based on the feedback received for the 2009 Community Plan, the following information was included in the Alpha area's preferred future in the next ten years:

4 Baseline Profile

Population, Employment, Services

The community needs to have population, employment and services to develop together because they depend closely on each other. Adequate services rely on having enough population, but are also required to attract more people to the district. Population growth requires increasing stable employment; to many local people the minerals industry represented this opportunity. Others focused on agriculture or small business.

People strongly wanted to retain the current level of services. They also wanted to see proactive investment in basic but modern infrastructure, such as sewerage and a reliable power supply, to support a growing population (Barcaldine Regional Council, Community Plan, 2009).

Stakeholder consultation identified the lack of consistent electricity supply, reliance on bore water, and inadequate sewage management as key issues in the community.

Retaining Values

While people saw the need to increase population and have greater community vitality, they also wanted to retain the values and lifestyle of a sustainable small community. They wanted to maintain caring community values and retain a quiet, safe lifestyle that make the community ideal for families (Barcaldine Regional Council, Community Plan, 2009).

Stakeholder consultation corroborated this desire, particularly the need to maintain a safe community, which requires manageable growth if growth is to occur. The majority of people do not lock their doors and do not see any reason to. They also associate the community with the agricultural industry (pers. comm., May 2010).

Social Networks and Cohesion

Community consultations indicated a high level of community cohesion. A number of respondents in the local study area reported the 'sense of community' as a major attraction of living in BRC. It was also evident people in the region often have wide social networks, quoting distances to attend regional events and visiting friends/family as one of the things disliked (Questionnaires – Alpha and Barcaldine). It was found that the social networks of people in the local study extend both to the east and west of their homes and beyond the BRC.

Ad hoc research conducted during the consultation events in October 2009 indicated many residents in the Alpha area, particularly north of Alpha, had social networks around Clermont. Clermont is a larger community with more facilities and services, as well as employment opportunities in the mining industry. Clermont is more similar to a rural community than Emerald and is also closer to Alpha area residents living on the Clermont-Alpha Road.

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. In the small population, people are encouraged to participate in the community and many people support small community organisations (Barcaldine Regional Council, Community Plan, 2009).

Streetscape and Amenity

Information collected from the Barcaldine Regional Council Community Plan indicates that residents identified several issues to improve amenity and streetscape. The main shopping street needs to be

4 Baseline Profile

beautified with more fresh paint on private premises and public buildings and signs. Some people requested that the vehicle stops be removed.

It was also suggested that footpaths need to be improved and extended including a new footpath in front of the shops that additionally needs to be extended to the full length of the street. Existing footpaths were found to be level, safe and offer good access in the main street and in other frequently used areas of the town. However, kerbing and channelling of all streets with footpaths were also identified for improvement.

It was further identified that more walking paths and tracks are needed in parks with adequate shade and BBQ's. This includes the need for a barbecue and picnic table at the Belyando Crossing on the Capricorn Highway.

Other suggestions were for:

- “Louder” signage supporting local services and businesses;
- Roundabouts;
- Maintenance of parks and gardens; and
- Improved amenities for tourists, travellers and locals (Barcaldine Regional Council, Community Plan, 2009).

Youth

The community of Alpha and district offers a good lifestyle for young children but opportunities are limited for teenagers and young adults. Students in years 11 and 12 can study in Alpha through distance education or must travel to Barcaldine or other localities, or attend boarding school. This is often a common reason for families leaving the community. After sport on Saturdays there are very few activities for young people. Very limited employment means that many young people leave Alpha and few return.

Suggestions to improve the community for young people are:

- Improved sporting facilities. A wide range of sport is available and many young people play sport but there needs to be more grass on the fields, more shade available at sporting venues, water tank at the skate park and a gym;
- More activities for young people, particularly on weekends. While young people do make their own fun, there are not many young people in the community to develop something different to do. More activities and events in Alpha would reduce the need to travel to larger centres;
- A youth centre that could be a safe drop-in venue for young people; and
- A greater variety of shops would make the community more suited to young people. While local shops stock some “young” items, a food business, a hairdresser and young persons clothes shop would improve the community (Barcaldine Regional Council, Community Plan, 2009).

Ad hoc research identified informal events for area youth are currently being organised by the Chaplin from the local school. There is also generally a mix of youth and adults at most events due to the limited population. To date the program has included activities such as ‘Clean-Up Australia Day’ and a chess competition (pers. comm., August 2010).

4 Baseline Profile

Seniors

Seniors felt that the community was friendly and comfortable with many people having family and community support. There is a multipurpose aged care centre at the hospital but it is limited to four places. Home and Community Care (HACC) provides some services including in-home care, outings, and mobility equipment. There are also home assist services available from Barcaldine, and the Barcaldine Hospital is accessible. More information on HACC is included in Section 4.3.2 Community and Support Groups.

Several challenges for seniors were identified. Not having a doctor limits the health care that can be provided locally and aged people need to travel to larger centres for medical care. The Queensland Ambulance Service (QAS) ambulance is no longer available and there is not a local dentist. There is one person who does aged care assessments though there is a long waiting period for appointments.

Seniors felt that it would be good for older people to interact with others in Jericho and Barcaldine and arranging bus transport for visits would be beneficial. They also sought more functions to specifically involve older people (Barcaldine Regional Council, Community Plan, 2009).

Cultural and Ethnic Characteristics

According to the community plan, artistic and cultural opportunities for young people in particular are needed despite the fact that junior arts and music and dance teaching are available locally. Key people felt that there is a need for an overall Arts and Culture Plan that would incorporate decisions for the use and development of venues, support for the arts and sustainable funding and in-kind contributions to the arts (Barcaldine Regional Council, Community Plan, 2009).

In the Barcaldine area, a high priority was given to the development of an arts space incorporating exhibition space, and areas for preparation, workshops and performance. It could also include a visitor and community information centre, a retail arts shop and host visiting collections in the community plan. This multi-function arts facility would not only foster the arts but also be an additional tourist attraction, improve quality of life of residents and be an added attraction for young people.

The Council has purchased the old butchers shop site and this could possibly be developed into the multi-functional space potentially as a two story building. The Tourist Association would prefer for the Information Centre to remain at its current location but with an expanded venue.

The centre would need to be well designed and may host an artist-in-residence. A conceptual plan and a formal proposal need to be developed. The proposal could possibly be seed funded by Council prior to applying for external funds such as the Rio Tinto Community Fund.

The Arts Council owns the Radio Theatre and dedicated volunteers run movies twice weekly. This is an important cultural activity in the community, particularly for young people, but funding is very limited and volunteers are becoming exhausted. The theatre requires subsidies to keep it open, with admissions not sufficient to maintain and repair the building. Moreover the building currently requires major repairs beyond the capacity of the voluntary group.

A suggestion is to integrate arts and cultural groups into a Cultural Precinct in Barcaldine. The arts and cultural plan should also consider the establishment of a paid arts coordinator for the whole Council area (Barcaldine Regional Council, Community Plan, 2009).

4 Baseline Profile

Indigenous Arts

The Red Shed is an important focus for Indigenous art. Some people suggested that greater connections could be made between the Red Shed and the rest of the community to foster Indigenous and Non-Indigenous forms of art (Barcaldine Regional Council, Community Plan, 2009).

Place of Birth, Multiculturalism and English Language Proficiency

At the time of the 2006 Census, there were 151 persons in BRC who stated they were born overseas (~4.6% of the total population) (OESR, 2010). 97 persons (~3.0%) were born in English speaking background (ESB) nations (includes the UK, Ireland, Canada, USA, South Africa and New Zealand) and 54 persons (~1.7% - note rounding errors result in a value of 1.7% on its own but 4.6% when combined with the EBS values) were born in non-English speaking background (NESB) nations. 2,919 persons who stated they were Australian-born (89.4% of the total population). In comparison, 17.9% of the Queensland population were born overseas and 75.2% were Australian-born (OESR, 2010). Consultations confirmed that there is very little ethnic diversity in the region and no multi-cultural support programs available (pers. comm., August 2010).

At the time of 2006 Census, in BRC there were 22 persons who stated that they spoke a language other than English at home (15.3% of the overseas-born population). In Queensland, 31.3% of the overseas-born population spoke a language other than English at home. Of those BRC residents who stated they spoke a language other than English at home, 0.0% said they spoke English not well or not at all. This was compared with 5.1% in Queensland as a whole (OESR, 2010). The lack of ESL training facilities reflects this lack of demand. It also suggests that individuals with low or no English language skills would have difficulties in the area and are therefore less likely to relocate there.

In Alpha (State Suburb) 568 people (93.3% of the population) were born in Australia. Overseas born residents totalled 24 (3.9%) and 17 (2.8%) did not state their country of birth. Of the overseas born 21 were born in English speaking countries (United Kingdom, USA and New Zealand) and reported speaking English well (ABS, 2006 Census of Population and Housing – Alpha (Jericho Shire) (SSC 35055). This is indicative of the population composition in the study area which highlights overwhelmingly those born and raised in Australia, most in the local region.

Mobility

This data was sourced from the Australian Bureau of Statistics, Census of Population and Housing, 2006, Basic Community Profile - and is based on the place of usual residence for people aged five years and older. The data includes persons who stated that they were usually resident at a different address five years ago but did not state that address, and persons who did not state whether they were usually resident at a different address five years ago.

At the time of the 2006 Census, in BRC, 15.5% or 496 persons were living (usually residing) at a different address one year earlier. This increased to 36.8% or 1,105 persons when considering the previous five years. In Queensland, 19.7% of persons lived at a different address one year earlier. 47.6% of persons lived at a different address five years earlier (OESR a, 2010). This information suggests that people in the area are a lot less likely to move houses in the area than the rest of Queensland. When compared to the migration data it also suggests that because people are far less likely to move into the area, the values for mobility are lower in the study area. Movement trends tend to be a movement out of the area more than within or to the area.

4 Baseline Profile

The values for Alpha are similar to the council as a whole, as seen in Table 4-11. The percentage of people living in the same statistical area one year ago is slightly less than the council total but is slightly more for the five years ago percentage. The variation is within the normal range given the small populations being examined and the difference between the two values for each length of residency assessed.

Table 4-11 Key Demographic profile of Alpha and Barcaldine Regional Council (2006 census)

Census Characteristics	Alpha	Barcaldine Regional Council
Length of Residency in 2006 lived in same statistical area:		
One year ago (a)	487 (83.2%)	2,548 (83.7%)
Five years ago (b)	335 (62.4%)	1,717 (60.8%)

Note: Barcaldine Regional Council calculated by determining the average from each of the three former shires. The proportional average for each shire was determined by multiplying the population by the value and dividing by the total population of the council. (a) Excludes persons less than one year of age. (b) Excludes persons less than five years of age.

Source: ABS, Local Suburb Profiles Alpha (Jericho Shire) and Barcaldine Regional Council

It is important to note that the majority of immigration into the study areas has been from other locations within Queensland. There is very little immigration from other States/Territories or from overseas.

Crime and Deviance

The community is virtually crime free and residents are familiar with each other and look after one another. Police are well known and integrated into the community. Children can be brought up in a safe and secure environment (BRC, Community Plan, 2009). Table 4-12 reflects community sentiment that there is a low level of crime in the area with the exception of liquor offences and stock related offences. The higher rate of stock offences than the Queensland average is expected given the predominance of the stock industry in the area.

Alcoholism is not considered to be a significant problem in the community. The BRC reported that crime is rare and due to the fact that everyone in the community is known to one another, public shame often is a sufficient deterrent from offending (pers. comm., BRC, August 2010).

The small area crime profile for 2002 - 03 was merged for Jericho (S), Aramac (S), Barcaldine (S), Blackall (S), Isisford (S) and Tambo (S) LGAs 2002 – 03 due to the small populations in each area. While Blackall, Isisford and Tambo do not form part of the local study area, they have been incorporated here due to the amalgamation of data. The figures show that the rate of all broad offences in the Jericho, Aramac, Barcaldine, Blackall, Isisford and Tambo areas is significantly lower than the rates for the entire state.

The rates for other offences in Jericho, Aramac, Barcaldine, Blackall, Isisford and Tambo decreased substantially since 2001 - 02. The only areas where the rates of offence were higher than the state as a whole were those related to liquor (other than drunkenness) and stock related offences. Table 4-12 provides a summary of crime statistics for Jericho (S), Aramac (S), Barcaldine (S), Blackall (S), Isisford (S) and Tambo (S) LGAs in 2002 – 03.

4 Baseline Profile

Table 4-12 Local Area Crime Profile, Barcaldine Regional Council, Blackall (S), Isisford (S), Tambo (S) LGAs

Offences by type of offence, 2002-03 Rates expressed per 100,000 persons		
Offences	Barcaldine Regional Council, Blackall (S), Isisford (S), Tambo (S) LGAs	Queensland Rates
Offences Against the Person		
Homicide	0	6
Serious Assault	104	315
Other Assault	136	215
Sexual Offences	129	169
Armed Robbery	0	40
Unarmed Robbery	0	15
Extortion	0	1
Kidnapping etc	0	9
Other	291	340
Total against the Person	661	1,110
Offences Against Property		
Unlawful entry with intent:		
Dwelling	88	1,023
Shop	113	204
Other	310	367
Arson	0	66
Other Property damage	307	1,199
Motor vehicle theft	388	1,176
Stealing From:		
Dwelling	82	223
Shop	17	407
Other	515	1,559
Fraud	99	727
Handling Stolen Goods	0	176
Total against property	1,989	7,787
Other Offences		
Drug Offences	267	1,019
Prostitution Offences	0	31
Liquor (excl. drunkenness)	113	57
Good order offences	223	445
Stock related offences	98	6
Total Other Offences	1,501	3,331

Note: Profile includes data from Blackall Shire, Isisford Shire and Tambo Shire. Source: OESR g 2003

4 Baseline Profile

Community and Support Groups

There are several support groups identified in the study area, including:

Barcaldine 60 & Better Program

One of 23 such programs across Queensland, the Barcaldine 60 & Better program is funded by the Department of Communities and supported by BRC. The 60 & Better Program is a healthy ageing program designed to encourage people to maintain their interests and participate in all aspects of life through active physical, social and mental interaction. All people over 50 years are eligible to participate.

The program offers various activities including weekly exercise classes, tai chi sessions and croquet; monthly health talks and steering committee meetings; morning teas, games mornings, lunches and excursions. The centre also has a range of facilities and games for participants including computers. Broadband for seniors has also been installed and the local TAFE provides some courses on advanced computer operation (BRC, 2010).

Grey Nomad Project (see Tourism and Attractions below)

The Grey Nomad Project supports the creation of mutually beneficial relationships between BRC communities and Grey Nomad volunteers visiting the region. Such partnerships provide skills which can contribute to local projects, helping unlock community capacity and achieve local group projects. It is anticipated this project could be applied to other regional communities.

Project activities include:

- Linking grey nomads with specific skills with relevant community projects;
- Increasing skills, confidence and leadership of communities to better support successful relationships with grey nomads; and
- Developing a road map of the process used to develop the program for other communities.

It is estimated as many as 400,000 tourists visit outback Queensland each year of which a majority visit BRC. 70% of visitors are Grey Nomads, with a large number of regulars staying for two or three months in the region.

The program is funded through the Queensland Government's Blueprint for the Bush initiative.

Previously Grey Nomad Volunteers have helped out at the Barcaldine State School, Churches, Senior Citizens Club, Hospital, Library, Kindergarten, Golf Club, Cemetery, Museum, Central West Aboriginal Corporation, Arts Council, Girl Guides, and assisted with other community events (BRC, 2010).

Home and Community Care (HACC)

There are HACC services available in Alpha. HACC services are for people who need help to continue living at home in the community because:

- They are frail older people who have difficulty with everyday tasks, such as showering, getting dressed or doing housework;
- They are a younger person with a moderate to severe disability who is at risk of having to go into a nursing home or aged people's hostel; and
- HACC services are also available for people who are caring for a frail older person or someone with a disability.

4 Baseline Profile

The HACC provides a range of services including domestic assistance (support with domestic duties, fees apply), social support (visiting service, shopping etc), nursing care (at home), personal care (daily self care tasks), transport (for appointments etc, fees apply) and centre based day care (respite care).

- There is also the Central and Far West HACC Home Modifications Service funded by the Department of Communities and supported by BRC. The service assists those frail aged and younger disabled persons wishing to remain in their homes for as long as possible, with access to and within the home preventing long term residential care into hostels, nursing homes or other similar institutions (BRC, 2010).

Home Assist Secure

Home Assist Secure covers most towns in BRC and aims to remove some of the practical housing-related difficulties experienced by older people and people with disabilities who wish to remain living in their home. The service includes information, minor modifications/repairs, and home security to people over 60 or with disabilities; employing tradespeople; home maintenance, repairs and security (BRC, 2010).

Meals on Wheels

Meals on wheels is available in Alpha and offers a seven-day service. The meals on wheels service is not available to Jericho residents.

Regional Arts Development Fund (RADF)

The Regional Arts Development Fund (RADF) supports the professional development and employment of arts and cultural workers in regional Queensland. RADF is a partnership between the State government, through Arts Queensland, and the BRC.

Rural Family Support

The program is funded by the Department of Communities and is supported by BRC. The Rural Family Support Service is available to all families within the Barcaldine Regional area. The services are available by telephone, face to face or email and provide advocacy support, referrals to access other service providers and a positive parenting program for groups or individuals. Such support may be required to assist in facilitating the needs of family in times of conflict, grief, domestic or family violence; provide practical assistance to allow families to care for their children; and enhance standard of care.

Arrangements can be made for the Rural Family Support Officer to visit people's homes or property. There is no charge for the services provided (BRC, 2010).

Youth Programs

The Girl Guides and Scouts Association of Australia are active in Barcaldine however consultations indicate few children from Alpha participate. Several sporting clubs including netball, touch football and cricket actively involve young people. There are also swimming lessons at the local pool.

Consultations indicated that the Alpha School Chaplain has initiated an informal youth program. Activities have included Clean-Up Australia Day and a chess competition (pers. comm., August 2010).

4 Baseline Profile

Benefit Funds and Grants

Several sponsorships and grants are available in the community through the Department of Employment, Economic Development and Innovation (DEEDI), Office of Liquor and Gambling Regulation including:

- **Gambling Community Benefit Fund** - provides funding to community groups in Queensland. Funds come from taxes on Golden Casket lotteries, wagering, keno and gaming machines.
- **Jupiters Casino Community Benefit Fund** - to provide funding to community groups in Queensland using money from taxes on casinos. Funds are distributed on a quarterly basis.
- **Responsible Gambling Research Grants Program** - As part of the broader research program, the Queensland Government seeks gambling-related research proposals to be funded through the Responsible Gambling Research Grants Program.

Additional Community Groups

In Alpha (State Suburb) there are a number of other community groups which provide support to community members and activities. These are run by volunteers and include:

- Hospital Auxillary;
- Meals on Wheels;
- Alpha Cultural Group;
- Alpha Historical Society;
- Alpha Show Society;
- Alpha Fire Brigade;
- Alpha Cultural Group;
- Alpha Country Women's Association;
- Anglican Church Association;
- Uniting Church Association;
- Catholic Church Association;
- Combined Churches Committee;
- Senior Citizens Association;
- AI – Anon;
- Jellybeans Association;
- Alpha HACC; and
- Alpha SES.

In addition there are a range of sporting associations and groups which provide opportunities for people living in and around Alpha to interact with the community. These include:

- Alpha Golf Club;
- Alpha Tennis Club;
- Alpha Jets Netball Club;
- Alpha Rodeo Association;
- Alpha Swimming Club;
- Alpha Jockey Club;
- Alpha Pony Club; and
- Alpha Junior Sports Association.

4 Baseline Profile

Volunteerism

At the time of the 2006 Census, there were 828 volunteers in the BRC. This represented 32.7% of all persons aged 15 years and over. In comparison, Queensland recorded 568,230 volunteers, or 18.3% of the total persons aged 15 years and over. The BRC represented 0.1% of the total volunteers in Queensland (OESR, 2010). The high levels of volunteerism in the area are reflective of rural communities and low population density. In communities like Alpha, most social networks and events rely on volunteerism. This high level of people giving back to the community is a key component of the social fabric and the strong social networks of the area.

The importance of volunteers in supporting service provision is highly evident in Alpha, where the hospital ambulance service is staffed by volunteer drivers, the SES and Fire and Emergency Services are provided by volunteer members and sporting events, community groups and local activities are made possible by the support of volunteers.

Consultations indicated that despite the high prevalence of volunteerism, it is becoming increasingly hard to get new volunteers because of prohibitive 'red-tape' and government requirements associated with being allowed to undertake many volunteers. This combined with the already heavy burden on many community members in Alpha make it too much of a commitment (pers. comm., August 2010).

Socio-Economic Indexes For Areas

Socio-Economic Indexes for Areas (SEIFA) is a summary measure of the social and economic conditions of geographic areas across Australia. SEIFA comprises four indexes:

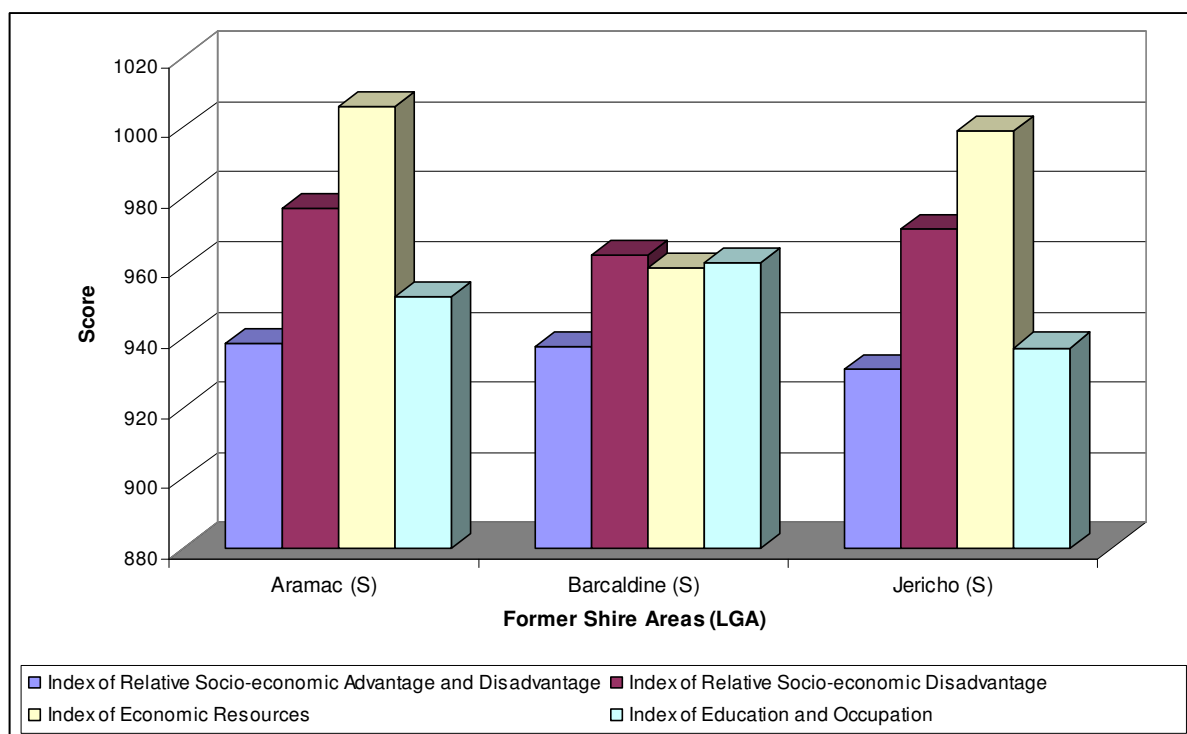
- The Index of Relative Socio-economic Advantage and Disadvantage;
- The Index of Relative Socio-economic Disadvantage;
- The Index of Education and Occupation; and
- The Index of Economic Resources.

For more information on the indexes and how to interpret the data refer to Appendix C.

Data is available from the 2006 census and is based on the old shire councils prior to amalgamation in 2008. The data has been compiled for the three former shire councils that constitute the BRC. Specific data on Alpha was not available though the former Jericho Shire data does provide an indication of the scores for Alpha. Figure 4-13 provides scores for the three former shires for all four SEIFA indexes.

4 Baseline Profile

Figure 4-13 Barcaldine Regional Council by Former Local Council Local Government Areas - Summary, SEIFA Scores, 2006



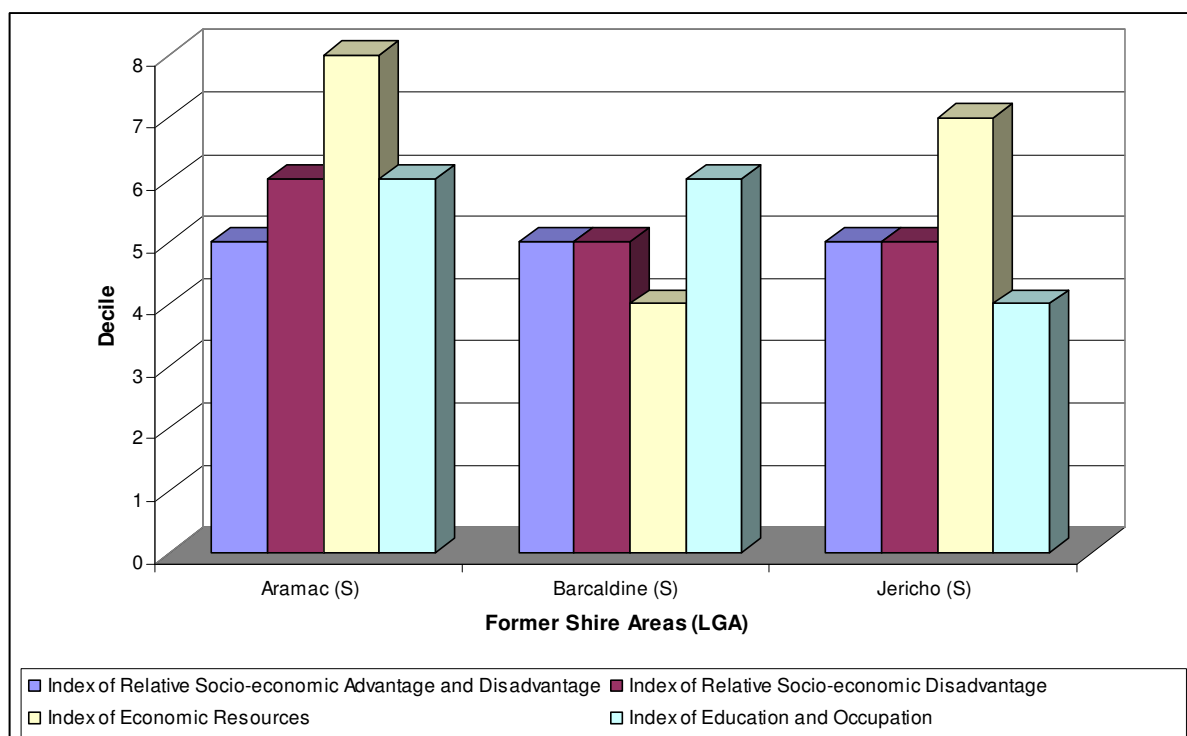
Source: 2033.0.55.001 - Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2006.
Figure created by URS based on data from the SEIFA source.

It is important to note that the scores are not directly comparable from area to area. When the various indexes are shown together for each area they help identify the issues. The former Jericho Shire for example, has a low score for socio-economic advantage and disadvantage, and education and occupation. This is reflected in more detail in the education and training section (see Section 4.6.2), the labour market and employment section (see Section 4.7.2), the industry and business section (see Section 4.8.2), and the income and cost of living section (see Section 4.9.2).

Figure 4-14 shows the same information as the previous figure, but arranged in deciles. The deciles values show the study area as experiencing socio-economic disadvantage. This is largely due to the limited employment opportunities (predominantly agriculture), lower wages, geographic isolation, small populations, and limited services including education. These are common issues experienced by rural areas with small populations over a large geographic area. The distances to larger centres further amplify the disadvantage due to the time required and subsequent expenses to travel.

4 Baseline Profile

Figure 4-14 Barcaldine Regional Council by Former Local Council Local Government Areas - Summary, SEIFA Deciles, 2006



Source: 2033.0.55.001 - Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2006.
Figure created by URS based on data from the SEIFA source.

In 2006, a Socio-Economic Index of Disadvantage was produced, ranking geographical regions to reflect disadvantage of social and economic conditions. The index focuses on low-income earners, relatively lower education attainment, high unemployment and dwellings without motor vehicles. Low index values represent areas of most disadvantage and high values represent areas of least disadvantage.

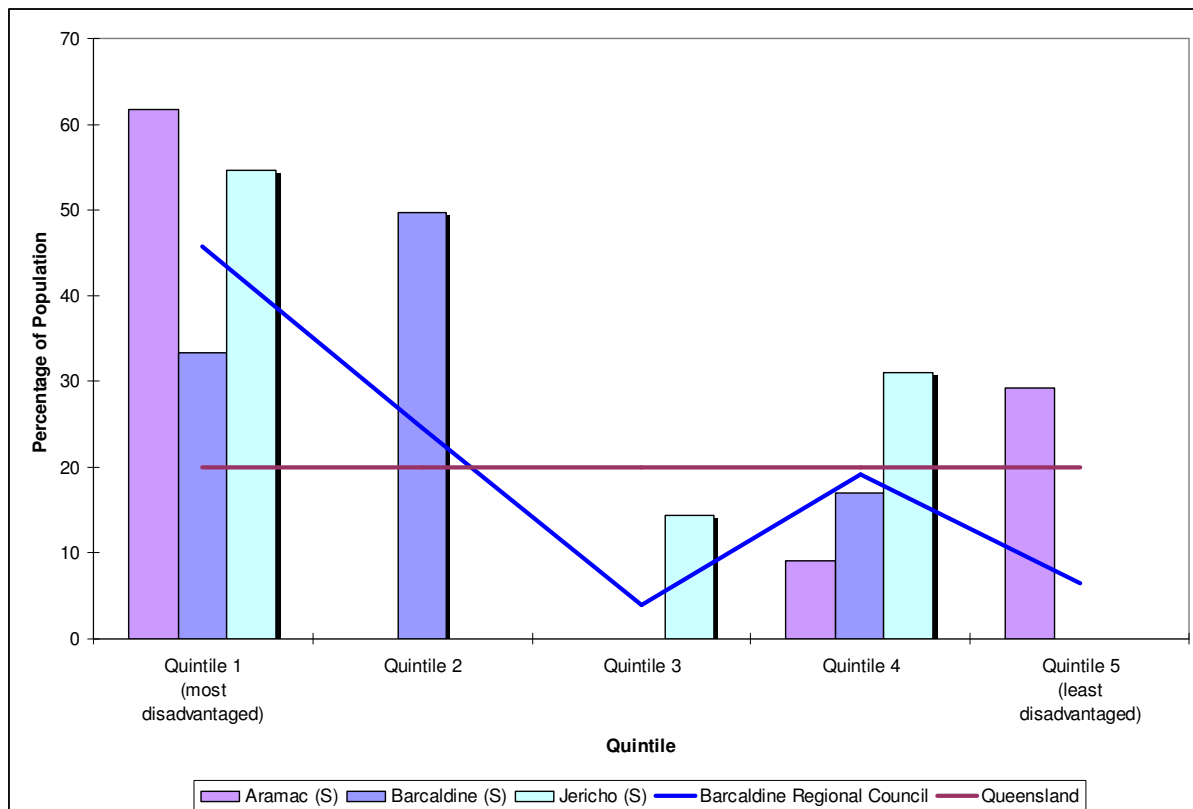
Figure 4-15 shows the percentage of the population in each quintile according to the Socio-Economic Index of Disadvantage. Quintile 1 represents the most disadvantaged group of persons, while quintile 5 represents the least disadvantaged group of persons, or most advantaged. By definition, Queensland has 20% of the population in each quintile. The figure shows two different data sets measured as a percentage of the population. The former shires are presented as bar graphs and show that the majority of all three former shires are within the first two quintiles (most disadvantaged). A small portion of the areas population is within the 4th and 5th quintiles (least disadvantaged).

The council as a whole and the State as a whole are represented as line graphs. The State is represented by the maroon line and BRC is represented by the blue line. This adds some more clarity to the proportion of the population in BRC classified as most disadvantaged. By comparison, 45.7% of the population of BRC LGA were in the most disadvantaged quintile. This means that 45.7% of people in BRC are part of the 20% most disadvantaged in the State. By contrast, 6.5% of the population of BRC were in the least disadvantaged quintile.

4 Baseline Profile

The majority of the population in BRC is situated in the 1st quintile. This reflects the lower wages in the area due to types of industry, geographic location and distances to major centres, as well as the availability and diversity of employment opportunities. 70.3% of the population is situated in the bottom two quintiles with 25.7% in the top two.

Figure 4-15 SEIFA 2006 Socio-Economic Index of Disadvantage – Barcaldine Regional Council (Including former shires) and Queensland Quintile Comparison



Source: Australian Bureau of Statistics, Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia - Data only, 2006, Cat. no. 2033.0.55.001 (OESR derived). Figure created by URS based on data from the SEIFA source.

The effects of the most recent drought in the region would have a significant impact on the indexes since the majority of the population's income and livelihood is connected directly or indirectly to agriculture. Economic diversification is an effective means of insulating the population for the effects of nature on a single industry. The impact of mining employment is a significant variable in increasing socio-economic advantage as seen in the values for IRC and CHRC (see Section 4.3.1).

Mining Lease

Many people along the Alpha to Clermont road indicated that they had stronger linkages to Clermont through family and social networks than to Alpha. The community values were similar to those reflected in Alpha, but the location of friends, family and services saw more people gravitate towards Clermont.

4 Baseline Profile

For the mining lease area values collected through community consultation are recorded to identify the similarities and differences between those on the mining lease and the other study areas.

Values from Mining Lease Consultation

During consultations with landholders it was apparent how much they enjoyed the lifestyle that the region afforded. Some of the lifestyle aspects that they reportedly liked about living in the local study area included:

- Great place to bring up children. The vastness and space of the environment affords children a lot of freedom;
- The remoteness, abundance of native wildlife, peacefulness and tranquillity;
- Involvement with good friends and families throughout the area;
- Good, clean environment;
- Sense of safety and security - knowing children are safe from dangers or crime and strangers;
- Small community feel where people 'look out for each other', strong sense of community spirit where everyone knows one another; and
- The climate – without the humidity of the coast but not too cold in winter.

Landholders were also asked to indicate anything about living in the area that concerned them or that they disliked. Responses included:

- Travelling long distances for children's sport and having to send children to boarding school because of a lack of nearby bus runs to regional schools;
- Poor medical facilities – particularly the lack of a permanent Doctor in Alpha. Respondents recommended that if you had to get sick, have an accident, or need medical assistant, do it on a day when the Doctor is in town. This is further amplified as Queensland Ambulance Service (QAS) do not have a local branch, and emergencies require the air ambulance service;
- Dealing with mining companies, particularly uncertainties around what will happen and whether the mines will go ahead. This has caused people difficulty in trying to plan their futures;
- Periods of drought and the prospect of dust making the pastures untenable; and
- Lack of services including poor road infrastructure and reduced rail capacity for moving cattle meaning cattle needs to be moved by freight vehicles. Because of this, transporting stock to Brisbane is out of the question due to the high costs.

4.4 Housing and Accommodation

4.4.1 Regional Study Area

The following key points on the housing and accommodation of the regional study were identified (OESR, 2010, ABS, 2006):

- In the 12 months ending 31 March 2010, there were 95 dwelling units in new residential buildings approved in IRC, representing a total of \$28.463 million. There were 264 dwelling units in new residential buildings approved in CHRC, representing a total of \$7.041 billion;
- At the time of the 2006 Census there were 1,300 private dwellings in Clermont (state suburb) of which, 1,054 were occupied. Of those occupied 60.8% were occupied by families, while 24.3% were single-person households ; and

4 Baseline Profile

- At the time of the 2006 Census there were 4,478 private dwellings in Emerald, of which 4,001 were reportedly occupied. Of those occupied 71.7% were family households, while 15.3% were single-person households.

Dwelling Characteristics

Based on 2006 census figures, Clermont has a total of 1,300 private dwellings, of which 1,054 were occupied. 83.2% of occupied dwellings were separate houses, 3.9% flats or units, 0.3% row or townhouses with the remaining 12.6% classed as 'other dwellings'. The predominance of separate houses is to be expected given the agricultural identity of Clermont and the preference of residents for rural lifestyles (ABS, 2006c). Observations showed there were approximately 40 single bedroom units, located in a communal garden, available to Blair Athol mine workers in Clermont.

Consultations identified that as part of the closure strategy for Blair Athol mine, RTCA is looking to reduce corporate holdings of real estate in Clermont and are looking to sell a number of houses. RTCA also has land holdings which are zoned for urban development. They are looking either for a third party to partner in the development of these blocks or to sell them (pers. comm., August 2010).

In Clermont, 60.8% of occupied private dwellings were family households; 24.3% were lone person households and 2.1% were group households at the time of the 2006 census. The higher number of lone person households is attributable to single housing for Blair Athol workers in Clermont. In Emerald the proportion of occupied dwellings that were family households increased to 71.7%, lone person households accounted for 15.3% and group households represented 4.5% (ABS, 2006c,d). According to a Department of Communities report (June 2010), the trend towards a higher than average proportion of couple with children (family) households, extends beyond Emerald and across the whole of CHRC and is expected to continue. Consultations indicated this is likely because of the high value placed on families by residents in the area. The area is also popular for people actively seeking a family lifestyle (pers. comm., August 2010).

Tenure Types

In Emerald, 689 or 17.2% of all occupied dwellings were fully owned by the occupant at the time of the 2006 census. Houses being purchased accounted for a further 1,459 or 36.5% making the total proportion owned or being purchased to 53.7%. Rented (including rent-free) accounted for 1,587 or 39.7%, 23 dwellings were classed as other tenure types while 242 (6%) did not state the tenure type. This represents a significantly higher proportion of houses which are rented than across Australia as a whole, where only 27.2% of houses are rented, while 64.8% are either fully owned or being purchased. This can be attributed to the high number of people who move to the region for work, many who may not remain in the region long-term.

At the same time, median rent in Emerald was \$180 per week, \$10 less than the Australian median of \$190, while the median housing loan repayment was higher than the Australia rate of \$1300, costing \$1500 per month. The average house had 2.9 people in it, marginally higher than the whole of Australia where the rate was 2.6 per house (ABS, 2006d). This is likely attributable to the high degree of competition, particularly in the rental market, reported during consultations. It is likely that mine-subsidies for home loans and rental of houses for use by staff have caused an increase in cost as demand outstrips supply. It was reported that larger families are common in Emerald which may account for the higher person per household average. Consultations also indicated that because the

4 Baseline Profile

rental market is so high and competition so strong, it is not uncommon for two couples to share housing to make it affordable (pers. comm., August 2010).

In Clermont however 404 or 38.3% of all occupied dwellings are fully owned, higher than the rate across Australia of 32.6%. A further 19.6% or 207 are being purchased, below the Australia wide percentage of 32.2%. Rented dwellings accounted for 362 or 34.3%. Other tenure types represented 0.8% (8) and 76 (7.2%) did not state the tenure type (ABS, 2006c).

Of those houses rented in Clermont, the median weekly price was just \$66, significantly lower than the Australian median of \$190 per week. Median household loan repayments were also below that of Australia as a whole, costing \$925 per month. The average household size in Clermont is 2.5 persons, slightly lower than Australia as a whole (ABS, 2006c). This may be because of the Blair Athol single male quarters and other similar mine-provided and managed accommodation, where each dwelling would have one resident.

Building Approvals

During the 12 months ending 31 March 2008, there were a total of 95 new dwelling units in new residential buildings approved for construction in IRC. The estimated value of these new dwellings is \$28.463 million. The primary requirement areas for these dwelling units were located in the communities of Moranbah and Dysart where significant housing shortages are documented. Over the same period in the CHRC, there were 264 dwelling units in new residential buildings representing an estimated value of \$7.041 billion (OESR, 2010).

Housing Affordability & Availability

Ad hoc research and consultation found that housing and unit shortages in Emerald are critical. The CHRC is currently developing an allotment for affordable housing of which it hopes to retain 18 for its own staff. There are good supplies of zoned residential land available, however there are no developers currently showing interest in developing this land. Consultations suggested that people in Emerald need double incomes to keep pace with house repayments and rent.

In June 2010 Background Statistics for Affordable Housing in CHRC were released by the Department of Communities and the OESR. The analysis identified a range of important demographic trends and housing issues. From a demographic perspective, the key findings included the higher proportion of couples with children living in the Central Highlands than across Queensland as a whole; the region's population is younger and is expected to age at a slower rate than across the state; household growth rates are expected to be higher; and Central Highlands had higher median incomes than across Central or all of Queensland.

Key points about housing in Central Highlands, when compared to Central Queensland or Queensland as whole included:

- A lower proportion of houses were fully-owned or being purchased. The proportion of houses being rented from the private sector was lower while the proportion of houses rented from employer, parks or other unstated was higher;
- Higher proportion of separate houses and lower proportions of semi-detached, units etc;
- Higher proportion of available caravan accommodation and higher occupancy rates;

4 Baseline Profile

- Non-private dwellings provided a higher proportion of accommodation. The most significant non-private dwelling in CHRC was staff-quarters which provided accommodation to 37.3% of persons living in non-private dwellings (2% of total population);
- Higher median rents for most dwelling types (one, three and four bedroom) and greater increases in median rent for one – four bedroom dwellings between 2000 and 2009. This indicates increased demand for rental properties of all sizes over the period;
- While the actual number remains low making up a lower proportion of total rental stock, the percentage increase in the proportion of semi-detached rental dwellings was significantly higher in CHRC;
- Proportion of low income households in unaffordable private rental was lower than across Queensland as a whole, but slightly higher than Central Queensland. This is despite CHRC having a lower proportion of affordable rental housing;
- Number and proportion of affordable rental stocks in CHRC SLA's decreased between 2004-2009 in almost all categories, however Emerald was the only SLA that recorded proportions of affordable rental stock in all dwelling sizes lower than Central Queensland; and
- Proportion of low income households purchasing houses was lower than in Central Queensland, but the proportion of low income households spending more than 40% of their income on housing was higher. This indicates that although low income households make up a lower proportion of housing purchases in CHRC, when they do, they are more likely to be in housing stress than their counterparts.

These background statistic largely supported and reinforced a May 2009 housing market report on the CHRC area issued by the Department of Communities (Housing and Homelessness Services) which examined 2007 – 2008 data (Department of Communities, Housing and Homelessness Services, May 2009). The key findings of this report indicated that across the CHRC area 69.9% of private houses and 30% of units are rental properties. In Emerald SLA, the target area of this study, the rate was lower for houses at 59.4% but higher for units with 40% of all private dwellings rented. The rate of new bond lodgements in Emerald, an indicator of growth in the private rental market has shown significant upswing, recording a 26.7% increase since 2005/2006. The rental vacancy rates in Emerald between 2003 and 2007 were considerably lower than the Queensland average, hovering around 0.95% while Queensland averaged 2.8%, indicating a high degree of competition for rental properties. In 2007/08 however there was a significant jump in rental vacancies in Emerald SLA to 4.8%, indicating that supply was at its limit at that time. This may be partly because of the downturn in mining activity as a result of the Global Financial Crisis (GFC) around this time. Median rental price in Emerald (\$400 per week for a detached house) was higher than the Queensland average (\$350 per week) however remained lower than in other CHRC areas where the rental rate was up to \$300 per week higher than the state median.

Figures indicate that rental affordability in Emerald SLA has actually improved slightly since 2004 (going from 24% of income to 23%), contrary to the indications provided during consultations. Home price affordability had also increased at a lesser rate than Queensland as a whole over the same period (Department of Communities, Housing and Homelessness Services, May 2009). This may actually be a reflection on the higher household incomes in Emerald than the cost of housing.

Ad hoc research indicated that demand continued to outstrip supply of housing in Emerald. As a result prices continued to increase. For example a small home and land package which would have cost ~\$140,000 in the late 1990s, now costs ~\$350,000 or more. A traditional four-bed home on an 800 to 900m² block now costs ~\$450,000 (August, 2010).

4 Baseline Profile

Consultation indicated that some mining companies have developed incentive packages to attract people to live in the area in an effort to reduce employee turnover. An element of these incentive packages is assistance to purchase a home (generally either an up-front grant of ~\$65,000 or an annual payment of ~\$14,000 to contribute to mortgage repayments). Further some mines may keep up to ten units and houses in Emerald vacant and available for staff use on an as needs basis (pers. comm., August 2010). Together these two factors have further contributed to housing price increases in Emerald.

Consultation indicated that in Clermont, the IRC is developing 50 housing allotments and is planning to build some private townhouses. Council is also intending to develop a small portion of affordable housing for Council staff and government workers to combat affordability for those working outside the mining industry. Stakeholder reports indicate that non-mining individuals are paying 35-40% of their take home pay in rent. This compares to a median rent of \$66 per week (or 13% of the median individual income) reported in the 2006 census. This increase, while unsubstantiated, may be the result of an increase in mining activity around Clermont associated with the new Rio Tinto Clermont Coal Mine and RTCA policies encouraging local residency for employees. At the time of the Census, the median monthly housing loan repayment was \$925 per month.

A challenge to releasing more housing blocks across the study region was challenges associated with obtaining, rezoning and subdividing land. This is an area where the state needs to work with local government to ensure efficiency and responsiveness when releasing land for urban development (pers. comm., August 2010).

Industrial Land

CHRC have been proactively developing a back stock of industrial land and advised that there is currently around 16 or 17 years worth available in Emerald. This will enable companies wishing to develop industrial or service businesses to utilise available land and infrastructure in Emerald and provide services to surrounding regions. There is also a good supply of industrial zoned land available in all other towns across CHRC (pers. comm., August 2010).

4.4.2 Local Study Area

The following key points on the housing and accommodation of Barcaldine Regional Council were identified (OESR 2010, ABS 2006):

- In the 12 months ending 31 March 2010, there were 9 dwelling units in new residential buildings approved in Barcaldine Regional Council, which represented a total of \$2.5 million;
- At the time of the 2006 Census there were 300 private dwellings in Alpha, of which 235 were reported to be occupied. Of those, 60.4% were occupied by families while 28.9% were lone-person households. Consultation determined that the occupation rate is currently closer to 100%, and likely was in 2006 as well; and
- At the time of the 2006 Census there were 858 private dwellings in Barcaldine, of which 711 were reported to be occupied. Of those, 58.4% were occupied by families, while 23.1% were lone-person households.

There are eight homesteads/properties potentially directly affected by the mining lease area. Two have significant direct land impacts, and six have direct land impacts though no infrastructure or use on these properties is anticipated at this stage.

4 Baseline Profile

Dwelling Characteristics

At the time of the 2006 census 235 of the 300 private dwellings in Alpha were occupied. These properties may potentially be used to accommodate people moving to the area or may be demolished and used for new home development (ABS, 2006a).

Like the Census statistics, the community plan indicated there were vacant houses in Alpha. It also indicated that these houses were not available for rental. Because of the relatively low purchase prices meaning owners can afford to have them vacant. Some speculation is also occurring with regard to a possible mining “boom” (BRC, Community Plan, 2009). Community consultations however indicated that this is not the case and there are actually very few vacant houses in Alpha. Even council highlighted ongoing difficulties in securing housing for employees. In this case, community consultations are considered to be the most accurate source of information. As a result it is assumed that there are very few vacant houses in Alpha.

Alpha, particularly in its lower areas, is subject to flooding from the Belyando River. This was evidenced in the 2010 floods where many people were evacuated due to flooding in the area. The last major flood before the 2010 floods occurred in 1990. Minor flood mitigation work has since been completed. Construction of levee banks has been considered but discounted due to cost and scope of work required. Housing is still permitted in these areas; however of high-set nature only.

BRC has developed 30 urban lots for sale in Alpha. The first 10 lots became available in May 2010 selling for an average of \$111,000 plus GST. The remaining 20 lots will be auctioned when surrounding roads are completed, likely early 2011. A further eight urban development lots are also for sale (privately owned). Combined, these represent the extent of residential zoned land in Alpha – most other land is zoned rural.

The Proponent has purchased 1500 acres near the golf course. This land is also zoned rural. The Proponent has indicated its willingness to discuss how the land (or parts thereof) could be used to assist with provision of community infrastructure.

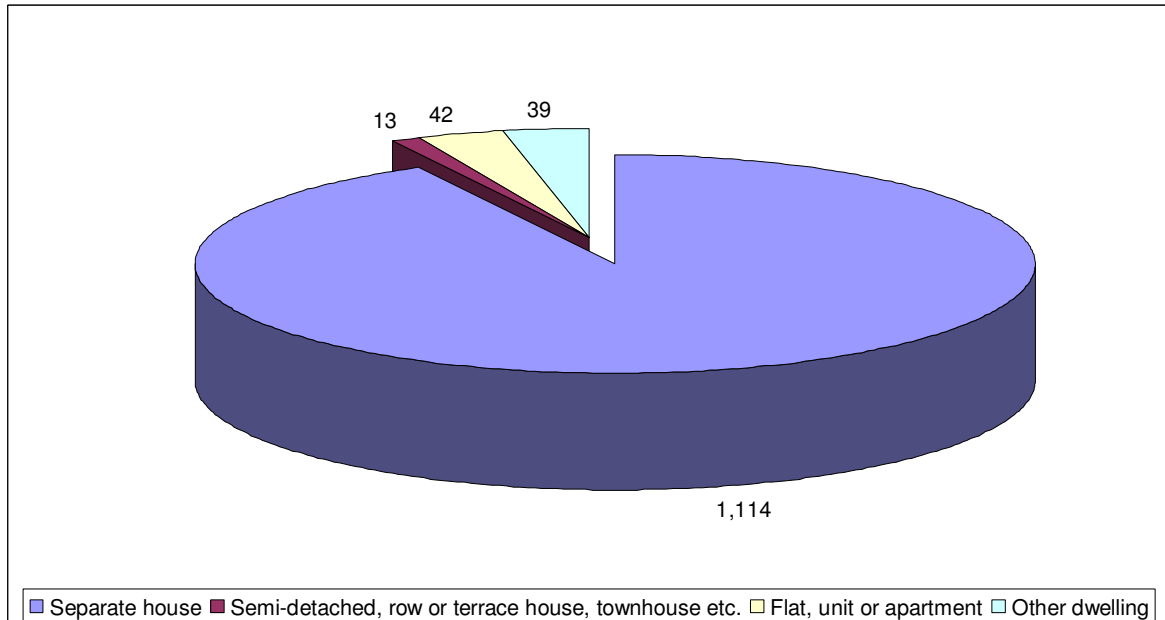
Consultations indicate that house and land prices have increased substantially in Alpha over recent years. A house worth approximately \$50,000 - \$60,000 three years ago is now selling for more than \$300,000. This increase has been largely based on speculation and dramatic price spikes followed announcements by mining proponents. Most property sold has been purchased by investors. The rental market has increased slightly (from \$100 per week to \$180 over a three year period). It is expected that rent will increase more dramatically if the various projects proceed and demand increases (pers. comm., August 2010).

Figure 4-16 shows the count of occupied dwellings in BRC during the most recent census in 2006. Separate house was the predominant dwelling type constituting 1,114 residential dwellings, or 92.2%. In the former Jericho Shire 320 residential dwellings were classified as separate houses, or 93.6% of all dwellings.

While flat, units or apartments were the next most common dwelling structure, they represented only 3.5% of all dwellings in BRC. These kinds of dwellings were identified as important for development by stakeholders. Most of the units/flats located in Jericho shire were in one or two storey blocks (ABS 2006, pers. comm., August 2010).

4 Baseline Profile

Figure 4-16 Count of Occupied Private Dwellings (a), Barcaldine Regional Council, 2006



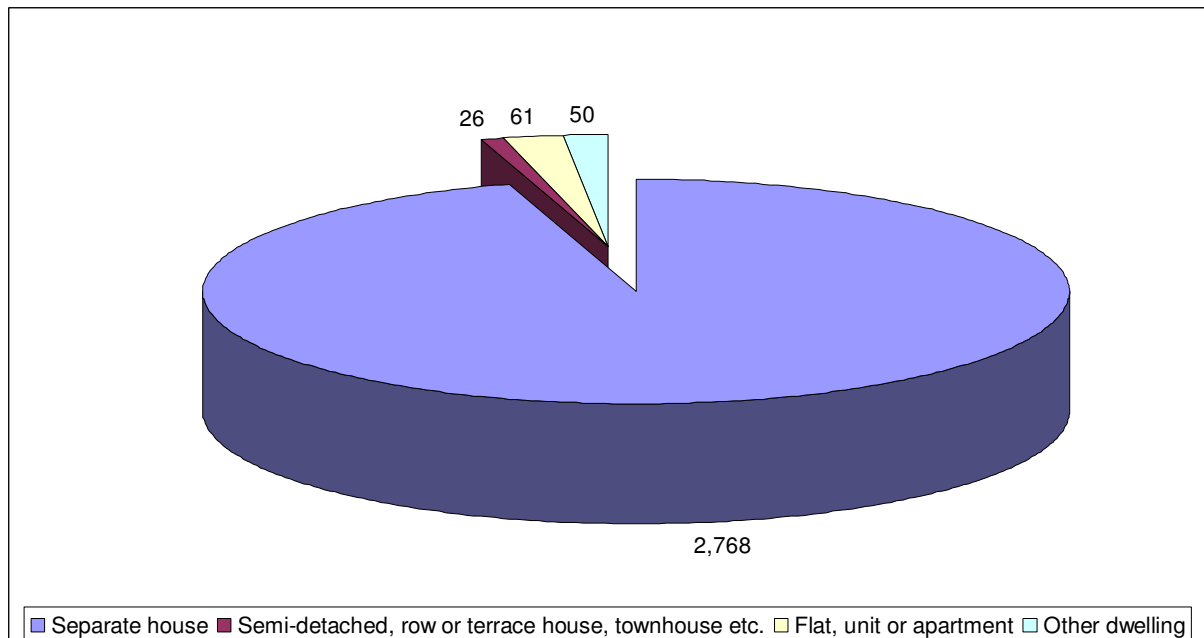
Note: (a) Excludes 'Visitors only' and 'Other not classifiable' households. Barcaldine Regional Council created by combining information from the former shires of Aramac, Barcaldine and Jericho.

Source: ABS, Census of Population and Housing, Barcaldine Regional Council, 2006

Figure 4-17 shows persons in occupied private dwellings in BRC. As expected, the majority of the population resides in separate houses. In BRC 2,768 people live in separate houses, or 95.3% of the total population. In Jericho Shire 799 people live in separate houses, or 96.8% of the total population. Seven people in Jericho Shire lived in flats, units or apartments, and only 12 lived in other dwelling types (ABS, Jericho Community Profile, 2006).

4 Baseline Profile

Figure 4-17 Persons in Occupied Private Dwellings, Barcaldine Regional Council, 2006



Note: Barcaldine Regional Council created by combining information from the former shires of Aramac, Barcaldine and Jericho.

Source: ABS, Census of Population and Housing, Barcaldine Regional Council, 2006

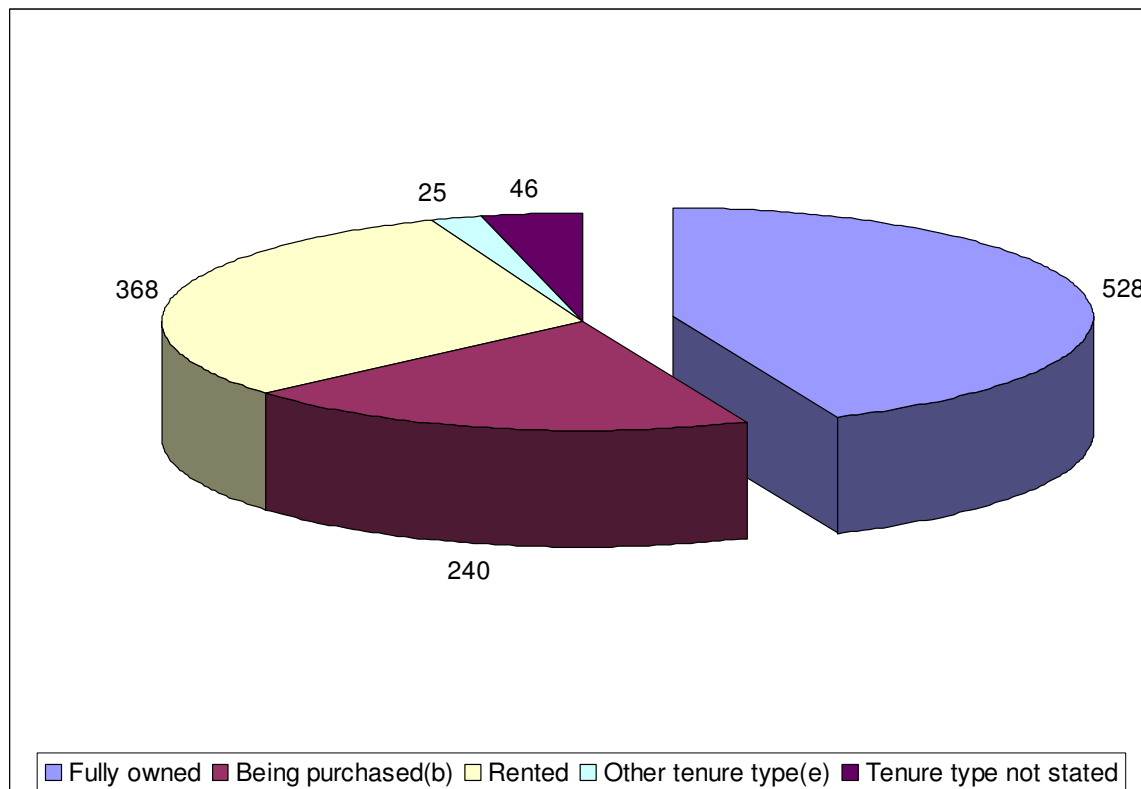
Figure 4-18 shows the tenure and landlord types in BRC. It is important to read the notes below the figure for an understanding of the definitions of each category. 43.7% of all dwellings in the council are fully owned, with a further 19.9% being purchased (63.6% of all). 30.5% are being rented, with the remainder either other tenure type (2.1%) or tenure type not stated (3.8%). The values for the former Jericho Shire are similar. This shows that most people own their homes or are in the process of paying off a mortgage in the area.

The majority of rentals are for separate houses (26.0% for separate houses, 30.5% for all rental types). Other landlord type was the predominant rental category (122 of 314 total), which includes dwellings being rented through a 'Residential park (includes caravan parks and marinas)', 'Employer-government (includes Department of Education)' and 'Employer-other employer' (private).

The State housing authority (Department of Communities) was the largest renter of semi-detached row or terrace house, or townhouse etc., and flats, units or apartments. See Section 4.9.2 for information on monthly housing loan repayment and rent.

4 Baseline Profile

Figure 4-18 Tenure Type and Landlord Type by Dwelling Structure, Barcaldine Regional Council, 2006



Note: (a) Excludes 'Visitors only' and 'Other not classifiable' households. (b) Includes dwellings being purchased under a rent/buy scheme. (c) Comprises dwellings being rented from a parent/other relative or other person. (d) Comprises dwellings being rented through a 'Residential park (includes caravan parks and marinas)', 'Employer-government (includes Defence Housing Authority)' and 'Employer-other employer' (private). (e) Includes dwellings 'Being occupied under a life tenure scheme'. Barcaldine Regional Council created by combining information from the former shires of Aramac, Barcaldine and Jericho.

Source: Source: ABS, Census of Population and Housing, Barcaldine Regional Council, 2006

Building Approvals

A total of nine dwelling units in new residential buildings, representing a total of \$2.5 million were approved in BRC the 12 months ending 31 March 2010 (OESR, 2010i). There is currently building development occurring in Alpha as a result of the recent sale of land near the golf course.

Real Estate Information

Table 4-13 is a summary of a search of house sales performed by Property Data Solutions Pty Ltd 2010. The search found that 50 sales in that period ranging from houses to commercial properties to cattle grazing land.

4 Baseline Profile

Table 4-13 Alpha Real Estate Sales, 18 August 2008 to 18 August 2010

Category	Sale Price	Area
Lowest	\$25,000	607 m ²
Highest	\$811,800	587 ha
Average	\$172,206	11.9 ha
Median	\$167,500	1,244 m ²
Total	\$8,610,300	595.01 ha

Note: The materials provided are distributed as an information source only.

Source: Property Data Solutions Pty Ltd, 2010

The housing market increased from October 2008 to January 2009 before levelling off. This coincided with the increase in activity regarding potential mining projects in the Galilee Basin. The median sales price may have increased in that period but the number of sales was still relatively low (5). From January 2009 to February 2010 the median sales price remained relatively constant (\$160,000 to \$145,000) though the number of sales increased in the 3rd quarter of 2009. From February 2010 to April 2010 there was an increase in the median sales price but there has been a drop since up to August 2010 (still slightly above the January 2009 to February 2010 average). The median sales price is currently between \$170,000 and \$165,000 (Property Data Solutions Pty Ltd, 2010).

Land Availability

In Alpha 10 lots were sold in the initial release of land by BRC in 2010 and there are 20 additional lots to be released at a date yet to be determined. There are also discussions underway between State and local government for the release of more land capable of sustaining up to 200 additional lots. The infrequent flooding in the lower areas of Alpha limits development in that area so future land availability will be to the west of the city in the direction of the airport and Jericho.

Hancock has an ~1,500 acre plot of land near Alpha and will explore opportunities with BRC for future beneficial use. This may assist in housing and accommodation issues for the community, and/or a potential commercial/industrial area. The exact use(s) will be determined in consultation with BRC.

Local Accommodation

Local accommodation options are limited in the local study area. In Alpha short term accommodation is available in cabins at the Alpha Caravan and Cabin Park located on the highway, and at the Alpha Hotel Motel in town. There are also a limited number of short-term accommodation options available in Jericho, and a wider range in Barcaldine. Many people bring their own accommodation to the area in the form of caravans and tents. Due to the low occupancy rates the standard of accommodation in the area is fairly low, averaging between two and three stars by most rating standards.

Mining Lease Area

Housing and accommodation data specific to the mining lease area was not collected for the SIA. Details may have been collected as part of ongoing landholder negotiations but are not recorded or assessed as part of the SIA. For general housing and information for the mining lease area see Section 4.4.2 for the local study area.

4 Baseline Profile

4.5 Health, Wellbeing and Social Infrastructure

4.5.1 Regional Study Area

The following key points about health, wellbeing and social infrastructure in the regional study were identified:

- There is an emergency hospital offering various services in both Emerald and Clermont;
- There is a permanent QAS stationed at Emerald, Clermont and Anakie (pers. comm., 2010);
- At the time of the 2006 Census, 1.3% of persons in IRC and 1.9% of people in CHRC were in need of assistance with a profound or severe disability (OESR, 2010); and
- The average annual increase in births in IRC was 7% between 2001 and 2007. The average annual increase in birth rates for the CHRC was 4.2% over the same period (OESR 2008).

Health Services

Emerald has a 36 bed hospital that provides community and hospital services for the Emerald area and is the major referral centre for the Central Highlands. Emerald offers a range of medical and surgical services including emergency, gastroenterology, pathology, paediatric, palliative care, radiography as well as an operating theatre - gynaecology & general surgery. Additional services include physiotherapy, occupational therapy, speech therapy, social work & dietetics (Queensland Health, 2010). Table 4-14 lists the services available at the Emerald Hospital.

Table 4-14 Emerald Hospital Facility Services

Resource	Services Available
Clinical - Surgical	Day Procedure unit/pre admission clinic, Operating theatre - Gynaecology, General Surgery, Operating Rooms, Central Sterilising and Supply Department
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: Queensland Health, 2010a

The names of and distances to the main referral hospitals are:

- Rockhampton Hospital: 268 km; and
- The Royal Brisbane and Women's Hospital: 900 km.

There have been recent capital works at the hospital since 2005 including:

- Staff Accommodation Redevelopment Completed 2006;
- Community Health Car Park Development Completed 2006; and
- Community Health Redevelopment Completed 2005 (Queensland Health, 2010a).

4 Baseline Profile

Stakeholder reports indicate that local GPs appear to be catering to the demands of the mining industry through employee check ups and other services.

There are nine dental practices servicing the Emerald region (Yellow Pages, 2010). Stakeholder reports in Emerald indicate a high level of satisfaction with the availability of dentists in Emerald; however consultations in Alpha indicate that there were substantial waiting lists for public dental services in Emerald and surrounding regions (CHRC and BRC 2010).

Clermont has a 36 bed hospital. A new ambulance centre has been built in town. The hospital includes a 24-hour emergency care facility, general medical services, post surgical and post-natal admissions as well as palliative care. There is also a radiography specialist, and a range of clinic based services including child-health, antenatal/postnatal care, general outpatients, immunisation and alcohol, tobacco and other drugs services. The town also has HACC and aged care nursing for elderly residents. A Visiting dentist, dietician and diabetes educator also service the community (Queensland Health, 2010b).

Need for Assistance

At the time of the 2006 census, there were 267 persons (1.3% of the population) with a profound or severe disability in the IRC who were in need of assistance. In the CHRC this number was 509 (1.9% of the population). The regional study area combined represents 0.5% of all people in need of assistance in Queensland. The state as a whole has 154,707 people (4.0% of the population) with a profound or severe disability in need of assistance (OESR, 2010a,b).

Emergency Services

Both Emerald and Clermont have Rural Fire Service and State Emergency Service (SES) stations.

QAS provides coverage to the people of the central region through 61 permanent and honorary Ambulance stations, including a permanent station in both Emerald and Clermont. QAS also services the industrial sector through direct commercial contracts to provide pre-hospital care at mine and large scale construction sites. The region is also serviced by emergency helicopters located in Mackay and Rockhampton and the RFDS based in Rockhampton (QAS, 2010).

Community Groups & Services

There are several groups and services in the regional study area. Some of the key ones are listed below.

Emerald community organisations and networks include:

- Anglicare;
- Lifeline;
- Central Highlands and Western Queensland Family Support Association;
- St Vincent de Paul and St Vincent's Community Nursing Service;
- Royal Queensland Bush Children's Health Scheme;
- Rotary Club of Emerald;
- Central Highlands Region Disabled Association;
- Emerald Neighbourhood Group;
- Salvation Army Employment Plus; and
- Housing and Homelessness Services.

4 Baseline Profile

Clermont community organisations and networks include:

- Clermont Community Housing and Other Services;
- Isolation Parent's Support Centre; and
- Clermont Country Women's Association.

Both towns also have a Returned Service League (RSL).

Indigenous Health & Community Support Services

There are a number of service providers in the regional study area who provide health care and social support services to Indigenous people. These include:

- Central Highlands Aboriginal Corporation – Emerald;
- Emerald Community and Primary Care - Emerald;
- Housing and Homelessness Services – Emerald; and
- Emerald Work Readiness Program – Goldings Contractors Pty Ltd and Salvation Army Employment Plus.

Births and Deaths

Table 4-15 provides statistics on the number of births and deaths reported per annum in the IRC and CHRC between 2001 and 2007 for the calendar years ending 31 December. These statistics show an average annual increase of 7% in the birth rate for IRC however the only actual increase has been since 2006. In CHRC, the average annual increase in the birth rate over the same period was 4.2%, however again the only real increase was during 2006 and 2007 (average 13% per annum),. In both local council areas there was a fall in birth rates between 2002 and 2003 (OESR, 2008c,d).

Table 4-15 Births and Deaths, Isaac Regional Council and Central Highlands Regional Council, 2008

Year Ending	Isaac Regional Council		Central Highlands Regional Council	
	Births	Deaths	Births	Deaths
31 December 2001	302	48	462	65
31 December 2002	326	54	477	88
31 December 2003	313	41	48	65
31 December 2004	314	47	481	81
31 December 2005	323	43	455	69
31 December 2006	363	59	516	85
31 December 2007	445	41	581	87

Source OESR, 2008c and OESR, 2008d

Community and Recreational Activities

This section is a general overview of the community and recreational activities in the regions. A detailed analysis was not undertaken because the Project is unlikely utilise many of the regions community and recreational resources.

Site assessments found that Emerald has the largest offering of sporting facilities, leisure and cultural amenities in the regional study region, including an Olympic-size swimming pool, ten-pin bowling

4 Baseline Profile

centre, art gallery, and twin cinemas. Nearby Lake Maraboon offers a variety of water-oriented recreational opportunities and it has on-site accommodation, dedicated picnic areas and barbecues.

IRC has a range of well established sporting groups and facilities; built and natural environments for recreation including dams, lakes and pristine coastal areas; local parks playgrounds and public open spaces; eight libraries; a world-class undercover arena (at Nebo); art galleries; and a regional arts development fund (RADF) to support the development of arts and culture (IRC, 2009).

Clermont has sports grounds for a range of sports (including softball, cricket, rugby and tennis); a golf club; a pony club; a skate park; a race course and race club; and a power boat and ski club (IRC, 2010).

Community Views on Health, Wellbeing and Social Infrastructure

The 2008 CHRC survey of residents undertaken by Christine Hanley on behalf of the council (2008) identified that most people living in CHRC were satisfied with community characteristics. In particular respondents expressed a high degree of satisfaction with the safety, friendliness and mix of people as well as the relaxed lifestyle associated with living in CHRC. The thing that was most commonly disliked by residents was the distance to other urban centres and the isolation and remoteness from medical facilities and services associated with this. Further, it was improving access to these medical services and facilities that was highlighted as the first thing they would change by the largest proportion of respondents. Other items that were reported as disliked by the community included the lack of entertainment/cultural facilities, the high cost of living/housing and the impacts of the mining industry, particularly shift work and the impact of this on sports and recreation.

The IRC community plan - 20:20 Vision 2009 – 2019 (2009) highlights what people feel they currently have in their community, what is seen as an opportunity or challenge, and documents action plan moving forward to achieve the community's vision. A number of opportunities and challenges related to health, wellbeing and social infrastructure were identified, including:

- Maximising opportunities associated with an aging population;
- Maintenance, upgrading and replacement of well utilised and aging facilities;
- Maximising accessibility to services and facilities for disabled community members;
- Attraction and retention of health services and service providers to the region;
- The impacts of drugs and alcohol on our communities;
- Taking responsibility for what happens in our neighbourhood; and
- Development of a regional directory of services and service providers.

To address these opportunities and challenges, the IRC has identified the following action plan relevant to ensuring and promoting the health, wellbeing and social infrastructure of IRC community members:

- Encourage, recognise and support volunteers who contribute to the organisation and delivery of sporting events and contribute to the management of services;
- Encourage and promote physical activity and enjoyment of the natural environment through programs like 10,000 steps and the use of outdoor fitness stations; and
- Develop and conduct educational programs with health related service providers (IRC 2009).

4 Baseline Profile

4.5.2 Local Study Area

The following key points about health and wellbeing were identified for the BRC:

- There is an emergency hospital in Alpha and Barcaldine;
- There is not a permanent doctor located in Alpha; and
- There is no QAS station in Alpha, the area is serviced by a hospital ambulance attended by a volunteer driver and nurse. There is a QAS stationed in Barcaldine.

Health Services

A crucial service need for the region is health and aged care, particularly in the smaller communities. Medical, dental and allied health services appear to be lacking and at current levels, are not sufficient to cater to future population growth. The local study area is within the Central West Health Service District of Queensland Health.

The Alpha hospital has a ten-bed capacity, however there are also five beds made available for elderly care, which could be used if required (pers. comm., Alpha Hospital, 2010).

Alpha does not have a resident general practitioner (GP). A GP visits from Barcaldine every Thursday and Friday and a specialist physician visits every three months for one day. The hospital is, for the most part, staffed by agency nurses who are contracted for 6-8 week periods. This is a highly expensive form of employment sourced directly from the hospital budget. The nearest birthing suites are located in Emerald or Longreach. Table 4-16 outlines the details of the Alpha hospital.

The hospital also maintains a stock of anti-venom for most poisonous snakes in the region.

Table 4-16 Alpha Hospital Facility Services

Resource	Services Available
Hospital	Inpatient services: General Hospital Care, Accident & Emergency, Medical Clinic services, Multipurpose Health Care
Specialist Services	Physician (1-2 visits a year), RFDS Women's Health Doctor (every 2 months), RFDS Mental health (monthly or as needed)
Allied Health Services	Women's Health Nurse (every 2 months), Occupational Therapist (Monthly), ACAT (Monthly), QLD Health Mental Health Team (monthly or needed), Social Worker (Monthly or as required), Dietician (monthly), Breast Cancer Nurse (When required), Indigenous Health Team (Monthly), ATODS (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 4 weeks), Podiatrist, Psychologist

Source: Queensland Health, 2010.

The names of and distances to the main referral hospitals are:

- Rockhampton Hospital: 500 km;
- Toowoomba Hospital: 900 km; and
- The Royal Brisbane and Women's Hospital: 1,200 km.

Barcaldine is serviced by two doctors and the Royal Flying Doctor Service. Serious cases are transferred to Rockhampton. Reports of overcrowding in Rockhampton Hospital have been highlighted by stakeholders. Table 4-17 lists the services available at the Barcaldine Hospital Facility.

4 Baseline Profile

Table 4-17 Barcaldine Hospital Facility Services

Resource	Services Available
Hospital	Accident & Emergency, General Hospital Care, Medical Clinic Services, Multipurpose Health Services, Dental Services (Visiting)
Visiting Allied health	Physiotherapist, Occupational Therapist, Speech Pathologist, Social Worker
Community Health Services	Community Health Nurse, HACC services, Diversional Therapy, Diabetic Educator (visiting service) Well Women's Nurse, ACAT Team, Child Health, Mental Health Team, Breast Cancer Nurse, Indigenous Health Team, RFDS Wellbeing Team, ATODS
Visiting Specialists	Gastroenterology, Flying Surgeon (Consult only), Dermatologist, Physician, Flying Obstetrics and Gynaecologist, Ophthalmologist, Paediatrician, RFDS Women's Health Doctor, Optometrist, Psychiatrist, Psychologist

Source: Queensland Health, 2010.

The Barcaldine hospital provides a crucial set of services to the whole region. The hospital is currently fully staffed and busy. There is relatively good access to local doctors and allied health services from Longreach. Optometrists provide a visiting service from Rockhampton. Doctors in Barcaldine service Muttaborra, Aramac, Jericho and Alpha.

According to participants in discussions, Queensland Health is planning to build new consulting rooms in Barcaldine with six consulting rooms and to attract another doctor. Birthing services are not available. Longreach is the only facility in the Central West and about half the staff in Longreach are agency nurses.

A permanent dentist is required. A dentist currently visits the community every six weeks under an arrangement with a practice in Coopers Plain.

Barcaldine hospital serves Aramac and if the Aramac hospital were to be downgraded, the pressure will increase on Barcaldine hospital.

It is difficult to attract and retain qualified staff for the hospital. Major hospitals closer to the coast are first choice of staff allocated to rural areas. Many medical staff members are itinerant who contribute strongly while in Barcaldine but move on. The hospital is retaining graduate nurses but this appears to be cyclic. There is a need to develop existing staff and attract prac students and training positions. School students are visiting for nursing experience and the hospital has a relationship with Sunshine Coast TAFE and CQU. A form of rotation system may be possible to maintain visiting medical services in smaller communities (Barcaldine Regional Council, Community Plan, 2009).

A key challenge across all study areas is accommodating the needs of an ageing population. Barcaldine, Alpha, Jericho and Clermont offer no local aged care residential facilities. Clients are relocated to Longreach, Blackall or Emerald.

Home and Community Care (HACC) provides an important in-home health and aged care service across the region. HACC also affords a transport service for people requiring transfer to Emerald or Barcaldine. In Barcaldine, home based health workers find that people are very independent and they tend to only seek assistance in a crisis. Many people can't afford modifications to improve their care at home such as ramps etc. This can create hazards for residents and health care workers where there are old houses, dirt driveways, and other issues to consider (Barcaldine Regional Council, Community Plan, 2009).

4 Baseline Profile

HACC provides a bus service that takes people shopping and to medical services. People also have access to Home Assist Secure.

High care support is also available but there are not enough beds for aged people attached to the hospital. With an ageing population the number of high care places needs to increase beyond the current six.

A high priority is the gap between home-based care and high level care. As people's care needs rise they are faced with relocating to Longreach or Blackall or to be near family in cities near the coast. The majority of older people prefer to stay in Barcaldine and this relocation can be very difficult. There is an urgent need to establish residential aged care to for people with "mid care" needs such and supported or independent living units.

Spiritus Bush Nursing Service at Jericho provides a range of health services to the communities of Jericho and surrounding Shires. Services include home visits (conditions apply); health promotion activities; preventative health projects; special clinics provided by a number of Allied Health care providers such as doctor (weekly), dietician, diabetes educator, women's health nurse, incontinence adviser, Indigenous health worker, social and emotional wellbeing program, rural support officer, child health nurse, social worker, plus others.

An emergency ambulance is also available through the Spiritus Bush Nursing Service in Jericho and operates from 8.00am Monday to 4.00pm Friday (24 hours). Fees apply to the use of this service (Spiritus, 2010).

There has been a lot of consultation on the issue and an aged care study funded by Blueprint for Bush has been completed. The best option is independent living initially. Existing pensioner units need to be upgraded and land and funding needs to be acquired to build residential living units. A proposal and design is being developed and a range of funding options is being considered (Barcaldine Regional Council, Community Plan, 2009).

Other Health Care

People strongly value health care services, particularly the local hospital and HACC service. Alpha has a strong community oriented hospital with caring staff where the standard of emergency care is high and personal. Staff at the hospital know local residents and HACC services are easily accessible. Other assets were:

- RFDS coverage;
- A visiting doctor;
- Hospital runs a public pharmacy and delivery services; and
- The patient transport service that provides subsidized transport to other centres (Barcaldine Regional Council, Community Plan, 2009).

Alpha is supported by a Home and Community Care (HACC) program enabling elderly people to obtain support and assistance to stay at home longer and delay going into an assisted living facility.

4 Baseline Profile

Private Surgery

There is a private surgery in the Alpha community but it is only open when a doctor is available. There are five aged care beds and five acute beds available. The private surgery has hours Monday, Thursday, Friday and Saturday.

There is also a travelling clinic, which is accessible weekly, usually a Thursday or Friday.

Outpatient's services occur at 1:00pm if a relieving Doctor is available (BRC Website, Health Services, 2010).

Clinics

There are several clinic services available for the Alpha community. These are listed below along with the frequency of availability for the community:

- Podiatrist: This position is currently vacant – There is no podiatrist currently visiting the community though there is one in Longreach;
- Women's Clinic: Every 6 weeks;
- Women's Health Doctor: Once every 2 months;
- Diabetic Educator: Once a month;
- Child Health: Once a month;
- Social Worker: Once a month; and
- Psychiatrist: Once a month.

Other Services

Available on an as needs basis for the Alpha community:

- Speech Therapist;
- Mental Health;
- Physician: Dr John Larry;
- Incontinent Foot Care; and
- Psychologist Barcaldine (BRC Website, Health Services, 2010).

Doctor

The major issue is the lack of a permanent local doctor in Alpha. The community has not had a permanent local doctor for two years. It also does not have a dental service and has limited nursing staff, requiring the use of short term contract nurses. This situation has many implications:

- Without a doctor, the hospital is unable to admit patients. Many people are transferred to either Barcaldine, Emerald or Rockhampton hospitals where they have little family or other personal support. People are required to arrange their own transport back to Alpha;
- Without a doctor, it is difficult to attract and retain qualified permanent nursing staff. Contract nurses are expensive and high turnover reduces the continuity of care;
- A permanent doctor is important to attracting and retaining population to the district. It also makes it difficult for people to manage long term chronic illnesses. Many people wish to stay in the district risking deterioration in their condition;
- The way health care statistics are gathered makes it difficult to justify a doctor. Local patient care statistics are not high largely due to people having to be transferred to other centres. Furthermore people prefer continuity of contact with their own doctor and many bypass the local hospital because of the lack of continuity of a resident doctor; and

4 Baseline Profile

- The number of people involved in mining exploration is not included in the health care statistics. The current hospital services a large rural and mining exploration area whereas often only the town population is considered in justifying funding.

Some suggestions to attract a doctor are to:

- Clarify mentoring arrangements for junior doctors. Medical boards require appropriate supervision and this often needs to be provided by a nearby senior doctor. The provision of mentoring is a major limitation to attracting a doctor. Telecommunication needs to be pursued as an option to provide supervision and mentoring;
- Possible economic development from the minerals industry may increase the population to justify a doctor;
- A possible reduction in on-call periods from 6 weeks to 4 weeks would make a position more attractive; and
- Open dialogue with the state government needs to continue to present a case for funding for a doctor (Barcaldine Regional Council, Community Plan, 2009).

Patient Transport Scheme

The Patient Transport Scheme is an important service allowing people to affordably travel to access more specialized medical attention. However, several residents felt greater funding was needed to increase the 'per kilometre' and 'accommodation' subsidies.

A transport service is provided by the HACC Bus for people requiring transport to Emerald or Barcaldine (Barcaldine Regional Council, Community Plan, 2009).

QAS

The community has access to an ambulance that is staffed by hospital staff and volunteer drivers. Many people felt that there was justification for a full time Queensland Ambulance Service (QAS) position and ambulance. Lobbying was needed to gain funding for this. Some other options were:

- Possible amalgamation between an ambulance service, the fire brigade and SES; and
- A first responder system, which is in place in other rural communities, where local volunteers use their own vehicle to provide first aid prior to ambulance arrival.

Other key health care issues are:

- Lobbying to obtain a public dental service;
- Improved access to children's' health services;
- Increased health promotion and illness and accident prevention; and
- Improved access to day respite care in the district (Barcaldine Regional Council, Community Plan, 2009).

Indigenous Health and Community Support Services

There are two organisations in BRC area dedicated to providing health and community support services to Aboriginal and Torres Strait Island people, both are located in Barcaldine. They are:

- Aboriginal and Islander Health Team; and
- Central West Aboriginal Corporation.

4 Baseline Profile

Need for Assistance

At the time of the 2006 Census, 2.9% of the population or 96 persons were in need of assistance in BRC. In comparison, Queensland had 154,707 persons in need for assistance or 4.0% of the total persons. BRC represented 0.1% of the total persons in need for assistance in Queensland (OESR, 2010). The reduced need for assistance is attributed to the lack of specific services in the area to accommodate individuals in need of assistance. This is primarily due to the size of the population, but also includes the reality that life in rural communities is not very conducive to people in need of assistance. As a result, many people in need of assistance leave the area to be closer to the services and assistance they require. This often also results in whole families leaving the area. An unfortunate consequence is that some people are forced to leave their support network which can result in a burden on the individual, as well as friends and family.

At the time of the 2006 Census, there were 25 persons with a 'Core Activity Need for Assistance' in Alpha (State Suburb) representing 4.1% of respondents. The 'Core Activity Need for Assistance' variable was developed by the ABS to measure the number of people with a profound or severe disability. People with a profound or severe disability are defined as needing help or assistance in one or more of the three core activity areas of self-care, mobility and communication because of a disability, long term health condition (lasting six months or more), or old age.

Emergency Services & Police

Alpha has a hospital-based ambulance service that is operated by a volunteer driver. When attending an accident or emergency, the ambulance is staffed by a nurse. The volunteer drivers are in the hospital from 8.00am – 4.30pm Monday – Friday. After hours, there is a hospital car which can respond to larger incidents with nurses and additional drivers on call on a roster basis. In the event of an accident, drivers usually arrive at the hospital within ten minutes of being called out (pers. comm., Alpha Hospital, 2010).

Local residents contribute to a QAS levy as part of their electricity bill, however are still required to pay a significant callout fee if a QAS ambulance is required to come from Barcaldine or Anakie.

There is a police station in Alpha. In the event of an accident or emergency, an officer would be called to the scene. Dependent on the severity of the accident, the RFDS may be called. The RFDS takes about one hour to respond and will transport patients to Rockhampton Hospital for emergency treatment. If the accident is less severe, the patient may be transferred by ambulance to Emerald or Barcaldine Hospitals (pers. comm., Alpha Police, 2010).

There is a voluntary SES team and Fire and Rescue service in Alpha and Jericho on call for fire events. The fire brigade is alerted through an emergency page system operated from Rockhampton (pers. comm., Alpha SES and Fire and Rescue, 2010).

Recreation, Leisure and Culture

The BRC Sport, Recreation and Open Spaces Plan (SROS Plan) is currently in draft form and undergoing the community consultation phase. A draft version was made available by the council for consideration in the Project EIS. The community meeting associated with this plan identified the highest priority for the people in Alpha was a new swimming pool, though other areas and opportunities were identified, including a gymnasium for the community. The gymnasium could be used by children, sporting groups and could incorporate table tennis and pool table where the youth

4 Baseline Profile

could 'hang out' and should be air-conditioned (Barcaldine Regional Council, Draft Sport, Recreation and Open Spaces Plan, 2010).

Residents report that they value their relaxed, outdoor way of life, and this is reflected in the wide range of recreational activities undertaken within the region. Alpha offers a variety of sporting opportunities for a community of its size, including touch football, rugby league, netball, tennis and swimming. Local sporting clubs include Alpha Golf Club, Alpha Tennis Club, Alpha Jets Netball Club, Alpha Rodeo Association, Alpha Swimming Club, Alpha Jockey Club and Alpha Pony Club.

A Community Report commissioned by BRC in 2009 highlights future recreational improvements for Alpha, including upgraded sports facilities and a youth (drop-in) centre.

Barcaldine boasts a wide range of sporting facilities, which is reflected in the town's many sporting clubs and organisations.

Sports and Recreation Organisations

There are several sports and recreation organisations in the Alpha area as identified in the BRC SROS Plan. These include:

- Alpha Campdraft and Rodeo Club;
- Alpha Show Society;
- Alpha Netball Club;
- Alpha Pony Club;
- Touch football in Alpha;
- Alpha Junior Rugby League Club;
- Alpha Rugby League Club (Senior);
- Alpha Swimming Club; and
- Alpha Golf Club.

Arts and Culture

The Alpha Agricultural Show is held annually in May over three days. Events include horse showing, dressage and jumping; cattle and stud cattle showing; bird show; wood chopping competitions; motorbike challenge; dog show and dog trial; flower and gardening shows; as well as cooking and brewing competitions (Queensland Chamber of Agricultural Societies, 2010).

Barcaldine has a strong artistic community with accessible and affordable music programs offered through schools, arts, events and an active Cultural Association and Arts Council. The Arts Council owns Radio Theatre, a volunteer-run initiative that screens movies twice weekly (Barcaldine Regional Council, 2010).

Parks

There are a number of council maintained and managed parks in BRC. These parks are highly regarded by the community as places where they can enjoy outdoor time, socialising and picnicking together. They often contain entertainment and play areas for children and youth. In Alpha there is Settlers Park (Moore Street) with a covered playground area, unisex toilet and skate park (Barcaldine Regional Council, 2010). There is also Anzac Park beside the Alpha Town Hall which is primarily dedicated as a War Memorial, and Lioness Park. Lioness Park is an attractive small park that gets most use from travellers and workers stopping for rest breaks (it is adjacent to the service station and

4 Baseline Profile

shop). It has some picnic tables (one in a shelter), a broken barbecue, antique machinery and an interesting structure recording flood heights (Barcaldine Regional Council, Draft Sport, Recreation and Open Spaces Plan, 2010).

Barcaldine has a number of parks including Council Park with playground areas, as well as table and chairs in shady locations. Other parks include Apex and Rotary Parks in Barcaldine and Langston, Railway and Redbank Parks in Jericho (Barcaldine Regional Council, 2010).

The BRC SROS Plan identified two parks of interest to the community. The Anzac Park was recognised as a place for community events. Lioness Park was identified as primarily used by tourists with little to no use from the community (Barcaldine Regional Council, Draft Sport, Recreation and Open Spaces Plan, 2010).

Recreational Areas

There are a range of recreational areas in the Barcaldine Regional Council area. Many of these areas are available for hire for specific events, as well as hosting a range of community events.

In Alpha, there is the Alpha Showgrounds which has a bar (with cold room facilities), toilets, showers, several pavilions and a grassed oval with lighting. There is also Settlers Park providing outdoor playground and skate park facilities as well as public amenities. In Barcaldine, as well as the parks listed above, recreational areas include the JD Bennet Sporting Complex (showgrounds) with the Grandstand Bar, Kitchen and Dining room; the Crawchie Pot (sheep pavilion); and the Race Kitchen (Barcaldine Regional Council, 2010).

The showgrounds were identified in the Draft SROS Plan as an area of priority in the community meeting. Key issues identified included:

- The Show is going well and is financially sound. A Showground User Group should be established to determine the future needs and plan for the development of the site, due to different user groups, wanting different things. Some of the improvements include toilets, stables, kitchen (two additional 15A outlets) and a new stove and fences for animal and crowd control;
- There is not enough power at the site and generators are needed for events; and
- Develop a maintenance plan for the whole site (Barcaldine Regional Council, Draft Sport, Recreation and Open Spaces Plan, 2010).

Swimming Pools

There is a 25m long concrete pool in Dryden Street in Alpha. Facilities at the pool include change rooms, showers, toilets and a kiosk and part of the pool is shaded (Barcaldine Regional Council, 2010f). Community consultations indicate that the pool is 30 years old and is in need of replacement. An application has been made to the Federal Government and the construction of new dressing rooms has been approved (Barcaldine Regional Council, 2010).

The community meeting for the BRC SROS Plan identified a strong need for a new pool, including a toddler's pool. The 'learn to swim' pool is a stepped design. The community also indicated the pool should be solar heated to extend pool opening hours and should also be shaded (Barcaldine Regional Council, Draft Sport, Recreation and Open Spaces Plan, 2010).

4 Baseline Profile

Churches

Alpha is serviced by a Catholic Church, a Church of England and Uniting Church. The Catholic Church Alpha is serviced by a Catholic Church, a Church of England and Uniting Church. The Catholic Church holds mass at 9.00am on the first Sunday of each month and conducts a prayer service every Sunday at 10.00am; the Church of England also hold mass on the first Sunday of every month at 2.00pm; and the Uniting Church holds fortnightly mass at 3.00pm on Sundays.

Barcaldine has churches servicing the Anglican, Catholic, Uniting, Jehovah's Witness and Assembly of God faiths (Barcaldine Regional Council, 2010).

Libraries

The Alpha community is serviced by the Alpha Library which is open on Monday afternoons, all day Wednesday (closed for lunch) and Friday morning. The Jericho Library is housed in the Jericho Rural Transaction Centre and is open on Monday and Thursday between 2.00pm and 5.00pm.

The largest library in the region is Barcaldine Library which is open Monday afternoon; all day Tuesday, Wednesday and Friday; and Thursday and Saturday mornings. The Barcaldine Library offers a wide range of resources and supporting services as well as a range of contemporary and historical materials on the surrounding area including the document histories of local families. Barcaldine Library also has internet and word processing facilities available for public use (Barcaldine Regional Council, 2010).

Town Halls

Each community in Barcaldine Regional Council has its own town hall. In Alpha, the capacity is 300 people, in Barcaldine the main hall seats around 280 (including fixed seating) but there is also an adjoining supper room which caters for around 60 people and is used for conferences or meetings. All town halls are available for hire. Further information is available through the town council offices or the Jericho Rural Transaction Centre (Barcaldine Regional Council, 2010).

Other Community Services

There are a wide variety of opportunities to become involved in community activities across the study areas. Local Council's provide full details of community organisations, some of which are listed below:

- Alpha Tourism Association;
- Meals on Wheels;
- Alpha Historical Society;
- Alpha Show Society;
- Alpha Rodeo Society;
- Alpha Cultural Group;
- Alpha QCWA;
- Senior Citizens Association;
- Jane Neville Rolfe Art Gallery; and
- Jellybeans Association.

Similarly, in Barcaldine and Jericho, a wide range of community networks are available, including:

- Barcaldine Apex Club;

4 Baseline Profile

- Barcaldine Aged Club;
- Barcaldine & District Historical Society;
- Comet Masonic Lodge;
- Barcaldine RSL Branch and RSL Women's Auxiliary;
- Barcaldine Tourist Association;
- Central Western Aboriginal Co-op;
- Girl Guides;
- Scouts Association;
- Jericho Rodeo Association;
- Jericho Community Group;
- Jericho Picnic Race Club; and
- Jericho Tourism Committee.

Mining Lease Area

Quantitative health and wellbeing data and social infrastructure data specific to the mining lease area was not collected for the SIA. Details may have been collected as part of ongoing landholder negotiations but are not recorded or assessed as part of the SIA. For general health, wellbeing and social infrastructure information for the mining lease area see Section 4.5.2 for the local study area.

Consultations indicated a level of concern and anxiety among the residents of the mining lease area because of the uncertainty about the future of their property and family. Some quoted that because of the uncertainty about the future of their land, it was impossible to sell, and difficult to plan or move forward. This had resulted in increased stress and tension amongst landholders.

4.6 Education and Training

4.6.1 Regional Study Area

The following key points on the education and training opportunities of the regional study area were identified (OESR, 2010):

- In the 12 months ending 31 December 2008, 77.4% of students attending school in CHRC attended a government school and 22.6% attended a non-government school;
- In the 12 months ending 31 December 2008, 96.5% of students attending school in IRC attended a government school and 3.5% attended a non-government school; and
- At this time of the 2006 Census 46.7% of persons aged 15 and over in CHRC and 49.7% in IRC had post-school qualifications.

Childcare

Emerald currently has a waiting list of 290 children requiring childcare places. The most recent childcare centre was constructed in 2007, with Council providing the land. The centre was constructed by local provider C&K Childcare. The CHRC is working to attract other providers but is reporting difficulty in securing finance and gaining access to trained staff. Availability in day care for infants and toddlers (0-2 years) is a particular problem. CHRC also operates a kindergarten in Emerald (pers. comm., May 2010).

4 Baseline Profile

Clermont Kindergarten and Day Care Centre have recently been expanded and extra spaces are currently available. This is the only childcare facility currently available in Clermont (pers. comm., May 2010).

Primary and Secondary Schools

Clermont has two primary schools and a high school which apparently have an excellent reputation for high standards. The main primary school currently has 250 students, with a capacity of up to 400 provided teachers are available. Similarly the high school has around 160 students currently with a capacity to increase to 300. Trades, with a particular focus on developing skills to cater for the mining industry, are a key focus of the curriculum. There are boarding facilities in the town for both primary and high school aged students. The second primary school – a Catholic school – caters for 120 students.

Several boarding schools operate out of major centres, including Rockhampton, Charters Towers, Townsville and Toowoomba.

Table 4-18 lists the primary and secondary schools in the study area and their most recent enrolment numbers.

Table 4-18 Primary and Secondary Schools and Enrolment, Regional Study Area

School	Primary/Secondary	Enrolment
Emerald North State School	P-7	309
Emerald State High School	8-12	393
Marist College - Emerald	8-12	460
St Patrick's - Emerald	P-7	650
Denison State School	P-7	444
Capricornia School of Distance Education - Emerald	P-11	264
Capella State School	P-7	164
Capella State High School	8-12	139
Clermont Primary School	P-7	250
Clermont High School	8-12	160
St Joseph's (Catholic) School - Clermont	P-7	120

Source: Consultation, October 2009

Tertiary Education

The Australian Agricultural College Corporation has an Emerald campus located 3 km east of the town on 1,200 ha. The campus specialises in beef, cattle, cotton, horses and horticulture.

The Central Queensland Institute of TAFE (central campus in Rockhampton) has a Central Highlands regional campus located in Emerald and additional campuses at Barcaldine, Blackwater and Clermont.

CQ University Australia is headquartered in Rockhampton and has campuses in Gladstone and Mackay and a learning centre in Emerald. On-campus and distance education fields of study include: IT, Business, Education, Built Environment, Creative and Performing Arts, Engineering and

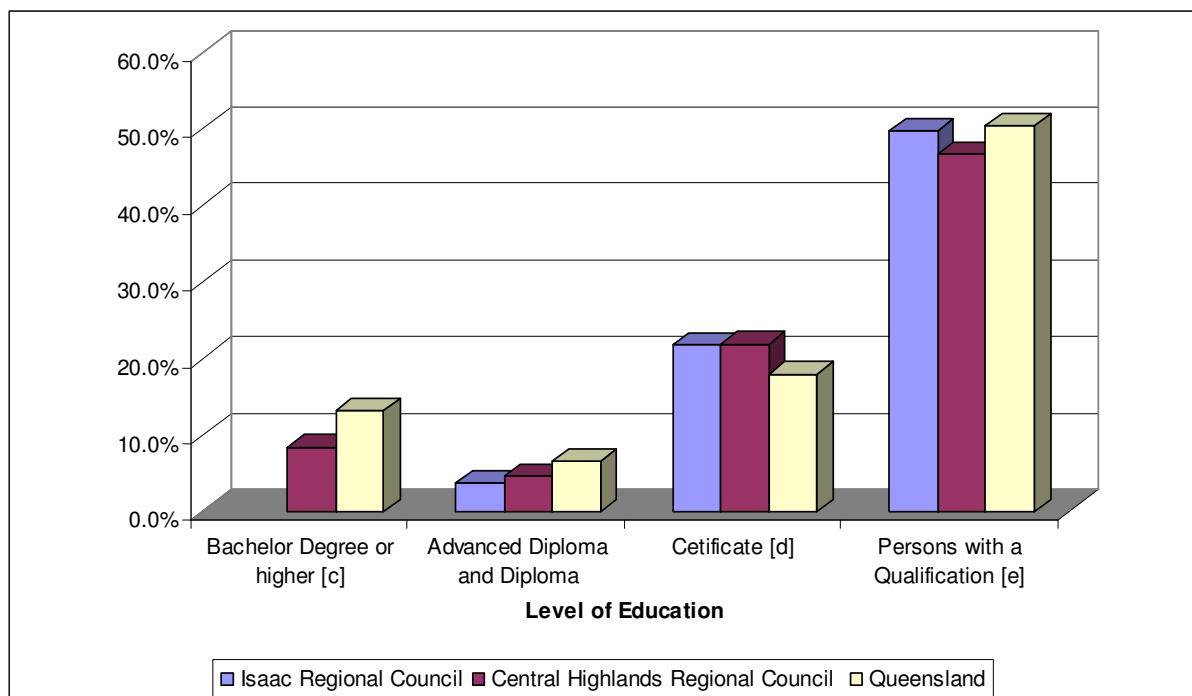
4 Baseline Profile

Technology, Health and Recreation, Primary Industries & Environment Sciences, Humanities and Social Science.

Post-School Qualifications

At the time of the 2006 census, 7,317 people (49.7% of the population) in IRC, and 9,232 people (46.7% of the population) aged 15 and over indicated they have post-school qualifications. These rates are below that of Queensland as a whole, where 50.4% of people aged 15 and over have some post-school qualification. Figure 4-19 shows a graphical representation of the educational attainment of those people who indicated they have post-school qualifications (OESR, 2010).

Figure 4-19 Level of Educational Attainment, Isaac and Central Highland Regions



Note: (a) Based on place of usual residence. (b) Persons aged 15 years and over. (c) Includes bachelor degree, graduate diploma, graduate certificate and postgraduate degree. (d) Includes Certificate, I, II, III and IV and Certificates not further defined responses. (e) Persons aged 15 years and over, includes 'inadequately described' and 'not stated' level of education responses. Based on ASGC 2006. Data for reformed local government areas are derived from concordant population-based statistical local area data (ASGC 2006).

Source: Australian Bureau of Statistics, Census of Population and Housing, 2006, Basic Community Profile - B05 and B39

Other Education and Training Facilities

There are a wide variety of private training organisations catering to the coal industry in the regional study area, particularly Emerald. Training providers include:

- Lennon Training – accredited training courses include general mining, coal competencies; scheduling and rescue. Located in Emerald, Lennon Training specialises in training for the coal industry. Qualified instructors can conduct training on site at mine locations;

4 Baseline Profile

- Capricornia Training – an industry focused organisation that works with local businesses to help recruit apprentices, trainees and up skill existing staff. Located in Emerald; and
- Central Highlands Safety Services (CHSS) – Registered Training Organisation (RTO) focusing on risk management and safety in the resource industry. CHSS are based in Rockhampton however run a number of coal industry focused training courses in Emerald and on site at mines.

The Blackwater International Coal Centre in Blackwater incorporates an education and community centre, an exhibition space, theatre cinema and a café. The centre which originated as a vision of the Duaringa Shire Council in 2003 and was supported by BMA Blackwater Mine and Wesfarmers Curragh Coal showcases the Australian coal industry to the world (Blackwater International Coal Centre, 2008).

4.6.2 Local Study Area

The following key points on the education and training opportunities of BRC were identified (OESR, 2010):

- In the 12 months ending 31 December 2008, 94.8% of students attending a school in BRC attended a government school and 5.2% attended a non-government school; and
- At the time of the 2006 Census, in BRC, there were 38.0% of persons aged 15 years and over with a post-school qualification.

Child Care

The Jelly Beans Community Centre in Alpha, operated by C&K, a community based early childhood group consists of a kindergarten and day care centre. The centre is open two days per week (Monday and Wednesdays) and has capacity to take up to 14 children (3 years and over) per day. The Day Care Centre operated by Barcaldine Regional Council in Alpha caters for children ranging from six weeks to school age, operates for limited hours, two days per week. While the centre is licensed to cater for up to 21 children, its current capacity is only 14 due to staff limitations.

Childcare facilities in Barcaldine are limited, with a casual kindergarten currently used for day care purposes. Barcaldine Regional Council is in ongoing discussions with service provider C&K Childcare with regard to establishing a centre.

Primary and Secondary Schools

The most recent data available from ABS is for the 12 months ending 31 December 2008. 94.8% of students attending a school in Barcaldine Regional Council attended a government school and 5.2% attended a non-government school. The corresponding percentages for Queensland were 67.9% of school students attended government schools and 32.1% attended non-government schools. There were 269 students attending a government primary school (years 1 to 7) in Barcaldine Regional Council and 23 students attending a non-government primary school. In secondary school (years 8 to 12) there were 154 government students and 0 non-government students (OESR, 2010).

Alpha has a primary and secondary school (P-10). In 2010, 74 students were enrolled in the primary school and 13 in the high school. Alpha School recently added distance learning options for years 11 and 12 (pers. comm., August 2010). The school is strongly valued by the community. However people also recognised that local education was limited. Boarding school is expensive and disrupts family life. Young people also have to make social adjustments in larger settings. Many people saw the need for

4 Baseline Profile

greater educational choice but increased student numbers depend on industry, employment and population (Barcaldine Regional Council, Community Plan, 2009).

Barcaldine offers the largest local primary and high school within the study area, with 150 primary and 130 secondary students. The school includes a teaching staff of 40. Out-of-town children are transported by buses in four directions. Queensland Transport coordinates this using a local bus company. There is also a Catholic primary school in Barcaldine with approximately 22 students.

Barcaldine High School consists of 14% Indigenous students, which is the second highest proportion in Queensland's Central West region after Hughenden (pers. comm., May 2010)

In addition to the standard curriculum, the school offers an agricultural/horticultural course and 36 school-based apprenticeships. A lack of specialist teaching staff is addressed through virtual teaching resources. The school also offers Distance Education for those wishing to learn Japanese and other languages.

For senior students, the school offers life-skills training, teaching students take care of themselves (cooking, cleaning, etc). This course has been specifically tailored as many young adults leave the region post schooling to pursue career opportunities and tertiary studies.

A lack of entry-level career opportunities in the region has been highlighted as a contributing factor to the number of students who leave the area upon completion of senior school study (pers. comm., Principal Barcaldine State School, 2010). Stakeholder feedback is that young women, in particular, are faced with limited career opportunities. Table 4-19 lists the primary and secondary schools in the study area and their most recent enrolment numbers.

Table 4-19 Primary and Secondary Schools and Enrolment, Local Study Area

School	Primary/Secondary	Enrolment
Alpha State School	P-10	74
Jericho State School	P-7	20
Barcaldine State School	P-7	150
Barcaldine State High School	8-12	130
St Joseph's (Catholic) School - Barcaldine	P-7	22

Source: Consultation, October 2009

BRC has reported difficulties in retaining council staff and as a result is considering introducing a training program for local youth focused on developing plant operators for Council equipment. In addition, they are looking at developing suitable apprenticeships aimed at local youth to discourage them from leaving the area in search of further education and employment opportunities.

Highest Level of Schooling

At the time of the 2006 Census, in BRC, there were 974 persons aged 15 years and over with year 11 or 12 (or equivalent) stated as their highest level of schooling (38.5% of all persons aged 15 years and over). This corresponded with 49.5% in Queensland.

Table 4-20 shows the level of schooling attainment in the study area compared to Queensland. The data shows an almost double rate of individuals who did not go to school or attain year eight in BRC. Although the levels of those to receive year nine or ten or equivalent is higher in BRC (4.5% higher

4 Baseline Profile

than Queensland's average), it is 11% lower for year 11 or 12 or equivalent to the Queensland average. The reasoning behind these values is the agricultural work in the area and the propensity for many school aged children to finish their studies early to assume more responsibility on the family property (pers. comm., August 2010).

Table 4-20 Highest Level of Schooling Completed (a) (b), Barcaldine Regional Council

Local Government Area	Did not go to school, or Year 8 or below	Year 9 or 10 or equivalent	Year 11 or 12 or equivalent	Total (c)
Barcaldine Regional Council	370 (14.6%)	942 (37.3%)	974 (38.5%)	2,528
Queensland	244,131 (7.9%)	1,014,594 (32.8%)	1,534,024 (49.5%)	3,097,996
Region percent of Queensland	0.2%	0.1%	0.1%	0.1%

Note: (a) Based on place of usual residence. (b) Based on persons aged 15 years and over. (c) Includes highest year of schooling not stated. Based on ASGC 2006. Data for reformed local government areas are derived from concorded population-based statistical local area data (ASGC 2006).

Source: Australian Bureau of Statistics, Census of Population and Housing, 2006, Basic Community Profile - B15

When the region's percent of Queensland is examined it further reflects the difference in the study area compared to the rest of Queensland. For most statistics examined in the baseline, BRC has represented 0.0% to 0.1% of the total. This remains constant for highest level of schooling with the exception of year 8 or below. As discussed in Section 4.6.2 School Students, technical innovations and programs targeted towards local area opportunities may help lower the number in this category; however, the difficulty in attracting and retaining teaching staff could have a converse impact with the potential to contribute to the early drop outs.

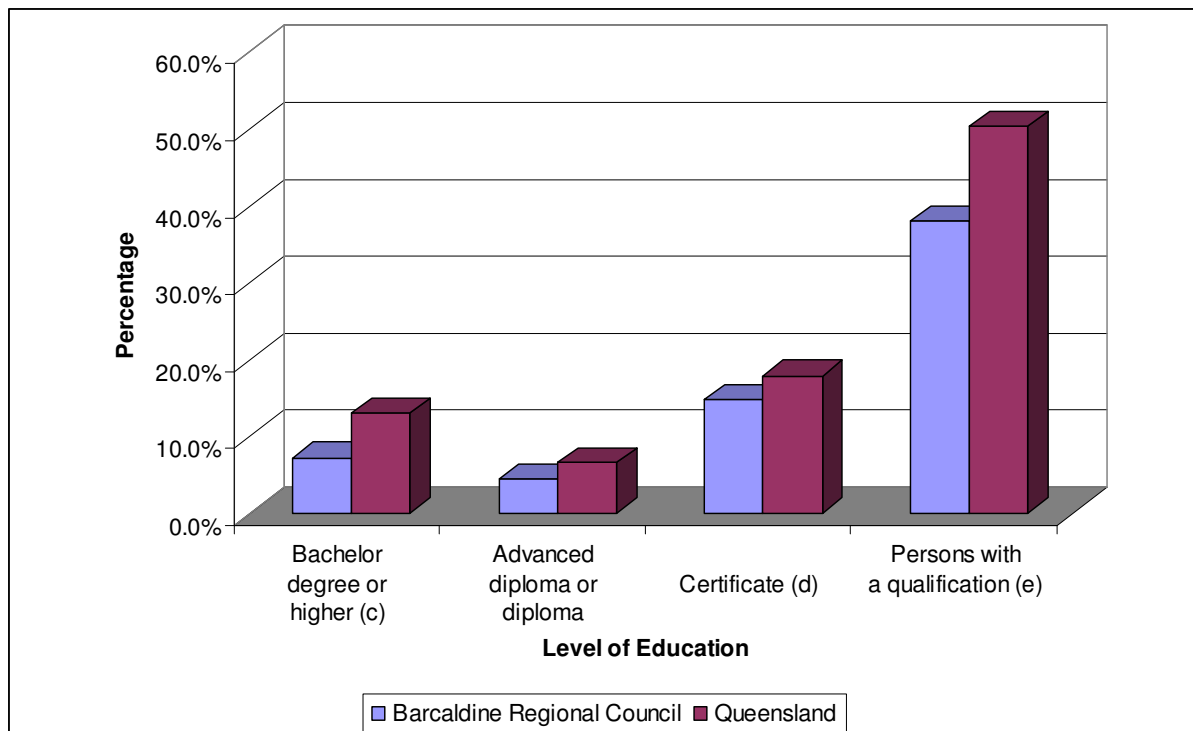
Post-School Qualification

At the time of the 2006 Census, in BRC, there were 961 persons aged 15 years and over with a qualification, 38.0% of the population in this age group. This percentage was less than the Queensland rate of 50.4%. There were 183 persons with a bachelor degree or higher, 113 persons with an advanced diploma or diploma and 372 persons with a certificate. Of persons aged 15 years and over with a qualification, 19.0% had bachelor degree or higher (26.0% in Queensland), 11.8% had an advanced diploma or diploma (13.1% in Queensland), and 38.7% had a certificate (35.5% in Queensland) (OESR, 2010).

Figure 4-20 graphically illustrates the differences between the educational achievements in the study area compared to the rest of Queensland. As discussed in Section 4.6.2 Highest Level of Schooling, the types of employment opportunities available in the area is reflected in the level of post-school qualification achieved. The nature of much on-farm skills results in certain skill attainment without recognised qualifications. Examples include welding, carpentry, electrical and heavy machinery training. Rural areas tend to have larger portions of the population with specific skills but a lack of formal training and subsequent credentials.

4 Baseline Profile

Figure 4-20 Post-School Qualifications by Level of Education (a) (b), Barcaldine Regional Council, 2006



Note: (a) Based on place of usual residence. (b) Persons aged 15 years and over. (c) Includes bachelor degree, graduate diploma, graduate certificate and postgraduate degree. (d) Includes Certificate, I, II, III and IV and Certificates not further defined responses. (e) Persons aged 15 years and over, includes 'inadequately described' and 'not stated' level of education responses. Based on ASGC 2006. Data for reformed local government areas are derived from concordant population-based statistical local area data (ASGC 2006).

Source: Australian Bureau of Statistics, Census of Population and Housing, 2006, Basic Community Profile - B05 and B39

Mining Lease Area

Education and training opportunities data specific to the mining lease area was not collected for the SIA. Details may have been collected as part of ongoing landholder negotiations but are not recorded or assessed as part of the SIA. For general education and training opportunities information for the mining lease area see Section 4.6.1 and Section 4.6.2.

4.7 Labour Market and Employment

4.7.1 Regional Study Area

The following key points on the labour market and employment opportunities of the regional study area were identified (OESR, 2010):

- The unemployment rate for CHRC as at March quarter 2010 was 2.6%. The unemployment rate for IRC as at March quarter 2010 was 1.4%; and

4 Baseline Profile

- At the time of the 2006 Census, Mining was the largest industry of employment of usual populations in both CHRC (22.3% of employed labour force) and IRC (38.9% of employed labour force).

Labour Force Participation & Employment

The proportion of people either employed or actively seeking employment constitutes the labour market participation rate. In Emerald this rate is 77.5% of all persons aged 15 or over, while in Clermont it is 68.1%. Table 4-21 highlights labour force participation and employment rates.

Table 4-21 Labour Force Participation, Clermont and Emerald (2006 Census)

Census Characteristics	Clermont	Emerald
Labour force participation (people 15 years +) (as %)	68.1%	77.5%
Unemployment (as %) (b)	3.1%	1.9%
Employment to population (as %) (c)	66.0%	76.0%

Note: Barcaldine Regional Council calculated by determining the average from each of the three former shires. The proportional average for each shire was determined by multiplying the population by the value and dividing by the total population of the council. (a) The number of persons in the labour force expressed as a percentage of persons aged 15 years and over. (b) The number of unemployed persons expressed as a percentage of the total labour force. (c) The number of employed persons expressed as a percentage of persons aged 15 years and over.

Source: ABS c, ABS d (2006)

Unemployment rates (i.e. persons aged 15 or over who were unemployed and actively seeking work based on a smooth series) in the March quarter 2010 in IRC was 175 (1.4% of the labour force) and 470 (2.6%) in CHRC. By comparison, Queensland has a smoothed unemployment rate of 5.6%, indicating a strong employment market in the region (OESR, 2010a and OESR, 2010b).

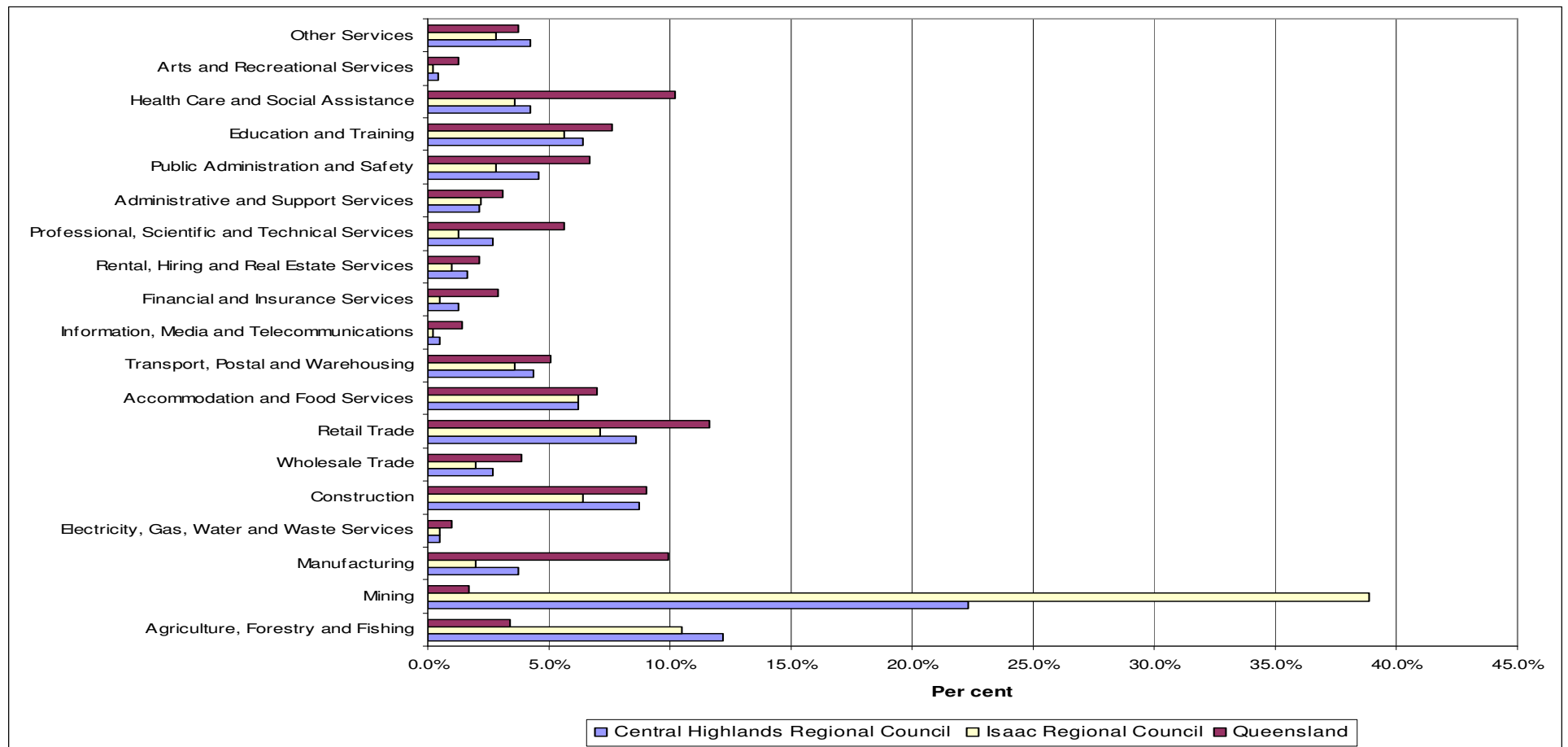
At the time of the 2006 census (most recent available statistics) 19.0% of those employed in Clermont, were employed in the coal mining sector. This is significantly more than the next highest industry, Sheep, Beef, Cattle and Grain industry which accounts for around 9.6% of employment. . Other industries providing significant employment are school education (6.1%), supermarket and grocery stores (4.1%) and local government administration (3.5%). These figures show that there is a high level of local mining capacity and skill in Clermont and indicates that unless alternative employment industries are developed, there could be an increase in unemployment when Clermont mine closes in 16 years.

The largest industry of employment reported in Emerald was also coal mining representing 14.5% of all employment. This was followed by school education (5.1%), heavy and civil industry (3.4%), supermarket and grocery stores (3.0%) and food service industry (2.9%). The even spread across other industries is evidence of the economic diversity of Emerald and the town's role as a regional centre.

Figure 4-21 demonstrates employment breakdown by industry for each of the study's regional council areas.

4 Baseline Profile

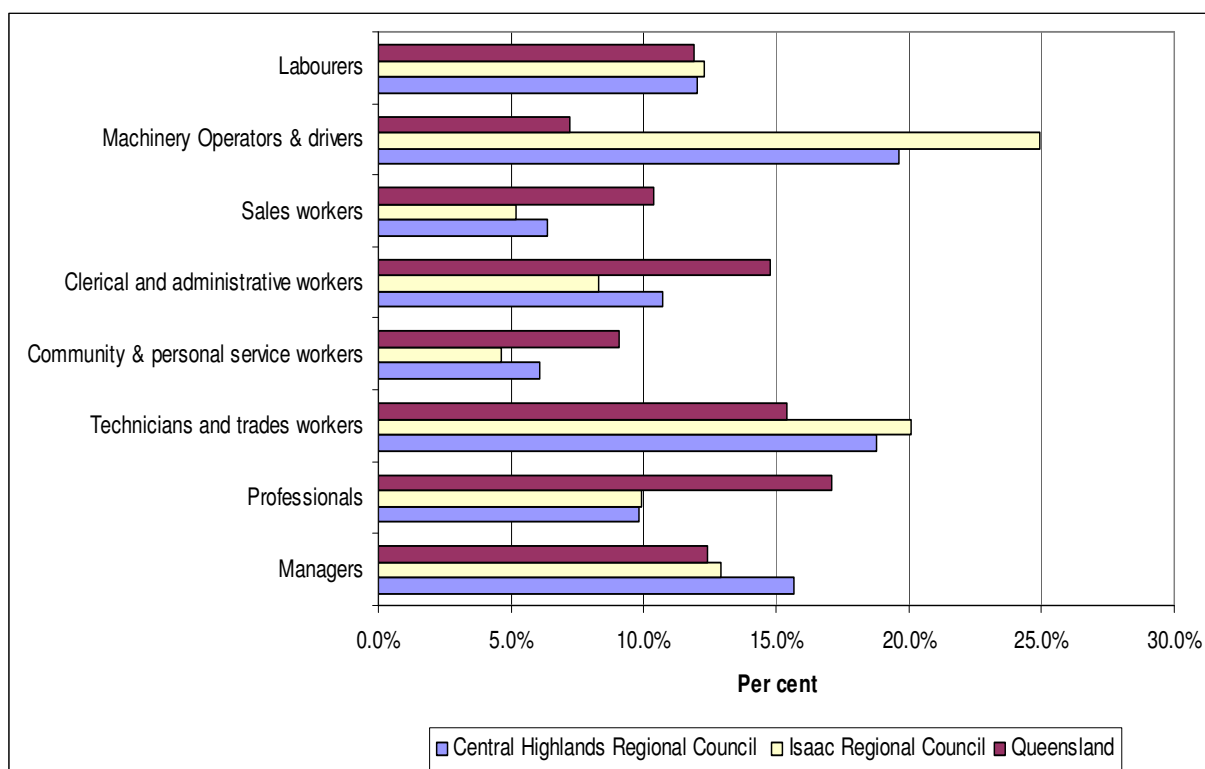
Figure 4-21 Employment by Industry Sector



4 Baseline Profile

In the 2006 census, the majority of employees in IRC (24.9%) and CHRC (19.6%) described themselves as employed as Machinery Operators and Drivers. This was followed by Technicians & Trades Workers (20.1% in IRC and 18.8% in CHRC) (see Figure 4-22). This represents a higher proportion of people than employed in the same occupations across QLD as a whole which are 7.2% and 15.4% respectively. It can be assumed the majority of these are employed in the coal mining or related service industries.

Figure 4-22 Employed by Occupation



Source: ABS Regional Profiles (2006)

FIFO and DIDO Operations

A number of mines in the regional study rely on a combination of local employment and FIFO/DIDO arrangements to manage their workforces. Consultations with local council indicated that there are benefits and challenges experienced by the proponents and local communities as a result of these arrangements.

In CHRC the success of FIFO and DIDO arrangements were reported. Generally in these cases workers stay in self-sufficient accommodation villages, isolated from the community. Workers were transferred straight to site and access to town and facilities is limited. Consultations with council indicated that this is considered to be highly successful, having insignificant impact on the local community.

IRC Council however reported that some mining companies have expressed challenges associated with staff retention on FIFO rosters, with the council reporting their consultations indicate the average worker lasted only two years working under a FIFO arrangement. This means increased employer

4 Baseline Profile

costs associated with recruitment and training. They also highlighted that when FIFO workers stay in communities, there is increased pressure on facilities, resources and social cohesion (pers. comm., August 2010). A common problem in such communities is the high cost of accommodation and housing as demand outstrips supply.

A 2003 study by the Centre for Social Responsibility in Mining into Workforce Turnover in FIFO Mining Operations however reported that there was an average turnover rate ranging from 10% to 28%, with an average of 21% across seven FIFO mining operations, a comparable average when considered against other studies. The two town-based sites studied had annual turnover rates of 8% and 27% respectively – an average of 17.5%. This shows that while the perception may be that FIFO presents higher staff turnover rates, research demonstrates that these rates are comparable to town based mine sites. The study found that it is more likely that high turnover rates at specific times in some operations are more reflective of site-specific factors such as changes in working arrangements and management interventions.

The Bowen Basin Population Study (2007) indicated that non-resident workers represented just 4% of the population in Emerald and 14% of the total population in Belyando Shire (which includes Clermont) (DIP 2007).

4.7.2 Local Study Area

The following key points on the labour market and employment opportunities of BRC were identified (OESR, 2010):

- The smoothed unemployment rate for BRC as at March quarter 2010 was 2.8%; and
- At the time of the 2006 Census, Agriculture, Forestry and Fishing was the largest industry of employment for BRC usual residents, with 33.5% of the region's employed labour force.

The BRC has reported difficulties in retaining staff due to the lure of jobs in the Bowen Basin and elsewhere (Barcaldine Regional Council May 2010).

Labour Force Participation and Employment

Labour force participation rate is 66.1% of persons aged over 15 in BRC, and 68.2% in Alpha.. Table 4-22 shows the labour force participation and unemployment rate in Alpha and BRC.

The sheep, beef, cattle and grazing agriculture industry provides the majority of employment in Alpha (41.2%). This is followed by local government administration (10.4%), hospitals (6.71%) and school education (5.2%) (OESR, 2010). The region's strong rural economy is bolstered by a growing tourism sector. There is also potential for minerals expansion and exploitation. While remaining the single most significant economic sector, the traditional rural basis of BRC has been changing as a result of falling profit margins, changes to vegetation management and ongoing climatic and market variations (pers. comm., BRC, October 2009).

4 Baseline Profile

Table 4-22 Labour Force Participation, Alpha and Barcaldine, 2006 Census

Census Characteristics	Alpha	Barcaldine Regional Council
Labour force participation (people 15 years +) (as %) (a)	68.2%	66.1%
Unemployment (as %) (b)	3.4%	2.6%
Employment to population (as %) (c)	65.9%	64.4%

Note: Barcaldine Regional Council calculated by determining the average from each of the three former shires. The proportional average for each shire was determined by multiplying the population by the value and dividing by the total population of the council. (a) The number of persons in the labour force expressed as a percentage of persons aged 15 years and over. (b) The number of unemployed persons expressed as a percentage of the total labour force. (c) The number of employed persons expressed as a percentage of persons aged 15 years and over.

Source: ABS, Local Suburb Profiles Alpha (Jericho Shire) and Barcaldine Regional Council

Table 4-23 shows 139 persons or 42.2% of employed people in Alpha (State Suburb) (ABS, 2006)) and 547 persons (33.5%) of employed people in BRC worked in the agriculture industry. For Queensland as a whole the percentage in that occupation is 3.4% (OESR, 2010i). Other industries with relatively large numbers of employed persons in the study area included Public Administration and Safety, employing 10.6% in Alpha and 11.7% in BRC, and Health Care and Social Assistance, with 9.7% in Alpha and 8.6% in BRC (OESR, 2010i).

Specialisation ratios take the percentage of the region over the percentage for Queensland to produce a ratio showing the proportion of workers in a specific industry compared to the rest of Queensland. A specialisation greater than one (> 1) indicates more people are employed in the region in that industry than the rest of Queensland. In Alpha there were three industries with specialisation numbers > 1 (OESR, 2010i):

- Agriculture, Forestry and Fishing (12.43);
- Transport, Postal and Warehousing (1.07); and
- Public Administration and Safety (1.59).

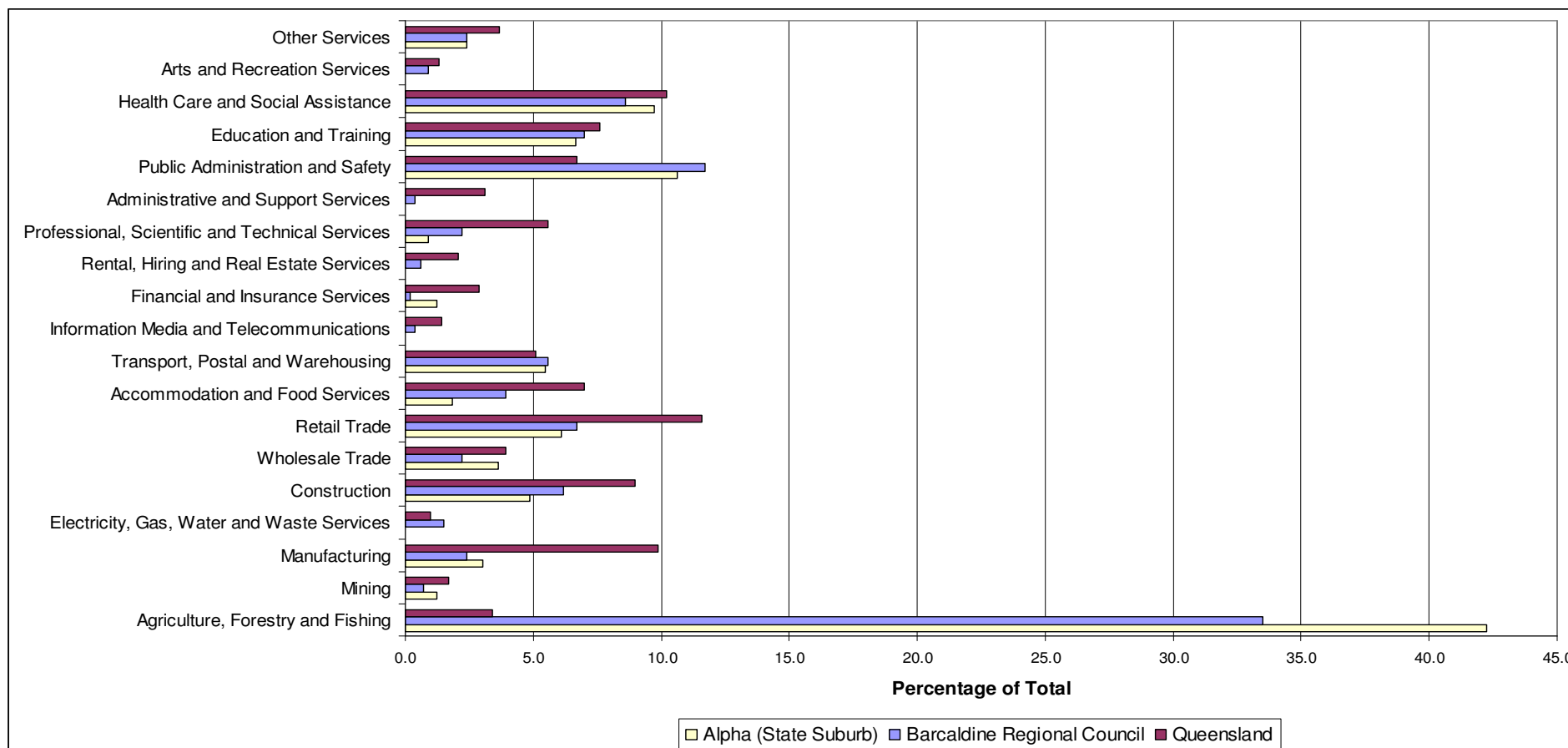
This highlights the predominance of the agriculture industry in the area, with forestry representing a minor proportion and fishing largely non-existent. In BRC the highest specialisation ratios in the region occurred in the following industries (OESR, 2010):

- Agriculture, Forestry and Fishing (9.85);
- Public Administration and Safety (1.75);
- Electricity, Gas, Water and Waste Services (1.50); and
- Transport, Postal and Warehousing (1.10).

In BRC, agriculture makes up the vast majority of the total as it does in Alpha, with cattle being the major industry in the Alpha region (pers. comm., August, 2010).

4 Baseline Profile

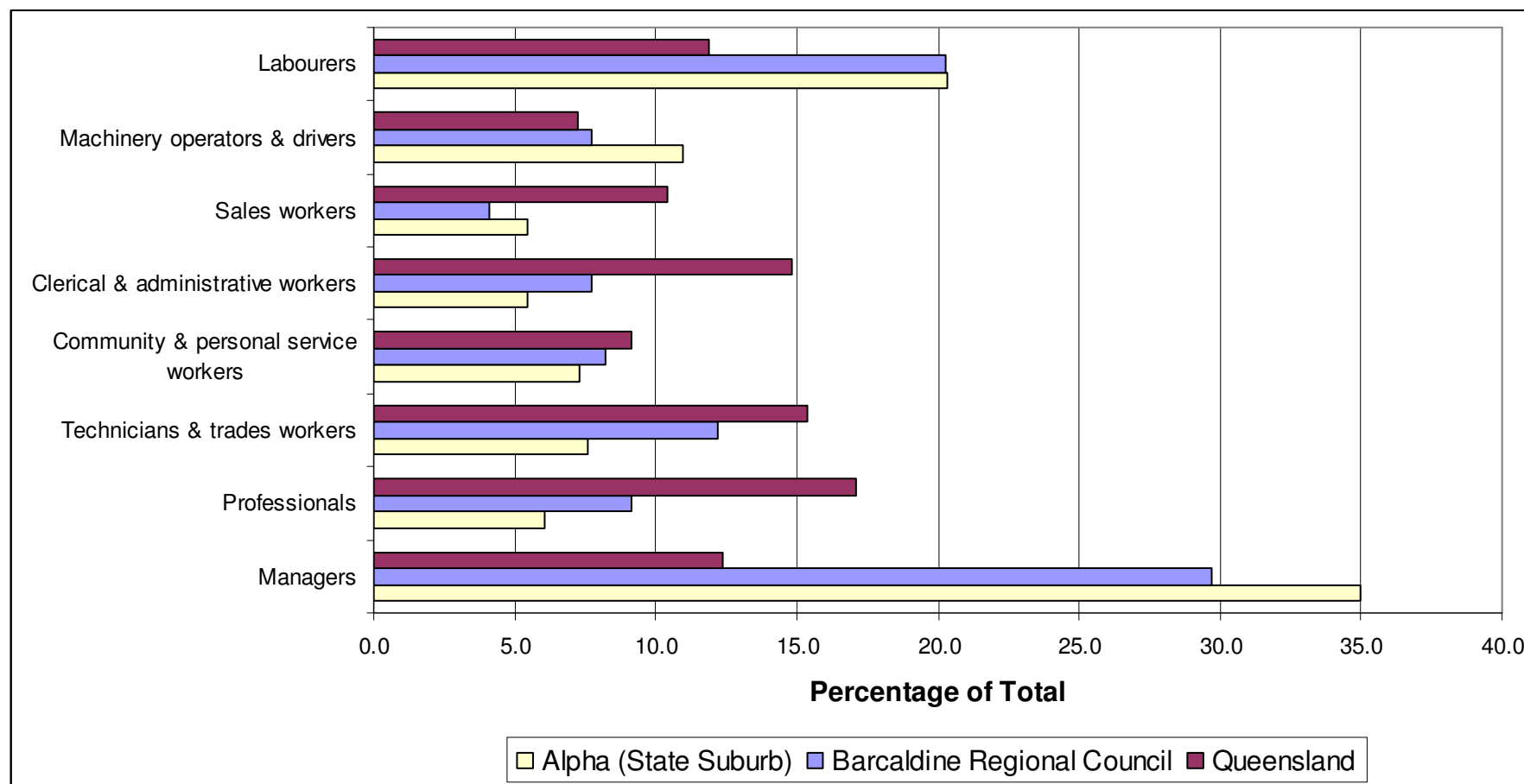
Figure 4-23 Employment by Industry, Alpha (State Suburb), Barcaldine Regional Council, and Queensland 2006



Source: Australian Bureau of Statistics, Census of Population and Housing, 2006, Basic Community Profile - B42

4 Baseline Profile

Figure 4-24 Employment by Occupation (a) (b), Alpha (State Suburb), Barcaldine Regional Council, and Queensland 2006



Source: Australian Bureau of Statistics, Census of Population and Housing, 2006, Basic Community Profile - B44

Note Figure 4-23: Employed persons aged 15 years and over. Industry of employment was coded to the ABS 2006 Australian and New Zealand Standard Industrial Classification (ANZSIC). This has replaced the 1993 ANZSIC edition. The specialisation ratio is the ratio of the percentage for the region to the percentage for Queensland. Based on ASGC 2006. Data for reformed local government areas are derived from concorded population-based statistical local area data (ASGC 2006).

Note Figure 4-24: Employed persons aged 15 years and over. Occupation was coded to the ABS 2006 Australian and New Zealand Standard Classification of Occupations (ANZSCO). This has replaced the 1996 Australian Standard Classification of Occupations (ASCO) Second Edition. The specialisation ratio is the ratio of the percentage for the region to the percentage for Queensland. Based on ASGC 2006. Data for reformed local government areas are derived from concorded population-based statistical local area data (ASGC 2006).

As seen in Figure 4-25, at the time of the 2006 Census Managers were the largest occupation group of employment of BRC usual residents, with 481 persons or 29.7% of the region's employed labour force. Other occupation groups with relatively large numbers of employed persons included Labourers (329 persons or 20.3%) and Technicians & trades workers (198 persons or 12.2%). The highest specialisation ratios in the region occurred in the occupation groups of Managers (2.4), Labourers (1.71) and Machinery Operators & Drivers (1.07) (OESR, 2010). These figures are fairly consistent with other more rural regions in central and western Queensland.

Ten years of drought in the region impacted on employment opportunities and resulted in an exodus of families from the region. This in turn impacted on the availability and provision of services in the region. Throughout these difficult times however, there has been a high level of community support (pers. comm., Mike Donald, Manager Engineering Services, Barcaldine Regional Council, 2010).

Mining Lease Area

Labour market and employment opportunities data specific to the mining lease area was not collected for the SIA. Details may have been collected as part of ongoing landholder negotiations but are not recorded or assessed as part of the SIA. For general labour market and employment opportunities information for the mining lease area see Section 4.7.2 for the local study area.

4.8 Industry and Business

4.8.1 Regional Study Area

The following key points on industry and business in the regional study area were identified (OESR, 2010):

- The total value of agricultural production in CHRC in 2005–06 was \$449.6 million, 5.2% of the total value of agricultural production in Queensland. The total value of agricultural production in IRC in 2005–06 was \$232.8 million, 2.7% of the total value of agricultural production in Queensland; and
- In 2006–07, there were 2,991 businesses in CHRC, 0.7% of all Queensland businesses and 1,635 in IRC, 0.4% of all Queensland businesses.

Businesses

In 2006–07 there were 2,991 businesses reported in CHRC. When classing size based on employee numbers, 96% were described as small (having zero to 20 employees), 3.2% as medium (having more than 20 but less than 100 employees) and 0.8% were large (employing 100 or more persons). When categorised by turnover size, 38% had a turnover of \$0 to less than \$100,000; 35.6% had a turnover of between \$100,000 and \$500,000; 13.4% had a turnover between \$500,000 and \$1,000,000 while 12.9% had a turnover in excess of \$1,000,000. This is higher than the Queensland average where

4 Baseline Profile

11.1% of businesses have a turnover in excess of \$1,000,000 and is attributable to the high number of large scale mines and agricultural businesses in the area.

In IRC, there were a total of 1,635 businesses reported in the 2006 census (see Table 4-23). Based on employment size, 95.8% of these businesses were classed as small, 3.3% as medium and 0.9% as large and 44.4% had a turnover of up to \$100,000; 32.8% between \$100,000 and \$500,000; 11.4% had a turnover of \$500,000 to \$1,000,000 with the remaining 11.4% having a turnover in excess of \$1,000,000. This is compared to Queensland as a whole, where 11.1% of businesses reported having a turnover in excess of \$1,000,000

Table 4-23 Businesses by Employee Number and Turnover – Isaac Regional Council and Central Highlands Regional Council (2006 Census)

Regional Council	Business size based on Employee Numbers			Business based on Turnover			
	Small	Medium	Large	\$0 - \$100K	\$100k - \$500k	\$500k - \$1m	\$1m or more
Isaac Regional Council	1,566 (95.8%)	54 (3.3%)	15 (0.9%)	726 (44.4%)	537 (32.8%)	186 (11.4%)	186 (11.4%)
Central Highlands Regional Council	2,871 (96.0%)	96 (3.2%)	24 (0.8%)	1,137 (38.0%)	1,065 (35.6%)	402 (13.4%)	367 (12.3%)-

Note - Businesses are defined as small (employing less than 20 people, including non-employing businesses), medium (employing 20 or more people but less than 100) and large (employing 100 or more persons).

Source: OESR (State regional Profile) Isaac Regional Council, Central Highlands Regional Council (2010)

The Emerald Chamber of Commerce developed and introduced a program called Hi-Net which aimed to develop linkages between organisations in the CHRC area to provide them with the required capacity to bid and win mining service contracts. For example, many small businesses do not have enough staff, capital or turnover or don't provide the full spectrum of required services to successfully bid for mining service contracts. By linking these businesses with other similar businesses, Hi-Net will enable them to maximise opportunities to secure such contracts. Hi-Net also provides training and coaching to support businesses in the administrative aspects of managing such contracts. Hi-Net received seed funding from mining companies, indicating a level of support from the industry (pers. comm., August 2010).

Value of Agriculture

The value of agricultural production in the CHRC during 2005-2006 was \$449.6 million, representing 5.2% of the total value of agricultural production in Queensland. In IRC, the total value of agricultural production for the same period was \$232.8 million (2.7% of agricultural production in Queensland). In both areas, livestock slaughtering was the largest single contributor, representing 70.3% in CHRC and 86.0% (IRC) of agricultural production. Table 4-24 shows the value of agricultural production in CHRC, IRC and Queensland (OESR, 2010a,b).

According to the Central Highlands Development Corporation (CHDC) the value of agricultural production in CHRC in 2008/09 was 19% lower than the previous year. This was despite the region reporting a 19.4% growth in Gross Regional Product (GRP) (Central Highlands Development Corporation, 2010).

4 Baseline Profile

Table 4-24 Value of Agricultural Production – Isaac Regional Council, Central Highlands Regional Council and Queensland

Local Government Area	Crops (\$ millions)	%	Livestock Slaughtering (\$ millions)	%	Livestock Products (\$ millions)	%	Total (\$ millions)
Isaac Regional Council	\$32.6M	14.0%	\$200.1M	86.0%	\$0.0M	0.0%	232.8
Central Highlands Regional Council	\$133.1M	29.6%	\$316.1M	70.3%	\$0.4M	0.0%	449.6
Queensland	\$4,167.9M	47.9%	\$4,125.2M	47.4%	\$415.8M	4.8%	8,708.9

Source: OESR Queensland Regional Profiles

Value of Mining

Mining plays a significant role as a major industry across the regional study area. In CHRC mining contributed approximately \$2.6 billion in 2008/09 to the region's GRP (59.2% of total GRP) - a 27.3% increase on the previous year and demonstrates that mining in the Bowen Basin has continued to grow (CHDC, 2010).

The IRC economy is heavily reliant on mining with the industry accounting for 76.1% of the region's GRP in 2007/08 representing a value of approximately \$5.7 billion. With a number of new mining prospects and extensive exploration and expansion being undertaken throughout the Bowen Basin, this amount is expected to grow (pers. comm., Cedric Marshall, Feb 2010).

4.8.2 Local Study Area

The following key points on industry and business in BRC were identified (OESR, 2010):

- The total value of agricultural production in BRC in 2005–06 was \$109.6 million, 1.3% of the total value of agricultural production in Queensland; and
- In 2006–07, there were 567 businesses in BRC, 0.1% of all Queensland businesses.

According to the Barcaldine Regional Council Community Plan, long term employment is needed to retain and expand the population and services. Alpha has very little career-entry employment. The beef industry, as the major industry in the district, has substantially reduced employment due to drought and narrow margins. Many properties rely on family and contract labour. The lack of local employment means that young people often need to leave the district for employment. This can result in a loss of their connection to the area.

Residents wanted to see all local businesses operating well and being profitable and sustainable. They particularly wanted to see a full set of shops open in the main shopping area. Respondents to the Alpha business survey (refer below) identified the industry or business needs that are not currently within the region and could be capitalised on as:

- health services (including general practitioner, QAS, paramedics, dentist);
- courier or freight service (local and regional);
- child care;
- fabrication plant; and
- café.

4 Baseline Profile

Economic diversification was also important with tourism, services and mining adding to economic base of the beef industry (Barcaldine Regional Council, Community Plan, 2009).

The properties within the mining lease are engaged in cattle grazing.

Small Businesses

BRC highlighted the importance to maintain an ethic of shopping locally and to have small businesses look at opportunities to service the broader central west region. Greater access is needed to information and business support services both remotely and at the face to face level (Barcaldine Regional Council, Community Plan, 2009). Discussions with businesses in Barcaldine town indicated that most people do their shopping locally in Barcaldine with some Jericho citizens also using the local supermarket (pers comms, Barcaldine 2011). It was indicated that most Alpha residents shop in Emerald due to its proximity and variety of choices. Further, one business was identified as closing down, two commercial holdings did not have operating businesses and one business was 'recently' opened 'about three years ago' (pers. comms, Barcaldine, 2011).

There are several small businesses in the community of Alpha primarily focused on services and retail.

Business Counts

In 2006-07 there were 567 businesses in the BRC, representing 0.1% of all the businesses recorded in Queensland. Table 4-25 indicates the size of these businesses based on number of employees and turnover range.

Table 4-25 Businesses by Employee Number and Turnover – Barcaldine Regional Council (2006 Census)

Regional Council	Business size based on Employee Numbers			Business based on Turnover			
	Small	Medium	Large	\$0 - \$100K	\$100k - \$500k	\$500k - \$1m	\$1m or more
Barcaldine Regional Council	552 (97.4%)	15 (2.6%)	0 (0.0%)	210 (43.8%)	225 (39.7%)	60 (10.6%)	72 (12.7%)

Note - Businesses are defined as small (employing less than 20 people, including non-employing businesses), medium (employing 20 or more people but less than 100) and large (employing 100 or more persons).

Source: OESR, State Regional Profile – Barcaldine Regional Council (2010)

The majority of businesses are individual properties, followed by services and retail. The vast majority employ a small staff and are generally family owned and operated businesses. In most areas the council or other government entity is the largest employer.

Business Survey

A business survey was conducted in Alpha town on Wednesday March 9, 2011. Twelve surveys were distributed to all businesses open and trading between 1pm and 4pm (note two businesses were not trading at the time the survey was conducted). There was a 50% response rate with a total of six surveys being completed and returned. The remaining 6 surveys were distributed with business cards to be completed and returned via fax. No completed surveys have been received via fax. The final sample size is 43% of businesses with shop fronts in Alpha town.

4 Baseline Profile

All businesses that responded were classified as operating in the retail industry and most had been operating for more than seven years. All of these businesses were 'owner/manager' operated. Average employment per business was three employees with 63% of all employees working full-time completing more than 36 hours per week. Annual business turnover in Alpha town ranges from \$100,000 per year and above. All businesses surveyed indicated that they engage in (through donations, services or time) volunteer or charity work. Cash or product donations was the most common form of charitable giving with 100% of respondents giving this type of support. In addition, 67% of businesses give volunteer hours or other forms of charitable support.

Employment via locally operating businesses is anticipated to increase over the next 12 months with four businesses looking to employ between one and three more people in next year while two businesses are looking to employ between four and ten more people. Businesses were also asked about the need to employ more people according to incremental percentage changes in annual turnover. Thirty-three percent of businesses identified the need to employ more people if annual turnover increased by one or two percent. Further, 100% of businesses surveyed indicated that the same percentage falls in annual turnover would not result in layoffs. There is a local concern that businesses will be unable to find a suitably skilled workforce upon mining projects entering the area due to the large wage discrepancies in local and mining employment. There is 'an ever decreasing skills base in the rural areas. We can't match mine wages...and...May have to now rely on backpacker workforce'. (pers comm., Alpha 2011).

Alpha businesses indicated that there is local capacity to service contracts from a large scale regional product. Sixty-seven percent of those surveyed indicated that various contracts of \$50,001 up to \$500,000 or more could be serviced locally. General survey feedback comments and associated personal communications with business owners and employees identified that limited freight options (Followmont have a monopoly on all services: mail rail, freight) were a considerable restriction to business expansion (pers comm., Alpha 2011). This restricted service has been compounded by the removal of QR freight services to the area (pers comm., Alpha 2011).

The survey also covered a section relating to local business support services. One third of businesses were unaware of any support services currently available in Alpha, one third identified that there were none and one third chose not to respond to this question. Fifty percent of respondents are interested in knowing more about business support services and potentially being involved depending on the particulars. Support services suggested by respondents for consideration include:

- small business financial advisors;
- training;
- peer support through groups;
- speciality advice regarding regional and rural small business; and
- Trade Practices Act flexibility

A slightly different 50% compilation of businesses indicated that they would be willing to pay \$11 to \$20 or more per 1 hour session for community business support services relevant to the business.

Primary Industry

The beef industry remains the economic mainstay of the community. It has been subject to drought, reduced margins and legislative changes. Some suggestions for the sector were:

- Lobbying to allow re-growth to be cleared and controlled;

4 Baseline Profile

- Lobbying for a resident stock inspector in Alpha; and
- Lobbying Queensland Rail to allow for the loading of cattle in smaller communities. Cattle transport by truck has damaged the highway and local roads (Barcaldine Regional Council, Community Plan, 2009).

According to the community plan, for the Barcaldine area beef and wool production are the major industries. Margins are narrow and producers have to be highly efficient to remain profitable. Several issues threaten this including legislative changes that are likely to increase costs (tree clearing and Wild Rivers legislation), and the control of weeds such as parthenium and feral animals, particularly wild dogs and feral pigs.

Producers raised a range of needs for adequate infrastructure and facilities including:

- Improving the railway for continued access to freight;
- Improvements to roads;
- Enhanced mobile phone coverage particularly between Barcaldine and Longreach; and
- Access to high speed broadband.

People felt that incentives were needed to attract and retain primary producers and employees and their families to the area. This could be tax incentives or other financial benefits. The lifestyle benefits of rural living also need to be promoted.

Attracting high quality employees was difficult but subsidised rural training would help to increase the availability of skilled and reliable employees.

Drought subsidies should be available for small businesses in rural towns as well as for primary producers.

Other issues directly or indirectly related to the primary industry were:

- Services and shops that stock what producers need;
- Improved kangaroo marketing;
- Advertising the low cost and safety of living in rural areas;
- Improved access to education opportunities; and
- Giving rural people opportunities to have a say in decision-making (Barcaldine Regional Council, Community Plan, 2009).

Value Adding

There are limited opportunities to value add to agriculture and other industries. An abattoir, for example, would allow chilled and frozen meat to be produced rather than cattle. However, the high entry costs would make this and other value adding options unviable (Barcaldine Regional Council, Community Plan, 2009).

Value of Agricultural Production

As seen in Table 4-26, the total value of agricultural production in BRC in 2005–06 was \$109.6 million, 1.3% of the total value of agricultural production in Queensland. Crops accounted for \$2.7 million or 2.5% of the regions total value of agricultural production, livestock slaughterings accounted for \$97.0 million (88.5%) and livestock products were valued at \$9.9 million (9.1% of the total). The region

4 Baseline Profile

produced 0.1% of the total value of crops in Queensland, and 2.4% and 2.4% of the total value of Queensland livestock slaughterings and livestock products respectively (OESR, 2010).

Table 4-26 Value of Agricultural Production (a) (b), Barcaldine Regional Council, 2005–06

Local Government Area	Crops	Livestock Slaughterings	Livestock Products	Total
Barcaldine Regional Council	\$2.7M (2.5%)	\$97.0M (88.5%)	\$9.9M (9.1%)	\$109.6M
Queensland	\$4,167.9M (47.9%)	\$4,125.2M (47.4%)	\$415.8M (4.8%)	\$8,708.9M
Region Percent of Queensland	0.1	2.4	2.4	1.3

Note: (a) Gross value of agricultural commodities produced. (b) The estimates in this collection are based on information obtained from a sample drawn from the total agricultural business population in scope of the collection, and are subject to sampling variability; that is, they may differ from the figures that would have been produced if all businesses had been included in the Agricultural Survey. Caution should therefore be exercised when interpreting the figures in this collection. Based on ASGC 2006. Data for reformed local government areas are derived from concorded population-based statistical local area data (ASGC 2006).

Source: Australian Bureau of Statistics, Agricultural Commodities, Australia, 2005-06, (Cat. no. 7125.0)

Agricultural production is the primary economic driver in the region, with the majority of that from livestock. As a result, natural cycles such as drought can have a significant impact on the value of production from year to year.

Trades

There is an opportunity to encourage tradespeople to establish a business. While there is considerable demand, many people felt that the Council needed to stimulate this with more trade traineeships (Barcaldine Regional Council, Community Plan, 2009). As at March 16, 2011 the Barcaldine Regional Council website listed eleven businesses servicing the Barcaldine (6), Alpha (3) and Jericho (2) areas operating in the building, plumbing and electrical industries. A further fourteen businesses are listed as providing building, painting and contractor services (BRC, 2011).

Freight

Freight services were seen as expensive and unreliable and several people called for better freight services and improved use of the airport for services linked to major towns (Barcaldine Regional Council, Community Plan, 2009). As indicated above, the local Alpha town business survey indicated that freight was one of the considerable hurdles in expanding local businesses due to the monopoly powers of one freight and transport company (pers comms 2011).

Tourism and Attractions

Many people see tourism as a potentially significant industry in the area. The district has limited local attractions and activities to support tourism. It lies between the Gemfields and the Outback, and is generally considered a lunch stop rather than a destination in itself. To date, there has been little in the way of tourism promotion and local people saw the need to develop more attractions and services to encourage tourism. Some suggestions were:

- Negotiating improved access to “The Palace” and the development of organised tours to the site;

4 Baseline Profile

- Opportunity for tourists to take guided tours from the train;
- Improving the old cemetery as a tourism asset;
- Developing self drive tours and four wheel drive tours from Springsure;
- Fishing at George's hole;
- Establishing a deer sanctuary;
- Establishing farmstays;
- Fossicking for petrified wood; and
- Improving roads to support tourism (Barcaldine Regional Council, Community Plan, 2009).

The Alpha District Tourist and Development Association, established in 1999, operate the Rawley Roberts Tourist Information Centre in Alpha. The centre which is open Monday – Friday from 8.30am – 12.30pm is staffed by volunteers and also serves as a “Driver Reviver Centre”. The Tourist Information Centre is also a key component of the town's identity.

Some of the identified tourist attractions in and around Alpha include:

- Jane Neville-Rolfe Art Gallery (displaying excellent art pieces by local artists as well as featured travelling displays);
- Town Murals (known as the town of murals, there are 26 murals painted by local artists and depicting rural life in the district around Alpha); and
- The ‘Jump-Ups’ (located on the Clermont road, just north-west of Alpha, the Jump-Ups are a natural attraction displaying the different layers of coloured volcanic soil).

Possibly the most significant tourist attraction in the BRC Area is the Tree of Knowledge. The tree which is said to be more than 170 years old is known as a meeting spot for striking shearers during the 1891 strike. Although the strike itself was widespread, Barcaldine was at the centre with leaders who met at the Tree of Knowledge sentenced to three years hard labour. The strike eventually led to the establishment of the Australian Labor Party (ALP) and was added to the National Heritage List in January 2006. Unfortunately the tree was poisoned in 2006 and didn't recover. A memorial was opened in May 2009. The ‘struggle’ from 1891-92 is also commemorated by a landscaped garden.

Other tourist attractions in Barcaldine include the Barcaldine Museum, the Australian Workers Museum, Between the Bougainvilleas - an award winning heritage trail, Roses and Things rose garden, as well as the Crystal Trumpeters (depicting a bible scene) and Redbank Park in Jericho (Barcaldine Regional Council, 2010).

Mining

Coal and coal seam gas development offers considerable potential for sustainable employment. The Hancock, AMCI, Vale and Waratah Coal mines are proposed developments in the district. There are opportunities in direct employment with the mines and through contractors providing services to these coal mines. Sixty-seven percent of businesses surveyed in Alpha indicated that various contracts of \$50,001 up to \$500,000 or more could be serviced locally. Refer to Business Survey above. However, residents are also concerned about the potential social and environmental impacts of mining. They are looking to be closely engaged in the issues related to their community and mining and are concerned about balanced information being available. Maintaining social cohesion and minimising environmental impacts is a major concern. In particular, some local people are concerned about the protection of existing Nature Refuges and areas of remnant vegetation from mining (Barcaldine Regional Council, Community Plan, 2009).

4 Baseline Profile

Incentives

Many people recognized that there were substantial barriers to establishing a business in a somewhat remote rural area. Existing incentives needed to be fully explored and Council should consider encouraging economic development by helping businesses access information, lobbying for economic development incentives and considering the establishment of an economic development officer position (Barcaldine Regional Council, Community Plan, 2009). The key barrier determined by local businesses in Alpha town was the monopoly of freight services to the region (pers comms 2011). Refer to the Business Survey for more information.

Mining Lease Area

While business and industry data specific to the mining lease area was not collected for the SIA, the properties within the mining lease are predominantly cattle grazing. A high level assessment of grazing properties currently on the market in the surrounding areas of Springsure, Jericho and Advale indicate that current advertised value is between \$1.8 million and \$2.5 million (Belyando Livestock and Property Pty Ltd, 2011). The production value of these properties is unknown. Additional detail may have been collected as part of ongoing landholder negotiations but are not recorded or assessed as part of the SIA. For general business and industry information for the mining lease area see Section 4.8.1 and Section 4.8.2.

4.9 Income and Cost of Living

4.9.1 Regional Study Area

The following key points on the income of the regional study were identified (OESR, 2010):

- At the time of the 2006 Census, there were 6,152 persons aged 15 years and over in CHRC who stated their gross individual weekly income was less than \$400 (31.1% of all persons aged 15 and over) and there were 1,885 persons who stated their gross individual weekly income was greater than \$2,000 (9.5% of all persons aged 15 and over); and
- At the time of the 2006 Census, there were 4,324 persons aged 15 years and over in IRC who stated their gross individual weekly income was less than \$400 (29.4% of all persons aged 15 and over) and there were 2,014 persons who stated their gross individual weekly income was greater than \$2,000 (13.7% of all persons aged 15 and over).

Weekly Incomes

Individual weekly incomes in the regional study area are quite high. At the time of the 2006 census, 4,324 people aged 15 and over (29.4%) in IRC reported their individual weekly incomes were \$400 or less, while 2,014 (13.7%) reported to be earning \$2,000 or more. In CHRC Area, 6,152 (31.1%) reported they earned less than \$400 and 1,885 (9.5%) earned \$2,000 or more. In both cases the percentage of people earning less than \$400 was less than the state average (39.7%) while the percentage of people in the highest income group (\$2,000 or more) was significantly higher (2.9%). This is attributable to the type of employment in the area, particularly the mining industry which is known to have high wages. Comparatively median rents and loan repayments are quite low, particularly in IRC, where the median rental at the time of the 2006 census represented just 6% of the median household income. The high degree of subsidised accommodation in the mining industry may account for this.

4 Baseline Profile

Table 4-27 shows the median income levels for Clermont and Emerald in comparison to Australia as a whole and Figure 4-25 shows the individual weekly incomes of people in IRC and CHRC compared to the rest of the state.

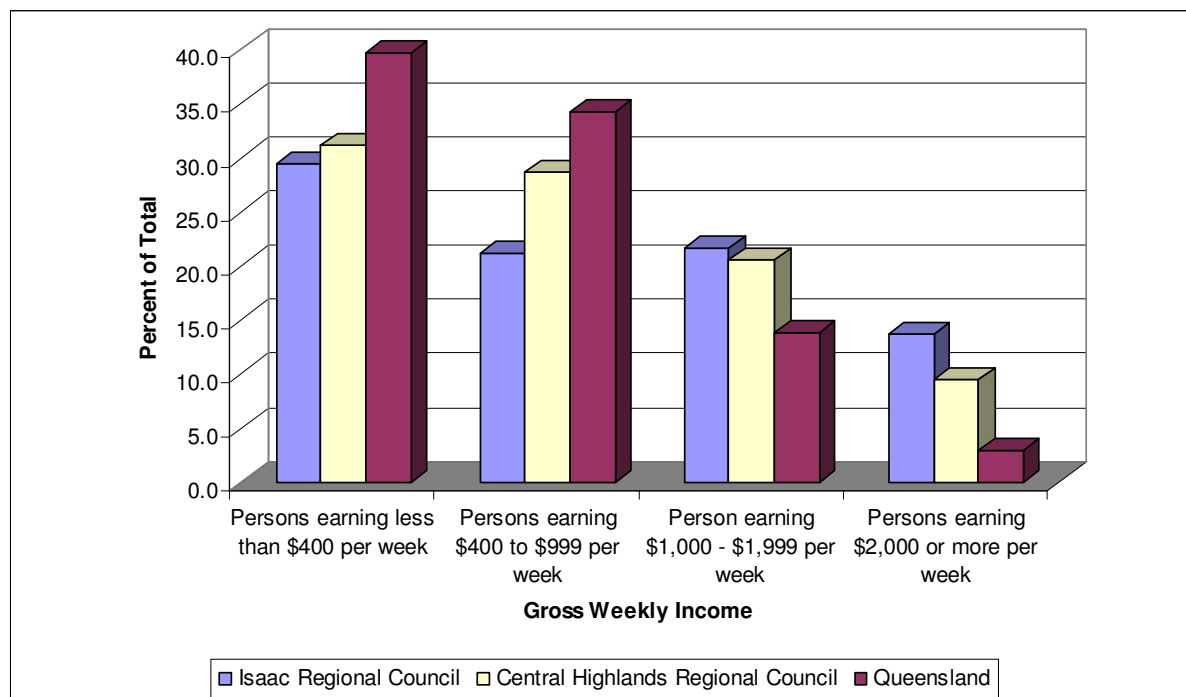
Table 4-27 Median Incomes Levels and Housing Costs, Clermont and Emerald (2006 Census)

Census Characteristics	Clermont	Emerald
Income (of people over 15 years):		
Median individual weekly income	\$490	\$689
Median family weekly income	\$1,391	\$1,796
Median household weekly income	\$1,091	\$1,672
Rent and Repayments		
Median housing monthly loan repayment	\$925	\$1,500
Median rent (\$/weekly)	\$66	\$180

Source: ABS Census Quickstats (Clermont and Emerald)

Ad hoc research and targeted consultation at market experts found the median rent values recorded during the census to be very inaccurate. As an example, field investigations in 2008/09 found weekly rental rates in Moranbah ranged from \$400 to \$1,600 and was largely based on supply/demand and whether the accommodation was shared or not. Median rental prices in the Clermont area were approximately \$150-\$430, and in Emerald they were \$240-\$800 in August 2010 (RealEstate.com.au, August 2010).

Figure 4-25 Gross Individual Weekly Incomes, Isaac and Central Highland Regional Council Areas



Source OESR Queensland State Regional Profiles, 2010

4 Baseline Profile

Land availability plays a significant role in the supply and demand relationship in both communities (and councils as a whole). The amount of housing under the management of Rio Tinto also has an effect in the community of Clermont (pers. comm., IRC, August 2010).

4.9.2 Local Study Area

The following key points on the income and cost of living of BRC were identified (OESR, 2010):

- At the time of the 2006 Census, there were 1,065 persons aged 15 years and over in BRC who stated their gross individual weekly income was less than \$400 (42.1% of all persons aged 15 years and over).

Table 4-28 shows some key characteristics of the income, rent and repayments in the study area. The SEIFA (see Section 4.3.2 SEIFA) assessment becomes more evident by comparing the weekly incomes to the weekly loan repayments and rents. The median cost to repay large rural property loans is quite high compared to the median income for families and households. Rent, however, is relatively inexpensive, with the median weekly rent constituting ~10.0% of the median individual income in Alpha, and slightly higher in BRC as a whole.

Table 4-28 Median Incomes and Repayments, Alpha (State Suburb) and Barcaldine Regional Council (2006 Census)

Census Characteristics	Alpha	Barcaldine Regional Council
Income (of people over 15 years):		
Median individual weekly income	\$469	\$435
Median family weekly income	\$1,048	\$1,041
Median household weekly income	\$865	\$800
Rent and Repayments		
Median housing weekly loan repayment	\$531	\$547
Median rent (\$/weekly)	\$47	\$48

Note: Barcaldine Regional Council calculated by determining the average from each of the three former shires. The proportional average for each shire was determined by multiplying the population by the value and dividing by the total population of the council.

Source: ABS, Local Suburb Profiles Alpha (Jericho Shire) and Barcaldine Regional Council

In Alpha (State Suburb), the median weekly individual income for persons aged 15 years and over who were usual residents was \$469, compared with \$435 in BRC. The median weekly household income was \$865, compared with \$800 in BRC. The median weekly family income was \$1,048, compared with \$1,041 in BRC (ABS, 2006 Census Community Profile Series').

The data in Table 4-28 shows that incomes are slightly higher in Alpha than the regional council as a whole. As a result median family and household weekly incomes are also slightly higher in Alpha than the council as a whole. However, weekly loan repayments and rents are slightly less (\$16 and \$1 respectively) than the region as a whole.

As was found in IRC and CHRC, census data for median rent was determined to be inaccurate. *Ad hoc* research and consultation with area realtors and council found that rental rates were closer to \$140 to \$180 per week in 2010. This has risen in the past five months with rental prices now ranging between

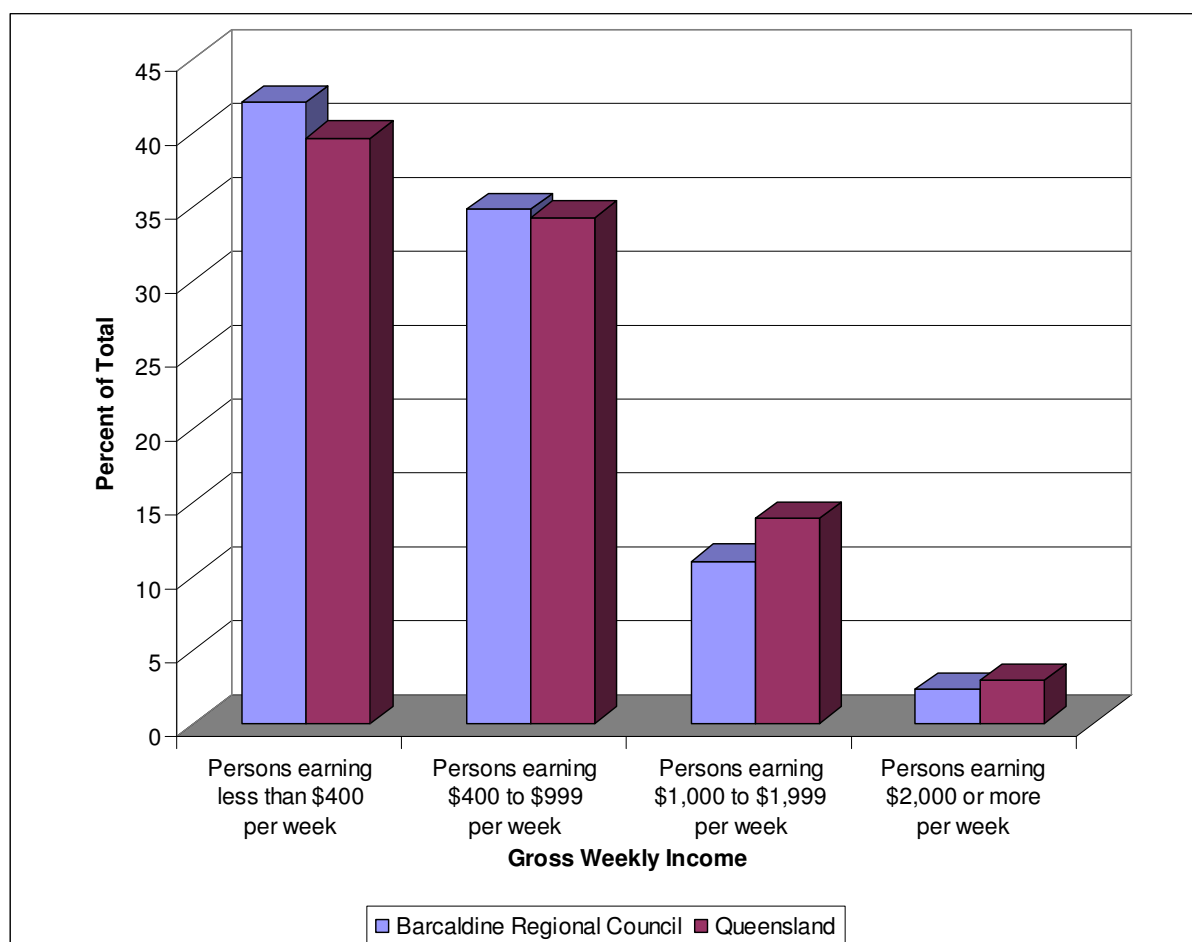
4 Baseline Profile

\$180 to \$230 per week (pers. comms Century 21, 2011) This is still comparatively low to the rest of Queensland, and the rents in the regional study area but reflective of the housing situation (supply and demand) in the Alpha area. The housing market in Alpha has slowed over the past five months with no sales completed (pers. comms, Century 21, 2011).

Weekly Income

At the time of the 2006 Census, there were 1,065 persons aged 15 years and over in BRC who stated their gross individual weekly income was less than \$400 (42.1% of all persons aged 15 years and over). This was higher than the 39.7% recorded in Queensland. In comparison, there were 59 persons aged 15 years and over in BRC who stated their gross individual weekly income was more than \$2,000 (2.3% of all persons aged 15 years and over). This compared with 2.9% in Queensland (OESR, 2010).

Figure 4-26 Gross Individual Weekly Income (a) (b), Barcaldine Regional Council, 2006



Note: (a) Based on place of usual residence. (b) Based on persons aged 15 years and over. Based on ASGC 2006. Data for reformed local government areas are derived from concorded population-based statistical local area data (ASGC 2006).

Source: Australian Bureau of Statistics, Census of Population and Housing, 2006, Basic Community Profile - B16

The majority of people in the area receive low incomes of less than \$400 per week. This is primarily due to the types of employment in the area. Housing in the communities is reflective of the lower incomes

4 Baseline Profile

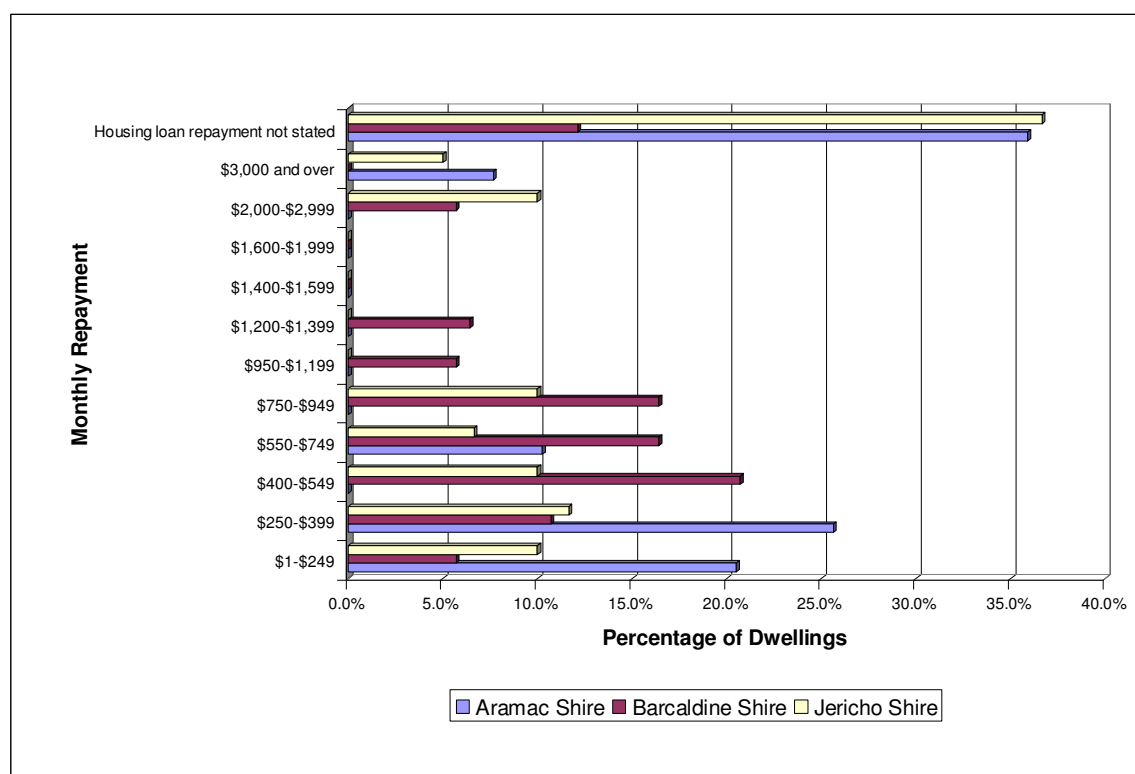
(see Section 4.4.2) however the incomes make owning and operating a station or homestead and property difficult. The type of terrain, quality of the soil and proximity to markets all factor into the property values, which in turn factor into the incomes in the area. Lack of services, low demand and a lack of competition also contribute to lower incomes for individuals.

Housing Repayment

Figure 4-27 shows the monthly repayments in the three former shires that constitute BRC. The three shires were separated to illustrate the differences in property types in the more rural Aramac and Jericho shires to the more urban Barcaldine Shire. The large repayments (\$3,000/month and over) in Aramac and Jericho shires show the predominance of large agricultural properties in the area.

Over recent years, speculation about the development of mining around Alpha has pushed prices up. Evidence of this is the 10 house blocks auctioned in May 2010 by BRC and selling for an average of \$111,000 plus GST. According to local realtors it is now nearly impossible to purchase a house in the area for less than \$200,000. This will push the price of housing above what many local residents can afford on their current salaries and nearly all of the recent purchases are investors living outside of the area (pers. comm., August 2010).

Figure 4-27 Percentage of Occupied Private Dwellings Being Purchased (a), Barcaldine Regional Council, 2006



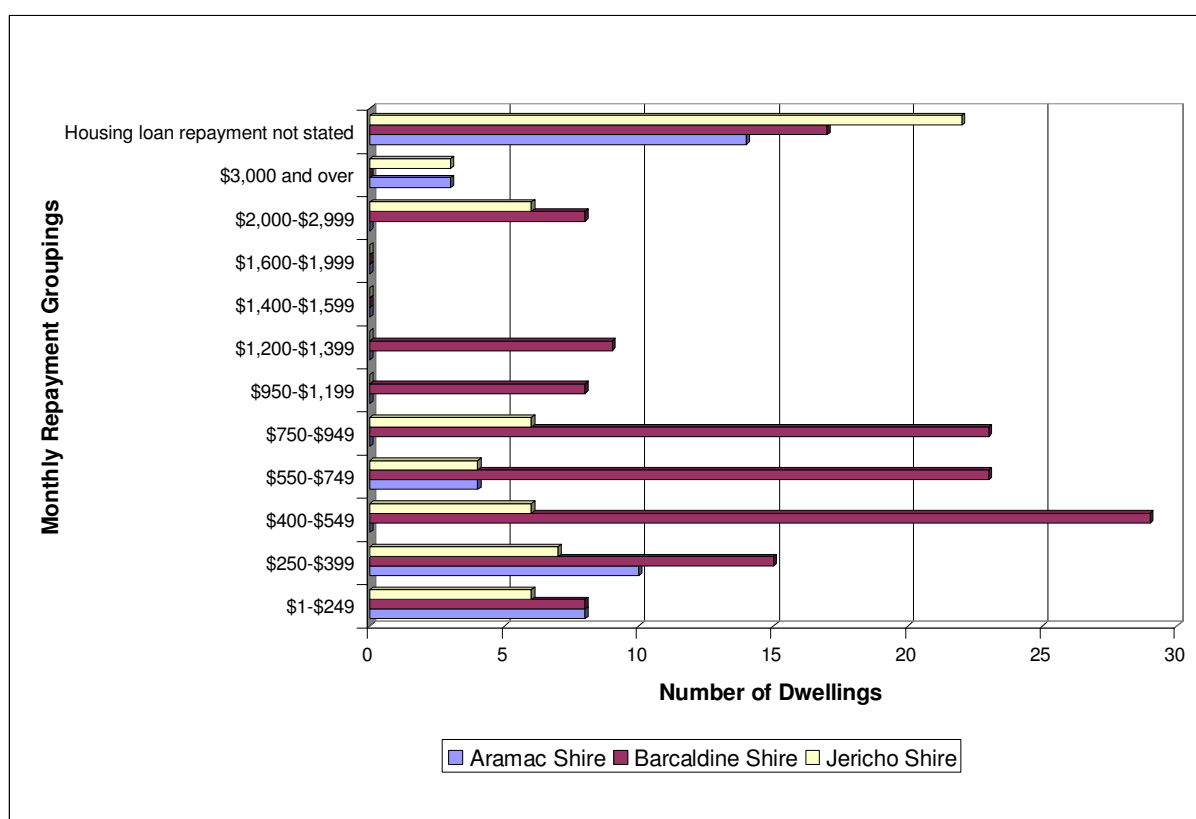
Note: (a) Includes dwellings 'Being purchased under a rent/buy scheme'. Excludes 'Visitors only' and 'Other not classifiable' households. Barcaldine Regional Council information created by compiling data from the former shires of Aramac, Barcaldine and Jericho.

Source: ABS Census of Population and Housing, Barcaldine Regional Council, 2006

4 Baseline Profile

Figure 4-28 shows the different numbers of dwellings in the various repayment groupings to provide context to the percentages shown in Figure 4-27. From this data and the data provided in the SEIFA (see Section 4.3.2 SEIFA) information it is evident why the majority of the population is categorised in the lowest quintile for SEIFA, particularly when the data presented in the previous section (Individual Weekly Income) is factored in. People struggle to make payments due to the low wages and high cost of property due mainly to the size of the lots. This is more so the case on the large rural properties (homesteads and stations) than it is in the community residential blocks. This also explains the large variance between housing repayments values in the same area.

Figure 4-28 Count of Occupied Private Dwellings Being Purchased (a), Barcaldine Regional Council, 2006



Note: (a) Includes dwellings 'Being purchased under a rent/buy scheme'. Excludes 'Visitors only' and 'Other not classifiable' households. Barcaldine Regional Council information created by compiling data from the former shires of Aramac, Barcaldine and Jericho.

Source: ABS Census of Population and Housing, Barcaldine Regional Council, 2006

Figure 4-28 also shows that most repayments in Jericho Shire are for large rural properties, where as in Barcaldine the majority are for residential properties in the community. The repayment values in the communities are indicative of the size of the properties and the proximity to larger centres like Emerald. This is a common occurrence in rural areas where housing prices are generally a lot lower than urban areas where there are more services, etc.

4 Baseline Profile

Proximity to Goods and Services

Many people in the local area acquire a large portion of their goods and services from outside the area. The main centres for the procurement of provisions is Barcaldine, Emerald, Clermont and Rockhampton, and to a lesser extent Longreach. The long distance between communities is a fact of life in the area and is not seen as a major concern. However, the cost of petrol and time spent commuting are important factors for understanding the development potential in the area. For the disadvantaged and immobile portion of the population these long distance commutes can be extremely costly and often difficult to conduct. It is important to note though that many people are happy with the need to travel for some goods and services because it enables them to get out of the area for a period of time and expand social networks. In other words the process has become part of their regular routine and is not necessarily perceived as a negative attribute.

Mining Lease Area

Income and cost of living data specific to the mining lease area was not collected for the SIA. Details may have been collected as part of ongoing landholder negotiations but are not recorded or assessed as part of the SIA. For general income and cost of living information for the mining lease area see Section 4.9.2 for the local study area. Since the mining lease area is exclusively homesteads / stations and properties, repayments and incomes are anticipated to be similar to those of the large properties discussed in Section 4.9.2.

A detailed assessment of the incomes and cost of living for the mining lease properties was not conducted due to the intrusiveness of such questioning, the inability to prevent that data from being directly attributed to specific individuals or businesses, and the confidential negotiations between the Proponent and some landowners.

4.10 Governance

The amalgamation of the former shires into regional councils in March 2008 is still being experienced in 2010. *Ad hoc* research has found the effect of the amalgamation has been greatest in the more rural regions where councils have been tasked with governing large geographical areas with sparse populations. The increase in jurisdiction resulted in an increase of responsibilities outside many staff members areas, which in turn resulted in a strain on resources. Some councils have experienced difficulties in integrating plans and programs from their former shires and aligning them with a new regional council vision. Many councils have allocated significant time to this integration which has resulted in decreased time allotted to the routine operation of the council.

The requirement to align and integrate within the councils has also resulted in a slowing of progress developing regional plans within the SEQ plan model. It is important to note the issues facing councils post-amalgamation in order to add context to the situation facing projects and companies focussed on developing the Galilee Basin. The amalgamation process has impacted each of the three councils in different ways and to varying degrees. The councils are making progress and all are keen to work with companies to assist all parties in ongoing relationships.

4.10.1 Regional Study Area

The following key-points on the governance, culture and community dynamics of the regional study area were identified (OESR, 2010a,b)

4 Baseline Profile

- The IRC covers an area of 58,862 km² (3.4% of Queensland's total area) and the CHRC covers an area of 59,888 km² (3.5% of Queensland's total area); and
- The IRC is made up of a Mayor and eight Councillors; the CHRC is made up of a Mayor, a Deputy Mayor and seven Councillors (IRC 2010, CHRC 2010).

Central Highlands Regional Council

CHR Council Meetings are held every fortnight in Emerald. Minutes of these meetings are published on the council's website for public perusal (CHRC, 2010).

The CHRC has in excess of \$800 million worth of assets. This includes 11 library branches, six aquatic centres and seven customer service centres. CHRC maintains 5,000 km of road networks, as well as numerous parks and gardens including the botanical gardens in Emerald.

Services provided by the council include youth services, arts spaces, cultural and community development, animal rescue and management, seniors and youth housing, waste collection and now kerbside recycling.

CHRC is made up of a Mayor and Deputy Mayor as well as seven elected Councillors (CHRC 2010). The CHRC Annual Report for 2008-2009 covered a 15 month period (from amalgamation of the shire councils on 8 March 2008 to 30 June 2009). The report stated that council income over the period was \$701.5 million, consisting of \$108.6 million in recurrent revenue, capital income of \$14.1 million and net value of restructure of local government \$579 million. The net value of restructure is required under accounting standards and dictates that the net equity (value) of the former shire councils needs to be amalgamated under the regional council as income (CHRC 2009).

The CHRC is made up of five separate departments:

- Corporate services;
- Civil operations;
- Environment and planning;
- Governance and community services; and
- Commercial services.

The Council has recently amended the CHRC 2009-2013 Corporate Plan and is seeking community comment and feedback on the draft before finalisation. The draft plan documents the Council's vision as *shaping the future by "valuing people partnerships and place"* and its mission, to be a *region working partnerships to foster sustainable development and vibrant communities*. CHRC listed and defined its corporate values in the plan. They are:

- Honesty and integrity – being honest with community and colleagues and treating them with respect, fairness, trust and consistency;
- Innovation and continuous improvement – striving for best practice, creativity and new ideas;
- Transparency and accountability – providing open and transparent practices and accountable governance;
- Diversity – respecting social, cultural, economic and environmental diversity;
- Open communication – ensuring timely and effective communication with our community and throughout the organisation; and
- Leadership, engagement and fair representation – providing effective leadership to ensure the Council's actions best reflect community aspirations.

4 Baseline Profile

CHRC went on to document key priorities under identified sectoral headings. The key priorities for council are:

- *Key priority one (social):* **creating a region of choice** – this involves developing and promoting a regional identity and image whilst nurturing local communities and the their sense of place;
- *Key priority two (environment):* **building and delivering sustainable infrastructure** that reflects the aspirations and needs of the community;
- *Key priority three (economic):* **harnessing sustainable economic growth** by building capacity and seeking opportunities to attract and support business investment and alliances;
- *Key priority four (environment):* **protecting the local environment**, natural and built for the benefit of both present and future generations;
- *Key priority five (social):* **community and lifestyle**, in particular building networks across the region to enhance the areas unique lifestyle; and
- *Key priority six (governance):* **strengthening the organisation** by creating an organisational culture reflecting CHRC values and by adopting policies and practices to support a skilled, motivated and community focused workforce (CHRC, 2010b).

Isaac Regional Council

The IRC holds Round Table Meetings on the second Tuesday of every month in Moranbah. Community Round Table Meetings are also held in all months except December. These meetings move between the various shires and community members are encouraged to book in advance. The Community Round Table Meetings enable residents to book time with Council to discuss emerging opportunities and challenges within their community. A schedule of all meetings is posted on the IRC website. In some places, Councillors are available to the public on a regular basis. The IRC sees its role as providing facilities throughout the region in an effective and efficient manner, whilst encouraging a strategic environment and sustainable development of the Isaac region to benefit all citizens

The IRC is made up of eight Councillors and the Mayor. The Council is responsible for establishing the vision, mission, values and the strategic direction for the area. The Council's vision is 'to be the region of first choice', the mission is 'to promote and enhance the diversity of lifestyles and opportunity' (IRC 2010).

The IRC website (2010) documents the Council's corporate values as:

- Professionalism – displaying accountability, openness, transparency and integrity;
- Continuous Improvement – all aspects of the organisation's operations are encouraged through a progressive and creative approach;
- Excellence – the manner with which the IRC approaches its business in the Isaac region, the highest possible outcome will be achieved;
- Procedural consistency – a consistent approach to the way in which Council conducts its business in the region;
- Customer focus – identify and meet the needs of all customers in a responsive and equitable manner; and
- Team work and coordination – working together to achieve a common goal.

The Council has more than 300 employees who are responsible for carrying out its day-to-day business and service the community. The IRC annual budget is \$20 million, of which \$10 million is

4 Baseline Profile

rate-revenue based. Council currently maintains around 760 km of roads and streets as well as operating and maintaining \$34 million worth of sewerage infrastructure.

The IRC has seven directorates. Each one is responsible for a distinct area of Council activities. The directorates are:

- Planning and environmental services;
- Governance and community services;
- Commercial services;
- Corporate services;
- Technical and civil services;
- Financial services; and
- Change management.

Council Policies

All CHRC policies are documented on their website and available for download. Some examples of key policies include: community engagement policy; community grants policy; investment policy, media relations policy; peak downs mine rate policy; procurement policy; revenue policy; sewerage policy; and water charges policy (CHRC 2010).

The IRC policies are available for download from the Council website. Some of the Council's policies are: community assistance and donations policy; utilisation of council equipment to support an emergency; technical civil design and operational standards; code of conduct; and councillor staff interactions policy (IRC 2010).

Managing the Impacts of Mining

Mining is a major industry in both CHRC and IRC, contributing more than 50% of the GRP in both council areas. Over the last century, mining practices have changed significantly and recruitment policies, operational procedures as well as social responsibility are being continuously revised to ensure best outcomes for both the proponent and the broader community. As a result of this process a number of strategies are now being employed to manage the impact of mining and ensure the best outcomes for all concerned.

Strategies used to manage the effects of mining have focused around learning lessons and engaging in effective partnerships. For example, IRC proactively engages with the management of all operating mines within their council boundaries. This has included inviting organisations such as RTCA and BMA to sit on council sub-committees and having council representatives sit on mining company corporate committees to enable each to feed into the strategic development of the other.

Council has promoted proactive business partnerships and development support to enable local business to best support and benefit from the mining industry. Such partnerships have taken various forms including the Hi-Net scheme in CHRC and the Clermont Progress Association, a sub-group of the Clermont Community and Business Group which promotes local development and encourages residents to support local industry and business. RTCA are active members on this committee.

Other actions council has instigated to manage the impacts of mining have focused around strategic planning. This process has focused around gathering community views through surveys, prioritising needs and wants based on these surveys and then proactively engaging with mines to meet the needs

4 Baseline Profile

of community. Council are now planning to extend this process to include actively monitoring and reporting mine sourced funding expenditure in the community to formerly document the benefits (pers. comm., August 2010).

4.10.2 Local Study Area

The following key points on the governance of BRC were identified (OESR, 2010):

- At the time of the 2006 Census, there were 50.0% of all occupied private dwellings in the region with an internet connection;
- BRC covers an area of approximately 53,677.3 km² (3.1% of the total area of Queensland); and
- The BRC is made up of a Mayor and six Councillors (BRC 2010).

The community has a strong identity and people who were committed to maintaining and enhancing the town and district. People wanted to maintain community representation in decision making and keep decisions local. They wanted to maintain community boards and retain the local Council office. They saw this as crucial to the identity, economy and participation of the community with the Council. They could see local participation linking with the regional Council and felt strongly that the local Council office and services engaged the Council with the community and supported the local economy (Barcaldine Regional Council, Community Plan, 2009).

Council

The BRC is made up of a Mayor and six Councillors. Council meets at least once a month, and all meeting dates and associated minutes are posted on the council website. Council members are elected at large (i.e. with no divisions) to ensure that council represents the region as a whole. Councillors are required to adhere to the code of conduct and undertake all business in the best interests of the region and its residents.

BRC organisation structure is divided based geographic locations with their focus on one or another of the council's towns. Apart from the Workplace Health Safety and Environment (WHSE) Officer and the Personal Assistant to the Mayor, all council employees come under the Executive Manager for Alpha, Aramac or Barcaldine (BRC 2009).

The reported BRC income, as reported in the BRC Income Statement for the year ending 30 June 2010 was \$55,180,140. This comprised \$42,893,613 in recurrent revenue and \$12,286,527 in capital revenue.

Details of all BRC fees and charges are listed on the council website (BRC 2010).

The BRC Corporate Plan 2009 – 2014 (2008) states that the roles of the Mayor and Councillors are to:

- Represent the overall public interests of residents of the BRC area;
- Decide on the facilities, services and enterprises that are relevant the BRC area;
- Formulate, adopt and review council's corporate plan, community plan, operational plans, policies and procedures; and
- Make decisions for achieving the goals and implementing the policies of the BRC.

The plan goes on to document the Council vision, mission and guiding principles which underpin and guide council activity. The vision states that BRC strives to be a 'cohesive community with lifestyle, opportunities, facilities and services'. The council's states that its mission is 'to deliver the Region's

4 Baseline Profile

Vision in partnership with the community and other stakeholders through committed leadership, and the efficient delivery of quality services and facilities, that support the economic, environmental and social needs of our community’.

The BRC has the following guiding principles which underpin and guide Council’s actions:

- Identity and cooperation – this involves council working in a manner that will bring communities together and strengthen the region’s cohesive identity;
- Maintain services and facilities – Council will at least manage its own resources and advocating others to maintain existing community services and facilities. Council will also endeavour to build and develop new facilities where possible;
- Financial responsibility – Council focusing on ensuring it is financially sound, managing resources in a transparent, professional and accountable manner which gives residents best value for money;
- Honesty and integrity – remain honest with community and stakeholders whilst treating people with respect, fairness, trust and consistency;
- Community, economy and environmental integration – a commitment to sustainable development that incorporates social, environmental and economic outcomes;
- Engagement and responsiveness – close engagement with the community that is a balance between representation of the elected Councillors and engagement with the community. Engage community in a sensitive manner that recognises both the importance of community consultation and also the volunteer nature of involvement; and
- Advocacy – whereby they council will advocate on behalf of the community to state and federal government, the private sector and other stakeholders (BRC 2008).

Council Policies

BRC policies are published as part of the Annual Report 15 March 2008 – 30 June 2009 (2009). Key policies include Councillor Expenses and reimbursement policy, equal opportunities employment policy statement, council rate concession policy and borrowing policy (BRC 2009).

Institutional Assessment

BRC is a typical western Queensland Local Government. Some key features of such councils are:

- Responsible for the majority of community services and infrastructure;
- Large employer in small towns;
- Highly dependent of Government grants and contracts to sustain employment;
- Mayor plus six councillors;
- CEO plus three operational sections (Alpha, Aramac and Barcaldine) aligned with former Shires; and
- Operating within a planning framework as shown in the diagram below.

4 Baseline Profile



The council consists of the following key statistics and points of interest:

- 140 full time employees (35 Alpha based);
- 40 part time employees (20 Alpha based);
- Financial year 09/10 revenue, \$30 million recurrent, \$4.5 million capital:
 - Operation and maintenance costs approximately \$30 million; and
 - 3 main budget categories:
 - Recoverable works income \$15.5 million;
 - Rates and utilities \$4.8 million; and
 - Grants, subsidies, contributions and donations \$8.0 million.
- Approximately \$150,000 per annum spent on Alpha town maintenance;
- Concerned with future development of Alpha town in the event of mining, and have commenced forward planning;
 - Council planning consultant (Campbell Higginson) has prepared a concept (with anticipated population numbers), for which defining infrastructure studies and securing budget for their implementation is underway. The Central West Regional Plan also gives an overview of the requirement of Local Government to consider the requirements imposed by resource developments, as shown in the next section.

Central West Regional Plan

The following section has been extracted from the Central West Regional Plan (September 2009):

The Queensland Government is working to get the balance right between meeting the state's increasing energy demands, the world's anticipated increased demand for minerals and food, and the government's priority of building sustainable communities.

Challenges and opportunities for local communities

Resource developments can bring significant benefits for surrounding communities, including:

- Increased employment opportunities;

4 Baseline Profile

- Investment attraction;
- Economic diversification;
- Attracting new people to the region; and
- Keeping young people in the region.

On the other hand, large-scale development also presents local communities with a range of challenges, including increased demand for infrastructure and services.

Challenges facing resource communities in mining regions include:

- Increased demand in the housing market resulting in high rents and property prices and reduced affordability;
- Increased pressure on local medical, dental and social services;
- Potential impacts of dust, noise and vibrations;
- An increase in the number of drive-in and drive-out and fly-in and fly-out workers employed; and
- Demand for new road infrastructure to support proposed new development.

The Queensland Government has also signed the *Sustainable Resource Communities Policy* (31 August 2008), developed by DEEDI. The policy focuses on resource communities, where rapid development resulting from the resources boom has had significant impacts on community infrastructure and services, and on the social structure of local and regional communities.

The policy outlines a partnership between the state government, the Queensland Resources Council (QRC), local government and the Local Government Association of Queensland (LGAQ). This policy builds on the previous Sustainable Futures Framework for Queensland Mining Towns.

Key initiatives of the policy include:

- Coordination of responses to cumulative social impacts and regional issues through the partnership group;
- Improved planning processes to strengthen regional land use planning and infrastructure coordination; and
- Minor legislative amendments that require the establishment of social impact plans for all new mines and major mine expansions, as part of social impact assessment processes.

The agreement is aimed at strengthening links between all levels of government. It will improve the guidelines around social impact assessment that will govern all new major mines and expansions.

The plan also recognises that the resources sector operates within specific legislation:

- Mineral Resources Act 1989;
- Petroleum Act 1923;
- Petroleum and Gas (Production and Safety) Act 2004; and
- For major projects, the State Development and Public Works Organisation Act 1971.

The resources sector is therefore essentially exempt from the provisions of planning schemes and the *Integrated Planning Act 1997*. This means that the coordination of exploration and mining development under the *Mineral Resources Act 1989*, with development in planning schemes under the *Integrated Planning Act 1997*, occurs through provisions under the *Mineral Resource Act*. The Act requires notification of the granting of mineral development licences and mining leases by the relevant local government, followed by notation on the planning scheme of the granted tenure and consideration of

4 Baseline Profile

this tenure in any planning decision taken by the regional council. There are no equivalent provisions in the *Petroleum Act 1923* or the *Petroleum and Gas (Production and Safety) Act 2004*.

Planning schemes that cover the settlements of Alpha, Blackall and Jericho will need to consider the supply of serviced land with infrastructure of sufficient capacity to support these mining activities. Local governments that surround these activities will need to have their planning schemes assessed and reviewed, to cater for any future development.

The other strong industry in the region is tourism which is focused around the region's natural and cultural heritage and unspoilt outback landscapes. There were domestic overnight stays of 158,854 in 2007 and international visitor stays of 9,768 in 2007.

Diversification of destinations and tourism experiences throughout the region will benefit the region by:

- Broadening the visitor's overall experience;
- Potentially reducing visitor pressure on fragile areas; and
- Spreading the benefits within the community.

There is particular potential in the areas of nature-based, historical, cultural and arts tourism for the region.

An expanded tourism industry may require specialised infrastructure and services, as well as a wider choice of accommodation, to attract and service visitor populations. Sound regional branding, promotion and product development is needed as well as strengthened industry partnerships and community support for the tourism industry.

Tourism can have ramifications for the environment and the community. Visitors in environmentally sensitive areas can damage the natural values and lessen the intended visitor experience. Similarly, tourism can be intrusive to existing communities, thereby affecting the character and amenity enjoyed by residents. Tourism therefore needs to be located, designed and managed sustainably, to ensure these values are not adversely affected.

The region has a number of competitive advantages that will assist in driving future economic activity:

- Strong core industries in agriculture and tourism with opportunity to expand;
- High-quality land, water, wildlife and resources;
- Desirable climate, environmental features and liveability.

Optimal conditions need to be created to allow existing industries to maximise their growth potential, and to attract new industries to the region. There are national, state, regional and local factors that may be inhibiting further economic activities, which should be identified and mitigated where possible.

Small business is a major component of the region's economic activity and the fabric of communities.

This sector requires recognition and support if it is to make the most of potential opportunities to further contribute to the wealth and employment of the region.

An appropriately skilled workforce is needed to support economic growth in the region. Education and training programs relevant to industries in the region should be further developed.

Economic development has the potential to influence the social profile of the region, affecting access to social infrastructure, cultural and recreation opportunities. Economic development initiatives need to consider the impacts on communities and social values, and the needs of special interest groups.

4 Baseline Profile

The Central West needs to identify and secure more of the domestic and overseas markets. The region currently lacks a clearly defined, integrated national or international image. The economic benefits of a common name and theme will assist in attracting and improving tourism numbers, and further developing industries such as organic beef and natural fibre enterprises.

Infrastructure Concerns

Infrastructure concerns include:

- Telecommunications, and the introduction of digital television;
- Housing (over the last five years in the Alpha area an average of one house per year has been constructed at a cost of around \$270,000 per 3BR house (without land costs)). The BRC expects Alpha to increase in size to around 2,000 residents (see reference to this figure in the attached article). It has requested its planning consultants (Campbell Higginson) to review the planning scheme for Alpha, and it also appears that the Urban Land Development Authority (ULDA) has been asked to consider the Galilee Basin in developing strategies for housing in its Resource Town Housing Affordability program;
- Roads (The Alpha-Clermont Road, which is a State Controlled Road) has been nominated as a priority project over the next five years (see extract from the Barcaldine Regional Council Community Plan:
 - *“People wanted to see local roads well maintained and upgraded where possible. A priority for upgrading is the road from Clermont to Tambo via Alpha [Alpha – Clermont Road]. 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. It would be a strategic investment in the overall connection of the road network in Queensland.*
- BRC has also joined with the CHRC in an Asset Management Working Group with a focus on roads. The BRC Corporate Plan states that *‘The maintenance of existing roads and infrastructure is a priority for the Council. Reliable power supply and telecommunications coverage and affordability are also important issues* (BRC Corporate Plan, P13-14); and
- Ageing shire facilities (Alpha swimming pool in need of replacement)

Managing the Impacts of Mining

While local mining development offers opportunities for employment and infrastructure investment, people want to see Alpha in the future as a sustainable community with a diverse economy where mining staff are integrated into the community and environmental impacts are minimal.

A particular focus of BRC is to ensure controlled, sustainable growth for Alpha as a result of mining. This requires council to be proactive in managing land release and infrastructure development through effective and transparent partnerships with mining companies. It will also require continual monitoring of key benchmarks to manage social impacts (pers. comm., August 2010).

Other aspects of the future were:

- Having more residents where every house in Alpha has “a light on” ideally with families living in them.
- Developing the coal and coal seam gas industries but without being “over-run” by mining.
- Having greater permanent employment through mining and/or other growing industries.

4 Baseline Profile

- Maintaining and supporting the existing beef industry including protecting the industry from threats such as rising costs and the impact of tree clearing legislation.
- Maintain the identity of Alpha and district as part of an overall Barcaldine Region identity.
- BRC needs to retain offices and employment in Alpha and other communities in the region. This is seen as being very important to not only local services but also retaining the identity and morale of the community. The Council needs to be managed well and remain financially sound.
- Ideally, in the future there would be a changed mindset about the opportunities offered by small rural communities (Barcaldine Regional Council, Community Plan, 2009).

Managing a Potential Minerals Expansion

According to the community plan, an expansion of coal mining and coal seam gas extraction has the potential to substantially increase employment and population. Residents welcomed this development but stressed that it needed to be managed to avoid becoming a “mining town” that could threaten the values and lifestyle of the community (Barcaldine Regional Council, Community Plan, 2009).

Council voted on 21 April 2010 to investigate employing ‘an *Environmental Health Officer/Planning Officer to assist with environment and town planning issues*’ in connection with proposed mining development. This supports Strategy 5 of the Economic Development (Goal 3) of the BRC Corporate Plan which states:

Strategy 5: Managing a Potential Minerals Expansion

- Maintain close communication with relevant government agencies and mining companies to attract and support mineral enterprises whilst maintaining the lifestyle of communities and benefits for residents;
- Engage communities likely to be involved in minerals expansion to anticipate and prepare for community impacts and opportunities; and
- Negotiate with State and Federal government to coordinate with regional and State plans for mineral expansion including the provision of major infrastructure, access to ports, etc.

In June 2010, Council moved to hold two meetings per month ‘devoted to developments within the Galilee Basin and relevant projects in the region’.

Recent Relevant Announcements and Activities

Councils unite to form lobby group – ABC Tuesday May 25, 2010

The Central Queensland Local Government Association (CQLGA) says an alliance formed between 19 councils from Mackay to Gympie, and west to the Northern Territory border, will be a powerful lobby group.

The Powerhouse Alliance of Councils was formed at a regional summit in Dysart, to work together to improve the living standards, business opportunities and add value to communities expecting rapid growth from the resources sector.

CQLGA president and Isaac Regional Council Mayor Cedric Marshall says the alliance is a positive step for rural, regional and mining communities.

"This is a powerful lobby group to support one another and approach the government for funding - state and federal," he said.

4 Baseline Profile

"You know there's a number of state electorates and federal electorates in this whole region, actually it's about a third of Queensland and it's the powerhouse councils of Queensland."

Petros fears growth too fast – The Morning Bulletin, Rockhampton 16th April 2010

Rockhampton businessman Petros Khaliserad worries Central Queensland towns could grow too quickly, leaving workers living in dongas.

Mr Khaliserad said he feared communities would miss out if "hotspot" towns near mines grew rapidly without putting anything back into the town.

"People talk about the life of the mine, but they don't consider the life of the communities," he said.

"In certain hotspots they'll have people live in dongas rather than build a community."

Mr Khaliserad was in Dysart for a CQ Regional Summit, where the preparation for a resource-driven rapid expansion of Central Queensland was a hot topic of conversation.

Barcaldine Mayor Rob Chandler, whose constituency takes in future boom town Alpha, said they were excited by the future development with mines in the Galilee Basin, but were working with neighbouring councils to get things right.

"We've not been involved with this stuff before. Alpha is a grazing town with a touch of tourism. We raise some excellent beef cattle but we're not really *au fait* with resource development.

"We've been looking at what has worked in our neighbouring communities. We'd like to take the great housing complexes and duplexes in Dysart, or the housing estates in Emerald or the water supply at Moranbah and pick the eyes out of what has worked."

Mr Chandler said he was concerned about the development of "soft and social infrastructure" like health, education and land development, and was hopeful for an increase in hospital, policing and education facilities, but felt they could cope if the mines didn't ramp up too quickly.

Rockhampton Mayor Brad Carter said it was important Central Queensland councils didn't repeat the mistakes of south-east Queensland and other large metropolitan areas, which experience large infrastructure and public transport issues.

"I think the emphasis is on getting the planning right," he said.

The summit was facilitated by the Central Queensland Local Government Association.

Regionalisation plan being developed for Mackay – Wednesday, March 31, 2010

A regionalisation plan, which includes affordable housing, is being developed for the Mackay Whitsunday Region to encourage newcomers to the area and to manage future growth.

Premier Anna Bligh made the announcement during the Queensland Growth Management Summit (March 30 and 31) and also announced a \$10 million package for the Bowen Basin to support future growth.

Member for Mackay Tim Mulherin and Member for Whitsunday Jan Jarratt welcomed news of the regionalisation plan and funding for the region.

4 Baseline Profile

Ms Bligh said: “If we are accepting – that it is not if we grow – but how and where we are going to grow - then Queensland Regional centres are going to be the home for many future Queenslanders.

“With a city the size of Darwin moving to the South East Corner each year - we need to look at why this is so and what we can do to encourage some of the growth into Regional Queensland – Why? Because that is where we need people to work, live and play.

“We know people can be attracted to the regions because of job opportunities, affordable housing, and lifestyle advantages.

“One incentive being considered for this year’s state budget is a \$3,000 boost to the first home owner’s grant for people buying property outside South East Queensland,” Ms Bligh said.

New funding

The Premier announced social infrastructure across the Bowen Basin, to support future population growth, as part of the \$100M Sustainable Resource Communities process.

These projects are:

- \$2.9M to purchase or build staff housing for Queensland Ambulance Officers at Glenden, Carmila, Moranbah and Dysart.
- \$3.0M to purpose build the Moranbah Youth Centre, to provide a safe and suitable location for youth services, activities and programs.
- \$4.22M to upgrade Queensland Fire and Rescue Service facilities at:
 - Emerald – Construction of a new station on a new site out of the CBD
 - Clermont – Purchase of land and construction of new station to replace existing station.
 - Dysart – Construction of a Firefighting Training Facility alongside the existing Fire Station. Currently there is no practical training facility in the Bowen Basin. Dysart is centrally located for staff from several fire stations to utilise the facility.

“This funding will ensure that infrastructure in is place as an incentive to encourage the movement of families, not just workers, to mining communities and also Mackay as the principal regional centre,” Ms Bligh said.

Housing Affordability

Mr Mulherin said with the Mackay region experiencing strong population growth housing affordability remained a challenge.

“That’s why we remain committed to the Urban Land Development Authority’s ongoing investigations into Urban Development Areas which could be declared for the fast-tracked delivery of affordable housing.

“We are still working on the show grounds issue but we now know the show grounds site is not suitable for affordable housing.

“However, one potential UDA is at Andergrove, to the North of the CBD. The ULDA will continue to consult with the Mackay Regional Council and State Agencies to explore these options.

4 Baseline Profile

“As part of our commitment to tackling the resource housing boom head on, the Government has asked the ULDA to also work with local governments across the Bowen, Surat and Galilee Basins to develop additional strategies for delivering housing affordability in key hot spots.

Mackay is well placed to grow

Mr Mulherin said the Mackay Whitsunday Region was well placed to grow and benefit from a regionalisation plan.

He said investment to support employment and population growth included:

- \$405M redevelopment of the Mackay Hospital;
- Completion of the \$148M Forgan River Bridge and \$43M Hospital Bridge;
- \$46M Central Queensland Institute of TAFE, Mackay Trade Training Centre;
- \$490M Jilalan rail yards upgrade; and
- \$1.1 billion Goonyella to Abbot Point Expansion Project (GAPE).

“We are perfectly positioned as both a resources and a service hub with proximity to the coal, gas and mineral rich provinces of Central Queensland.

“Employment opportunities continue to grow as key drivers such as mining and related activities continue to expand, with the Port of Abbot Point and the Abbot Point State Development Areas continuing to grow alongside exports from the resources sector,” Mr Mulherin said.

Member for Whitsunday Jan Jarratt said there are strong prospects for continued economic growth across the mining services and engineering, transport and storage sectors.

“There is also potential for growth across the agricultural sector, from diversification and food processing to the use of fibre to produce renewable fuels and bio-commodities.

“The Mackay Whitsunday region has identified mining services and technologies and marine services (industry servicing boats and yachts) as the two sectoral areas for development under the Government’s Centres of Enterprise initiative.

“Industry Action Plans for both these target sectors have been developed in recognition of their status as key economic and employment drivers for future growth.

“A regionalisation strategy to grow Mackay Whitsunday would build on this work, as well as the proposed Mackay Whitsunday statutory regional plan anticipated to be completed by the end of 2011,” Ms Jarratt said.

Major Housing Boost for Roma, Moranbah and Blackwater – UDLA Press Release 2008

The Bligh Government will deliver a major housing boost in three mining towns by declaring Urban Development Areas this Friday in Roma, Moranbah and Blackwater.

Premier Anna Bligh said the UDAs would result in more than 900 new homes, most of them affordable, to take pressure off the three communities.

“Declaring UDAs will enable this affordable housing to be fast tracked using accelerated planning powers,” Ms Bligh said.

“This will be done in full co-operation with local councils which have asked for our help to deal with housing stress.

4 Baseline Profile

"These projects will deliver not just affordable homes but also a range of housing styles from one bedroom apartments to larger family homes.

"The mining boom has created jobs but it has also put pressure on these communities with houses in short supply.

"This is about providing affordable housing in the short term and planning for the future.

"Being able to afford to buy or rent a home gives people a chance to put down roots, gives them a sense of belonging, and helps foster community spirit.

"This is an important part of the State Government's regionalisation strategy to create more opportunities and a better lifestyle in all regions.

"Strengthening the regions outside South East Queensland is one of the key actions in the State Government's response to growth management.

"We are committed to ensuring growth and economic opportunities are shared throughout the state, with new initiatives that support regionalisation and decentralisation," Ms Bligh said.

Planning Minister Stirling Hinchliffe said the declarations would mark the start of the Urban Land Development Authority's (ULDA's) Resource Town Housing Affordability program.

"The ULDA will be responsible for planning and assessing development applications in these areas, and in some instances act as developer.

"The ULDA has the resources to enable faster planning decisions and get affordable land and homes to market much faster.

"I encourage the community to participate in upcoming consultation activities to ensure their needs are catered for in the planning process.

"The community will have the opportunity to comment on the plans for development as well as guide the inclusion of parkland, walking and cycling paths and community facilities."

"The ULDA will work closely with the three local councils to develop projects that deliver a range of housing types for today's community," Mr Hinchliffe said.

The Blackwater UDA encompasses most of the town, including about 1800 existing homes and mining villages, commercial and industrial facilities, parks and community halls. The ULDA has identified 25 hectares of useable land that could accommodate 380 new houses.

At Moranbah land has been identified which could be released within a year to deliver 200 - 300 dwellings of varying sizes and forms.

The 1,220 hectare UDA will allow the Urban Land Development Authority (ULDA) to work with Isaac Regional Council to plan for the future growth of Moranbah as a result of the resources boom, ensuring there is enough land supply to accommodate that growth.

In Roma, state-owned land totalling 20 hectares about 1.5km from the town centre could accommodate about 300 new houses. The UDA site includes an established park with the potential to be improved for the benefit of existing and future residents.

These declarations will bring the number of UDAs in Queensland to 10, with four within Brisbane and three more at Gladstone, Townsville and Mackay.

4 Baseline Profile

The Mining Advocate | May 2010

NEWS 3

Regional uprising over funds

Communities on the frontline of massive mining and energy industry expansion are lobbying for increased support.

Councils from across regional Queensland will meet in Brisbane in a bid to drag a larger slice of mining wealth back into the local communities most affected by the industry's growth.

A Royalties for Regions-style funding program and an overhaul of the rating structure for mining and energy operations will lead the agenda, according to Western Downs Mayor Ray Brown.

Cr Brown said the vast amounts of money mining companies were paying in royalties was not being reflected in the level of investment in key transport infrastructure servicing mining areas or in funding for regional communities. "The companies are paying their way with royalty cheques but we are not seeing it come back to the areas affected," he said.

"Then they have local community groups coming cap in hand asking for funds for things like the local netball team.

"In Queensland there seems to be an enormous drain to the south-east corner and no money

going anywhere else in the regions."

And he had grave concerns about how much of the planned resource super profits tax would find its way back to local regions "once the Federal Government get their hands on it".

Queensland Treasurer Andrew Fraser shot down the Royalties for Regions concept, saying that it was never argued that 80 per cent of the State's payroll tax or stamp duty revenue be spent in the south-east corner, where it was raised, "nor should it be".

Mr Fraser said mining royalties, like all government taxes, were invested in services and infrastructure statewide.

"The government's ongoing commitment to regional and rural Queensland is reflected in the 2009/10 Budget. Over 57 per cent of our capital infrastructure spend will occur outside the Brisbane statistical division," he said.

Cr Brown – whose local government area includes Dalby, Chinchilla, Miles and Wandoan

– said councils had to find ways to fund the extra services and infrastructure required in growing resource hubs without placing the onus on local ratepayers.

"We're not asking for all the

"We're not asking for all the royalties – just a small percentage to come back into the region"

royalties – just a small percentage to come back into the region and make an impact," Cr Brown said.

The planned meeting on May 20 will include briefings on the West Australian Royalties for Regions system, advice from mining taxation specialists and discussion on options for rating resources operations.

"We have always had a rating procedure for mines – but the CSG (coal seam gas) and UCG (underground coal gasification) industries are whole different ballgames," Cr Brown said.

"I have four power stations

operating in my region, with two more to be commissioned shortly and plans for several more across the region – and there are even renewable (energy) ones.

"How do you rate a renewable power station? These are the sort of discussions we need to have."

Cr Brown said more than 100 people were expected to attend the meeting.

"There has been an excellent response from regional councils in support of the summit, with many councils recognising the importance of lobbying government for guaranteed funding to support an adequate level of infrastructure in the regions whether or not they were affected by mining and energy operations," he said.

Barcardine Mayor Rob Chandler said the potential problems caused by rapid mining growth had been a hot topic at the recent CQ Regional Summit in Dysart.

"The infrastructure needs of these communities to keep up with multibillion-dollar expansion is going to be a real challenge for local, State and Federal government," he said.

The challenge was highlighted

by the case of Alpha – a town of about 350 tipped to grow to 2000 with developments including the China First, Kevin's Corner and Alpha coal projects.

"We have unreliable power, no water, no available land – all sorts of infrastructure issues that need to happen there," Cr Chandler said.

The State Government, in partnership with local government and development bodies, is undertaking an economic and social impact study for the Galilee Basin to prepare for growth in that area. And Premier Anna Bligh recently highlighted the government's spending on the LNG boom centre of Gladstone and its surrounds, saying it had committed \$490 million to projects in that region in the 2009/10 Budget alone.

She also pointed to the government's Sustainable Resource Communities Policy, backed by a \$100 million fund.

Bowen Basin communities have received almost \$43 million for economic and social infrastructure under that scheme, the Surat Basin has received about \$28 million and the North West Minerals Province \$27 million.

Source: The Mining Advocate, May 2010

Mining Lease Area

The mining lease area is entirely within the operational boundaries of BRC. For information on the local governance see Section 4.10.2.

4.11 Primary Infrastructure and Access

4.11.1 Regional Study Area

The following key-points on the primary infrastructure and access features of the regional study area where identified:

- At the time of the 2006 Census, 70.4% of occupied private houses in IRC and 64.7% in CHRC reported having an internet connection (OESR, 2010);
- The Peak Downs and Gregory Highways connect Clermont to the rest of IRC and CHRC respectively;
- Clermont is connected to Alpha via the Alpha-Clermont Road;
- Emerald is the cross-road for the Capricorn Highway (east-west) and the Gregory Highway (north);
- The CHRC operates a regional airport in Emerald with regular commercial services. The council also operates airstrips in Capella, Dingo, Duaringa, Rolleston and Springsure (CHRC 2010); and
- The IRC operates airstrips at Clermont, Dysart and Moranbah (Airports Australia 2010).

4 Baseline Profile

Highways

The Peak Downs Highway which runs for 273 km between Mackay and Clermont is of a reasonably high standard and is well utilised carrying many wide loads containing mining equipment and mobile housing. The Gregory Highway, a state highway connecting major coal mining towns, joins Clermont and Emerald. The highway starts just outside Georgetown and continues south to Springsure. The highway is in relatively good condition, and is heavily used by road trains and grey nomad tourists. Locally, there is significant focus on the need to upgrade the unsealed Clermont to Alpha road (approximately 120 km in length) and the Isaac Regional Council is reviewing potential uses of this road, particularly in light of the proposed Alpha mine proceeding.

The Capricorn Highway which stretches 684 km from Rockhampton in the east to Longreach in the west connects Emerald to Alpha. The Capricorn highway is generally flat and straight, apart from the section which passes through the Drummond Range between Emerald and Alpha and the condition is generally good. The Capricorn highway is currently heavily used by road trains and freight transport. There are also a number of 'grey nomads' travelling in caravans or campervans on the road in the peak tourist season between May and September. There are no overtaking lanes between Emerald and Alpha. Maintenance of the highway is the responsibility of the Department of Transport and Main Roads (DTMR) who work in close cooperation with civil council (pers. comm., May and August 2010).

The DTMR is currently undertaking an arterial roads review for Emerald and the Central Highlands. As part of this review DTMR are conducting a safety audit of Emerald roads. A key finding of this has been the need for more traffic lights in the town. At the beginning of 2010 there weren't any traffic lights in town; however the audit has proposed seven, some of which have already been installed. Another recommendation of the audit was to limit the number of highway access points into town by closing highway entrances. This would ensure that town traffic is managed more effectively through traffic lights and other control mechanisms.

The CHRC highlighted plans to build a Western Link Bypass connecting the Gregory and Capricorn highways to the west of Emerald. This would reduce the amount of heavy traffic passing through the town, improving traffic management and safety. The bypass would go through the extended industrial zone, making it an excellent service area for the mining industry. The Western Link Bypass has been costed at more than \$360 million. Funding is yet to be secured for this development (pers. comm., August 2010).

Public Transport

Paradise Coaches offer daily bus services between Emerald and Mackay, stopping in Clermont and Moranbah. They also provide a coach service from Rockhampton to Emerald on Monday, Wednesday, Thursday, Friday and Sunday while there is a Rockhampton to Longreach (via Emerald and Alpha) on Tuesdays and Saturdays. Paradise coaches also offer a range of charter bus services including school buses, company charters and booze bus services (Paradise Coaches 2010).

Emerald Coaches are a local, family run business providing private charter services to schools and companies. Emerald coaches are the leading supplier of employee transport to mining companies and contractors in the region. They offer daily transfers to and from the mines in mine-compliant vehicles. Emerald Coaches drivers have received mine inductions (Emerald Coaches 2010).

CHRC highlighted the need for more structured mining transport systems. Currently buses travel through town collecting employees to transfer them to the mine site for work. BMA and RTCA are

4 Baseline Profile

currently building employee car parks in Emerald and will use these as a base for collection. A central bus or transportation terminal would address this problem (pers. comm., August 2010).

The Spirit of the Outback which is operated by Queensland Rail Travel Train, services Emerald, on its way from Brisbane to Longreach twice a week on Saturday and Tuesday. The train travels in the reverse direction on Mondays and Thursdays. Travel time from Brisbane to Emerald is approximately 15 hours, 4.5 hours from Mackay and a further 3 hours and 45 minutes to Alpha (Queensland Rail, 2010).

Airports

Emerald Airport, the main airport for the region, is located 6km from Emerald. Some 27 Qantas services operate per week. The airport is currently undergoing a \$7.7 million upgrade, \$2 million of which is being funded by the State Government as part of the Rural Living Infrastructure Program. Scheduled for completion in September 2010, the upgrade will include new check-in counters, expanded check-in and arrival lounges, kiosk extensions and a baggage conveyor system.

There is an airstrip in Clermont and over recent years, there has been significant investment in this by Clermont Coal (Rio Tinto) for their fly-in, fly-out (FIFO) charter arrangements and there is also potential for commercial flights to be introduced, if demand is sufficient (pers. comm., May 2010).

There are also airstrips in Blackwater, Capella, Dingo, Duaringa, Rolleston, Springsure, Dysart and Moranbah (Airports Australia 2010).

Electricity

Electricity supply in Emerald is approaching capacity with limited scope for adding additional electricity or telephone lines to service new development, because Ergon failed to effectively consider Emerald's population growth rates and rapid development when prioritising and planning expansion services. Realising the need for development in Emerald, Ergon are now playing catch up, and recently acquired a site for a new substation. It is uncertain when this will come on line. This additional substation is required to support any expansion in industry (pers. comm., August 2010).

Water

Emerald water is sourced from Fairbairn Dam / Maraboon Lake. Fairbairn Dam is filled with water from the Drummond Range catchment zone. Water from the dam is pumped into the Nagoa River and extracted from the river at the Emerald Pump out Station and Water Treatment Plant on the outskirts of town. The average daily water usage of Emerald is less than the amount of water evaporating from the dam over the same period. Fairbairn Dam provides water for a wide range of activities, with local mines being the single largest water users, followed by irrigators (pers. comm., August 2010).

Clermont water is sourced from the Theresa Creek Dam which was constructed by Blair Athol Coal Project in 1983. Its purpose is to supply water to the town of Clermont. The Dam and reservoir cover an area of approximately 300ha and provides a picturesque setting for picnics (with facilities such as coin operated barbecues, shaded tables, hot showers and toilets), and is also an ideal spot for water skiing, sail boarding, camping and fishing (Isaac Regional Council, 2010).

4 Baseline Profile

4.11.2 Local Study Area

Having adequate infrastructure and facilities was seen by residents as crucial to the future of the community and a core role for the BRC. People wanted to retain and maintain existing infrastructure and make key improvements based on available funding (Barcaldine Regional Council, Community Plan, 2009).

Highways

The Capricorn Highway is the central highway traversing 684km from Rockhampton to Longreach and intersecting Barcaldine, Alpha, Jericho and Emerald. The Capricorn Highway is a straight, flat road with the exception of the Drummond Range section, between Emerald and Alpha. The speed limit is generally 100 km/hour. There is no overtaking between Emerald and Barcaldine. The road is well used by Double Bs and Triple Bs, as well as by grey nomads with slower moving 4WDs and caravans.

The State Government is committed to a widening and maintenance program for the highway.

According to the Barcaldine Regional Council Community Plan, people wanted to see local roads well maintained and upgraded where possible. A priority for upgrading is the road from Clermont to Tambo via Alpha. 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. It would be a strategic investment in the overall connection of the road network in Queensland (Barcaldine Regional Council, Community Plan, 2009).

Public Transport

Private coach companies (Greyhound and Paradise Coaches) operate bus services within the region, including:

- Longreach to Rockhampton/Rockhampton to Longreach;
- Mt Isa to Brisbane (stopping at Barcaldine); and
- Emerald to Mackay/Mackay to Emerald.

Paradise Coaches also offers a boarding school holiday service, which is run during school holiday periods. This service operates from Rockhampton Grammar School to Clermont.

A local bus company provides a charter service, including a daily bus run to primary and secondary schools. Most residents in rural locations have more than one vehicle to accommodate their personal transport needs.

Airports

Barcaldine Airport is a registered public transport facility. Qantas services the shire three times a week. No ticketing facilities are available at the airport.

Alpha and Jericho have aerodromes, which are maintained by the BRC.

The current Alpha airport is adequate for landing Dash-8 Q300 and Fokker F50 planes. A proposed upgrade by the BRC will increase the capacity of the airport, making it large enough to land jets. If it proceeds, the current upgrade will make Alpha airport larger than the Emerald airport (pers. comm., 2010).

4 Baseline Profile

Electricity

Alpha experiences poor electricity service with blackouts and brownouts occurring frequently. Power is delivered via a power line from Barcaldine. Ergon Energy has installed a large generator in town as a back-up in the instance of electricity failure. Stakeholder reports indicate the generator is used frequently.

Feedback in the community plan indicated that people in the community felt the current power supply is unreliable largely due to the age of the power lines, weather and debris affecting distribution lines. A reliable power supply is a high priority for residents and to support business and industry investment. The upgrade of power lines would be a major investment by the private provider, Ergon Energy. Continued lobbying is needed to have Ergon include the line in its priorities for upgrading (Barcaldine Regional Council, Community Plan, 2009).

Most rural properties have their own generators though some have electricity from the grid.

Water and Sewerage

Alpha and Jericho's water supply is sourced from a sub-artesian basin requiring heavy reliance on bores. Despite a substantial drilling program undertaken in previous years (approximately 30 bores), capacity has not been greatly increased. With 30 residential allotments scheduled for future release, completion of this development will see the water supply at full capacity. Water restrictions are in place for Jericho, Barcaldine and Alpha.

A high priority is the installation of sewerage in Alpha. BRC is already progressing this. Alpha has an existing water supply from a sub-artesian basin. However, many residents suggested investigating alternative water sources that would improve water quality and reduce reliance on the local basin (Barcaldine Regional Council, Community Plan, 2009).

Most rural properties have their own bore water and sewage systems.

Communication

The Telstra 3G network services the Alpha and Barcaldine communities where there is a strong signal, however communications are limited in rural areas surrounding the population centres where satellite dishes represent the only reliable means of receiving a signal.

Internet Connection

At the time of the 2006 Census, there were 605 occupied private dwellings in BRC with an internet connection. These dwellings represented 50.0% of all occupied private dwellings in the region (compared with 62.8% for Queensland). Of the 605 internet connections in Barcaldine Regional Council, there were 414 broadband connections and 185 dial-up connections. Barcaldine Regional Council made up 0.1% of the total internet connections in Queensland (OESR, 2010). Telstra wireless broadband is now available in Alpha and is increasingly popular amongst residents (pers. comm., August 2010)

Mining Lease

Most rural properties surrounding Alpha have their own generator. Many properties also have an airstrip on the property to enable the use of light aircraft in cattle mustering.

4 Baseline Profile

While some properties may not be within the mining lease, the Project will likely impact on the access roads to their properties, and connecting roads between properties (pers. comm., May 2010).

Case Studies

Three case studies have been developed to add some context to the impact assessment based on the similarities and differences in the development of other communities in the Bowen Basin. These are:

- Insights and Lessons from the Example of Mining Developments at Springsure and Rolleston;
- Bowen Basin History and Development; and
- Strategic Community Development – A Study of Clermont.

5.1 Insights and Lessons from the Mining Developments at Springsure and Rolleston

This case study was undertaken by URS to consider the impacts of the establishment of mining (i.e. the Minerva and Rolleston mines) near the communities of Springsure and Rolleston in the Central Highlands Regional Council (CHRC) area to inform the assessment of potential impacts associated with the establishment of mining near the community of Alpha in the Barcaldine Regional Council (BRC) area. The purpose was to identify the indicators of change within the community and the effect of mining in influencing these changes. Quantitative data was collected from ABS, DEEDI, OESR, and other sources to provide a high level assessment of key variables from the communities pre and post mine construction. Analysis was then undertaken focussing on the similarities and differences between these places and the circumstances relating to mining, and conclusions drawn regarding implications for the analysis of likely impacts for the community of Alpha from the development of the Alpha and Kevin's Corner mines. The purpose of analysis of the Minerva and Rolleston mines was to understand what happened so as to better predict likely impacts in Alpha.

The socioeconomic impacts of mining on the communities of Springsure and Rolleston have been recently examined as a part of the *Galilee Basin economic and social impact study* (DEEDI, 2010). The findings of the DEEDI study were used as a foundation for this case study, with further consultation and verification being undertaken with a specific focus on the consideration of impacts within the domains of the identified Valued Social Components for the Alpha and Kevin's Corner social impact assessments (SIA).

5.1.1 Comparing Similar Communities

The fundamental question to answer is: Why look for a comparison community? Research suggests (Lockie *et al*, 2009):

- Comparative methodology (as outlined in the US Guidelines and Principles for Social Impact Assessment) can help identify the potential range and magnitude of impacts both of initial project proposals and of suggested alternatives; and
- Insights provided through comparative analysis may help support democratic debate among impacted publics.

The extent of mining development in the Bowen Basin over the last 40 years suggests that there may be lessons evident that may be applicable to the development of future mines in the Galilee Basin.

5.1.2 Selecting a Similar Community for Comparative Purposes

It is preferable that a community be selected with similar characteristics predevelopment, and which has had actual impacts assessed at some point in time following development. As Lockie *et al* assert (Lockie *et al*, 2009), 'Ex-post studies of actual processes of change following the implementation of projects and policies were identified in the US Guidelines and Principles of Social Impact Assessment

5 Case Studies

as the foundation on which social impact assessors should base predictions regarding the likely consequences of proposed change in other communities’.

Alpha, Springsure and Rolleston share some pre-mining similarities in terms of their geographic setting, agricultural base, development patterns and sizes. Other comparisons are listed in Table 5.1.

Table 5-1 Comparisons of Alpha at Present and Springsure & Rolleston Prior to the Minerva and Rolleston Mines

Socio-Economic and related variables	Alpha (a) 2006	Springsure (b) 2001	Rolleston (c) 2001
History	Primarily agriculture	Primarily agriculture	Primarily agriculture
Population	401 (2006)	770 (2001)	289 (2001)
Pre-existing population trend	Partially stable to slight decline	Bauhinia Shire: population decreased from 2,646 people in 1991, to 2521 people in 1996, then increased slightly to 2544 people in 2001. These trends are evident for the town of Springsure also (DEEDI, 2010).	Bauhinia Shire: population decreased from 2,646 people in 1991, to 2521 people in 1996, then increased slightly to 2544 people in 2001.
The ABS 2001 SEIFA Index of Relative Socioeconomic Disadvantage	Jericho Shire (961)	Bauhinia Shire (1,007)	Bauhinia Shire (1,007)
Unemployment rate	Jericho Shire area at March 2010 (OESR) was 2.0% (compared with Alpha locality unemployment rate of 4.3% at 2006 Census). Employment participation rate was approximately 80%	Unemployment rate of 4.3% at 2001 Census Unemployment rate of 2.5% at 2006 Census	Unemployment rate of 3.8% at 2001 Census Unemployment rate of 0% at 2006 Census
Average weekly household income	\$920 (2006 dollars)	\$735 (2001 dollars)	\$1,042 (2001 dollars)
Primary sectors of employment	Agriculture, forestry and fishing (41%) (2006 Census)	Retail trade (13%); Agriculture, forestry and fishing (11%); Construction (11%) (2001 Census)	Agriculture, forestry and fishing (66%) (2001 Census)
Value of agricultural product (2005-2006)	\$53.5 million (mainly livestock) (Jericho Shire)	\$164.5 million (mainly livestock) (Bauhinia Shire)	\$164.5 million (mainly livestock) (Bauhinia Shire)
Government	Was a Shire headquarters prior to recent local government amalgamations Post amalgamations: part of Central Highlands Regional Council	Was a Shire headquarters in Bauhinia Shire prior to recent local government amalgamations Post amalgamations: part of Central Highlands Regional Council	Pre-amalgamations: part of the Bauhinia Shire. Post amalgamations: part of Central Highlands Regional Council
Proximity to regional service centres	Barcaldine – 140 km; Emerald – 170 km	Emerald – 66 km	Emerald – 137 km

5 Case Studies

Socio-Economic and related variables	Alpha (a) 2006	Springsure (b) 2001	Rolleston (c) 2001
Proximity to mine/s	~60 km from proposed Alpha Coal project ~80 km from proposed Kevin's Corner project	49km from Rolleston mine 17km from Minerva mine	17km from Rolleston mine 88km from Minerva mine
Access	Capricorn Highway (DTMR planned improvements) Project intends to upgrade a portion of the Alpha-Clermont Road	Rolleston – Springsure Rd	Rolleston – Springsure Rd Rolleston lies on the junction of the Carnarvon, Dawson Highways and Blackwater Rolleston Rd.

Notes: a) ABS state suburb b) ABS urban centre / locality; c) ABS Census collection district

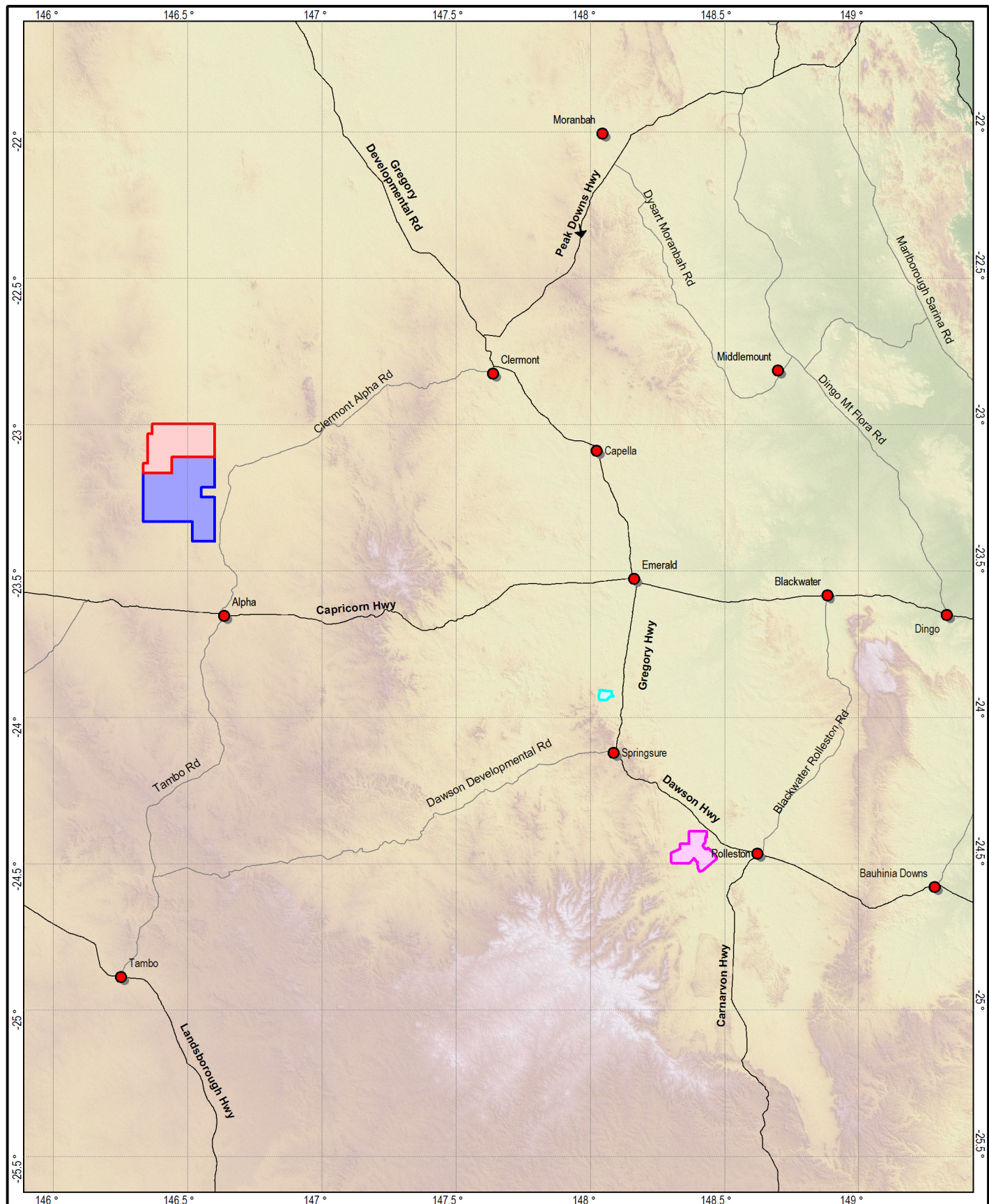
Sources: ABS Census data, 1996, 2001, 2006; OESR 2010; URS Consultation.

5.1.3 Regional Context of Alpha, Springsure and Rolleston

Springsure is located ~66 km to the south of Emerald, with access via the Gregory Highway. Springsure was the administrative centre of the Bauhinia Shire before the 2006 local government amalgamations, and is now part of the Central Highlands Regional Council (CHRC). At the time of the 2001 census the population of Springsure was 792 people; however, by the 2006 census the population had increased by 4.8% (38 people) to 830. The 2009 estimated resident population for the locality was 901 people (an increase of ~8.55% over three years or ~2.85% per annum) (OESR, 2011). Rolleston is a further 71 km to the south east (137 km south of Emerald) along the Rolleston – Springsure Rd. At the time of the 2001 census, the Rolleston locality (collection district) had a population of 267 people, by the 2006 census the population had decreased to 217 people. This represents a population decrease of ~ 18.7% over the five year period between censuses. The actual township of Rolleston has a population of about 100 people (DEEDI, 2010).

Alpha is located 170 km to the west from Emerald, which has shown strong growth as a regional centre, and now has a population of approximately 13,000 people. Alpha is 440 km from Rockhampton, and 480 km from Mackay via the Alpha-Clermont road. Travel times will be reduced because ~ 80 km of this road from Alpha will likely be upgraded through the Alpha and Kevin's Corner projects. Figure 5.1 is a locality showing the towns of Alpha, Rolleston and Alpha and the Minerva, Rolleston, and the proposed Alpha and Kevin's Corner Coal Projects.

5 Case Studies



0 25 50km
 Scale: 1:2,000,000 (A4)
 Datum: GDA94, MGA Zone55

- | | | |
|--|----------------|---------------|
| Mining Lease Application (MLA70425) Boundary | Minerva Mine | Major Highway |
| Alpha Mine (MLA70426) Boundary | Rolleston Mine | Major Road |

Source: Bing Maps © 2009 Microsoft Corporation and its data suppliers. ESRI ArcGIS Online 2011, © Mapinfo Australia Pty Ltd and PSMA Australia Ltd., © Commonwealth of Australia (Geoscience Australia) 2006, © The State of Queensland (Department of Environment & Resource Management) 2010, © The State of Queensland (Department of Mines and Energy) 2010, © Hancock Coal Supplied Data 2011.
 Whilst every care is taken by URS to ensure the accuracy of the digital data, URS makes no representation or warranties about its accuracy, reliability, completeness, suitability for any particular purpose and disclaims all responsibility and liability (including without limitation, liability in negligence) for any expenses, losses, damages (including indirect or consequential damage) and costs which may be incurred as a result of data being inaccurate in any way for any reason. Electronic files are provided for information only. The data in these files is not controlled or subject to automatic updates for users outside of URS.



HANCOCK GALILEE PTY LTD
Kevin's Corner Project
Environmental Impact Statement

LOCALITY MAP: SPRINGSURE, ROLLESTON AND ALPHA

5 Case Studies

5 Case Studies

Since the early 2000s, the agricultural centres of Springsure and Rolleston have experienced impacts from the establishment of the Minerva and the Rolleston Coal Mines in their near vicinity. The Minerva mine is only 17km from Springsure, and the Rolleston mine is situated between the towns, 17km from Rolleston, and 49km from Springsure. Construction of the Minerva and Rolleston mines commenced in 2004, with both mines coming into operation in 2005.

The community of Alpha is now likely to experience mining developments in close proximity. The proposed Alpha and Kevin's Corner coal mines are located 60km and 80km respectively from their closest township (Alpha), greater distances than those experienced for Springsure and Rolleston. Notably, the Minerva mine is located in relative close proximity to the regional centre of Emerald (~51 km), and unlike the other mines in question, the Minerva mine has no worker accommodation on site. Most of the senior staff and workers from the Minerva mine live in Emerald (197 people, 82% of the workforce), while approximately 16% of their workforce (38 people) are living in Springsure. The Rolleston mine does have worker accommodation onsite, yet 88 workers (28% of employees) are still reported to be living in Springsure. The mine has located a number of higher level management and administration staff in Springsure and provides a daily BIBO services for these personnel and mine operation workers. Employees are also permitted to BIBO from Springsure on a daily basis. It is not known how many employees of the Rolleston mine are living in Rolleston.

The proposed Alpha and Kevin's Corner mines are of much greater size and scale than the existing Minerva and Rolleston mines. Comparisons between the operational characteristics of the Rolleston and Minerva coal mines and the proposed Alpha and Kevin's Corner mines are outlined in Figure 5.2.

Table 5-2 Comparisons of existing and proposed mining operations - Minerva, Rolleston, Kevin's Corner and Alpha

Mine operation details	Minerva	Rolleston	Proposed Kevin's Corner Coal project	Proposed Alpha Coal project
Commencement of mine operations	2005	2005	Indeterminable	Indeterminable
Mine employment (operations)	240	310	1,800 (peak)	2,300 (peak)
Mine production at full capacity (Mtpa)	2.6	7.2	30	30
Distance from Emerald	~51 km	~140 km	~250 km	~230 km
FIFO	No ^(a)	No	Yes	Yes
Bus from Springsure for workers	Commuter (personal)	BIBO daily	N/A	N/A
Single persons quarters for operations	No	Yes (at mine)	Yes (at mine)	Yes (at mine)
Roster	4 on and 4 off (not including Sundays)	7 days on 7 days off	TBC - Likely rosters (depending on positions) include: 9 days on 5 days off, 14 days on 7 days off & 7 days on 4 days off	TBC - Likely rosters (depending on positions) include: 9 days on 5 days off, 14 days on 7 days off & 7 days on 4 days off

5 Case Studies

Mine operation details	Minerva	Rolleston	Proposed Kevin's Corner Coal project	Proposed Alpha Coal project
Size of single persons quarters	N/A	340	Will accommodate nearly all operational staff	Will accommodate nearly all operational staff
Executives/senior staff housed in:				
• Springsure (approx.)	3	12	N/A	N/A
• Rolleston (approx.)	0	not known	N/A	N/A
• Emerald (approx.)	27	not known	Proposed - Nil	Proposed - Nil
• Alpha	N/A	N/A	Dependent on workforce policies	Dependent on workforce policies
Other employees located in:				
• Springsure (approx.)	35	70	N/A	N/A
• Rolleston (approx.)	0	not known	N/A	N/A
• Emerald (approx.)	170	not known	Proposed - Nil	Proposed - Nil
• Alpha	N/A	N/A	Dependent on workforce policies	Dependent on workforce policies

Notes: (a) - small number of specialist maintenance work only; N/A – not applicable

Sources: adapted from DEEDI (2010); URS research.

5.1.4 Known impacts as a result of the mining operations

The socioeconomic impacts of mining on the communities of Springsure and Rolleston have been recently examined as a part of the *Galilee Basin economic and social impact study* (DEEDI, 2010). The findings of the DEEDI study were used as a foundation for consideration of impacts experienced within these towns. Further consultation and verification was undertaken in the communities by URS in March 2011, with a specific focus on the consideration of impacts within the domains of the identified Valued Social Components for the Alpha and Kevin's Corner mines.

History and Settlement

The influx of people into Springsure that has occurred as a result of the mining industry's presence has acted to stabilise the town. This is particularly seen as school enrolment numbers are being maintained (despite the drain evident as a result of the school limitations), and also in the prevalence of newer houses in town. There is a concentration of new houses 'up on the hill' within town, yet this is not perceived as a negative. Residents acknowledge that they have been lucky that the influx of population has not been too great and so the number of new houses (approximately 20) that have been built to cater to mining employees has not been overwhelming. These types of impacts have been lesser in Rolleston as the mine has an on-site camp. It was noted however that there have been four new houses built in Rolleston.

5 Case Studies

The proportion of employed persons working in the mining industry has significantly increased in the town of Springsure, from 1% to 23% over the 2001-2006 period. However, both towns are still perceived (at least in the regional centre of Emerald) as being principally pastoral areas. It was noted that loss of land that has been held by the same family for generations was considered a significant impact of mining. Conversely many landholders have gained employment on the mine as a supplement to their income from the land. During the recent extended period of drought this has effectively allowed a number of families to remain on their land, where otherwise they may have been forced to leave.

Demographic

Table 5-3 below shows changes in key demographic variables experienced in Springsure and Rolleston prior to and post the introduction of mining in the local area. As can be seen the Bauhinia Shire experienced growth in the estimated resident population of 115 persons between 2001 and 2009. This represents a change of 5.1% (or 0.64% per annum). Much growth occurred during the 2005-2007 period (OESR, 2010), which is just after the mines started operation, and the fact that 111 of those persons were male further supports the hypothesis that the population growth is mine related. This influx of males has acted to reinforce the gender imbalance that was already present in the district (OESR, 2010). Average age has increased in both towns, a reflection of the large number of elderly and aging people in the districts.

It is likely that the bulk of these new residents have moved to Springsure; census data over the 2001-06 period reflects a population growth for Springsure of 38 people whilst Rolleston experienced a decline of 50 people. Community consultations support and add context to these data. It was noted that where people and families have moved to town, it is predominantly to take up opportunities with the mine. It was also reported that the majority of mining managers who have been located in Springsure, did not bring their families with them, instead they travel back to their families and home town/city at the end of their shifts. It was also noted that some families have moved away from town (as their children have reached high school age) yet the fathers have taken up BIBO and DIDO opportunities to work in one of the mines and remain in the area. The mines also represent an opportunity for young people to remain in the community and obtain long-term high income employment. The culmination of these factors is that the population of Springsure has stabilised, countering the more general trend of population movements away from these types of small rural towns as a result of the prolonged drought and the lure of additional opportunities offered at the coast and in the cities. The attractiveness of Springsure in terms of its additional services, as well as the BIBO service that is offered by Rolleston mine, has effectively negated Rolleston's potential for mine-driven growth even though it is much closer to the Rolleston mine site.

Despite the evidence of population increase in Springsure and the town's proximity to the Minerva mine, it was noted by respondents in Emerald that relocating families are still more likely to choose to live in Emerald than Springsure, given the additional services and facilities on offer. This is reflected in the high proportion of employees from the Minerva mine (82%) who live in Emerald (DEEDI, 2010).

The numbers of non-resident workers in the Bauhinia Shire has increased by more than 300% between the years 2007 and 2010, from 65 to 270 persons. In 2007, most of the non-resident workers were located in Springsure (62 persons), yet by 2010 only 48 persons were located in Springsure and the vast majority (222 persons) were located outside of Springsure, most likely at the Rolleston mine camp.

5 Case Studies

Table 5-3 Changes in key demographic variables in Springsure and Rolleston prior to and post the introduction of mining in the local area

Impact type	Springsure	Rolleston
Population growth	Census data indicates that population has increased from 792 to 830 people over the 2001-06 period. Limited impact to date, yet evidence of unfolding impacts, e.g. provision of housing for executives and major contractors in town (DEEDI, 2010) Estimated resident population increased in Bauhinia SLA (both Springsure and Rolleston) from 2,252 in 2001 to 2,367 in 2009 (115 persons). 111 of those persons were male.	Census data indicates that population has decreased from 267 to 217 people over the period 2001-06. Population increased in Bauhinia Shire (both Springsure and Rolleston) from 2,252 in 2001 to 2,367 in 2009 (115 persons). 111 of those persons were male.
Household size	0% p.a. growth (at 2.6 persons per household) from 2001-2006	2% p.a. growth from 2001-2006 (from 2.5 to 2.8 persons per household)
Average age	Average age increased from 2001-2006 (36.7 – 38.6)	Average age increased from 2001-2006 (33.4– 34.6)
Household composition	2001: family households 58%; lone person households 33%; group households 2% 2006: family households 57%; lone person households 13%; group households 3%	2001: family households 71%; lone person households 15%; group households 3% 2006: family households 63%; lone person households 14%; group households 3%
Non resident worker populations	Bauhinia Shire at 31 st July 2007: <ul style="list-style-type: none"> ERP - 2,366 Non resident worker population – 65. 62 of those persons in Springsure. Bauhinia SLA at June 2010: <ul style="list-style-type: none"> ERP - 2,411 Non resident worker population – 270. 48 of those persons in Springsure) 	data not available

Sources: ABS Census 2001 & 2006; DIP (2007); DEEDI (2010); QRSIS database maintained by (OESR), QT (2010).

Culture and Community Dynamics

Community consultations revealed that there is a degree of tension and lack of integration between the miners and the farmers within the community, with the farming and grazing community experiencing marginalisation. There is a sense that this is largely to do with income disparity and jealousy, although this may be a perception more than a reality. There is a feeling that new residents generally didn't have commitment or 'buy-in' to the local community. It is perceived that they often leave the community when they have time off, and they are not very active in sporting, volunteer or community activities apart from the State Emergency Services (SES) and the Country Fire Service (CFS). The majority of community support comes from farmers as opposed to miners. It is commonly recognised that there is a need to get the mine workers better integrated into what is perceived as 'community life'.

5 Case Studies

Shift work has also impacted on family and community life, with less people willing and able to participate in community activities and events. The Minerva mine however is known as more family friendly, involving a four day on four day off roster, with the mine closed on Sundays. The mine has also recently introduced what has been dubbed the “mummy shift” which is from 8.30am – 2.30pm providing an opportunity for mothers to re-enter the workforce. This has been well received in the community as a family friendly model. The impacts of FIFO/BIBO/DIDO on the community were highlighted as a concern to council.

More generally, there are simply more people in town, which was reported as having changed the feel of the town. One informant noted that Springsure is going through an ‘identity crisis’. There have not however been any changes in perceived safety within either town.

Housing and Accommodation

Table 5-4 below shows recent trends in the local housing market. It can be seen that housing affordability has decreased in the Bauhinia Shire over the 2004-09 period. Consultations confirm that it is the town of Springsure that has experienced the highest degree of change in affordability and availability. It was noted that in Springsure, the cost of housing has increased significantly and it is becoming increasingly difficult for non-mine personnel to afford housing on their lower wages. Currently there are no rental properties available in Springsure, with new people having to go onto a waiting list until properties become available.

There is also a shortage of short-term accommodation with all local hotels regularly booked out and no available sites at the caravan park. A recent application to add new sites was rejected by council. There were also reports of contractors approaching home owners direct and offering substantially higher rental amounts for preferred accommodation. Subsequently existing tenants were evicted and the mine contractors moved in. One motel in town has been purchased by Minerva mine and is being renovated to solely provide accommodation to Minerva personnel. Ability to deliver additional housing supply in Springsure is severely constrained by the limited number of builders in town and the reported high costs of development. This constrained housing market impacts on the ability to deliver services in town, with the hospital in particular noting that the high cost and shortage of housing further limits their ability to recruit nurses.

These housing effects have not been experienced to such an extent in Rolleston; however it was reported that rents have increased within the town over the period. Rolleston has experienced growth in the capacity of their caravan park, which likely reflects a response to additional demand.

Table 5-4 Recent trends in the housing market, Springsure and Rolleston

Impact type	Springsure	Rolleston
Additional housing	2 new duplexes; 3 triplexes; 2 units. 16 development apps; approx 70 subdivisions in and around town	8 new houses constructed; 12 houses approved
Housing affordability	Bauhinia Shire: 2004: 100% 2 bedroom rental properties considered affordable; 88% 3 bedroom rental properties considered affordable; 100% 4 bedroom rental properties considered affordable 2009: 44% 2 bedroom rental properties considered affordable; 38% 3 bedroom rental properties considered affordable; 50% 4 bedroom rental properties considered affordable	

5 Case Studies

Health, Wellbeing and Social Infrastructure

There has been an increase in traffic using the local areas. An analysis undertaken recently and reported during consultations, identified that there has been an increase in accidents, and that the majority happened around the change of shift time on the mines. Despite the increased traffic there has not been any improvement in public transport services to the community (either road or air) with the airport not being used for commercial services and no public transport services between Emerald and Springsure. Another transport issue of significant concern was that some DIDO workers, at the end of their shifts, were travelling to areas as far away as Brisbane and Toowoomba, and despite corporate policies to manage fatigue, were not staying overnight along the way.

The observed impacts of the FIFO/BIBO/DIDO workforce models on the community were highlighted by community representatives as a concern, particularly as they relate to increased demand for social services (because of the pressure this places on family relationships and increased rates of family breakdown, domestic violence etc). It was highlighted that there is a concern that FIFO personnel are not adequately supported in either their home or their host community. It was acknowledged that these concerns may be as much perception as they reality, however they are prevalent amongst the community.

The Rolleston Mine Community Benefit Fund was highlighted as a significant positive benefit of the mines, as it provides funding and sponsorship to local organisations, the school, the hospital and sporting clubs/community groups. The fund is distributed on an annual basis through an application/proposal process. Consultation indicated that the amount of funding available for community grants has been reduced over the life of the Project. Previously the Fund provided grants up to \$100,000 per annum; however this has been reduced to \$20,000 per annum. The feeling in the community is that while this is appreciated it is not a sufficient contribution based on the profits made by the companies. There is an expectation that community support should be ongoing, and should take into consideration the potential impacts of mine withdrawal. In particular the funds should support the community to build its capacity and enhance services to enable something to be set aside for withdrawal and rehabilitation after mining. The community facilities that have been leveraged at Cappella were commonly highlighted as a very positive impact for that town, and desirable for Springsure.

An increased demand on the hospital was noted in Springsure. This additional demand was the result of a combination of factors including the additional residents, accidents to miners during their shift (Minerva mine has a first aid service and nurse but no onsite medic) and the aging population of Springsure (there are three aged care centres in the town but no official nursing home). There is only one doctor in the town and he has to split his time between the private surgery and the hospital. The service gaps are currently being filled by locum doctors. The Springsure hospital also services the Rolleston community. The Galilee Basin economic and social impact study (DEEDI, 2010) indicated that the Rolleston Mine funded a doctor to be located in the Rolleston community; however consultation indicated that this was no longer the case.

Education and Training

The mine has generated greater enrolment for the Springsure school community. While this has not resulted in a substantial increase in student numbers it has served to address some of the drain evident as a result of the school limitations. The mine has also given generous support to the school, which is greatly appreciated by the community. This funding has been used to upgrade and maintain

5 Case Studies

school facilities as well as for spending on specific activities or events. The Rolleston Mine also supports student excursions and tours of the mine. Rolleston enrolments have remained fairly stable yet are reported to be below 2001 levels (DEEDI, 2010).

The impacts on demand and supply of child care were not investigated. Future consultations should aim to address this gap.

Labour Market and Employment

Table 5-5 shows some changes in key variables relating to the labour market and employment. In Springsure at the time of the 2006 census, it can be seen that 23% of employed persons were working in mining, which was a vast increase from 2001, where only 1% of employed persons were working in mining. For Rolleston, the 2006 census reported 0% of employed persons working in mining; a possible explanation for this is that at the time, some agricultural community members were taking up employment opportunities with the mine, yet as secondary income sources. Consultations support this by highlighting that the mining operations have supported the community (particularly the farmers) by providing them with an alternative income during a period of extended drought. This has enabled many families to remain on the land and continue farming when otherwise they may have been forced to leave the area. They are able to seek employment on the mine whilst still managing the farm during their off-shift rotations. This is seen as a significant benefit for the community.

The mines have provided an opportunity for local youth to remain in the community and obtain long-term high income employment. This is particularly positive as historically talented young people have left to seek employment in cities and urban centres. The Minerva mine shift was believed to be more family friendly – involving a four day on four day off roster, with the mine closed on Sundays. The mine has also recently introduced what has been dubbed the “mummy shift” which is from 8.30am – 2.30pm providing an opportunity for mothers to re-enter the workforce. Both these initiatives have been well received by the community.

CHRC experiences problems with retention of staff, and it was noted that there is limited ability for Council to manage this. These pressures are also felt by local businesses. The price of wages paid by mining companies has put pressure on small businesses to compete. Competition for workers is a problem with many businesses not willing to send their staff to the mine site for fear that good workers will get poached by the mines. However there were numerous reports of mine personnel taking on another job, either with council, another business or for themselves during their off-shift rotation going some way to negating the impact of staff leaving.

Table 5-5 Changes in key variables relating to the labour market and employment, Springsure and Rolleston

Impact type	Springsure	Rolleston
Council staff attrition to mines	5 admin; 5-10 plant operators	None observed
Other employment changes (not stated if due to mine)	Loss of 5 railway staff, 1 stock inspector, reduction of Ergon staff, Westpac closed, BoQ agency closed, saleyards not operating.	None observed
Primary sectors of employment	2001 Census: Retail trade (13%); Agriculture, forestry and fishing (11%); Construction (11%)	2001 Census: Agriculture, forestry and fishing (66%)

5 Case Studies

Impact type	Springsure	Rolleston
	2006 Census: Mining (23%); public admin and safety (15%); construction (12%)	2006 Census: Agriculture, forestry and fishing (57%). [NB. 0% mining]

Source: DEEDI (2010)

Industry and Business

Despite more people and additional wealth in the community, local businesses have suffered since the mine was established. The commonly held belief is that this is because most new people within the town don't tend to shop locally, instead choosing to travel to Emerald or further afield (Rockhampton or Brisbane etc) to shop. This is compounded by the challenges associated with undertaking business dealings with the mines, including compliance issues, slow payment terms and competitive pricing requirements.

It is also worth noting that there are other factors at play influencing these business closures. Both the global financial crisis and the prolonged drought have affected business in the districts, as well as the fact that many business owners in the region are aging and therefore less willing to invest in expansion or growth. In one case, where the business owner had successfully secured contracts with the mines, respondents highlighted operator error as the primary cause of the closedown not decreasing business opportunity in the community. It was also noted that the ex-CEO of the Bauhinia Shire was very focussed on promoting local economic development and the region no longer receives the benefits of this because of amalgamation. In sum, although some local businesses do contract to the mines, it can be generally said that the opportunities, particularly relating to supplying the mining industry, have not been realised for the local businesses of Springsure and Rolleston. However given that the mines have provided an alternative industry that has sustained some landowners during the extended period of drought, the mines have contributed to sustaining the agricultural industry through these difficult periods.

Residents and businesses within the town of Rolleston believe that the location of the mine accommodation camp on site rather than in the Rolleston community has significantly restricted the potential opportunities for the community to benefit. This was felt by respondents to be the single biggest mistake in the planning of the mine and that the location of the camp should have been in the community so that money was generated and spent locally and camp facilities were accessible to the community.

Businesses that appear to be doing well in both towns since the influence of mining are the accommodation service providers. Rolleston has gained approximately 30 additional rooms/vans the caravan park, and Springsure has gained one new motel, 14 dongas & three cabins at existing caravan park, six additional rooms at the existing motel, and six new apartments at the existing hotel.

Mine personnel are also providing some services to the community during their down time. For example the mine security manager will be providing hairdressing services during her off-shift rotation filling a service gap that has existed over the past three years. This is seen as a positive as it provides access to a service that residents would otherwise need to travel for.

Regarding business development and opportunities more broadly on a regional level, it was noted that the businesses in Emerald were just now starting to mature and be more realistic about their current limitations in terms of their ability to transact with the mining companies. They are becoming more aware of the fact that they must seek support and training opportunities, and also they must be more

5 Case Studies

innovative in their approaches by for example, forging partnerships with the larger businesses of South East Queensland to enable more cost effective responses and solutions, making local business more competitive.

At present, there is limited financial and other capacity to grow big business in Emerald, which is a further constraint to regional development. Over recent years there has also been a decrease in the number and size of “mum and dad” businesses because of increasing pressure caused by rising costs and skills shortages. Because of the labour constraints and high cost of wages in the central Queensland region it is difficult for these businesses to compete with businesses from Brisbane or other parts of Australia. In some cases, businesses have spent a substantial amount of money and time and money getting themselves ‘supply chain ready’ however have not been successful in winning contracts. As a result local business has suffered.

Income and Cost of Living

Table 5-6 below clearly shows that Springsure has experienced significant increases in income since the influence of mining, largely because of the significant increase in the portion of population earning high mining wages. These effects however are not discernible for Rolleston. Census data indicates that rents have increased by 8% p.a. over the 2001-06 period for the town of Springsure, which compares to a rate of 6% p.a. for Queensland. A decline in rents was reflected for Rolleston at a rate of -11% p.a.; however respondents to consultations reported that rents in Rolleston have increased. A possible explanation for this disparity is that rents in Rolleston may have increased after the 2006 census. Within Springsure, consultations highlighted that food and goods are expensive, and also that rents and house prices have increased greatly. Many lower income people are getting pushed out of the market.

Table 5-6 Income and cost of housing comparisons in Springsure and Rolleston prior to and post the introduction of mining in the local area

Impact type	Springsure	Rolleston
Income changes	<p>Average weekly household income increased from \$735 in 2001 to \$1,227 in 2006 (11%p.a.)</p> <p>Median weekly individual income: between \$300-399 in 2001 and was \$564 in 2006</p> <p>11% of the population aged 15+ earning over \$1000/week in 2001, compares to 23% in 2006</p>	<p>Average weekly household income increased from \$1,042 in 2001 to \$1,141 in 2006 (2%p.a.)</p> <p>Median weekly individual income: between \$400-499 in 2001 and was \$552 in 2006</p> <p>17% of the population aged 15+ earning over \$1000/week in 2001, compares to 19% in 2006</p>
Cost of housing	<p>8% p.a. increase in average weekly rent payments to \$120, from 2001-06 (Qld rate: 6%p.a.)</p> <p>0% p.a. change in average monthly housing loan repayments from 2001-06 (Qld rate: 9%)</p>	<p>11% p.a. decline in average weekly rent payments to \$40, from 2001-06 (Qld rate: 6%p.a.)</p> <p>-1% p.a. change in average monthly housing loan repayments from 2001-06 (Qld rate: 9%)</p>

Source: DEEDI (2010)

5 Case Studies

Governance

The Rolleston Coal Community Reference Group (CRG) - a forum for community consultation and information sharing with the Rolleston Mine – is appreciated by the community as a means of sharing information and managing impacts. The CRG meets on a quarterly basis and includes representatives of the mine, council, local hospital, district health department, school principals (Springsure State and Private Schools, Rolleston School) SES, Police, Department of Communities, Department of Tourism and Agforce. It is also the forum for discussion of the community benefits scheme and mine Corporate Social Responsibility activities. The CRG evolved out of the EIS process, where it was identified that the community could play an integral role in the monitoring and mitigating the environmental, social and socioeconomic impacts of the Project. Although in reality this may not be the key active function of the group anymore, the group still offers an opportunity for discussions between the mine and the community, and this is highly valued. No such avenue for engagement was reported with the Minerva mine.

The Rolleston Mine Community Benefits Scheme has provided for the delivery of funding and sponsorship to local organisations, the school, the hospital and sporting clubs/community groups. However service gaps still remain in the community and these gaps were principally noted as relating to transport services, community and family support services and the need for additional nurses and a permanent doctor.

Council was noted as a driver of the Rolleston mine camp being located at the mine site, which is a source of some contention. While this approach was reportedly supported by local landholders, and concerned residents who feared the impact of non-resident workers on community safety, it is considered to have limited the potential benefits for the Rolleston community. Council rates were commonly noted as having increased greatly, yet it was expressed that this was likely due to council amalgamations.

Primary Infrastructure and Access

Rolleston has gained new potable water and waste water treatment systems, while there has been no such major infrastructure upgrade within Springsure (DEEDI, 2010). There is still no bus service linking Springsure to Emerald. The road conditions have deteriorated from excess traffic and traffic has increased as large vehicles transport equipment to the mines and BIBO/DIDO means more vehicles on the road. This has been exacerbated by the recent flooding events.

5.1.5 Implications for Alpha and identified responses

Drawing upon the experiences of Springsure and Rolleston since the establishment of mining, it is possible to better anticipate the likely impacts that will arise in the community of Alpha when mining is established in the local area.

History and Settlement

The effects that can likely be expected to occur in Alpha in terms of settlement and population growth are likely to be not as great as those that have been experienced in Springsure, yet greater than impacts experienced in Rolleston. There have been a number of factors that enabled population growth in the town of Springsure, which include:

- The decision not to have an accommodation facility at the Minerva mine site;

5 Case Studies

- The decision of the Rolleston mine to locate management and administration staff in Springsure;
- The provision of daily BIBO services from Springsure to the Rolleston Mine;
- The close proximity of the Minerva mine to the town;
- The existing high quality hospital facilities and the choice of schooling (relating to primary level schooling);
- The high level of amenity of the town and the perceived strength and closeness of the community;
- Springsure's proximity to the service centre of Emerald (allowing for ease of access to additional services and facilities); and
- The fact that the town hasn't flooded in recent years and maintains food supplies due to accessibility of Emerald airport during flooding events.

Circumstances are different for the town of Rolleston, which has not experienced the growth and liveliness that is evident in Springsure. Prior to mine developments, Rolleston was a smaller and more remote town than Springsure, lacking in the high amenity values that Springsure has. Population and service decline was evident in Rolleston (prior to mining) and this pattern has not been significantly altered by mine developments in the near vicinity. The size, character and remoteness of Rolleston resemble that of Alpha. In Alpha, the rate of population growth and volume is constrained by the following limiting factors:

- Limited land available for expansion – the south and west area of Alpha town is flood prone;
- Limited electricity available to supply the community;
- Limited water supply for the community;
- Lack of an integrated community sewerage system;
- Limited businesses to support an increased population;
- Limited available services;
- Limited schooling and child care – the school is only up to Year 10 (Year 11 and Year 12 can take distance education or else commute to a school in Barcaldine or elsewhere, and the child care centre is limited by staff numbers, not spaces); and
- Limited opportunities for spouses/partners and families of potential mine workers.

The location of the camp away from the town of Alpha also reinforces the case for drawing parallels principally with the Rolleston experience. While some population change is anticipated, either resulting in a small increase or maintenance of existing population levels, it is considered unlikely that there will be population growth in Alpha significant enough to alter the settlement pattern of the town.

Perceptions of the districts of Springsure and Rolleston from those living outside the area have remained the same since the advent of mining in the districts; this is despite the fact that the mines in the area are closely located to the towns. This is likely to be the case for the community of Alpha, as the Alpha and Kevin's Corner mines are located at greater distances to Alpha, and Alpha's existing identity as a cattle and sheep region is strong. However the size of the proposed mines nearer to Alpha will likely bring more attention to the Alpha area than do the Minerva and Rolleston mines to Springsure and Rolleston.

As has occurred to a limited extent in Springsure, there is potential for there to be isolation and tensions between the farmers and graziers currently in Alpha and new residents coming for mining employment. Currently, the average household income in Alpha is on par with the levels reported in Springsure prior to the establishment of mining. There is potential for the emergence of a new section of the community earning substantially higher wages than those in the agricultural sector to result in tensions and divisions emerging in the community. Strategies to manage these divides and unite the

5 Case Studies

community will be explored through the Communication and Community Engagement Plan as a means of mitigating this impact. Consideration will also be given to the development of strategies to support local businesses so as to share the benefits among the broader community.

Demographic

As outlined in the History and Settlement section above, the pattern of expected population growth in Alpha is likely to be in between that experienced by Springsure and Rolleston. It is therefore likely that there will not be large scale population growth in Alpha. Given the limiting factors currently experienced in Alpha impacting on the attractiveness of the town as a place to live for families and spouses of mine employees, as well as noting the experience in Springsure, it is likely that if there is population growth in Alpha, this population growth is likely to be composed of predominantly men. The components of population growth will be closely monitored as part of the Alpha and Kevin's Corner SIMPs and efforts will be made to appropriately plan for the needs of the population.

Culture and Community Dynamics

Despite the differences in the arrangements relating to non-resident mine personnel accommodation between the towns of Springsure and Alpha, there are still key lessons that can be learnt from experiences in Springsure relating to impacts on community harmony. It was commonly expressed in Springsure that there was a need for better integration of the mining community into the existing farming community. To mitigate such circumstances from emerging in Alpha (if there is population growth related to mining activity) pro-active strategies will be put in place to integrate the new people into the community, and for these strategies to be monitored and adaptive.

The primary strategy for managing this impact will be the Project Communication and Community Engagement Plan. The plan will identify means of supporting integration of new residents into the community including activities such as the welcome to community induction program. The plan will also identify ways of distributing information about the Project's integration activities, the contribution of new residents to the community and the benefits of economic diversification.

The impacts of FIFO and shift work that are presently being noticed particularly in the town of Springsure do have potential to emerge in Alpha if there is to be significant increase in resident population taking up work with the mines. However given the low increase in population that is expected (see section 1.5.5), the likelihood of an unmanageable impact on the local service system is low. These impacts on local services will be monitored as part of the SIMP and strategies to mitigate this potential impact include the provision of support to BRC efforts to obtain more funding for services in Alpha; the use of the Project's Communication and Community Engagement Plan to ensure effective consultation with and support to existing local service providers; an employment program which will be developed by the Proponent that assists to identify opportunities for the partners of mine personnel moving to the area; and exploration of opportunities to provide counselling services for the local community and workforce.

Housing and Accommodation

The population influx at Springsure has put a lot of stress on the housing market. Ability to respond through the delivery of additional housing supply in Springsure is severely constrained by the limited number of builders in town and the high costs of development. Such acute impacts as have been experienced in Springsure are not expected in Alpha, given the limiting factors to population growth

5 Case Studies

outlined in the History and Settlement section above. However rents were also noted as having increased in Rolleston and it is likely that the problems noted in Springsure with contractors driving up rental prices may potentially manifest in Alpha.

There has already been an increase in the price of land and housing in Alpha, however it appears to have levelled out over recent months. This increase has been fuelled by speculation over the current mining projects proceeding. The availability of land and the types of housing are critical factors in managing housing prices in Alpha. To help mitigate this impact, the Project will undertake a range of activities including:

- Consulting with local government regarding demand increases, new land releases and housing developments as well as the rezoning of land to allow residential development;
- Supporting BRC in their efforts to acquire funding for the provision of services in Alpha such as electricity, sewerage and water supply;
- Establishing a Community Liaison function that will aim to ensure coordination between Project policies and council planning; and
- Establish and / or participate in any forums intended to identify, monitor and manage any issues identified by the project's multiple stakeholders.

Health, Wellbeing and Social Infrastructure

Increases in traffic and associated road related accidents were noted for both the towns of Rolleston and Springsure and the surrounding areas. It can reasonably be assumed that similar or potentially greater effects will be experienced in Alpha, as access to the Alpha and Kevin's Corner sites is through the town, and the scale of the mining operations is far greater than that experienced at Springsure and Rolleston. The Project will investigate a range of actions to mitigate this potential impact. The Proponent will engage proactively with the local police to develop and implement road safety programs and policies. The local community will be informed about road safety policies, programs and initiatives through the Communication and Community Engagement Plan. These policies will draw on lessons learned from the experience of other projects throughout the Bowen Basin to ensure the best outcomes. Consideration will be given to the development of workplace policies restricting personnel from driving to the mine site and restrictions will be imposed on workers' movement off site to minimise impacts on the community. In addition the Alpha – Clermont road upgrade (proposed under the Alpha Coal Project) will be extended to the Kevin's Corner mining lease. The Proponent will also support Council efforts to secure funding to extend this upgrade all the way to Clermont.

The Proponent will also investigate opportunities to coordinate traffic management with the other projects in the region through the Community Forums. The Proponent will also explore opportunities to supply BIBO services from key regional centres such as Barcaldine, Clermont and Emerald to transport personnel to the mine site for their shift rotations. Policies regarding work day lengths and fatigue management, restricting personnel from driving to site will also be considered.

Another key lesson to be learnt from the Minerva and Rolleston operations is the need for more strictly enforced DIDO policies to avoid some of the risky behaviour that is evident where employees from these mines are driving long distances at the end of their shifts to their home towns.

5 Case Studies

The impacts of working in mining are impacting on family and community life in Springsure and Rolleston, and this is particularly seen in increased demand for family and community support services. Given the local workforce targets, it can be assumed that there will be people living in Alpha who are employed at the mine, and that these people might have increased need for these types of social services. This will place additional pressure on a local service system that does not have the capacity to respond to these types of issues.

Strategies to mitigate this potential impact include the provision of support to BRC efforts to obtain more funding for services in Alpha; the use of the Project's Communication and Community Engagement Plan to ensure effective consultation with and support to existing local service providers; an employment program which will be developed by the Proponent that assists to identify opportunities for the partners of mine personnel moving to the area; and exploration of opportunities to provide counselling services for the local community and workforce.

Lessons learnt from the experience of the Minerva and Rolleston mines highlight the high value that the community places on having an avenue for engagement with the mines. Although the focus of the Rolleston Coal Community Reference Group has changed over time from being a mechanism of active social impact management and monitoring to being a forum for discussion of issues and information sharing, it is still a valued engagement mechanism nearly five years after project commencement of operations. Efforts will need to be made to ensure that the Hancock Coal Consultative Committee is adaptive to community need and that it maintains its function as a relevant and useful vehicle for engagement, but also maintains its focus on impact management and monitoring throughout the life of the project.

Education and Training

Springsure State School has benefitted greatly from the mine, both in terms of additional enrolments and as it has been the recipient of generous support from the mines. Maintenance of school enrolments has been a positive impact for Springsure. Similar benefits are anticipated for the Springsure Catholic School – Our Lady of the Sacred Heart. Rolleston, as it has not experienced such a degree of population influx, has not benefitted from this type of impact and has suffered enrolment decline (DEEDI, 2010). Given the limitations to population growth in Alpha (see the History and Settlement section above), large increases in school enrolments are considered to be unlikely, yet if there are population increases and this growth comprises family groups, additional demand will be experienced at the school.

The current limitations on child care services in the Alpha Community are likely to mean that any population increases comprising the young family demographic will place pressure on the existing service.

To manage these impacts and provide a benefit to the community, the Proponent will proactively identify the demographic profile and needs of personnel who intend to move to Alpha in advance. The Project Communication and Community Engagement Plan will include consultation with the school to undertake an assessment of current capacity levels and identify when additional resources will be required. Advice will also be provided at the earliest possible point about potential demand increases for school places. Support will be provided to BRC efforts to obtain additional funding as required, while the Project will also investigate opportunities to support/sponsor local community organisations and facilities such as the School.

5 Case Studies

Labour Market and Employment

The mines have provided an alternative source of employment and income for the agricultural community, as well as providing a source of employment for the youth of the region, enabling them to stay within their home districts. These impacts are seen as significant benefits of the advent of mining in the region. Similar effects are likely to be seen within the Alpha community, which would be a significant positive impact for the region and may have the added benefits of working to reverse the trends of population decline which are currently experienced.

Retention and recruitment of staff are problems experienced in Springsure and Rolleston, yet no effective strategies or approaches to the issue were identified in the consultations. The application of the 'mummy shift' work hours model that has been introduced at the Minerva mine might not be appropriate for the Kevin's Corner project, given the much greater distance of the mine site from the town of Alpha.

Some 'staff sharing' was reported in Springsure, whereby mine personnel support another organisation, council or their own business venture during their off shift from the mine. Similar policies will be explored with stakeholders by the Kevin's Corner and Alpha Projects.

The Proponent will also explore opportunities to support the DEEDI *"Skilling Queenslander's for Work"* initiative with a view to developing the community skills and capacity to obtain employment.

Industry and Business

Key lessons can be learnt from the experiences of local businesses in Springsure and Rolleston in their attempts at dealings with the mining companies. In theory the opportunities will be available for the businesses of Alpha and surrounding areas to take up, yet in reality, doing business with the mining companies is completely different to doing the business relating to agriculture that they are likely familiar with. Opportunities should be seized upon to enable greater business community understanding of these types of realities, and to facilitate training, support, business development and supply chain readiness to interested and capable businesses. To maximise the potential benefits of this for local organisations a Local Industry Participation Plan that favours local and regional businesses in contracting to the mine will also be considered in consultation with stakeholders. Opportunities and partnerships through DEEDI and the Remote Area Planning and Development Board (RAPAD) should be further explored. While the Project will make these efforts to maximise the potential benefits for local businesses, it is important to note that success will be limited by the capacity of organisations to meet compliance requirements and compete with larger businesses from outside the region.

Income and Cost of Living

The experiences of Alpha are more likely to align with those that have occurred in Rolleston, given the distance from the mine and the low likelihood of a large influx of population into the town. Price increases of food and goods were not noted as having occurred in Rolleston; however it was noted that rents have risen. As such it can be assumed that in Alpha, there is some potential for the cost of goods and services in the community to change. Prices may increase due to increased wealth in the community, but the tendency to go to other centres to acquire goods and services would likely balance this, even for lower income earners who already do this. Prices may decrease because an increased volume of supplies and sales could increase competition and/or reduce costs to operate a business;

5 Case Studies

however, limited population growth, Project policies regarding on site accommodation and the tendency for residents to make major purchases outside the area will likely limit this.

Governance

Experience from the Minerva and Rolleston mines highlights the high value that the community places on having an avenue for community engagement with the mines. The Rolleston Coal Community Reference Group is highly valued as a mechanism for community engagement with the Rolleston mine, and it was noted that there was no such engagement mechanism for the Minerva mine. The Rolleston Coal Community Reference Group functions as an issues and information sharing forum as well as offering opportunity for discussion of the community benefits scheme and mine Corporate Social Responsibility activities.

Lessons can be learnt from these experiences that can inform practice as part of the implementation and monitoring of the SIMP and the Kevin's Corner Consultative Committee (KCCC). The community values having a continued mechanism for engagement with the mine, and efforts will need to be made to ensure that the KCCC and the SIMP are both adaptive to community need and that they maintain their functions as relevant and useful vehicles for engagement, as well as maintaining their focus on impact management and monitoring throughout the life of the project.

Perceptions about the mining operations and relationships with the mining companies can be greatly enhanced if the community sees that the mining company is making valuable long term contributions to the sustainability and liveability of the community.

Primary Infrastructure and Access

Rolleston was able to secure new potable water and waste water treatment systems as part of the community negotiations with the Rolleston mine. This was likely to be an example of an activity in Corporate Social Responsibility (CSR), as it is unlikely that the need for such a system emerged as a direct impact of population influx due to mining. Either way, the action is likely to have brought significant positive benefit to the community and established the ground for positive relations. Alpha is in a similar situation, with pre-existing limited capacity of some its essential services and infrastructure. Unless there is a high degree of population influx, which is unlikely (see the History and Settlement section above), it can be reasonably assumed that effects of the project will not directly impact upon the capacity of these already stretched systems of infrastructure. In order to contribute to sustainable community development and manage CSR, the Proponent will consider establishing a Community Development Fund which will be used to support infrastructure development or community organisations based on priorities identified throughout the community.

It is inevitable that there will be increased use of local roads, particularly the Alpha – Clermont road between Alpha and the mine site and the Capricorn Highway, particularly between Emerald and Alpha. These issues were noted as having had occurred in Springsure and Rolleston. The increased traffic was noted as something that the community gets used to in the area and this is likely to also be the case for Alpha. State Government has made a commitment to the widening of the section of road between Alpha and Emerald, and safety issues have been considered in section 1.5.5 above. In addition, the Proponent will work with local police to ensure coordinated traffic management; this will include using the Communication and Community Engagement Plan to inform the community about any potentially significant traffic impacts.

5 Case Studies

5.1.6 Conclusions

The effects that can be expected to occur in Alpha in terms of settlement and population growth are likely to be not as great as those experienced in Springsure, yet greater than those experienced in Rolleston. Therefore there is not anticipated to be large scale population growth in Alpha. However, key positive impacts and lessons learnt in the towns of Rolleston and Springsure can be summarised as:

- The value of effective communication mechanisms with the mines;
- Community contributions to school, hospital, primary infrastructure (for Rolleston) etc;
- Population stabilisation for Springsure;
- School enrolments stabilisation; and
- Provision of an alternative source of employment for the agricultural community and the community (particularly if flexible work policies are employed).

Key negative impacts experienced in the towns were noted as:

- Changes in community harmony;
- Impacts of FIFO and shift work on family and community life;
- Stress in the housing market (particularly in Springsure); rental increases in both towns;
- Increase in traffic and associated road accidents; risky behaviour of some employees driving long distances after shifts;
- Problems with retention and recruitment of staff exacerbated;
- Local business supply chain opportunities have generally been missed; and
- Price rises of food and other goods.

These key positive and negative impacts experienced in Springsure and Rolleston will inform considerations for the determination of likely effects in Alpha and for the planning of mitigation and enhancement strategies. Any population growth that does occur will be monitored (including monitoring of the components of this growth) as part of the Kevin's Corner SIMP to help identify and ensure proactive responses to emerging community needs. Other mitigation and enhancement strategies that relate to these identified key impacts are:

- Active strategies through the Project Communication and Community Engagement Plan will be put in place to:
 - integrate new people into the community; and
 - ensure effective consultation and support to existing local service providers, including the school;
- The provision of support to BRC efforts to obtain more funding for services in Alpha;
- Exploration of opportunities to provide counselling services for the local community and workforce;
- Monitor housing demand and supply and participate within any forums aimed at managing these issues; ensure coordination of Council planning and Project policies;
- Engage in the development of road safety programs etc with the local police and other traffic management initiatives;
- Participate in the KCCC; and

Opportunities to develop partnerships with DEEDI and the Remote Area Planning and Development Board (RAPAD) will be further explored.

5 Case Studies

5.2 Lessons Learned from the Bowen Basin History and Development for the Galilee Basin

The Bowen Basin represents a relevant example case study of the likely issues associated with the development of the Galilee Basin. Mining is well established in the Bowen Basin and is integral to the history of the region. Many mines were established before the introduction of the FIFO/DIDO approach to workforce management. As a result many towns were purpose built by mining companies to house employees. Currently, there is the opportunity to draw upon the lessons learned from the Bowen Basin to support well managed and effective development of the Galilee Basin region.

5.2.1 The Bowen Basin's experiences of mining

Literature (Petkova *et al*, 2009) assessing the social impacts of mining in the Bowen Basin found that the 1970s shift in mining investment and employment from the more densely settled states of NSW and Victoria to Western Australia and Queensland resulted in the establishment of mines in remote and isolated areas. To services these mines and house employees, towns were purpose built or expansions of existing agricultural service towns were funded by mining companies. This meant that the Bowen Basin developed around a mixture of mining towns and agricultural service centres. This was despite both company and government policy favouring purpose built towns (Maude and Hugo, 1992).

Some of the characteristics identified in these purpose built towns included:

- Low Indigenous populations and limited Indigenous engagement in town development (Newton & Robinson, 1987);
- High population turnover;
- Demographic imbalance (men outnumbering women and predominately 25-35 age grouping);
- Limited services and amenities; and
- Limited economic or demographic diversification opportunities (Bealey & Newton, 1978, Newton & Robinson, 1987 and Sharma, 1983).

One major consequences of company controlled development was a reduced quality of life for residents, with more isolation, boredom, alcohol abuse, etc. Despite this, and contrary to public opinion, mining towns were not dysfunctional communities, rather were surprisingly ordered and tranquil (Pilgrim, 1988).

A different social problem emerged when established towns were expanded to accommodate mining workforces. The high wages and incentive packages provided by the mining sector meant there was potential for mining employees with lower skill levels to earn better incomes and occupy cheaper housing than their professional counterparts, often causing resentment and conflict (Brealey & Newton, 1978 and Newton & Robinson, 1987).

By the mid 1980s declining resource prices and changing tax regimes were making it less attractive for mining companies to offer non-salaried benefits to employees. As a result, they sought normalisation of purpose built towns by wanting to hand over service delivery to local and state government and developed FIFO/DIDO/BIBO models for employee management.

State and local governments, who were finding the economic benefits of mining were lower than expected, were reluctant to take on service delivery in these towns. The multiplier effects in regional towns were much smaller than anticipated as mining jobs were generated in regional centres and consumer money spent in these centres, leaving little opportunity for economic diversification in the

5 Case Studies

towns (Maude & Hugo, 1992). Local governments who were usually not allowed to levy land taxes (rates) on mining companies, became more dependent on state handouts (Newton & Robinson, 1987). These problems were magnified by FIFO/DIDO/BIBO operations as workers maintained residences elsewhere and stayed in temporary accommodation during their work site rotation.

The recent mining boom has continued the move away from the development of traditional mining towns with FIFO/DIDO/BIBO accounting for significant proportions of mining workforces. There is high population mobility and a focus on worker camps, rather than residential developments. These factors have resulted in the concentration of population in regional hubs and larger towns where services are concentrated (Rolfe *et al*, 2007).

There were both positive and negative impacts of these developments on the larger towns in the Bowen Basin. Positive impacts associated with mining reported by respondents include:

- Population growth and diversification in communities;
- Increased financial support;
- Developers, land and house owners benefiting from substantial increases in values;
- Community education (e.g. open days at mines); and
- Improved services in towns (e.g. mining company bringing out a physiotherapist).

Overall, most stakeholders were positive about the impacts of mining and the perceived benefits to the area (Petkova *et al*, 2009).

Despite the generally positive perception, negative impacts were identified. These are somewhat more complex and include:

- Population turnover identified in some areas which was (attributed to the cultural change);
- Atypical demographic structure whereby both the contract and permanent workforce were male dominated;
- Increasing accommodation costs (itinerant workers chose to rent accommodation in share houses instead of staying in work camps increasing competition for limited housing stocks);
- Inability of towns to generate permanent population required for improved services;
- Difficulty attracting and retaining staff for non-mining businesses;
- Shiftwork practices and their perceived association with social integration and cohesion;
- Increased motor vehicle accidents (driver fatigue as workers commute to mine site and home);
- Environmental impacts of mining (particularly felt by rural town populations); and
- Threats to Indigenous cultural heritage (Petkova *et al*, 2009).

FIFO/DIDOBIBO can also be associated with high staff turnover, although this has been evident in town based sites. High staff turnover is associated with high costs for mining companies, particularly related to recruitment and training (Beach, Brereton & Cliff, 2003). Further, high itinerant populations are often aligned with local levels of social integration, community cohesion and identity. As a result of these concerns it was reported that companies are returning to more traditional employment models. Incentives for people to live permanently in the region where they work have included “lifestyle packages” whereby mining companies offer employees added benefits such as accommodation subsidies and access to child care/education and local recruitment policies which require employees to reside locally apart from under exceptional circumstances (pers. comm., August 2010).

The development of the DIDO/BIBO model for the Bowen Basin can be linked at some level to the building/upgrading of the Peak Downs Highway into the area from the coast. This upgrade was primarily driven by the need to have a better service road into the region in order to service the mines

5 Case Studies

and move equipment and supplies over land by truck. The ensuing result was that access to the mines became better from the coastal areas. This offered a new lifestyle option for mine employees and their families and followed the national trend of a large portion of the population moving closer to the coast.

The ability to commute to the work site coincided with the desire by mining companies internationally to steer away from purpose built towns. Much of this change in trend was due to the difficulties purpose-built mining communities were facing internationally when many mines were forced to close or scale back operations during the 1983 recession. Companies and governments struggled with the reality that many purpose-built towns were dependant on the mine and had limited or no future post operations due to single industry reliance. At the same time there was also an increase in the trend of migration to urban centres. In Australia the majority of urban centres are located on or near the coast.

The camp (accommodation village) model was adopted and expanded to provide alternative housing options for workers while allowing their families to remain in their home community, or relocate to the coastal communities as a lifestyle decision. This was also influenced by the high levels of competition for the limited numbers of workers as mining boomed across the globe. The increased demand for miners meant that companies could no longer stipulate relocation to rural communities as a condition of employment. The FIFO/DIDO/BIBO model therefore became a result of both changing mining practices and a reaction to the increase in demand for qualified mine workers. The competition for mine workers also resulted in the camp accommodation improving over time.

Strategic relationships have been developed between local government and mining companies to monitor and manage the changing environment, employment models and social impacts on communities. This enables both parties to have proactive input into each other's strategic direction and develop effective, efficient strategies to address social impacts and meet community demands (pers. comm., August 2010). Proactive engagement has improved the strategic planning environment and will support ongoing and sustainable development for the Bowen Basin over the next phase of expansion. The development of strategic relationships between proponents and local government from the outset of mining expansion in the Galilee Basin will draw upon experiences and lessons learned to enable potential impacts of mining to be managed in a sustainable manner.

The amalgamation of the former shires into regional councils in March 2008 has resulted in pros and cons for local government and mining companies in the Bowen Basin. The process is still under way and has the potential to better identify and address issues on the region as a whole as well as the closest proximity community. Conversely it has added significantly to the complexity of managing impacts from a local government perspective because of the responsibility to deliver services to larger geographical areas instead of focussing primarily on the directly affected community. Once the councils develop regional plans and align former shire programs and services the management of impacts should be more streamlined. The ideal outcome is for companies and councils to collaborate more and move from a reactive model to a more proactive approach.

5.2.2 Key lessons for the town of Alpha

In summary, key lessons for Alpha town from reviewing the history and development of the Bowen Basin suggest there is significant benefit in developing an on-site accommodation village when it is known that a large portion of the workforce will need to be sourced from outside the area. This will limit:

- Demographic disparity (more young men than all others);

5 Case Studies

- Strains on Alpha social fabric;
- High population turnover
- Housing cost increases;
- Traffic volumes and accidents;
- Strains on social infrastructure;
- Business opportunities;
- Cost of living increases;
- Strains on government staff and service delivery; and
- Strains on primary infrastructure.

The methods of transport and access to the Project area will also affect how the impacts materialise. Easy access from regional centres via FIFO/BIBO/DIDO will reduce the likelihood of workers and their families relocating to the region. Shift work supports this because workers are away from their families during their on-site rotation regardless of where they reside.

The population size and level of services available prior to mine development is an important factor in determining in-migration to the region. Well established communities with existing services have a higher likelihood of attracting and retaining workers to the area than small centres with limited services. A community like Alpha, with several limiting factors for development, may be better suited to slow and controlled population growth than a sudden, large influx.

5.2.3 Conclusions

Analysis of the Bowen Basin's experiences of mining suggests that for the Kevin's Corner Project, an on-site accommodation village is the model that will be most beneficial as the great majority of the workforce will have to be sourced from outside the local area. With respect to population growth and infrastructure for the town of Alpha, the timing and scale of infrastructure upgrades will have a significant impact on the attractiveness of the community to potential new residents. Almost all potential impacts associated with the Project are dependent on the level of population increase and the ability of the Project and council to manage changes.

5.3 Strategic Community Development – A Brief Study of Clermont

This case study examines the evolving relationship between the community of Clermont and Rio Tinto. The purpose is to highlight the potential interaction the Project could have with the Clermont community as well as a potential model for community development for the Alpha community and Barcaldine Regional Council.

5.3.1 Background

Rio Tinto Coal Australia (RTCA) has been actively involved in the Clermont community for a number of years. The company has made a concerted effort to develop an open and mutually beneficial relationship with the Clermont community supporting community development in a range of ways. The result has been a predominately positive, successful relationship between RTCA, the Clermont community and the Isaac Regional Council (IRC) – formerly Belyando Shire Council.

The association between Clermont and coal mining is both long and strong. Coal was first discovered on Bathampton Pastoral Run in 1863 and the Blair Athol (BA) Mine, one of Australia's longest running coal mines was established soon after. The BA mine has almost extracted all of the coal resources

5 Case Studies

and the mine is scheduled for closure in 2016 as of August 2010. To replace this mine, RTCA have constructed and commenced operations on the Clermont Coal Mine Project (CCMP) located 12km North West of Clermont. CCMP is expected to have a mine life of 17 years.

BA has long been a source of employment for the Clermont community, where 19% of all employed workers work in coal mining. RTCA however strives to be more than just a local employer, preferring to work in partnership with the local community. Through the RTCA community relations programme and the Clermont Community Development Fund RTCA is working to provide long-term positive outcomes for the Clermont Region (RTCA 2010).

5.3.2 Community Development

In 2005, RTCA commenced a community consultation process in Clermont as part of the closure procedure for Blair Athol mine. When construction began on CCMP in 2007 it was decided that the best avenue for community consultation was to combine the two projects and form one Clermont Community Consultative Committee (CCC). The CCC is made up of members of the Clermont community and representatives from RTCA and meets quarterly to discuss the Clermont and Blair Athol mines.

The purpose of the CCC is to establish formal communication processes for the provision of feedback and advice on existing/proposed activities with the intent of promoting community perspectives and company transparency. Its goal is to provide opportunities to establish lines of communication with the community to address important community, social, economic, closure and operational issues pertaining to the CCMP and BA mines. The role of the CCC is advisory, providing input and suggestions regarding RTCA's activities relevant to BA and CCMP operations (RTCA, 2007).

RTCA have also taken an active role in local governance and economic development, participating in selected IRC sub-committee meetings and Clermont Business Groups. The IRC is also represented on RTCA community and social committees and actively participates in strategic planning around these areas (pers. comm., August 2010).

The initial construction workforce for CCMP was largely FIFO and DIDO because of a lack of appropriate skills in the community. Since operations commenced however, RTCA have cemented their commitment to working with and supporting the Clermont community by adopting a local recruitment policy requiring all new employees on CCMP to have local residency. Exceptions to this rule require strong justification and the General Manager's approval.

The policy was developed in response to their own experiences regarding staff turnover on FIFO/DIDO operations, and the community desire to encourage families, not single workers, to live in the region. RTCA is currently working closely with developers to facilitate developments in the area to support the anticipated population growth (pers. comm., August 2010). RTCA produces a bi-annual newsletter, the Clermont Conveyor which highlights RTCA community activities and achievements (RTCA, 2010).

5.3.3 Implications for Kevin's Corner Coal Project

The most important lesson from the experiences in Clermont is the value of establishing and maintaining an effective, open and proactive relationship with council and the community. Social impacts are best managed as a joint effort, with clear objectives and strategic visions for the short, medium and long term. *Ad hoc* and piecemeal community investment delivers difficult to measure and

5 Case Studies

often inconsequential benefit to the community and company. Linking social impact management to local and regional planning has the potential to enhance benefits and better mitigate negative impacts.

Direct, regular and transparent consultation with key Project staff and key stakeholders (particularly council) can ensure all parties are thinking along the same lines. Issues can be identified and addressed more rapidly, and the impacts as a whole are more likely to be managed proactively than reactively. The ongoing consultations can also manage roles, responsibilities and expectations amongst the parties, which is a critical foundation to build to effectively manage change.

The Project commitment to establish a Community Liaison role to facilitate interaction with councils and key stakeholders will be a critical step to effective impact management and fostering positive relationships. The Project commitment to establish the Kevin's Corner Consultative Committee (in the absence of a similar entity) will offer a forum for consultation and alignment of goals, objectives and outcomes between the parties. The KCCC will also enable potential synergies to be better identified and exploited for the benefit of the parties involved. The Project commitment to develop the SIMP in a three phase approach will enable key stakeholders (including council) the opportunity to participate in the identification and defining of impact benchmarks and mitigation objectives in the Phase 2 process. It will also allow council the opportunity to be an active participant in the management and monitoring of the SIMP through Phase 3. For more information on these and other commitments refer to Section 7, Section 8 and Section 11 of this report, and Volume 2 Appendix G of the EIS.

Project Workforce Details

The exact composition of the Project workforce will be determined during final feasibility assessment. Current estimates and assumptions are based on the Project's Prefeasibility Study (2009).

A range of workplace policies and procedures will be developed to support effective personnel management during all Project phases. These policies include, but are not limited to:

- Random drugs and alcohol testing, a zero tolerance policy is applied;
- Transport logistics policies related to FIFO, DIDO and BIBO for all employees;
- Restricted movement outside of mining lease during a work roster; and
- Induction requirements for all personnel engaged as construction, operation or closure employees.

The Proponent will engage with stakeholders, particularly local council, in developing comprehensive workplace policies and procedures to support effective employee and impact management. These policies will be reviewed at specified intervals to ensure they continue to be relevant to the context of the Project and are appropriate to managing potential impacts and issues.

6.1 Construction Workforce

6.1.1 Workforce Numbers

The anticipated peak mine workforce during the construction phase is ~1,800 people, approximately a quarter of which will be on site at any time. The overall construction workforce will be broken into two construction workforces throughout the construction phase of the project:

- Group A (all other construction MIA and Mine Enabling Infrastructure scope); and
- Group B (the Coal Handling and Preparation Plant (CHPP) workforce).

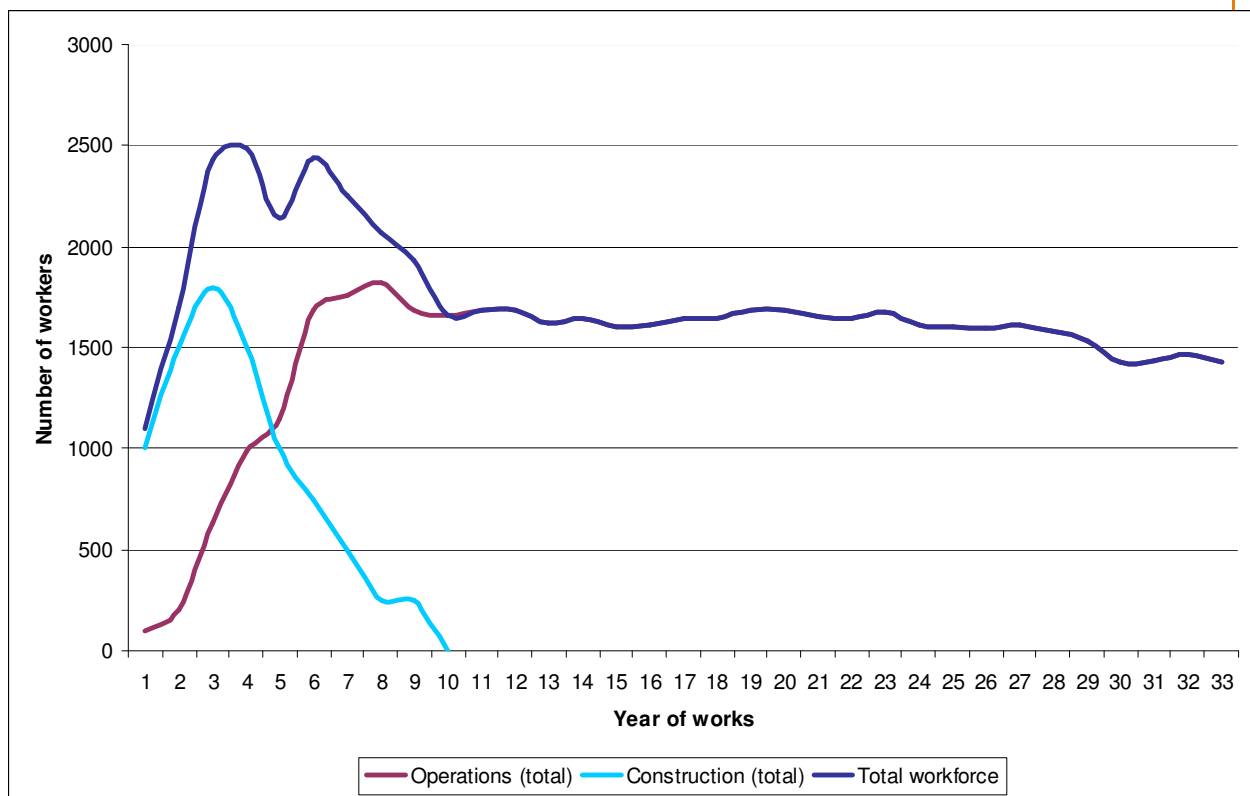
The estimated total number of construction personnel at the peak of the 9 year construction program is in year 3 (Table 6-1). The construction workforce will ramp up over a three year period before beginning to ramp down as civil earthworks activities are completed. These are approximate numbers as the exact numbers are likely to change, but within the anticipated range for the final workforce.

Table 6-1 Approximate Construction Personnel Summary Data by Year

Personnel Data Summary	Construction year – 9 year construction period								
	1	2	3	4	5	6	7	8	9
Construction workforce total (persons)	1000	1500	1800	1500	1000	750	500	250	250

Source: HGPL

Figure 6-1 illustrates the construction workforce, operations workforce and the total workforce numbers per year. The construction workforce will remain on site until the underground mines are developed such that the initial longwalls are ready to commence production and major earth moving equipment is mobilised and initial opencut establishment is completed.

Figure 6-1 Kevin's Corner Coal Project Construction and Operations Workforce Numbers

Source: HGPL

6.1.2 Sourcing

While the Proponent would like to recruit locally the reality is that limited numbers of personnel will be sourced from the local area because of the low population levels as well as the likely drain on the existing pool of potential workers that would have occurred as a result of the Alpha Coal Project. Therefore it is assumed that the majority of the construction workforce will originate from or at least depart for the Project site from South East Queensland. Previous experience of new mine developments suggest that a percentage will originate from Central and North Queensland regional centres such as Mackay, Rockhampton, and Townsville, however with increased levels of economic activity in these regions, the Project also expects to look further afield for the workforce.

It is therefore likely that approximately 95% of the construction workforce will be brought to the site using FIFO arrangements from South East Queensland, other regional areas of Queensland and the rest of Australia.

6.1.3 Profile

It is expected that the workers will be predominately in the 20 - 35 age group and the majority will be male. Given their age profile, it is likely that a large proportion of these employees will be either single with no dependents, or have young families. Personnel are expected to be engaged from the local study area, regional study area, central and north Queensland and the rest of Queensland and Australia.

Local Study Area

There are limitations on the proportion of the construction workforce that can be recruited from the local study area because of the small population size, and the likely drain on the existing potential

6 Project Workforce Details

workforce from the effect of the Alpha Coal Project. The rural nature of the area may also mean that while people living there have relevant skills, they may not, at this time, hold formal qualifications or tickets sufficient to seeking employment on a mine project. Based on this, it is assumed that a very small percentage (approximately 1%) of the construction workforce will come from Alpha Township and the broader BRC area. It is reasonable to assume that most workers sourced from within BRC will have limited experience with shift work and the mining construction business. However, given the long term scope of the construction phase, it is likely that some construction workers will choose to re-locate to Alpha to take up the longer term opportunities in construction that the Project will have to offer.

Regional Study Area

The regional study area provides a greater pool of qualified, relevant workers for the construction of the Project. Because of this, it has been assumed that the regional area will account for a greater number of the construction workforce than will the local area, however this percentage is still assumed low at approximately 1-4%. The key locations where it is anticipated these personnel will come from are Emerald and Clermont, as well as the rest of the regional councils respectively. Given the large number of operating mines in the regional study area and the prevalence of workers engaged in the industry and its expansion, it can be assumed that these employees will be familiar with mine construction procedures, expectations and rosters. This, as well as the relatively low levels of unemployment across the regional study area may make it difficult to attract more workers from this region than this estimated value.

Central and North Queensland

Previous experience with the construction of other mine projects indicates that the greater Central and Northern Queensland region will provide a portion of the workforce. The area has a number of residents with relevant skills and experience and a strong understanding of expectations of mine work and shift rotations. Many businesses servicing the mining industry are based in these regions.

Dependent on the final decisions regarding FIFO and DIDO policies and shift rotations, the greater area may provide a small proportion of the construction workforce at the mine site, based on specific supply/service contracts.

6.1.4 Accommodation

The construction workforce will be housed in a mine-standard construction accommodation village. The accommodation village will be large enough to accommodate all workers, allowing for both shifts of each group to be on site for an overlap period of three days. All personnel will be required to stay at the accommodation village site for the entire duration of a roster unless otherwise agreed with site management. The accommodation village is currently proposed to be located approximately 10km from the mine off the site access road and before the Jericho-Degulla Road Deviation. Exact locations within the lease are yet to be determined, as the placement of the building is subject to ground conditions and other infrastructure. For an indication of the location of the accommodation village within the mining lease refer to Figure 3.1 in Section 3.2.1 of this report.

Given the distance of the Project site from port and transport centres such as Mackay, Townsville and Rockhampton, it is likely that driving to the site and unloading equipment from the truck will fill the majority of an allowed shift (e.g. 12 -14 hours). As such, additional accommodation will be available in

6 Project Workforce Details

the on-site accommodation village sufficient for anticipated numbers of transport and contracted service personnel.

It is likely that a substantial portion of the construction camp will be retained for periodic mining equipment assembly, contractor earth-moving operations, and intermittent service providers for plant and equipment shutdowns or underground installations. The permanent accommodation village for operational workers will be sited at the same location as the construction camp enabling commonality of services and reduced footprint.

6.1.5 Transport and Logistics

BIBO

In an effort to reduce the amount of project related traffic using roads around the area, bus services will be provided from a number of regional centres to transfer BIBO workers to site. The bus collection locations and routes will be dependent on the actual workforce composition but are likely to cover Mackay, Townsville, Rockhampton, Emerald, Clermont and Barcaldine, potentially stopping in other towns to collect workers as required. Once at the Project site, personnel will be restricted from leaving the mining lease area as there will be limited personal transport. The bus service will transport personnel back to their home towns upon completion of their shift rotation.

DIDO

Some construction personnel recruited from the local study area, the regional study area, and Central/North Queensland will drive to site, arriving at the accommodation village the day prior to their shift commencing. Workers wishing to drive to site will need specific approval from the Project site management. This will be assessed on a case-by-case basis, including the provision of a travel plan. All workers who drive to work will still be restricted from leaving the Project site without prior approval during a shift rotation.

FIFO

All other personnel will be transferred by air to their work sites on a FIFO arrangement. Construction Groups A & B will fly from Brisbane to Alpha. All FIFO personnel will be transferred from the on-site airport to the on-site accommodation village via a mine-provided bus service.

The management of hours on the final day of a roster period will ensure that all FIFO personnel departing Kevin's Corner are able to leave at a reasonable hour and arrive home safely. The on-site airport is a key element in the management of fatigue and the reduction of traffic on local and regional roads.

6.1.6 Scheduling and Rotations

Based on industry practice and consultation with the project team, the likely rosters will be one 12 hour shift per day, over a 21 days on and 7 days off (21/7) roster for all construction workers. Roster rotations will occur during the week encouraging workers to have regular weekends at home.

6 Project Workforce Details

6.1.7 Salary

The labour costs for the mine construction and operation are divided into two components, staff labour and award labour. Construction wages will typically be determined by the businesses supporting the mine, but are anticipated to conform to mine requirements.

Staff based labour costs have been estimated on an annualised basis, based upon actual costs that are current in other large Central Queensland open-cut coal operations.

The base annual salary ranges are summarised in Table 6-2.

Table 6-2 Annualised Labour Costs

Category	Base salary range	Coverage
Staff Level 1	\$85,000 - \$140,000	Blast Labourer, Electrician, Engineer etc
Staff Level 2	\$160,000 - \$230,000	Senior Geologist, Training Manager, Safety Manager etc
Staff Level 3&4	\$230,000 - \$400,000	Maintenance Manager, Mine Manager, General Manager etc

Source: HGPL

Individual annual costs for the award labour are summarised in Table 6-3.

Table 6-3 Award Labour Annual Costs

Category	Amount Each	Description	Application
Shift Operator	\$154,344	12 hour continuous roster	Blast crew, trades pit services crew
	\$161,620	12.5 hour continuous roster	Production equipment operators
Maintenance	\$154,344	12 hour continuous roster	General fleet maintenance

Source: HGPL

The award labour costs have been applied to the individual items of equipment on an hourly basis, and will be dependent on the role, skills, safety and loyalty of the workforce.

6.2 Operation and Maintenance Workforce

6.2.1 Workforce strategy rationale

This section describes the context of the employment challenges in areas outside of the cities and larger regional centres, and relates these challenges to the decision made by Hancock to have a predominantly FIFO workforce.

Difficulty facing all industries in the attraction and retention of staff in smaller regional centres

The attraction and retention of professionals to regional areas is emerging as a major problem for Australia; it is a problem that is affecting many regions and professional categories across the country (DOTARS, 2004). Recent research carried out by the Bureau of Transport and Regional Economics (BTRE, 2006) found that in regional Queensland (i.e. outside of the southeast corner) there was generally a shortage of most professions, and that this was particularly the case for areas outside of the main coastal lifestyle regions. All regions identified medical, allied health, information

6 Project Workforce Details

technology/computer, engineering, finance/accountancy, teaching legal, management level, and community and social service professionals as being difficult to attract and retain. Additional shortages of environmental professionals, pharmacists, veterinarians and guidance counsellors, were identified in some regions.

This research work identified the two main issues inhibiting the ability to attract and retain professionals to regional Queensland as career opportunities and lifestyle. For workforce sourcing issues in regional areas more broadly, Mackenzie (2003) has summarised additional key reasons for gaps in professional skills in regions as being rapidly expanding industries, limited infrastructure or services, variable or seasonal demand for skills, and the low supply of trained staff.

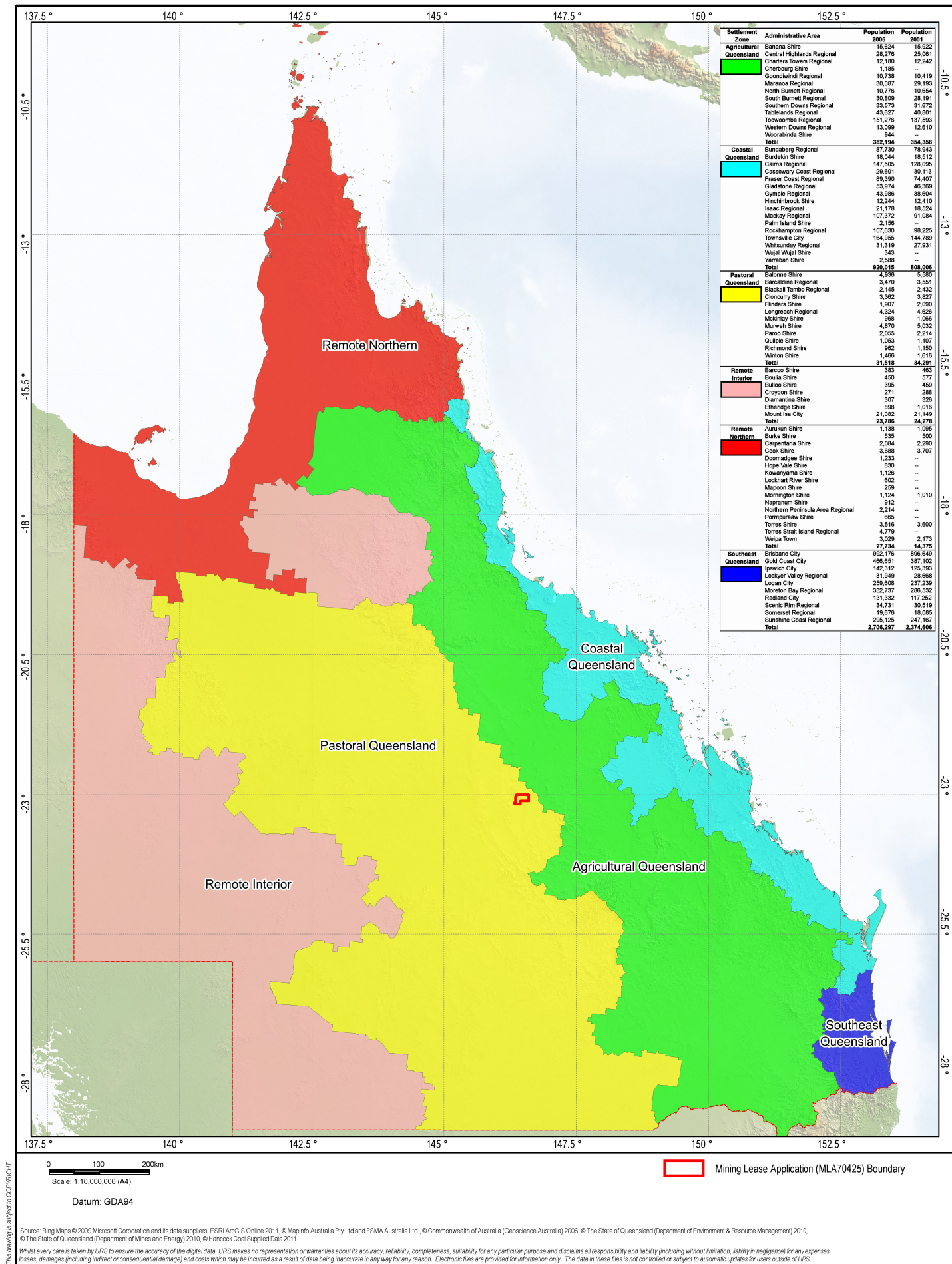
In the Local Study Area, community consultations for the Alpha and Kevin's Corner SIAs, identified that the isolation and lack of career opportunities made recruiting and retaining competent qualified staff challenging for Barcaldine Regional Council employers. Limited services and schooling opportunities further contributed to the issue.

Long-distance commuting, as a substitute for permanent migration to regional and remote areas, has emerged in the face of this difficulty as a mobility strategy that allows workers to live in locations that are geographically remote from their place of work.

Trend of population migration to larger regional centres, capital cities and the coast

The long term trend of net migration of Australia's population from the regions to the coastal and metropolitan areas of Australia is well documented (DOTARS, 2004). For the state of Queensland, Holmes *et al* (2005) have undertaken demographic research over the period 1971 to 2001. Population trends were analysed by settlement zones (such as Southeast Queensland, Coastal Queensland, Agricultural Queensland etc) as shown in Figure 6.2.

6 Project Workforce Details



HANCOCK GALILEE PTY LTD
Kevin's Corner Project
Environmental Impact Statement

SETTLEMENT ZONES QUEENSLAND

URS

KEVINS CORNER PROJECT - SOCIAL IMPACT ASSESSMENT

Figure: **6-2**

File No: 42626660-g-2027.wor

Drawn: RG

Approved: CP

Date: 15-04-2011

Rev. A

A4

6 Project Workforce Details

6 Project Workforce Details

This analysis provided enables general conclusions to be drawn about population dynamics in Queensland over the period. The settlement zones identified in the research paper have been built up from local government areas (LGA), and so in the scrutiny of the data, peculiarities do emerge in the categorisation of some LGAs. For example Isaac Regional Council (as it borders the coast) is classified as Coastal Queensland yet it clearly extends to rural areas well away from the coast in the upper Bowen Basin, which are heavily influenced by trends in mining. However despite these highly localised peculiarities, the broad conclusions from the research paper can confidently be applied..

Table 6-4 below shows the broad pattern of population dynamics in the state over that period. However, the high rates of population growth that have occurred in the south-east corner and the regional coastal centres of Queensland can clearly be seen, with these zones growing by 128% and 91% respectively over the period. It has also been widely recognised that in Queensland's inland, the rural areas and small towns (in general), are experiencing and have experienced population decline. Although Table 6-4 below shows Agricultural Queensland experiencing modest growth of 37% over the period, Holmes *et al* (2005) outline that a large component of this growth occurred in the 1981-86 intercensal period, with all other intercensal periods averaging less than 1% growth per annum. Also of note within the Agricultural settlement zone is the effect of the concentration of growth in the high-amenity eastern Darling Downs, the highly localised growth that has occurred in Emerald (due to a targeted expansion of its irrigation areas and the influence of mining) as well as in the specialist coal-mining towns of the Central Highlands more broadly. Pastoral and Remote Interior Queensland have experienced declines of 12% and 14% respectively over the period. Remote Northern Queensland has experienced a high growth rate (117%). This area is predominantly an Indigenous area, with associated high fertility rates and also the area is likely to have experienced a substantial undercount in 1971 (Holmes et al, 2005).

Table 6-4 Percentage Population Change by Settlement Zone: 1971-2001

Settlement Zone - Queensland	1971	2001	Population change		% of Queensland's population	
			Total	Percent	1971	2001
Southeast Queensland	1,040,423	2,372,104	1,331,681	128%	57.1%	64.9%
Coastal Queensland	438,354	839,139	400,785	91%	24.1%	23.0%
Agricultural Queensland	255,419	349,894	94,475	37%	14.0%	9.6%
Pastoral Queensland	43,683	38,327	-5,356	-12%	2.4%	1.0%
Remote Interior	30,056	25,862	-4,194	-14%	1.7%	0.7%
Remote Northern	13,071	28,359	15,288	117%	0.7%	0.8%
Queensland	1,821,006	3,653,685	1,832,679	100%	100%	100%

Source: ABS unpublished data sourced from Holmes et al (2005).

Causal factors influencing these broad population patterns throughout Queensland have been noted as greater levels of population mobility, economic restructuring, industry declines and structural

6 Project Workforce Details

transformations, service and employment decline, the growing influence of urban values and expectations, as well as prolonged droughts (Holmes et al, 2005).

In recent years, the Barcaldine Regional Council area clearly has exhibited a pattern of population decline, with a population decreasing from 1,732 to 1,618 people over the 1996-2006 period, as shown in Table 6-5 below. In fact, it should be noted that Holmes et al (2005) identified the locality of Alpha as having the highest rate of negative population growth (-42.7%) of all towns in Queensland's Agricultural, Pastoral, Remote Interior and Northern Remote Zones, over the 1971-2001 period.

Table 6-5 Local and Regional Study Areas (including Emerald(S)): Population change 1996-2006

Study Areas	Population			Percentage change 1996-2001
	1996	2001	2006	
Barcaldine Regional Council	1,732	1,650	1,618	-6.7%
Isaac Regional Council	40,827	36,058	40,644	-0.4%
Central Highlands Regional Council	32,443	29,755	32,835	1.2%
Emerald (S)	12,200	12,300	14,355	17.7%

Source: 2006 Census of Population and Housing; Cat. No. 2068.0 - 2006 Census Tables

For the Local and Regional study areas, these trends are most observable in the Barcaldine Regional Council area, which clearly exhibits a pattern of population decline over recent years (1996-2006), as shown in Table 6-5 below. In fact, Holmes et al (2005) identified the locality of Alpha as having the highest rate of negative population growth (-42.7%) of all towns in Queensland's Agricultural, Pastoral, Remote Interior and Northern Remote Zones, over the 1971-2001 period.

The Isaac and Central Highlands regional councils on the other hand, both have long associations with the mining industry. Emerald also has experienced a targeted expansion of its local resource base with irrigation (Holmes et al, 2005). These areas therefore are not as easily categorised as typical rural areas, and as such they do not in entirety exhibit the associated patterns of depopulation. Since 1996, the Isaac and Central Highlands regional councils have exhibited similar population trends, with population declines seen from 1996-2001, then population growth from 2001-2006. These decreases in the 1990s may be explained by a combination of economic downturn, the long drought and other causal factors of rural decline outlined above. By 2004 however, economic growth had returned to 30-year record levels and mining was booming, bringing with it population growth for the regional study area (pers. comm., CHRC, August 2010).

Within the three council areas, Emerald (S), the largest community in the region, exhibited the strongest growth over the 1996-2006 period in terms of population numbers. Population change relationships at the local level are difficult to investigate, yet the established wisdom is that the big get bigger while the small get smaller, with Holmes et al (2005) arguing that proximity to a larger centre has negative impacts on the economy of smaller surrounding towns. This pattern is evident at the local scale within these council areas.

Since 1996, the Isaac and Central Highlands regional councils have exhibited similar population trends, with population declines seen from 1996-2001, then population growth from 2001-2006. These decreases in the 1990s may be explained by a combination of economic downturn, the long

6 Project Workforce Details

drought and other causal factors of rural decline outlined above. By 2004 however, economic growth had returned to 30-year record levels and mining was booming, bringing with it population growth for the regional study area (pers. comm., CHRC, August 2010). These areas therefore are not as easily categorised as typical rural areas, and as such they do not in entirety exhibit the associated patterns of depopulation seen throughout the state.

Within the three council areas, Emerald (S), the largest community in the region, exhibited the strongest growth over the 1996-2006 period in terms of population numbers, with Emerald emerging as the service centre for the mining industry in the region. Population change relationships at the local level are difficult to investigate, yet the established wisdom is that the big get bigger while the small get smaller, with Holmes *et al* (2005) arguing that proximity to a larger centre has negative impacts on the economy of smaller surrounding towns. This pattern is evident at the local scale within these council areas.

Examination of the regional centres influencing the Alpha community and surrounds offers further explanation for the declining trend for Alpha (see Figure 6-3). Emerald has emerged as a regional centre with a growing population base and a major transportation hub for the southern Bowen Basin mining industry. Rockhampton is the central Queensland regional centre with influence as a major State services location stretching west through to Longreach and beyond. Longreach and Barcaldine have region influences on the community of Alpha from the west, both in terms of population size and services available. To further complicate the issue, Mackay's economic influence from its predominance as a mining industry service centre stretches throughout the Bowen Basin, and may continue into the Galilee Basin in the absence of a competitive local centre to accommodate the service industries. These spheres of influence are indicatively represented in Figure 6-3; it needs to be noted however that these generalised spheres of influence represent only indications of the reality of the nature of these relationships between the towns and service centres of the region.

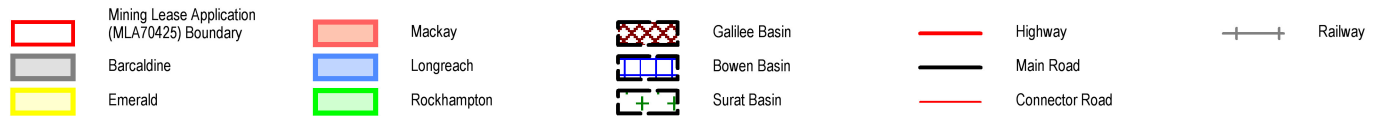
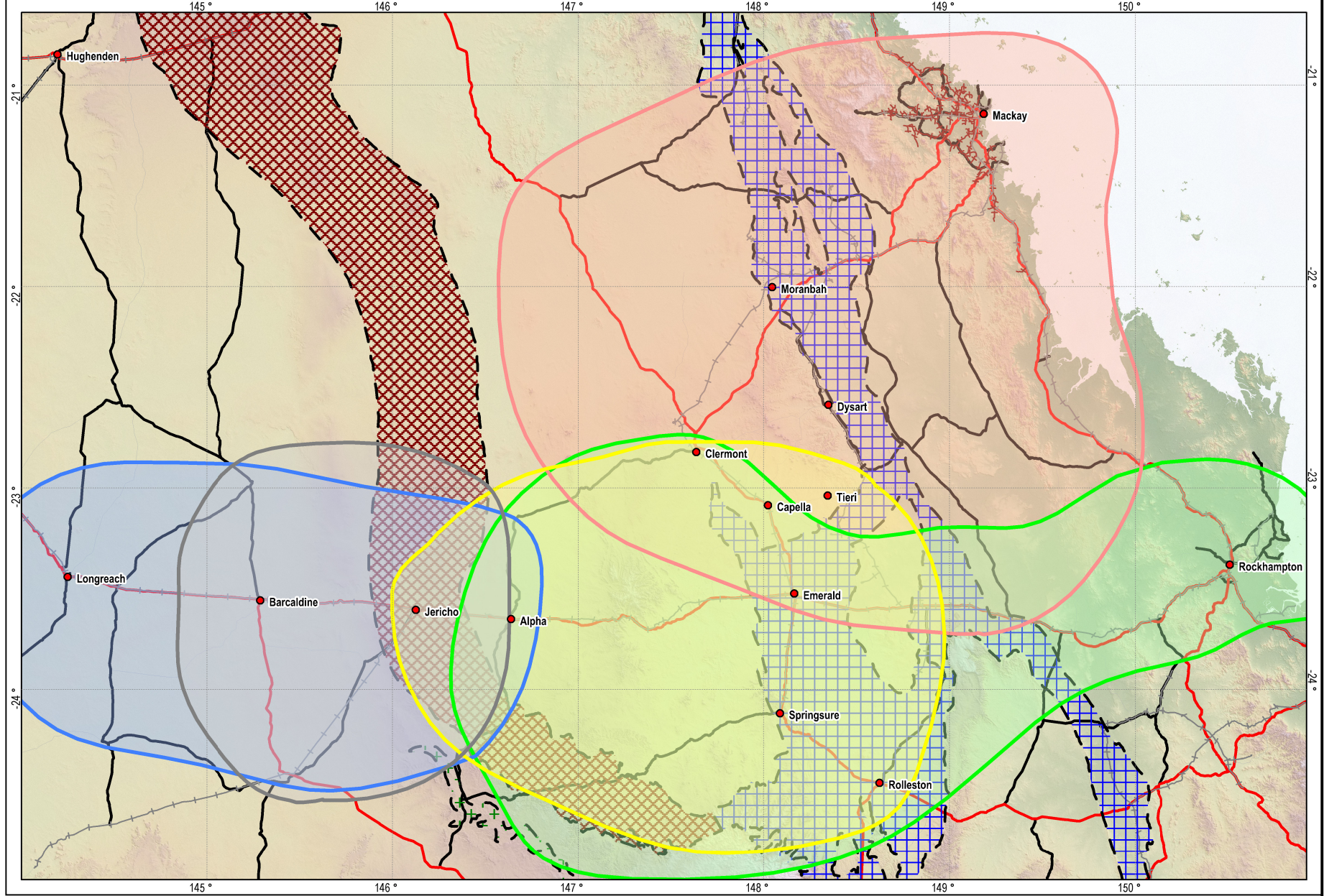
The result of these overlapping spheres of influence is that smaller communities like Alpha have significant competition from numerous variables regarding population stability or even growth. As Holmes *et al* (2005) allude to, smaller centres bow to larger centres in the current Queensland migration trend. Increases to social services is generally not achievable until the smaller population centres reach a certain population size, sustainable level of economic diversification and/or separation from a larger sphere (generally through new industry). The population size required is generally over 2,000 and more likely over 5,000. The economic diversification experienced by Emerald with irrigation, mining and graziers has allowed for a more sustainable economy less prone to peaks and troughs like the citrus canker, mining booms, and localised flooding. Separation from a larger sphere has yet to occur in the southern Bowen Basin (Mackay being the current economic sphere and Rockhampton being the State services sphere), mainly because mining support and services industries have not established businesses there, and the population is not large enough to require more State services.

6 Project Workforce Details



This drawing is subject to COPYRIGHT.

Big Maps © 2008 Microsoft Corporation and its data suppliers. ESRI ArcGIS Online 2011. © MapInfo Australia Pty Ltd and PSMA Australia Ltd. © Commonwealth of Australia (Geoscience Australia) 2006. © The State of Queensland (Department of Environment & Resource Management) 2010. © The State of Queensland (Department of Mines and Energy) 2010. © Hancock Coal Support Data 2011. Whilst every care is taken by URS to ensure the accuracy of this digital data, URS makes no representation or warranties about its accuracy, reliability, completeness, suitability for any particular purpose and discloses all responsibility and liability. Users of this data should be aware that the data is not guaranteed to be accurate and is not intended for use in any way that may result in a claim for damages or compensation. The data is not intended for use in any way that may result in a claim for damages or compensation. The data is not intended for use in any way that may result in a claim for damages or compensation.



6 Project Workforce Details

6 Project Workforce Details

Most of the major coal mines in the basin are within suitable transportation distances to support maintenance of the Mackay base only. The level of development of these industries in Mackay strengthens the sphere by deterring alternative locations; however, the opening of the Galilee Basin may stretch the limits of this sphere, and result in a business case for a new support and services centre closer to the basin. Emerald is the most likely new centre due to its proximity to both southern Bowen Basin mines and future Galilee Basin mines. The determination of the new centre relies entirely on the business models of support and services companies, and is not readily available information for further analysis.

In terms of population decline issues for smaller communities experiencing the trend outlined by Holmes *et al* (2005), there is also a point of negative critical mass that can occur, where the services, businesses and population decline to such a level that the community essentially dissolves, and the majority leave the area. There tends to be a small core of people who remain, which varies between communities, resulting in a town of several families. There are several smaller communities in rural Queensland trending towards negative critical mass based on the trends highlighted by Holmes *et al* (2005), and the statistical continuation of these population declines from more recent data from ABS (2006) and OESR. The negative critical mass differs for each community as several variables contribute to the viability of the community. As Holmes *et al* (2005) stated, proximity to larger centres is a major influencer, and the location within larger centre spheres of influence further contributes to the attainment of negative critical mass. Other factors can include loss of businesses, loss of ties to the land, loss of family and friends, changes to transportation corridors, loss of services like schooling, and loss of industry.

Limiting factors in rural communities (including Alpha)

Small towns in relative close proximity to larger regional centres are unable to compete with the larger towns (Holmes *et al*, 2005). This is particularly seen in service provision and business competitiveness, where increasingly governments and private business are locating their facilities in order to achieve the greatest possible efficiencies (Beer and Keane, 2000). As such, a small community such as Alpha, which is located within reasonable distance to the larger regional centre of Emerald, lacks the population numbers needed to secure and maintain equitable access to a range of services and opportunities. It is likely that it therefore will suffer from service withdrawal and employment decline, which further reinforces cycles of population decline.

This has been clearly observable in Alpha through the SIA process, with restricted access to essential services (water, sewerage and electricity), limited businesses, and limited access to social infrastructure (schooling and child care) all being noted as key limiting factors reducing the likelihood of an unmanageable population boom in the town.

Coupled with the broader factors influencing population dynamics in Queensland and around the country (greater levels of population mobility, economic restructuring, industry declines and structural transformations, and the growing influence of urban values and expectations), the ability of rural towns such as Alpha to propel their population growth remains a challenge.

Implications for Kevin's Corner Coal Project

A FIFO/BIBO model for the operations workforce is the principle model being considered based on the following compounding factors:

6 Project Workforce Details

- The known problems experienced in the region (and regional areas more generally) with recruitment and retention of staff;
- The proximity of Alpha to the expanding regional centre of Emerald;
- The proximity of Alpha within the social services and potential economic spheres of influence from other regional centres; and
- The limitations facing Alpha in terms of its attractiveness for new residents (given its lack of essential and other services).

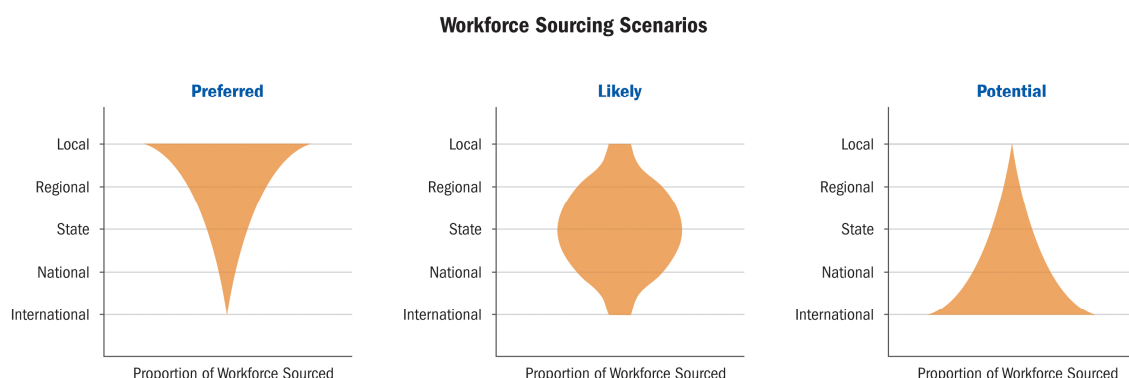
An additional key factor not discussed previously but in actuality a primary motivator is the proximity of the mine site to adjacent communities, particularly Alpha community. The Project is approximately 80 km from the community via the Alpha-Clermont Road. This poses both logistical and health & safety issues for the workforce, and health & safety issues for the general population from significantly increased traffic volume if the entire workforce was to commute to the mine site daily from Alpha.

From a logistical standpoint the costs associated with moving the entire workforce, or large portions of the workforce from Alpha to the mine site would be enormous. This would have impacts in terms of fuel, vehicle wear, vehicle requirements, greenhouse gas production and road maintenance. Further, the health & safety of the workforce and community would be impacted due to the number of vehicle movements, and the increased probability of a vehicular accident due to that increased volume. Fatigue management could also become a factor.

Hancock has indicated that some Alpha residents may be allowed to commute daily but this will be assessed on a case-by-case basis. The allowance of Alpha residents to commute could increase the likelihood of migration to Alpha, particularly from communities to the west and south because people could remain within their social network but reap the benefits of daily commuting. This issue will be discussed with council and explored in more detail in the SIMP Phase 2 discussions.

In order to show the realities of workforce sourcing as opposed to the desires, Hancock have developed a figure illustrating workforce sourcing scenarios (see Figure 6-4). This is merely for illustrative purposes, but highlights the realities of the study area based on the SIA and information presented in this section.

Figure 6-4 Workforce Sourcing Scenarios



Hancock does not anticipate the potential scenario will occur, but multiple industrial construction projects reducing workforce supply in the State to critical levels could occur in certain circumstances. The location of the Project inland of Emerald will compound this issue as it is very likely the workforces

6 Project Workforce Details

will also follow the migration trend if asked to choose between projects on the coast or near large centres, and those in remote, isolated areas of inland Queensland. Hancock human resources will develop strategies and policies to address these issues for employees and contractors as part of the standard employee recruitment plan.

6.2.2 Workforce Numbers

Operations are due to commence at the end of year 3, and construction will continue on through to year 9. Operations ramp up to full production by year 8 with a peak operations workforce of ~1,800. The operational workforce will increase as production commences, and as open pit box cuts are established. Table 6-6 shows the total operational workforce numbers over the life of the project, which includes the construction phase. It can be seen that there is no ramp down period as at the end of the 30 year mining operations, there will still be a substantial resource left at the site. Intermittent peaks for major shutdowns and underground installations will occur periodically.

Table 6-6 Kevin's Corner Coal Project, Operation Workforce Numbers

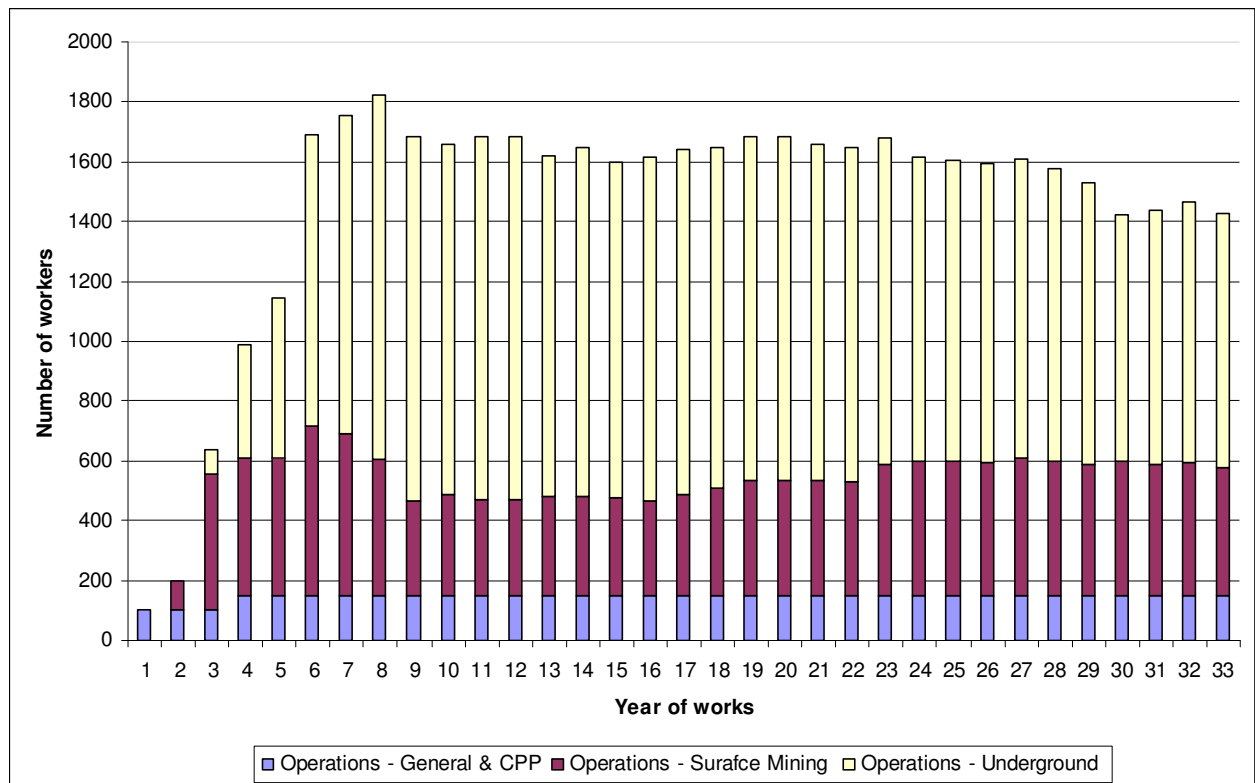
Personnel Data Summary	Year of works										
	1	2	3	4	5	6	7	8	9	10	11
Total	100	200	634	987	1144	1687	1754	1822	1684	1658	1684
Operations - General & CPP	100	100	100	150	150	150	150	150	150	150	150
Operations - Surface Mining	-	100	458	460	460	569	540	453	315	334	320
Operations – Underground	-		76	377	534	969	1064	1219	1219	1174	1214
Personnel Data Summary	Year of works										
	12	13	14	15	16	17	18	19	20	21	22
Total	1686	1623	1645	1601	1614	1644	1646	1686	1684	1656	1646
Operations - General & CPP	150	150	150	150	150	150	150	150	150	150	150
Operations - Surface Mining	322	330	330	326	317	337	360	384	386	384	380
Operations - Underground	1214	1143	1165	1125	1147	1157	1136	1152	1148	1122	1116
Personnel Data Summary	Year of works										
	23	24	25	26	27	28	29	30	31	32	33
Total	1677	1613	1602	1596	1611	1578	1531	1425	1440	1465	1430
Operations - General & CPP	150	150	150	150	150	150	150	150	150	150	150
Operations - Surface Mining	439	447	451	445	462	451	440	447	440	442	430
Operations - Underground	1088	1016	1001	1001	999	977	941	828	850	873	850

Source: HGPL

6 Project Workforce Details

Figure 6-5 illustrates the workforce numbers required for the Project. The ramp up process takes 6 years, starting at the end of year 3. These are approximate numbers as the exact numbers are likely to change with the final equipment selection, but within the anticipated range for the final workforce.

Figure 6-5 Kevin's Corner Coal Project, Operation Workforce Numbers



6.2.3 Sourcing

There is currently limited relevant experience within the local area, with only 0.7% of all employed people employed in the mining sector. This combined with a low population base and the likely drain on the existing pool of workers as a result of the Alpha Coal project, make it impossible to source the workforce from the local area. However, during consultations it was reported that a number of young people have left BRC in pursuit of employment in the mines in places like Emerald and Moranbah. It is hoped that a portion of these people will choose to return to BRC if there were equivalent employment options available. It is also fair to assume that skilled local workers may be attracted to the higher wages paid in the mining industry than many comparable/competing industries and seek employment on the Project, yet again, this potential pool of workers may be limited as a result of the Alpha Coal project.

On a case by case basis, it is possible that the Kevin's Corner Coal Project will employ a policy allowing those who reside in Alpha to DIDO to and from the site. The conditions upon which these case by case judgements will be made are to be negotiated within Phase 2 of the SIMP. The existence of this policy may increase the likelihood of potential workers relocating to Alpha; however at this stage of project planning, it is difficult to estimate the responsiveness of population changes amid these uncertainties. More generally, it is also possible that some employees will choose to relocate to

6 Project Workforce Details

the local area, enjoying the lifestyle and opportunities it offers. Based on these factors, it is likely that the proportion of people recruited and employed from the local region will increase over the life cycle of the project.

Given the breadth of coal mining experience in the regional study area however, it is feasible that a significant proportion of the operational personnel will be sourced from the regional study area, in particular from towns such as Clermont and Emerald but also other centres such as Capella. These workers may be attracted by the stability offered by the mine's anticipated life-span (30 years), the opportunity for promotion at a new mine, or a change of scenery.

Similar conditions in Central and North Queensland more broadly would also suggest that a number of workers will come from regional centres in these areas including Rockhampton, Mackay and Townsville.

Despite the vast coal mining experience in the regional study area, the small population and high employment will impact on the ability of the Proponent to attract suitably qualified workers from within the regional area. Because of this, it is expected that the majority of the Project's operational personnel will be recruited from outside the area, including South East Queensland and the rest of Australia. It is likely that at least 95% of the operational workforce will be FIFO from South East Queensland, other regional centres of Queensland and the rest of Australia.

6.2.4 Profile

Basing assumptions on the experience of other mines in the region and across Australia, it can be assumed that the profile of the workforce will be predominately from the 25–35 year old age groupings with a male majority (although the adoption of proactive recruitment policies and a commitment to training can make this even more) as in the case of Clermont Coal Mine Project (CCMP). Given their age-grouping it is probable that a large number will have young families, while others will be single. The home community of the operational personnel will vary from small and medium sized rural and mining communities located in central and north Queensland, agricultural communities located in the western part of BRC and larger urban centres such as Mackay, Townsville, Brisbane, and beyond.

6.2.5 Accommodation

Operational personnel will be accommodated in an on-site accommodation village which will be located where the disturbance to off-duty employees from noise, vibration and light will be minimal, approximately 10km from the mine, off the site access road and before the Jericho-Degulla Road Deviation. This is same location as the construction accommodation village. Exact locations within the lease are yet to be determined. The current preferred location can be found in Figure 3.3 in Section 3.2.1.

The accommodation eco-village for permanent personnel will be designed and constructed to fit in with the environment. The accommodation village will include comfortable, en-suited accommodation, catering facilities and appropriate recreational facilities.

6.2.6 Transport and Logistics

The final transport and logistical arrangements for the operational workforce will be based on the home community of the workforce and confirmed during mine start up through a consultation program.

6 Project Workforce Details

There will be a policy on daily hours worked, and a policy on travel time to be developed prior to commencement of operations. As a result, it is likely that only people who live within a 100 km radius of the mine site will be able to drive to and from work on a daily basis – i.e. in Alpha, Jericho or Anakie. This policy will be finalised prior to the commencement of operations in consultation with BRC.

Personnel recruited from within the regional study area – particularly Emerald or Clermont, but also other towns, will likely use BIBO to be transported to the site for their work rosters. The BIBO service is anticipated to collect personnel from designated pick-up points in selected towns and regional centres according to an established timetable and transport them to the on-site accommodation village. In some circumstances, employees from the regional study area may wish to drive their own cars to work prior to commencing a roster. Such cases will be limited and will require prior approval from site management.

The majority of the workforce (likely to be at least 95%) will be transported by FIFO from Brisbane and potentially other regional centres such as Mackay, Rockhampton and Townsville. FIFO transfers will operate on certain days which will be determined based on aircraft/service availability and requirements of other FIFO operations in the region.

There is also the potential to use light aircraft to transport personnel from smaller regional towns such as Clermont. Options for this will be explored further as the workforce employment is commenced.

6.2.7 Scheduling and Rotations

As with other mines the scheduling and determination of rosters and rotations will be based on the requirements of the position. For example some positions may require personnel to work nine-days on, five days off (9/5) roster, while others may be more flexible and a 14 days on, seven days off (14/7) or a seven days on, four days off (7/4) roster adopted.

Exact shifts/roster rotations will be determined by consultation at the start up of the mine.

6.2.8 Salary

The operation salary is captured with the construction salary in Section 6.1.7.

6.3 Closure

The closure workforce needs will be identified as part of closure planning. The exact requirements will likely depend on the phase of the project at closure, for example closure after all resources have been extracted and the mine is naturally ramping down activity will require lower personnel levels than an unexpected closure at the height of production.

A key element of the SIMP is the requirement to develop and review the project closure plan at regular intervals throughout the project. As part of this process, the workforce size, composition and logistical arrangements will be considered and documented.

Impacts Assessment

Summary

The purpose of the impact assessment is to identify and assess key potential impacts associated with the Project and how they will effect the population in the study areas. A brief overall assessment of the potential impacts is provided below, followed by a more thorough assessment of the individual impacts assessed in the sub-sections for each VSC.

The impact assessment found that the impacts in both study areas will be able to be managed provided an effective SIMP is developed prior to construction. There were no key impacts identified that indicate the Project should be delayed, postponed or re-structured due to potential social issues. Consultation with key stakeholders including all three regional councils found that the councils were capable of managing potential changes and all were encouraged by the prospect of economic and employment opportunities associated with the development of the Galilee Basin. Open and ongoing consultation and collaboration with councils (by the Project) was identified as the primary driver for managing potential impacts.

Impacts attributed to the regional study area were primarily positive and focussed around employment and business opportunities. These in turn resulted in potential population stability through increased opportunities or population growth. Sustainable, manageable population growth was identified by IRC and CHRC as a core regional council goal. Increased population for both councils could help them achieve critical mass in services like education and health, which would be of benefit to the community as a whole, particularly for Clermont in IRC and Emerald in CHRC, but not limited to those communities. Benefit for Clermont was more dependant on increased access to the Project area either through road upgrades (not part of the Project scope), or Project policies like DIDO/BIBO options or even a FIFO option from Clermont to Alpha (currently no such route exists or is planned). Emerald (2009 estimated population of 17,298) is a land transportation hub for the Project as well as the closest centre with a population over 10,000. Emerald is likely to experience some level of growth as a result of the Project, though likely less than 5.0% based on the current community size and proximity to the Project site. It will be difficult to link any changes in Emerald (and the region) to any single project due to the current levels of activity with other projects in the region.

Negative impacts attributed to the regional study area are manageable provided the Project and the councils stay ahead of potential impacts and implement relevant programs. The main potential negative impact is the increase in traffic and thus the potential for accidents and road damage. The vehicle movements associated with the Project were determined to be within the current range acceptable to the road standards; however, the increase is sufficient to warrant the Project and councils exploring road safety programs in conjunction with local police and emergency service providers. Education programs and company policies are proven means for reducing traffic accidents, and can include reduced shift lengths on the last rotation day to allow travel time, and fatigue management plans. The Proponent is examining policies regarding maximum work hours per day to reduce the potential for fatigue and maintain worker health and safety. For more information on the potential traffic issues see Volume 2, Appendix R.

Unmanageable population growth is not anticipated to occur as a result of the Project; however, Phase 2 of the SIMP will identify indicators and mitigation options should this eventuate. This is more likely to be a result of cumulative effects than directly attributable to the Project, though the removal of key limiting factors in the region could change that.

7 Impacts Assessment

Housing and accommodation could also be impacted by the Project, more so in Emerald than Clermont. Clermont currently has some available land though limited and Rio Tinto may also potentially have accommodation available for sale or lease. Emerald has limited land currently available for residential development and the result has been increased housing prices. Supply is not keeping up with demand. Both councils could benefit from a more efficient land release process from the State government. This will be explored further in Phase 2 of the SIMP. Emerald also currently has a limited supply of temporary accommodation in the form of hotels, motels, bed and breakfasts, and other short-term accommodation. This again is attributed to demand outstripping supply. The Project is more likely going to result in a slight amplification of the current housing and accommodation situation; however, the issue is such in Emerald that it could be a limiting factor in the community maximising potentially beneficial impacts associated with the Project.

The local study area is also expected to experience predominately positive impacts. This is because the Project is far enough away from the community of Alpha to not have direct impacts associated with the accommodation village housed workforce. There are also significant limiting factors in the community that reduce the likelihood of an unmanageable population boom. These are:

- Limited land available for expansion – the south and west area of Alpha town is flood prone;
- Limited electricity available to supply the community;
- Limited water supply for the community;
- Lack of an integrated community sewerage system;
- Limited businesses to support an increased population;
- Limited available services;
- Limited schooling and child care – the school is only up to Year 10 (Year 11 and Year 12 can take distance education or else commute to a school in Barcaldine or elsewhere, and the child care centre is limited by staff numbers, not spaces); and
- Limited opportunities for spouses/partners and families of potential mine workers.

Council is already developing plans and solutions to some of these factors and sees the Project as a catalyst to reducing others. The removal of some of these limiting factors gives the potential for Alpha's population to increase but there are no real indications that an unmanageable population boom would occur at present. Council indicated that they would like to see the Project act as a stabilising force for the area and potentially encourage some people who left the area to return. This is a reasonable expectation given the current situation.

Traffic is seen as both a positive and a negative impact in the local study area. The negatives reflect the same assessment for the regional study area above. The positive is the business opportunity associated with increased activity in the area. Since the Project workforce will be situated on site, the most likely source of potential economic gain for the community comes from servicing the transportation component or the accommodation village. Conversely Project attributed infrastructure upgrades and Project contributions to infrastructure upgrades will increase access to the area, which is a benefit to the population, businesses and the tourism industry.

Housing and accommodation impacts have already been experienced in the Alpha community due to the speculation derived from several proposed mining projects going ahead. This speculation has been further perpetuated by the EIS processes for the potential Galilee Basin projects including the Project. The fact that houses have sold at inflated prices will encourage some people to maintain high prices regardless of the supply – demand ratio. This speculation scenario tends to last longer in small population centres with limited population migration to the area than larger centres. The development

7 Impacts Assessment

of the Project (or any project in the Galilee Basin) is expected to exacerbate the situation; however, the high prices have both positive and negative effects on the population. Owners and landholders tend to gain, but only if they sell and relocate to a more affordable area. Newcomers, renters and new starters in the housing market tend to lose. A release of more land for development is the mostly likely way speculation will decrease and the more predictable market indicators of supply and demand will return to the market. Otherwise the speculative housing prices become another limiting factor to population stability or growth in the area. Hancock currently owns an ~1,500 acre property near the Alpha town and will explore opportunities with council for future beneficial use. There are also opportunities for accommodation businesses to benefit by providing short-term accommodation to mine contractors and consultants.

BRC is anticipated to experience both positive and negative impacts. The positive impacts are upgrades to infrastructure or assistance on upgrades to infrastructure, an increased priority profile from the State and Federal government, and potential increases in rates from a higher population. There is also a potential for the council to attract new staff and/or new skill sets, particularly through partners of mine employees. However, there is also the potential the council may also lose staff to the Project is slightly greater. Council has expressed an awareness of this potential though it is obviously not a desired outcome.

There are two properties within the mining lease that will have significant impacts attributed to a loss of the use of significant portions of their property. This is likely to result in those agricultural businesses becoming unsustainable. The Proponent is in the process of negotiations with these landholders. These discussions and the outcomes of those negotiations are confidential and are not included in the EIS because individuals cannot be protected from identification. The negotiations and the compensation packages are the basis of the Proponents mitigation process. It is important to note that the SIA (Volume 2, Appendix T) has assessed these impacts as very high; however, this is based on the assumption that landholders and their families will be impacted negatively by the loss of land.

Traffic impacts will also be experienced by properties along the transportation corridor, though these are limited by the proximity of the homestead/station to the road and the landholder's amount of use of those roads. There are also ongoing discussions between council, State and Project representatives regarding alternative transportation routes and options. Hancock will continue to work with relevant stakeholders regarding traffic and transportation, including government, emergency service providers and area residents.

The primary impacts to the landholders are the most difficult to quantify or assess. It is likely that some landholders are experiencing varying degrees of stresses. These stresses can be categorised as:

- Uncertainty stress; and
- Negotiation stress.

Uncertainty stress is generally a direct result of the consultation program but can also be attributed to other factors like:

- The level of trust the individual has in the messages;
- Poor communication;
- A lack of desire to be consulted;
- External factors like relationship and family concerns compounding issues;
- Rumours and innuendoes;
- Multiple projects affecting multiple areas (or the same areas) differently; and

7 Impacts Assessment

- A lack of understanding of one's rights.

Consultation records indicate there are varying levels of uncertainty amongst people within the local study area and the mining lease area. Ongoing consultation is the most effective means for addressing this uncertainty; however, the consultation needs to be considerate of the needs of the individual. Hancock has an ongoing consultation program outside the EIS process to manage mining lease stakeholders.

Negotiation stress, as discussed above, is a confidential matter and cannot be fully defined in the SIA. It is important to recognise it is occurring and the Proponent has made efforts to reduce the stresses on the landholders and their families by conducting consultation and negotiations in a manner more acceptable in rural areas. The Proponent has employed land access managers, and visits to the area to nurture relationships and trust. Despite these stresses, it is also likely that some directly affected landholders will benefit economically through being the recipients of compensation packages. This may greatly assist some landholders' ability to achieve a secure economic future, and may mean that some landholders are able to plan their retirement.

Other concerns raised in the local study area were the potential for crime and decreased security. This was seen as a low likelihood, primarily because most of the workforce will be isolated from the community by being housed in the on-site accommodation village. This also ties in to the low potential for changes to community values and social cohesion. If population change occurs at a higher rate than mitigation measures like Block Watch and welcoming committees will help integrate people into the community and establish community norms.

All three councils acknowledged the potential for other issues to manifest like drug and alcohol use/abuse (substance abuse), and domestic violence. These were seen to be issues often attributed to miners; however, further discussion and analysis did not identify a rate of occurrence above the background societal levels. Regardless, it is important to recognise that any rise in population, and changes in a community have the potential to increase these issues, and any level of abuse and violence should be addressed. Hancock intends to implement random drug and alcohol testing for employees as per relevant standards and will explore availability of counselling service opportunities. The Proponent will also work with key stakeholders including councils, social service providers and emergency service providers to address increased issues of substance abuse and violence.

Valued Social Component Variables

The VSCs were identified through the baseline data collection and issues identified during stakeholder engagement, and based on experience from the social assessment team. The following variables were considered in the assessment within the identified VSCs:

- History and Settlement:
 - Resettlement/displacement;
 - Change of image from cattle country to mining area;
 - Attracting and retaining people and families;
 - Attracting former residents back; and
 - Addition of a temporary accommodation village to the area.

7 Impacts Assessment

- Demographic:
 - Population stability or growth;
 - Demographic change;
 - Full time equivalents;
 - Family composition;
 - Indigenous population changes; and
 - Population projections.
- Culture and Community Dynamics:
 - Safety and security (real and perceived);
 - Local capacity building;
 - Attitudes toward development;
 - Change in community values;
 - Drugs and alcohol;
 - Domestic violence;
 - Newcomers; and
 - Disposable income.
- Housing and Accommodation:
 - Increased accommodation costs;
 - Housing availability;
 - Land availability;
 - Limiting factors to population increase; and
 - Effects of accommodation strategy (accommodation village).
- Health, Wellbeing and Social Infrastructure:
 - Negotiation stress;
 - Uncertainty stress;
 - Environmental changes (noise, dust, emissions);
 - Increased traffic, road safety and accidents;
 - Changes to existing social networks;
 - Potential to hit critical mass on services (ambulance, doctor, nursing, police, etc.);
 - Increased demand on health and emergency service providers;
 - Drugs and alcohol;
 - Domestic violence;
 - Disposable income;
 - Increased funds (service providers and government); and
 - Use and maintenance of infrastructure;
- Education and Training Opportunities:
 - Limits of current schooling in Alpha;
 - Increased use of schools;
 - Potential to hit critical mass;
 - Increase in child care demand; and
 - Increased training opportunities.

7 Impacts Assessment

- Labour Market and Employment Opportunities:
 - Increased employment opportunities;
 - Decreased unemployment;
 - Increase in skilled workers; and
 - Potential loss of staff to mine.
- Industry and Business:
 - Increased competition for workers;
 - Increased support and supplier opportunities;
 - Increased accommodation and service business opportunities;
 - Increased customer base; and
 - Potential loss of livelihood;
- Income and Cost of Living:
 - Increased income/disposable income;
 - Changes in the cost of living (positive or negative); and
 - Increased services locally due to increased demand.
- Governance:
 - Local capacity building;
 - Increase in governmental responsibility;
 - Increase in skills due to population growth;
 - Decrease in skills due to employee loss to mines;
 - Increased rates due to population growth; and
 - Increased profile with State and Federal government.
- Primary Industry and Access:
 - Change to access via roads;
 - Change to access via airport;
 - Change to access via rail;
 - Key utilities (water and power) brought into the region by the Project; and
 - Infrastructure upgrades (project related and council anticipated).

7.1 History and Settlement

7.1.1 Regional Study Area

Context

The regional study area was settled during the mid 19th century. Early explorers noted the presence of coal in the area, and gold was also discovered in towns such as Clermont. As a result, there was an influx of prospectors and a mini-mining boom. Despite this, and the establishment of mines such as Blair Athol (BA) more than 100 years ago, the area remained predominantly agricultural until the middle of the 20th century. Since the 1970s, there has been significant expansion of the mining industry, with the region now accounting for 83% of Queensland's coal production (Mining Communities Research Exchange, 2010). For information on the pre-European settlement

7 Impacts Assessment

background see the Non-Indigenous Cultural Heritage section of the EIS (Volume 2, Appendix S). For information on the Indigenous Cultural Heritage, see Volume 2 Section 18.

There are no noticeable changes occurring in the regional study area as a result of the Project that could have a future impact on how the region is settled or perceived. Changes in the region from predominantly agricultural to predominantly mining have already occurred. The extent of the mining industry is such that the public announcement of another mine in the area barely attracts any public attention outside key industry groups and regional councils. This was evident in the consultation events and feedback received for the Clermont and Emerald areas in 2009.

The project is unlikely to have any significant impacts on the history and settlement of the regional study area because of this long standing involvement in the mining industry and its geographic location (i.e. removed from the mine). Mining is an integral part of the region's history and already provides significant employment across the regional study area. Additionally, the Project is not in the regional council boundaries and is therefore not going to reduce agricultural land or affect graziers and others in IRC and CHRC. The project is a continuance of the mining *status quo* with a likely minor amplification due to the mine's size and anticipated mine life. It is important to note that most people living in the area see the communities as primarily rural/agricultural, with mining opportunities as well.

Mining has already expanded rapidly in the area, as discussed in the feasibility section. Both regional councils have been significantly affected by the positive and negative impacts associated with the significant mining activities in the Bowen Basin.

Approximately 19% of the workforce in Clermont is employed in mining, mainly at BA, though this mine is slated to close in two years. The new Clermont mine, also owned by Rio Tinto, is slated as a FIFO operation, which may result in workers from Clermont town seeking employment outside the area. If this were to occur then changes to Clermont settlement patterns, and the future of the community would hinge largely on access to the other potential mines, including Alpha, and whether workers would relocate their family as a result. During the construction phase of the Alpha project there would be numerous opportunities for people in the Clermont area who already possess the necessary skills. The impact assessed examines the potential positive effects to the community of Clermont associated with demographic stability. This stability would result from the employment opportunities at the Alpha project, which complement the current skills in the community. In addition, the FIFO/DIDO policies for the Alpha project would allow workers to maintain their Clermont residence if employed at the Alpha project. This longer demographic stability in Clermont would assist the community in maintaining current population trends, thus impacting the future of the community. Settlement patterns are not anticipated to change significantly however this will be monitored as part of the SIMP in consultation with IRC.

Emerald has developed into a service centre for the mining industry for the southern Bowen Basin, much like Mackay has for the northern sector. Emerald lacks a port but has significant State and local government services and a large population base that has been expanding at a significant rate for over a decade. The service industry outside mining has also grown to meet the increased community demand. The result is that Emerald has turned into a self-sustaining regional centre with a diversified economy. The addition of the Kevin's Corner project to the Emerald service area would result in increased employment (see Section 0) and business opportunities (see Section 0) in the region. As a result there could be an increase in population (see Section 0) which could affect settlement and the future of the area. This would be a continuation of the current population increase trend. This increase is not anticipated to be above 5.0% due to the FIFO/DIDO nature of the project and current migration

7 Impacts Assessment

trends to larger centres along the coast. The 5.0% population change rule (increase or decrease) is an industry standard for considering impacts to be significant enough to warrant additional assessment (Burdge, 2004). Settlement patterns are not anticipated to change significantly however this will be monitored as part of the SIMP in consultation with CHRC.

The operational phase of the Project will share similarities with the construction phase. Generally there is anticipated to be a reduction in impacts due to the smaller workforce during operations; however, the operational workforce is still relatively large (~1,800 workers at peak) compared to many other mining operations in the region. There are many types of employment opportunities that are required for both phases, and a large portion of the population is able to fill skilled positions associated with open cut coal mining. As a result, changes to the settlement patterns and future of the area are anticipated to be a continuation of the status quo or be minor amplifications within the 5.0% threshold. The SIMP will continue to monitor changes in relation to the Project and other variables in the community through consultation with the two affected councils.

There are not anticipated to be significant changes to the settlement patterns and future of the area due to Project closure, based predominantly on the number of other operating and potential coal mines in the area. Coal supplies at other deposits, coal prices and international demand are more likely to affect the area than the closure of any single mine. There are currently 46 coal mines operating in the Bowen Basin, 11 advanced coal projects and 21 coal projects identified by Queensland Mines and Energy within DEEDI at January 2010.

Impacts

While Alpha and its surrounding area have been built on agriculture and transport industries, the future development path, sooner or later, will inevitably include mining. Looking at the history of development within the Bowen Basin, until as recently as 50 years ago, the region was seen as livestock country, with some potential for mining. Today however, the region is viewed as both a mining and agricultural area, with individual perception placing greater emphasis on one or another. This Project and others proposed for development in the Galilee Basin have the potential to result in similar changes for the Barcaldine Regional Council area.

A summary of the potential medium and higher history and settlement impacts is provided in Table 7-1. For a list of all the impacts assessed, see Appendix B.

7 Impacts Assessment

Table 7-1 Very High to Medium Potential History and Settlement Impacts Summary Table

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement	Residual Ranking
Increased long-term stability to Clermont (and region)	Positive	Minor	Regional	Life of the Project	Likely	Medium	Enhancement	Medium - High
Increased long-term stability to Emerald (and region)	Positive	Moderate	Regional	Life of the Project	Likely	High	Enhancement	High – Very High
Profile changing from agriculture to include mining	Negative	Moderate	Local	Feasibility	Possible	Medium	Mitigation	Low - medium
	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
People move to Alpha from other parts of BRC	Positive	Moderate	Local	Construction, Operation	Possible	Medium	Enhancement	High
Larger distance between properties or reduced access may breakdown family/social relations	Negative	Moderate	Local (mining lease)	Life of the Project	Likely	High	Mitigation	Low – Medium

7 Impacts Assessment

Increased long-term stability to Clermont (and region)

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased long-term stability to Clermont (and region)	Positive	Medium	Construction, Operation	Medium – High

Clermont has had an association with mining since shortly after its establishment in the 1860s. Mining now accounts for almost 20% of employment in the community. The workforce of the BA mine, located northwest of Clermont, has tended to gravitate towards Clermont, the closest town and most of Clermont's population trends can be aligned to developments in the mine or mining procedural changes. Over time, BA mine has established strong, proactive partnerships with the local community and supported a host of development activities. BA is scheduled for closure in 2016 (pers. comm., IRC, 2010) and its replacement mine, the Clermont Coal Mine Project (CCMP) has an estimated remaining life of 14 years. The majority of BA workers either have, or will, transfer to work on CCMP. The remainder have either accepted voluntary redundancies or have chosen to seek alternative employment. The Project, which has an estimated mine life of 30 years, is located approximately 130km from Clermont, which is closer than the other projects that have been proposed providing an attractive option for long-term employment. As such, the Project contributes to the chances of Clermont remaining a stable and sustainable rural and mining community into the future.

In considering this impact, the Alpha – Clermont Road is a limiting factor. Because of its poor condition the road is considered to be a health and safety risk and the Proponent has indicated that they will adopt a policy restricting employees and contractors from using the road from Clermont to access the mine site. The road between Alpha and the Alpha mine site will have been upgraded as part of the Alpha Coal Project description and this will be extended to the Project mine site by HPPL. Any further upgrades however will be the responsibility of the State and DTMR. If the road is upgraded through to Clermont the magnitude and ranking of this impact is likely to increase.

Enhancement

The following enhancement activities are recommended to maximise the potential benefits from this impact:

- Development of local employment and procurement policies;
- Exploration of alternative transportation options;
- Supporting council efforts to negotiate with higher levels of government to ensure strategic regional development opportunities stemming from the development of Bowen Basin are captured. This includes but is not limited to supporting council to secure additional funding for the extended upgrade of the Alpha – Clermont road; and
- Development of transport policies that utilise buses to transport workers to the mine site from regional centres (BIBO).

The Proponent should investigate alternative transportation options with council and other stakeholders. This may include consideration for the use of light aircraft to transfer workers from Clermont to the mine site. While there are currently no plans for such a service, the option may be revisited once the profile of the workforce, and the potential demand, is known. A willingness to

7 Impacts Assessment

explore transportation and access options has been expressed by IRC as a means of increasing the potential Project benefits to the region.

Residual Impact

Although there is potential, the residual impact is not expected to change significantly due to mitigation. In particular if the council is successful in obtaining additional funding required to extend the Alpha – Clermont road upgrade all the way through to the Clermont community, the potential benefit to the Clermont community would increase significantly. There are however several other variables which should be considered including access to and the availability of mining employment in other areas of the IRC.

Further, the potential benefit of this impact is reliant on the choices of individuals and families deciding to seek employment on or to provide services to the Project. Offering transportation options will increase the potential for employment and business opportunities to materialise for Clermont residents. This provides for economic diversification and increased opportunities, which in turn allow greater stability throughout the region.

Increased long-term stability to Emerald (and region)

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased long-term stability to Emerald (and region)	Positive	High	Construction, Operation	High to Very High

The economy of Emerald has diversified from a predominantly agricultural base to include a wide range of industries such as government, social services and mining over its history. Emerald has experienced relatively sustained growth over the last decade as a result of this diversity and the growth in mining in the Bowen Basin region. This is in contrast with the experience of some neighbouring areas where population decline, largely due to the national migration trend towards the cities and the coast, has been experienced. As a service centre which is now classified as an urban centre, Emerald has also been able to capture some of the rural to urban migration. The town's diversity and role as a regional centre has provided it with greater protection from industry declines or losses such as the drought and citrus canker. Although both events have had negative effects on the community, they did not destroy the area's economy or have the catastrophic impact on the town's survival that they may have had in the past or has been witnessed in other, smaller regional communities.

There are a number of mines located within close proximity of Emerald and mining represents the single largest industry of employment for town residents. In many cases, however, these mines have a shorter remaining mine life than that anticipated for the Project. The establishment of one or more mines with an estimated mine life beyond those closer to the central highlands communities, provides an opportunity to extend mining employment and increase the region's stability.

Over the last decade or so, Emerald has emerged as a mining service centre, servicing much of the Southern Bowen Basin while Mackay provides the service focus for the Basin's Northern portion. As this will be the second project to be established in the Galilee Basin, located to Emerald's west, the

7 Impacts Assessment

Project may provide a critical mass of opportunity for service companies. Because of its location and access, Emerald is well positioned to capitalise on the development of the Galilee Basin and become a larger mining service centre. The availability of industrial and semi-industrial land in Emerald further supports this, with some land having already been purchased by Caterpillar and other companies.

Enhancement

The following enhancement activities are recommended in order to maximise the potential benefits:

- The development of local employment and procurement policies;
- The development of transport policies that utilise buses to transport workers to the mine site from regional centres (BIBO); and
- Exploration of community programs such as Hi-Net to enhance business opportunities.

The Proponent may investigate alternative transportation options with council and other stakeholders. This may include consideration for the use of light aircraft to transfer workers from Emerald to the mine site, or the use of rail transportation to Alpha. While there are currently no plans for such services, the option may be revisited once the profile of the workforce, and the potential demand, is known. A willingness to explore transportation and access options has been expressed by CHRC as a means of increasing the potential Project benefits to the region.

Residual Impact

Although there is potential for this to happen, the residual impact is not anticipated to change significantly as a result of enhancement. The potential benefits hinge on the willingness of individuals or families to seek employment on the Project and individuals and businesses to pursue contracts for goods and services. Offering transportation, however, will increase the potential for employment and business opportunities to materialise, which in turn will offer greater stability throughout the region through economic diversity and increased opportunities.

The greater the number of new mines that are established in the Galilee Basin, the more significant the opportunity for Emerald and the surrounding region to benefit will be.

7.1.2 Local Study Area

Context

The local study area came under colonial settlement in the mid 19th century with the railway's great push to the outback. Pastoralists arrived soon after, taking up large tracts of land for cattle grazing and BRC is now one of the largest cattle producing regions in Central Queensland. People who live in and around Alpha and across the broader BRC area identify themselves as living in rural communities based around agriculture, with strong family and community values. Mining exploration is a relatively new economic activity and is perceived by the community as having the potential to change the community and erode their valued rural lifestyle. Most people have lived in the area for many years, and feel a strong attachment to the land and community.

There are already changes occurring in the study area predominantly attributed to housing price speculation which has resulted in record land sales and house prices (see Section 7.4.2). However, there has not been a measurable population increase associated with the mini housing and land boom, indicating that it is currently based on speculation rather than an imbalance in the supply versus demand curve.

7 Impacts Assessment

The indication that the coal prospects in the Galilee Basin are being developed after more than three decades has started to change the identity of the area. The area is predominantly known as a cattle and sheep region bordering outback Queensland, but the affiliation with the Galilee Basin is beginning to create a different perception. The size of the Project (tonnage and workforce numbers) will act to increase the profile of the area as a major mining area. This has both positive and negative implications, though neither have materialised much. If anything, the positive impact of an increased area profile could pique investor (see Section 7.4 Housing and Accommodation and Section 7.8 Industry and Business) and tourist interest.

Impacts

Larger distance between properties or reduced access may breakdown family/social relations

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Larger distance between properties or reduced access may breakdown family/social relations	Negative	High (Mining Lease)	Construction, Operation, Beyond	Low – Medium

Because of the no-go zone that will apply to the mining lease area, the mine's establishment will result in greater distances and reduced access between properties on the periphery of the mining lease. This will be compounded as the mine lease area lies immediately adjacent to the Alpha Coal Project mining lease, making the distances between properties located to the North of the Project or the South of the Alpha Coal Project even further and access more limited. In particular there is only one property located to the north of the Project's mine lease and the distance between this property and its nearest neighbour will be greatly increased. This has the potential to reduce interaction between property holders and in turn break down social networks and relations. Given the relative isolation of this and other properties in the region, support networks are expected to be well established and relied upon. Conversely the relative isolation and frequent need to travel substantial distances may negate the impact of increased distances between the properties. Further, given the location of this property so far along the Alpha – Clermont road, it is highly probable that the property holder's social networks extend further in the direction of Clermont than Alpha.

It is important to note that while this impact has been given a high ranking, its effect is primarily on people living on the periphery of the mining lease and therefore confined to only a few local residents.

Mitigation

The Communication and Community Engagement Plan should be used to mitigate and manage this impact. Alternative access routes will be discussed with landholders and graziers in order to reduce the impacts on livestock and agricultural businesses wherever possible. Over time, it is anticipated that the landholders in the area will become accustomed to the new arrangements.

Residual Impact

Although mitigation will not be able to alter the increased distance between properties resulting from the mine site exclusion zone, the Communication and Community Engagement Plan provides a

7 Impacts Assessment

mechanism for the Project to minimise the public perception of this impact. Effective community consultation will identify the magnitude of this impact and perceived benefits which serve to mitigate it. In addition, liaison with landholders and graziers will enable additional opportunities to be explored. Over time, the new options for cattle movement and distances between properties will become a part of the norm.

Profile changing from agriculture to include mining

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Profile changing from agriculture to include mining	Negative	Medium	Feasibility, construction	Low-medium
	Positive	Medium	Life of Project	High

The shift in community profile from solely agricultural to include mining has both positive and negative impacts, depending on different people's perceptions and realities.

This shift in community perception - especially from the outside – begins almost immediately upon mining companies entering an area and commencing resource exploration. The local study area and Alpha in particular have always been closely associated with agriculture, particularly cattle grazing. Now that mining exploration has commenced in the area, there has already been a shift in perception and constitution of the area. If the mines proceed it is likely that Alpha will become synonymous with the mining industry as well as the agriculture industry, which will remain important, particularly to the region's identity.

As has happened in some communities within the Bowen Basin, and is currently happening in the Surat Basin, it is likely that the regional profile will transition. As a result, the area will be perceived as a mining region as well as an agricultural region, by people from outside BRC. Despite this shift in perception, the community social fabric and rural identity changes very little, if at all.

As the Project is reliant on the Alpha Coal Project proceeding, and will therefore be the second mine to establish and commence operations in the Alpha vicinity, it is anticipated that this shift in perception from agriculture to include mining will have already largely taken place. As such, the magnitude of this negative impact was considered to be lower than for the Alpha Coal Project. The impact is expected to be at its highest magnitude during construction of the HACP, after which people will become increasingly accustomed to and accepting of the diversification.

Despite the fact that there are misgivings amongst some community members about the advent of mining within the area, it is also commonly acknowledged that the community is struggling to survive under current conditions. Given these factors, it is anticipated that the majority of people will have become accustomed to these realities during feasibility and construction of the Alpha Coal Project which is expected to be the first project in the region to begin construction. It is therefore likely that this shift will already be underway when the Project commences.

In some cases, there is already positive sentiment about the change and long term opportunities mining brings to the community. As evidenced in the regional study area, the reality is that the area remains rural/country and individuals residing there are likely to associate with that reality. As the Project is a sufficient distance from the community, personnel will be accommodated on site and flown

7 Impacts Assessment

into an on-site airport, the only real visible impact that is anticipated will be the types and volumes of large trucks passing through the community. *Ad hoc* research did not identify a single example where the mining culture contrasted significantly with the predominant rural/country culture of the area. Mine policies may contrast, but miners themselves tend to share similar values to rural/country value systems with the vast majority of people who will choose to relocate to the area likely to be seeking rural values and lifestyle. Where the mining and agriculture communities tended to differ was on the prevalence of wealth, and the subsequent spending of disposable income. *Ad hoc* research has seen similar characteristics in the agricultural industry when wealth increases suggesting the underlying values are quite similar.

It is anticipated that it will be the perceived issues associated with mining and the current uncertainty that could test the community's social fabric, not the profile of the community changing from agriculture to mining (at least in terms of economic dominance).

Mitigation and Enhancement

The Communication and Community Engagement Plan will consider how the Project can promote the benefits of economic diversification achieved by establishing a second project in the region further, whilst reinforcing the community's sustained rural values and agricultural history. The Plan will also identify means for strategic community development activities including the ongoing provision of support and sponsorship to local organisations and programs as a means of generating public goodwill and support. The Proponent will also identify a range of mechanisms such as mine open days, community forums and newsletters to share this information.

Residual Impact

The negative focus of this impact is expected to reduce to low-medium over time and after mitigation. Various communities in CHRC and IRC provide examples of successful mitigation and management of a potential shift in profile as a result of mining development. These communities which were originally based predominantly on agriculture have, over recent years, developed strong and vibrant mining industries and their history is now considered to be that of a rural community which has more recently expanded to include mining. This diversity represents enhanced opportunities for residents and is seen as positive and beneficial to the community. A similar situation can be expected to develop in BRC as people become more accustomed to the addition of mining to the economy. Further, the existing agricultural economy will remain in the western parts of BRC ensuring that agriculture will continue to be an integral element of the region, and the communities will remain largely rural, but with the addition of mining investments. Over the long-term this change is expected to become a positive benefit of the Project.

The existence of other projects, combined with the use of the public engagement process to promote the benefits of economic diversity will enhance the positive elements of the economic transition of the region from agriculture solely to agriculture and mining. The Project can highlight similar areas where the economy has increasingly developed around mining, but agriculture has remained an integral part of the region's history and identity. The economic and social diversity provided by the establishment of mining has become an integral element of the way people live in these communities. There are examples of such communities throughout Queensland including Mt Isa, Emerald, Clermont, Nebo and Blackwater. The positive impacts are thus likely, through enhancement and people becoming accustomed to the changes, to move to be regarded as high.

7 Impacts Assessment

People move to Alpha from other parts of BRC

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
People move to Alpha from other parts of BRC	Positive	Medium	Construction, operation	High

While there appears to be some resistance to new people moving to the area to seek employment, it is anticipated that this in-migration will be viewed as positive over the longer term. Employment in underground mining requires specialised skills and the Project will be preceded by the Alpha Coal Project, therefore it is anticipated that there will be less scope for the employment of BRC residents on this Project. Having said that, any additional population provided it is managed effectively, is a positive for the community as it will help to reverse the current trend of population decline and turn what many residents consider to be a community that is dying into one that is striving. Current services will remain and in some cases be expanded as a result of population growth, helping prosperity to return to the region.

It is important to note that the actual level of movement to the region in search of employment will be dependent on the policies developed by the Proponent and the personal choice of potential employees. For example, if the mine initiates a policy allowing personnel who live in Alpha to drive to site each day, while requiring workers who live in other towns to take supplied transport and stay at the site for the duration of their rostered day on, it will be more likely that people will choose to move to Alpha. If however the mine restricts all workers from driving to the mine site and instead uses one bus to pick them up and transfer them to site where they will remain for their shift rotation, there is little incentive to move to Alpha.

Enhancement

The following actions will enhance the benefits of this impact on the community:

- The development of local employment and procurement policies;
- The provision of regular community updates and forums to inform the community about the Project and any upcoming events;
- Exploration of opportunities to obtain State and Federal funding; and
- The development of an induction program for all new employees and contractors that will welcome workers to the community and educate them on the community's expectations from them while working in the region.

In addition, the SIMP (Phase 2) will develop a process to closely monitor population growth in the Alpha region. The process will include the identification of population benchmarks to track Project related and cumulative changes and will document preferred responses.

Residual Impact

Monitoring population to ensure services are improved to meet the increased demand will result in an enhanced quality of life for residents, and address a priority need identified through the consultation process. Community integration should be a lot easier than for intra-BRC residents than for people from outside the region. Over time, provided that local services and housing/land are available to match the demand arising from population growth, this transition will become even easier.

7 Impacts Assessment

7.2 Demographic

7.2.1 Regional Study Area

Context

The regional study area has experienced high levels of population growth since the 1970s. This growth has been largely the result of an expanding mining industry in the region bringing new people to the area in search of employment. There is a high non-resident population, consisting predominantly of full time equivalent (FTE) mine employees and contractors. As of 31 July 2007, the FTE population was largest in Nebo (2,868 people) and Broadsound (2,441 people) in the IRC. The FTE population grew by 3% between 30 June 2006 and 31 July 2007, evidence of the continued expansion of mining and ongoing shortages in accommodation, meaning that even those who wanted to move to the area would not be able to. FTE populations in Emerald and Clermont actually decreased over the same period (DIP 2007).

There is a distinct demographic characteristic in the region, whereby there are more young people of working age than across Queensland as a whole. There is also a higher proportion of males in the population. Couples with children are the most common family group, particularly in CHRC. There are lower rates of single parent householders in the regional study area than across Queensland as a whole.

Emerald is the largest urban centre in the regional study area and serves as the main regional hub for CHRC and the southern Bowen Basin. Moranbah is the largest urban centre in the IRC and is also the centre with the highest population density across the whole regional study area.

The CHRC is projected to experience population growth averaging 2.1% per annum between 2006 and 2021. The IRC is expected to experience slightly higher average population growth at a rate of 2.2% per annum over the same period (OESR 2010).

It is not anticipated that the project will result in any impacts ranked as medium or higher on the demographic profile of the regional study area. The main reason for this is it is unlikely that a significant amount of people (based on the 5% population change as significant change rule, Burdge, 2004) will move to either IRC or CHRC to take up work with the Project, particularly when most towns will be too far for people to commute to site daily.

7.2.2 Local Study Area

Context

As at 30 June 2009, the population of BRC was 3,376 people. At the same time, 416 people lived in Alpha and the surrounding area. The population of BRC and Alpha town declined slightly between 2004 and 2009 as the area experienced net out-migration as people left the area in search of employment opportunities or lifestyle changes. This was also compounded by the extended period of drought experienced in the region and the changing nature of cattle grazing, where decreasing margins and new techniques have reduced employment opportunities.

The proportion of BRC's population aged between 25 and 64 was 53.4%, which was higher than across Queensland as a whole. The proportion in the 15 to 24 age group however was below the state

7 Impacts Assessment

average at just 11.5%, reflective of the limited education and employment opportunities in the region for people in this age grouping. The result is many young adults leave the area to seek opportunities in education and employment, and often do not return.

At the time of the 2006 census, couples with children accounted for 45.9% of all families in BRC, representing the highest single proportion of family types. This is notably higher than the Queensland rate, where 39.1% of the population are couple with children families. There were 100 families in BRC that were single parents, approximately 12% of all families. Comparing this rate to that across the whole of Queensland where the proportion of single parent families was 15.9%.

The local study area had very low levels of ethnic diversity at the time of the 2006 census, with only 4.6% of the population reporting that they were born overseas. Of those, only 22 (14%) reported that they speak a language other than English at home. Subsequently, there are no migrant support services or English as a Second Language training providers in the local study area, meaning it would be difficult to encourage overseas migrants to move to the area, and if they do come, there will be little to no support to ensure effective integration.

People of Indigenous descent (i.e. Aboriginal or Torres Strait Island descent) accounted for 5.9% of the population (194 people) in BRC at the time of the last census in 2006. Community consultations indicated that there was a high level of social integration between the Indigenous and non-Indigenous populations in BRC.

Barcaldine was the largest urban centre in BRC and is the location of council, state government and the majority of other service providers. As at 30 June 2009, the population of Barcaldine was 1,644 people. Like Alpha and BRC more broadly, Barcaldine experienced population decline (averaging 0.6%) between 2004 and 2009. Population density in Barcaldine was higher than in other BRC communities, with 269.8 persons per square kilometre.

The projected population in 2021 for BRC is 3,483. This represents a 0.0% average annual growth rate (too small to record to a tenth of a percentage). This is contrary to the area's experience over recent years, but is reflective of some anticipated population growth as a result of the proposed mining exploration and development around the Galilee Basin (OESR, 2010).

It will become increasingly difficult to retain current service levels in BRC (and Alpha in particular) if the population continues to decline. Many residents in the area are concerned about the lack of a permanent doctor or QAS at Alpha hospital; however, without population growth, justification for providing such services is difficult. There are limitations to Alpha's growth, including limited land which is available to be rezoned and subdivided, a lack of vacant housing, and pressures on water supply, reliable electricity and sewerage (pers. comm., August 2010).

Impacts

It is important to note that population growth is likely the single most critical factor in the manifestation of almost all other impacts assessed in the SIA. The rate of population growth and volume is very difficult to predict in Alpha due to the following limiting factors:

- Geographic location;
- Proximity to larger service centres;
- National migration trend to larger centres or the coast;
- Population;
- Level of services;

7 Impacts Assessment

- Number of businesses;
- Schooling limitations;
- Employment opportunities outside mining;
- Business opportunities;
- Quality and supply of housing;
- Electricity supply issues;
- Water supply issues;
- Lack of integrated sewerage system;
- Airport access; and
- Personal choice.

The Project has the potential to improve some of these limitations or act as a catalyst for third party improvement; however, the level of change is still limited. The Project intention to operate a FIFO/DIDO/BIBO mine with accommodation on-site is largely due to the factors listed above, while this strategy then results in limited improvement of these factors. The strategy has more to do with the reality of the region than design against enhancement of the region. By establishing the Project as a FIFO/DIDO/BIBO operation, the personal choice of permanent residency by workers favours other centres, as is the case with other similarly designed projects.

There are several third party assumptions regarding the potential population growth associated with the Project that should be considered:

1. BRC has indicated a potential growth where Alpha's population could range anywhere from 500 to 2,000 people.
2. Findings from the Galilee Basin Economic and Social Impact Study (DEEDI, 2010) support these BRC assumptions. This report was commissioned as a response to the proposed coal mining developments within the Galilee Basin, in the vicinity of Alpha. Particularly the developments that were considered were the Alpha and Kevin's Corner projects, the China First project and the South Galilee project. Within the report, three scenarios of population growth over a medium term (i.e. 10 years) were identified:
 - a resident population of 500 was identified in the low growth scenario;
 - a resident population of 1,250 was identified in the medium growth scenario; and
 - a resident population of 2,000 was identified in the high growth scenario.

This high growth scenario represents roughly 300% growth, where it is assumed that the removal of the limiting factors to population growth have been addressed and thus enabled this population growth.

3. URS discussions with PIFU indicate an estimated 300 people could be employed by the Alpha and Kevin's Corner projects from the BRC region.

Assuming that 50% of these 300 people will work on each of these projects, this means that 150 people in the BRC region would be employed by the Kevin's Corner Project. There is no indication of which communities these people could come from, but the BIBO initiative suggests approximately 50% could be sourced from the region currently, and 50% would relocate to the region. The BIBO policy and on-site accommodation village suggest Alpha may not be the only option to relocate to, and Barcaldine town has more services and a commercial airport.

However if it is assumed that 100% of this in-migration occurs in Alpha, this means that 75 workers could potentially move to Alpha to take up work with the Kevin's Corner project. It can further be

7 Impacts Assessment

assumed, based on past PIFU estimates of the characteristics of similar workforces, that the family status of these 75 workers would be distributed as follows:

- 30% are likely to be single (i.e. 1 person per household); and
- 70% are likely to have a partner and be with/without children (equates to 2.6 people per household, which is the average worker family according to PIFU).

Following this logic means that of the 75 workers assumed to have relocated to Alpha, ~22 of them would be single. The remaining 53 of them (approximate) would be part of a couple with or without children, living in households that average 2.6 persons per household, thus equating to 137 persons.

Under these assumptions, a total of 159 people (including families of workers) will relocate to Alpha to take up work at the Project, of which approximately 32 may be children/dependents. An increase of 159 people equates to a population increase of 38% in Alpha from the 2009 estimated resident population figure of 416 residents. This would mean the town population would be approximately 575 people.

Another pertinent consideration however is that these PIFU estimates outlined above regarding likely workforce household composition (i.e. 30% singles, 70% family units) were based on an established community with a population exceeding 10,000 people. It is therefore most likely that the town did not experience the same limiting factors that Alpha experiences. Therefore it can be proposed that the town of Alpha is more likely to attract singles, and either couples without children or without school aged children.

However despite these assumptions of population growth, the rate of any potential population growth is still largely unknown. Based on the construction and operation ramp up figures (see Section 6), the population increase could be expected to occur over the first eight years of operations. At present, it is difficult to envisage all of these people migrating to Alpha in this scenario given the limiting factors within the community. These limiting factors would amplify as more people moved to the area by compounding the strains on services and further limiting expansion. As a result, as more people moved, the area's desirability would decrease if the limiting factors were not addressed, thus reducing the potential for all 159 people to relocate to Alpha, at least in the short term.

These various population predictions for Alpha provided by BRC, the Galilee Basin Economic and Social Impact Study, and PIFU all point to potential growth for the town, even if the exact scale, timing and composition of this growth is difficult to quantify. The uncertainties surrounding the ability to predict people's personal choices regarding whether they are likely to re-locate to Alpha or not amid these conflicting factors, make prediction of population changes and the timing of these population changes, in Alpha almost impossible.

Therefore in order to adequately address any population change as a result of the project, the Phase 2 process of the SIMP will explore the notion of linking desired levels of service for key community and essential services to population benchmarks or triggers. There are some exceptions including traffic and road safety, which are directly linked to the Project as opposed to population. However, framing the majority of the Phase 2 SIMP around population change triggers or benchmarks should produce the most effective results, and enable the SIMP to better manage project related population change.

7 Impacts Assessment

The SIMP should also be able to track the effects of either full or partial removal of limiting factors listed above as upgrades, etc. are made. Because the SIMP is adaptive, a restructuring away from the population change approach may be appropriate in the future when the population has stabilised and other circumstances could be greater influences. However, population change should always be considered at some level, as it will be an important factor when it comes to closure planning.

The Kevin's Corner Consultative Committee and Project Community Liaison will be effective forums and drivers of this process respectively.

A summary of the potential medium and higher demographic impacts is provided in Table 7-2. For a list of all the impacts assessed see Appendix B.

7 Impacts Assessment

Table 7-2 Very High to Medium Potential Demographic Impacts Summary Table

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement	Residual Ranking
Population increase in Alpha of more than 5%	Negative	Serious	Local	Life of the Project	Possible	Very High	Mitigation	Medium - High
Population increases by less than 5% in Alpha	Negative	Minor	Local	Life of the Project	Likely	Medium	Mitigation	Low - medium
Population Increase	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High

7 Impacts Assessment

Population increase in Alpha of more than 5.0%

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Population increase in Alpha of more than 5%	Negative	Very High	Construction, Operation, beyond	Medium-High

It was identified during the consultation process that it is common for a proportion of people seeking employment in mining areas to wish to relocate and live in the area where they work. This has been a common experience in both IRC and CHRC, demonstrated by the population growth over recent years. It is therefore reasonable to assume that some of the workforce will choose to relocate to Alpha or nearby areas. There are also a number of young people who have left the area to seek employment opportunities in the mines of the Bowen Basin and beyond, many of whom may return to the region if there were equivalent employment opportunities.

The Project has a large scale underground mine component. This type of mining requires specialist skills and experience. Given the current lack of mining skills within the BRC population, it is reasonable to assume that there will be limited numbers of local residents qualified for employment on the Project. This, combined with the fact that the Project is expected to commence after the Alpha Coal Project mean that it is likely the vast majority of the workforce will need to be sourced from outside the area.

For the purpose of this assessment, it has been assumed that HACP will result in a 5% population increase in Alpha (21 people - inclusive of workers and their families) in the short term, bringing the base population at the commencement of the Project to 432 people. It has also been assumed that the Alpha Coal Project mitigation strategies and actions have been successful in removing some of the factors that currently limit population growth in Alpha such as poor electricity and water supplies as well as the lack of a sewerage system.

A further population increase of more than 5% as a result of this Project would represent a further 22 people moving to the area (bringing the population to 454). With a permanent peak workforce of 1,800 people this would represent approximately 1.1% of the total workforce, assuming only workers moved to the area. As soon as family units are considered, 0.04% of workers would need to choose to move to the area in order to experience a 5.0% population growth. If it is assumed that those people who move to the area are families, the total increase resulting from both projects is within the current capacity for housing development, with 10 blocks already sold and a further 20 expected to go on the market in the near future. Therefore it could be considered likely to occur.

While population increase is desired by the community so as to sustain current service levels, a significant increase such as this has the potential to place immediate pressure on existing infrastructure. If the Alpha Coal Project was not successful in addressing some of the factors limiting development in Alpha any further increase in population as a result of this Project will significantly magnify the pressures on existing infrastructure, in particular on health, education, water and electricity.

It will be important to monitor any population growth closely to identify population change as a result of this Project and from cumulative effects of multiple projects, and enable BRC to adopt and implement a controlled growth strategy which addresses the need for additional services.

7 Impacts Assessment

However, one factor that has the potential to limit population growth will be the increasing competition for construction workers and builders, particularly in central Queensland, which has been compounded by the recent flooding events, restricting housing development in Alpha. A number of large scale resource projects proposed for central Queensland are anticipated to commence construction in the near future. A requirement of some of these projects is to build housing. These requirements will place increased demand on construction workers, reducing the likelihood that there will be builders available to construct houses in Alpha. The heightened competition also has the potential to result in extreme price increases making it uneconomical to relocate to the region when a FIFO employment option is available.

Mitigation

Close monitoring of population levels in Alpha and surrounding areas will be critical to mitigate this potential impact. Based on the trends identified, and application of these trends to other projects being developed in the region, strategies will be developed in the SIMP to manage population growth. The Proponent will consider working with the proponents of other projects to support local government to effectively engage and obtain the funding required for service improvement. The Proponent will also support local government in trying to identify and prepare land for subdivision and development as required. If required, sponsorship of childcare, educational facilities and local community organisations will also be considered to support enhanced service delivery.

Residual Impact

Population growth in Alpha and the surrounding areas will be dependent on the personal choice of Project employees which will be influenced by the availability and affordability of housing in the area as well as the liveability of the community. By establishing appropriate benchmarks around population trends and undertaking regular comprehensive monitoring BRC will be able to take a proactive approach in delivering appropriate service and infrastructure expansion. Robust statistical information and analysis will provide the evidence required to support additional funding claims. This information will also form the basis of Project consultation with BRC to review and amend recruitment and employment policies as required.

Subdivision of land is a complex process that can take significant time. Regular monitoring of population trends will enable actions to be taken in a timely manner. Through the sponsorship of local services such as childcare, education and community organisations, service delivery and accessibility will be improved. As a result of this mitigation, impact is expected to reduce from very high to medium – to – high.

Population increase in Alpha of less than 5.0%

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Population increase in Alpha of less than 5%	Negative	Medium	Construction, Operation, beyond	Low - medium

Again, it has been assumed that a population increase of 5% (up to 20 people) has occurred in Alpha as a result of the Alpha Coal Project. Under this assumption, it is less likely that there will have been major improvements in service delivery or community infrastructure. Therefore a further population increase, of up to 5%, will place additional pressure on the current services and highlight the need for

7 Impacts Assessment

these to be expanded. It is unlikely however that a population increase of less than 5% on its own will be sufficient to demand increased funding to improve service delivery in the community. If the combined increase exceeds 5% however, there will be greater potential to achieve funding increases. Without service improvements however, any further population increase will place added pressure on already stretched infrastructure and service providers in Alpha.

Mitigation

This potential impact will be mitigated through the targeted sponsorship of local community organisations and programs. A particular focus of this support will be on service delivery and community needs. Consideration will also be given to employment policies which support the recruitment of mine workers whose partners have a skill that is required in the community and link these partners with relevant service providers.

As this is the second project to be established in the regional area, it is more likely that the cumulative impact will be sufficient to warrant increased funding provision to BRC. As such, the Proponent will proactively engage with other proponents and projects in support of BRC applications for State and Federal funding to improve infrastructure and service delivery.

Residual Impact

Through mitigation, the ranking of this impact is expected to be reduced to medium to low. As highlighted above supporting service delivery in response to population growth will relieve some pressure on community infrastructure and improve capacity. A limiting factor will be the availability of relevant skills in the community. Developing recruitment strategies and lifestyle packages for mine employees that focus on bringing priority skills to the region through mine personnel's partners will support accessing much needed expertise. Emphasising the cumulative impact of multiple projects and developing a coordinated approach and potential support to BRC will improve the likelihood of additional funds being allocated and delivered to BRC.

Population Increase in BRC

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Population Increases in BRC	Positive	Medium	Construction, Operation	High

Alpha, like most of BRC, has been experiencing a population decline since 2004. As a result of this declining population, the current service level offered in the Alpha community is under threat from further funding cuts and rationalisation. A common response to the Community Questionnaire in Alpha was the positive benefit of an increased population as a result of the mine. It was believed that more people would breathe new life into the community, attract service providers and improve the area's access to government funding for the provision of infrastructure and social services. Population growth will also bring new skills and expertise to the area, further supporting economic development and diversification.

Conversely, many people highlighted their concerns about new people moving to the area, changing the fabric of the community and bringing with them increased likelihood of crime and deviance. This was particularly concerning as many people highlighted that one of the reasons they enjoyed living in the area was that everyone knew one another and it was safe. As this Project is preceded by the

7 Impacts Assessment

Alpha Project it is expected that these concerns will have been largely addressed as new residents arrive. Further, it is anticipated that the majority of people who move to Alpha are likely to come from within BRC, rather than from other areas within Queensland and Australia. The main reason for this is that they are familiar with the area and will be able to maintain their established family and social networks. Further the environment as well as size and dynamics of the community will be more akin to where they have come from than for people from larger urban or rural communities.

Assuming that the Alpha Coal Project will already be operational and has resulted in a 5% population increase in the Alpha community, it is likely that there will have already been some increase in the provision of services in the community, and potentially some actions undertaken to address Alpha's limiting factors. These factors are likely to make it more attractive for people employed on the Project to choose to move to Alpha. Additional population growth will further support the enhanced provision and accessibility of services as well as leading to increased funding allocations for improvements in infrastructure. However, the high demand for construction services in Central Queensland and more broadly across Australia and in PNG has the potential to place further limitations on population growth in Alpha – namely no available construction workers to come to the town and build the new houses required if the population is to increase. This is a factor beyond the control of the Project and is unlikely to be able to be influenced by the Proponent.

Enhancement

In order to enhance the potential benefits associated with more people moving to Alpha, the Project will consider ways to support the BRC to seek additional funding and improve service delivery. The Proponent will also use the Communication and Community Engagement Plan as a means of distributing information about the benefits of new people moving to the area. Benchmarks will be set as part of the SIMP to enable actions to be implemented as population growth (whether a direct result of this Project or because of cumulative impacts) reaches certain indicators. Such actions may include support to the BRC and State Government in the rezoning and subdivision of land for development and consideration of providing sponsorship or in kind support for local organisations providing services such as childcare and education. The Project will participate in any multi-project consultative committees as well as within the already established Kevin's Corner Consultative Committee (KCCC) to assist in the coordination of resources and improved management of potential impacts.

Residual Impact

After enhancement the benefit of population growth in Alpha will be high. Population growth will provide for a more sustainable and dynamic community as well as providing the appropriate environment for service delivery to be enhanced and improved through additional funding and the arrival of new businesses. The establishment of appropriate benchmarks for the close monitoring of population change will ensure proactive responses to any population growth, maximising the potential benefits to the community, while communicating messages about these benefits will engender community support for population growth.

It is however important to note that any decision to move to Alpha will be based on personal choice and therefore will require personnel to choose to move to the area. Further options to do this may be limited because of the current high level of demand on construction workers and builders as a result of the volume of resource projects and associated housing development requirements in Queensland. This demand has the potential to result in extreme increases in price due to competition and may make building a house in the Alpha uneconomical, at least in the short-term.

7 Impacts Assessment

7.3 Culture and Community Dynamics

7.3.1 Regional Study Area

Context

There is a high degree of social cohesion and integration throughout the regional study area. Community consultations in Clermont indicated that there is strong, supportive community spirit and the town is considered a safe and secure place to live. A survey of residents went further, identifying why people like to live in the region, and specific responses from across IRC included the opportunities to spend time with family, to build strong relationships with friends and neighbours, the relative safety of the region and the connectivity and community spirit throughout the area (pers. comm., IRC 2010, and IRC 2009).

Similar sentiments were expressed by CHRC residents during a 2008 survey, where the vast majority of people expressed their contentment with living in the region. Respondents highlighted the mix of people and their friendliness; the area's suitability for raising children; the community spirit; employment opportunities; and relaxed lifestyle as the benefits of living in the region (pers. comm., Christine Hanley, 2009).

This is despite the fact that in both regional council areas more than half of all respondents to the 2006 census reported that they were living at a different address than they were five years ago, indicating a relatively high level of community mobility. For example, when compared to the Queensland average of 47.6% of respondents who lived at a different address five years earlier, the CHRC rate of 54.3% indicates a high level of mobility. Despite this high level of mobility, there is a low level of ethnic diversity across the region and the majority of movement in the areas has either been within the area, or in-migration from other parts of Queensland or Australia (OESR, 2010).

In 2002-2003 small area crime profiles indicated that the levels of offences against the person and property were lower in CHRC than across the rest of Queensland, however higher rates were recorded for other offences which includes drug, liquor, good order and stock related offences (OESR, 2003e). Conversely the small area crime profile for Fitzroy SD which includes IRC reported a higher rate of offences against the person and other offences than across Queensland as a whole. Given the size of the area however, it is not possible to confirm from the report that these offences did in fact occur in IRC or in other areas of Fitzroy SD (OESR, 2003f).

Consultations with the IRC indicated that while crime in mining communities is often more perceived than reality, there are a number of crimes in mining communities which tend to go unreported to police. It is not uncommon for an employer to be engaged in addressing criminal or deviant behaviour rather than the police (pers. comm., 2010).

Both council areas reported high levels of volunteerism with 22.6% of IRC residents and 23.2% of CHRC residents reporting they volunteered with their local council at the time of the 2006 census. This compared to 18.3% of people across the whole of Queensland (OESR, 2010). Despite these high rates, both councils identified attracting and retaining community volunteers as increasingly difficult, particularly with itinerant residents who do not intend to stay in the community long term (pers. comm., 2010).

The Socio-Economic Indexes for Areas (SEIFA) provide a summary measure of the socio-economic conditions of geographic areas across Australia generating a series of indexes when a census is

7 Impacts Assessment

conducted. The Socio-Economic Index of Disadvantage which ranked geographic regions to reflect socio-economic conditions and disadvantage following the 2006 census found that the relative level of disadvantage in both IRC and CHRC was low. By definition, 20% of respondents across the whole of Queensland will fall into each quintile, whereas in the regional study area just 5.1% of residents in IRC and 8.5% in CHRC fell into Quintile one, the most disadvantaged group. Conversely, less than 20% of the population in IRC and CHRC fell into Quintile five, the least disadvantaged (17.3% in IRC and 19.6%), likely because of the relative isolation of the community, limited opportunity or diversity and limited available services.

It is not anticipated that the project will have significant impact on the culture and community dynamics of the regional study area because of the experience of the region with mining combined with the insignificant population changes anticipated. However, there are excellent opportunities for the Project to draw upon this experience both within Council and the mining sector, to implement best practices when it comes to managing social impacts and supporting community dynamics and culture development.

The Proponent will establish a Community Liaison role (either a dedicated employee or a functional group) that will be responsible for maintaining dialogue and nurturing relationships with council and other community stakeholders. The SIMP will include Key Performance Indicators (KPIs) which should be monitored to enable the project to address any unexpected impacts.

Impacts

The project is anticipated to have minimal impacts to the culture and community dynamics of the regional area. The Proponent will increase the role of mining to the region but this is neither a new phenomenon nor an undesired outcome for many residents and councils. For others the increase in mining activity in the agricultural regions of Queensland is perceived as a negative.

The nature of employment within the Kevin's Corner Project, which will require more personnel with underground mining expertise, will provide employment opportunities for people within the regional study area, particularly around Emerald. The BIBO/FIFO policies will facilitate this. However, the region currently has very low levels of unemployment; therefore it will be personal choice that drives people to seek employment on the Project. As a result the magnitude of this potential impact is anticipated to be low.

It is important to recognise that the project is geographically outside the regional councils' boundaries and the councils are seen as receiving periphery impacts from the Project. However, it is also important to note that the relationship between the Project and the regional study area has the potential to increase substantially with an increase in access to the Project site.

7.3.2 Local Study Area

Context

The culture of the local study area is of a largely agricultural community with strong family and rural values. During site visits, residents indicated that the presence of strong family and social networks and the readiness of residents to look after each other were highlights of living in the area. The majority also preferred quiet rural lifestyle that was not available in larger urban centres (pers. comm., 2010).

7 Impacts Assessment

The community plan for BRC identified the values for Alpha as having a lifestyle that is safe, comfortable and ideally suited to families. The easy going community life, which provides basic amenities and service, is enjoyed by people. The cleanliness of the town and district was liked by residents and children especially appreciated the sports and recreational activities available.

The community plan used feedback through the consultation plan to derive Alpha's preferred future over the next ten years. The key issues identified included:

- Population and employment services need to develop further together because of their interdependency. Services rely on population, but are needed to attract people to the area. People strongly want to retain current level of services as well as wanting proactive investment in basic services such as electricity and sewerage;
- Retaining the values of a small rural community whilst supporting controlled population growth;
- Maintaining the strong social networks and community cohesion that forms an integral part of the region's fabric;
- Improved recreational activities and facilities for young people; and
- Improved services and support for the elderly.

BRC has a very low level of ethnic diversity, with just 4.6% of the population stating they were born overseas. There are no migrant support services available in the area, and migrants living in the area demonstrated high levels of community integration. These conditions would make it challenging for new migrants to settle in the region, particularly those from non-English speaking backgrounds.

There is a lower level of community mobility in BRC than across Queensland as a whole with just 36.8% of respondents in the 2006 census indicating they were living at a different residential address five years earlier. It is also important to note that the majority of immigration to the study area was from other parts of Queensland with very little from interstate or overseas (OESR, 2010).

Reported crime levels in the community are low and the police are well known and integrated into the community. Alcoholism is not considered to be a significant problem in the community, and the tight social networks appear to act as a deterrent to deviant behaviour because of the prospect of public shaming (pers. comm., 2010). The small area crime profile, 2002-03 (which included Tambo, Blackall and Isisford which were not part of the study area) identified the only areas where offences were higher locally than across Queensland as a whole were liquor and stock offences (OESR, 2003).

Volunteerism levels in BRC were significantly higher than across Queensland as a whole. At the time of the 2006 census, some 32.7% of all people aged 15 and over reported volunteering compared to 18.3% across the whole of Queensland (OESR, 2010). This is quite common of smaller rural communities with strong social networks and community spirit. However, community consultations indicated that it is becoming increasingly difficult to identify volunteers for new activities largely because of the time commitment involved – people are already heavily involved with volunteering plus it is becoming increasingly time consuming to meet state requirements such as police clearances and induction programs before being able to volunteer. This is particularly concerning given the importance of volunteers in supporting the community and in service delivery in the region (pers. comm., 2010).

For a community of its size there are a number of active community programs. These are largely run by volunteers and include: the Barcaldine 60 & Better Program; Grey Nomad Project; Home and Community Care (HACC); Home Assist Secure; Meals on Wheels; Regional Arts Development Fund (RADF); and Rural Family Support. Community groups active in the region included sports clubs, historical society, church groups, emergency services (SES and fire) and the cultural society.

7 Impacts Assessment

The Social and Economic Indexes of Disadvantage found that the majority of the population in BRC were in the first quintile (the most disadvantaged group), with 45.7% of BRC population. This means that 45.7% of the population in BRC falls within the most disadvantaged 20% of people in Queensland. By contrast only 6.5% of the population were in the least disadvantaged quintile. This is reflective of the lower wages, relative distance to urban centres and the limited opportunities in the area (OESR, 2010).

The development of arts and culture in the area was considered important to support the region's identity development. In particular residents would like to see a dedicated arts and cultural precinct in Barcaldine. Red Shed an Indigenous art organisation is present in BRC and operates exhibitions (Barcaldine Regional Council Community Plan, 2009).

Consultations indicated that the majority of people living in the mining lease area, which lies along the Alpha – Clermont road reported that they had similar community values to Alpha however because of the location, services, and friends and family they tend to gravitate more towards Clermont. When asked to highlight their values respondents referred to the area's suitability to raising children, the wide open spaces, the remoteness, clean environment, friends and family networks, sense of security and safety, small community with strong sense of community spirit and the climate. When asked what they disliked most about the area, responses included travel distance, lack of education options, uncertainty about the future (whether the mines will proceed etc), lack of medical services particularly not having a doctor of QAS in Alpha, long periods of drought and lack of services/poor infrastructure (pers. comm., 2010).

Impacts

A summary of the potential medium and higher culture and community dynamics impacts is provided in Table 7-3. For a list of all the impacts assessed see Appendix B.

7 Impacts Assessment

Table 7-3 Very High to Medium Potential Culture and Community Dynamics Impacts Summary Table

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement	Residual Ranking
Lifestyle changes as a result of increased wages	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low – Medium
	Positive	Moderate	Local	Life of Project	Unlikely	Medium	Enhancement	High
New arrivals upset balance of power in the community	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low
Local capacity increased	Positive	Moderate	Local	Life of Project or beyond	Almost certain	High	Enhancement	High – Very High

7 Impacts Assessment

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Lifestyle changes as a result of increased wages	Negative	Medium	Life of the Project	Low-Medium
	Positive	Medium	Life of Project	High

Lifestyle changes resulting from increased wages is perceived as having both negative and positive impacts. Negative impacts are likely to arise where these changes lead to greater disparity in the community. Positive impacts are likely to arise at the individual level where people are able to improve their lifestyle as a result of increased wages.

Currently a large proportion of people living in BRC fall into the most disadvantaged quintile. This is a reflection of their income, proximity to regional centres and opportunities available. The mining industry is generally associated with higher incomes than many other industries. As not all people will have the skills required or the desire to work in the mining industry, there will be potential for much greater disparity in wages amongst people living the local study area. This is often compounded by the demographic profile of mine workers which consists of largely younger males, as the significant disposable income available to them is often spent on “toys” such as cars, boats or jet skis rather than being invested. These visual displays may make the disparity in wealth seem even greater and lead to resentment within the community, breaking down the strong social networks.

However, the opportunities in mining will allow some people in the community to change their lifestyle, increasing the amount of their salary (in amount and proportion) they spend on entertainment and recreational activities. Higher wages can also provide opportunities for personnel to improve their houses and invest money in pursuit of wealth generation strategies.

The Alpha Coal Project is expected to have already commenced. Therefore these changes are likely to have already occurred with some members of the community, and new residents, being employed in the mining industry and receiving the associated higher salaries. As such, there is already expected to be greater wealth disparity within the community making the magnitude of the negative impact lower than for the first project (i.e. the Alpha Coal Project) established in the community.

Mitigation and Enhancement

The Proponent will explore opportunities for providing financial planning and counselling services to employees and the broader community to reduce the potential negative and enhance the positive impacts associated with increases in wages. The Proponent will also explore opportunities to support/sponsor community development programs and encourage community volunteerism amongst employees.

Information will also be communicated about financial management and sustainable wealth accumulation through the Communication and Community Engagement Plan. The Kevin's Corner Consultative Committee that is assumed to have been already established as a result of the Alpha Coal Project will be leveraged for consideration of the impacts of both the projects and thus will be used to monitor and track changes in the community associated with wealth.

7 Impacts Assessment

Residual Impact

The residual ranking of the negative focus of this impact after mitigation is expected to be low-medium. Facilitating financial planning services will help to support better management of the higher disposable incomes, improving wealth generation and saving. This in turn will have a flow on effect for the community, and make the potential disparity in wealth less pronounced. Encouraging community volunteerism amongst employees will support improved services, enhance community recreational activities and help maintain the high level of community involvement evident.

However, currently there are significant disparities between the average weekly incomes in the region and the likely wages available from the mining industry. Examples from other mining communities in the Bowen Basin indicate that ineffective management of housing requirements has the potential to create high disparity within the community. This can create a culture of haves and have nots, and in extreme circumstances can force people to move away from the community to seek more affordable accommodation. The Proponent will ensure that BRC will be involved in discussions and in the development of strategies relating to housing options to ensure a range of options are considered for housing workers. Regardless of these efforts, the anticipated competition for housing construction workers as other resource projects across central Queensland strive to meet housing construction requirements is likely to limit housing construction in Alpha potentially fuelling house price increases by restricting supply.

Higher income levels generally equate with higher quality of living as people have more money to spend on housing, lifestyle and entertainment. It is anticipated that the increased incomes will have a flow on effect, benefiting the broader community as people have more money to spend in area businesses. The extent of these benefits in the community however, is uncertain. Currently there is a high degree of leakage within the localised economy, as most residents in Alpha travel to Emerald or beyond to shop, particularly for larger items. This is partly because of the limited availability and increased price of goods and services in Alpha and partly as people look for a reason to travel to larger centres. If this continues, the benefits of the increased wages available from the mining industry will be felt in other communities more than Alpha.

Local capacity increased

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Local capacity increased	Positive	High	Life of Project or beyond	High-Very High

The capacity of small communities to respond to emergencies is limited by the resources available and the qualifications and experience of residents. There are limitations on resources and facilities available in BRC, for example the ambulance and fire brigade in Alpha are both operated by volunteers.

There is the potential for the community to benefit from training and capacity building activities provided by the mine to its personnel. For example, the mine will generally provide first aid and emergency response training to all personnel. There is potential for these skills to be brought to the community through the provision of community based training, which is opened to the participation of residents and subsidised by the mine. This will increase the capacity within the community to respond to and manage emergencies.

7 Impacts Assessment

The establishment of additional mines in the area is not expected to increase this impact significantly. As there are a limited number of people in any community who are willing and able to undertake training, it is unlikely that the establishment of a second mine will increase this number. The arrival of new people in the community however is anticipated to bring new skills which will itself increase the community capacity.

Enhancement

To enhance this benefit, the Project will investigate opportunities to provide relevant training in a community setting, and extending this to residents who wish to participate. Where appropriate, this may extend to supporting/sponsoring training and apprentice programs. The Proponent will also endeavour to consult with and support local service providers as appropriate.

Residual Impact

Through enhancement the residual impact of increased community capacity is expected to remain high, or increase slightly to very high. It is important to note that the most significant benefit to the community of increased capacity is expected to come from the first project, provided training is extended to the community. There is little further benefit anticipated as a result of there being more than one project operating. However, in a small community such as BRC, the potential benefit of increasing capacity can be significant. By extending training to the community, the benefit of improved capacity will be felt more widely than restricting it to mine workers, who will return to the mine site for their shift rotations taking the skills with them. Supporting apprenticeships and training programs will encourage people to remain in the region and will build the skills capacity within the community addressing current gaps and providing a larger potential pool of skilled employees.

There is potential that increasing the skills capacity within the community will lead to higher community mobility, in turn taking the skills away from the community. Greater opportunity in the area is expected to negate this to a degree.

7.4 Housing and Accommodation

The Project intends to accommodate all construction and operation workers in an on-site accommodation village. This strategy will:

- Enable workers to be housed close to the work site;
- Reduce traffic and road safety issues;
- Reduce worker fatigue due to travel;
- Reduce housing and accommodation impacts on the neighbouring communities; and
- Reduce social impacts on the neighbouring communities.

The geographic location and isolation of the Project (~50 km north of Alpha), size (population and services) of Alpha, limiting factors to manageable and sustainable growth, and size of the workforce indicate that accommodation in the Alpha community is not feasible, and would be catastrophic in terms of social, economic and housing impacts on the community and council.

This assessment was undertaken based on the Project intention to accommodate the entire workforce on-site. The assessment therefore focuses primarily on the likelihood, magnitude and ability of people to migrate to the region as a result of the Project.

The Proponent will explore opportunities with council to house some workers within the community on an ongoing basis though this is currently not part of the Project design. Opportunities will be monitored

7 Impacts Assessment

and tracked through the SIMP, and discussed with council prior to any changes to this accommodation strategy occurring.

7.4.1 Regional Study Area

Context

Separate houses and detached dwellings represent the most common type of dwelling in both the IRC and CHRC areas. At the 2006 Census, there were 1,300 private dwellings, of which 1,054 were occupied in Clermont. Although this has been reported in the Census, it needs to be noted that consultations with council have indicated that vacancies are in fact much lower than this. Of those occupied dwellings, 83.2% were separated houses, 3.9% were flats or units, 0.3% row houses or townhouses and the remaining 12.6% were classed as 'other dwellings'. The breakdown of tenure of all occupied dwellings in Clermont showed 57% of all occupied houses were either fully owned or being purchased and 34.3% were rented.

At the same time, there were 4,478 private dwellings in Emerald, of which 4,001 were occupied. Again, as outlined for Clermont, consultations with CHRC and local realtors indicate that this is not the case. In fact, especially in the advent of the recent flooding events, housing shortages in Emerald are reported as being acute, and some people are seeking housing in surrounding areas because of these shortages. Separate houses accounted for 78.6% of all occupied dwellings, while 12.4% were flats or units, 2.5% were semi-detached, row or other sort of townhouse and the remaining 6.4% were other dwellings. Of all private occupied dwellings in Emerald, 53.7% were either fully owned or being purchased while 39.7% were rented. The proportion of houses that were either fully owned or being purchased across the regional study area was lower than Australia as a whole, where 64.8% of all occupied private dwellings were held under this tenure type. Conversely a higher percentage of houses are being rented in the regional study area than across Australian where only 27.2% were rented (OESR 2010). This may be because of the itinerant nature of many mine workers, the relatively high price of housing and the high proportion of employer provided accommodation in mining communities.

Throughout the regional study area, family households were the most common kind of households. This was particularly the case in Emerald and more broadly across CHRC, a trend that the Department of Communities expects to continue. In particular, at the time of the 2006 census, family households represented 71.7% of all households, while in Clermont they accounted for 60.8%. Conversely lone person households represented 15.3% of households in Emerald and 24.3% in Clermont (OESR 2010).

During the 12 months to 31 March 2010, the IRC approved a total of 95 new dwelling units in private residential buildings. The estimated value of this was \$28.4 million. Over the same period, CHRC approved 264 dwelling units in private residential buildings, with an estimated value of \$70.4 million.

Consultations indicated that housing and unit shortages in and around Emerald are critical. A recent study into housing affordability in CHRC undertaken by the Department of Communities and OESR (June 2010) identified key demographic and housing trends for CHRC. The report compared housing in CHRC with Central Queensland more generally and the state as a whole. The report found that:

- The proportion of houses that were fully-owned or being purchased was lower in CHRC while the proportion of houses rented from employer, parks or other unstated was higher;

7 Impacts Assessment

- Non-private dwellings provided a higher proportion of private accommodation in CHRC with staff quarters the largest non-private dwelling category;
- The median rent in CHRC for most sized dwellings was higher than Central Queensland and Queensland;
- The percentage of private dwellings that were flats or units has increased at a higher rate (however still remains low);
- The number and proportion of affordable rental stocks decreased between 2004 and 2009; and
- While the proportion of low income households entering the homeowner market is lower in CHRC, the number of low income households where housing costs exceed 40% of income is higher, indicative of mortgage/housing stress (Department of Communities 2010).

Impacts

The housing and accommodation in the regional study areas are not likely to experience noticeable impacts associated with the Project in its current form. In Clermont, access to the mine site is limited due to the quality of the Alpha to Clermont Road. There is also some current housing stock in Clermont and the potential for additional housing from the Rio Tinto housing stocks. If the access to the project site is improved (outside the project scope), there is a potential for significant housing impacts in the Clermont area (and other IRC communities) since the options for DIDO/BIBO rosters increases. The SIMP Phase 2 discussions should include indicators and benchmarks for population growth and associated housing and accommodation impacts associated with increases in access to the Project area from IRC.

In Emerald and other CHRC communities, the limiting factor to population increase is again associated with access, but more correctly, distances. Project personnel housed in CHRC are very likely going to need to be housed in the accommodation village for the duration of their on shift rotation, except in exceptional circumstances. This is because the commuting distances would limit the amount of time at work when travel is factored into the work day. This is a fatigue management issue, and the Project will develop a length of work day policy (including travel) to manage worker fatigue. As such, direct project employment is not likely to significantly impact Emerald or other CHRC communities. There is a potential for support industries to establish or expand in CHRC, particularly in the Emerald area. This could have an impact on housing however there is already a market for this type of industry in Emerald servicing other mines which is not being fully met. The Project could have a cumulative effect by making a better business case for these types of businesses, which could result in more housing requirements.

CHRC is already exploring options to expand land availability as housing is already an issue in Emerald. The SIMP Phase 2 discussions should examine opportunities to streamline the land acquisition process to ensure Emerald housing does not become a negative impact on the community.

7.4.2 Local Study Area

Context

At the time of the 2006 census, there were 300 private dwellings in Alpha, of which 235 were occupied (OESR). This proportion seemed to align with the BRC Community Plan (2009) which highlighted having houses with lights on as a key element of the future plan for Alpha. Consultations however indicated that this is not actually the case, and that nearly all houses in Alpha are occupied (pers.

7 Impacts Assessment

comm., BRC, 2010). Alpha is subjected to flooding, particularly in its lower areas. Houses can be built in this area; however, they must be high set. Some flooding mitigation work has already been undertaken (pers. comm., 2010).

BRC has developed 30 housing blocks for sale in Alpha. All blocks in the first release of ten in May 2010 were sold for an average of \$111,000 plus GST. The remaining 20 will be sold when associated infrastructure works are completed (likely in 2011). There are a further eight urban plots available privately.

Consultations have indicated that real estate speculation, fuelled by the prospect of mining expansion in the region, has resulted in significant increases in property prices over recent years. The majority of purchases have been by investors who reside outside the local study area. Rentals have not yet increased in line with housing prices because the demand has not changed (pers. comm., 2010).

Separate houses are the predominant form of private dwelling in BRC, accounting for 92.2% of all private dwellings, rising to 93.6% in the former Jericho Shire as a whole. Flats, apartments, units, etc. account for just 3.5% of all private dwellings in the former Jericho Shire, with most in one or two storey buildings.

In the 12 months to 31 March 2010, the BRC approved nine new dwelling units in residential building representing a total value of \$2.5 million (OESR 2010). In addition to the 20 plots council is preparing for sale, discussions are under way between BRC and the State Government regarding the release of land capable of sustaining another 200 blocks. There are limitations to the expansion of housing in Alpha, namely the town sewerage, water and electricity supplies which will all need to be upgraded in order to support expanded population (pers. comm., BRC, 2010).

There is limited short-term accommodation available at the Alpha Caravan and Cabin Park and the Alpha Hotel Motel in town. The majority of housing and accommodation options in Alpha are antiquated and would be difficult to use to attract the workforce to the area. New housing is likely required to increase the desirability of living in the community. Other limiting factors like water, electricity, sewerage, schooling and other businesses and services also impact on housing indirectly by limiting the ability to attract and retain people in the community.

Impacts

A summary of the potential medium and higher housing and accommodation impacts is provided in Table 7-4. For a list of all the impacts assessed see Appendix B.

As discussed in Section 7.2.2, there are various estimates as to the degree of population increase anticipated in the Alpha area as a result of the Project. Using the PIFU estimate and the subsequent assumptions and analysis, as described in section 7.2.2, there may be 159 people (workers and families) who relocate to Alpha. Alpha currently has 2.5 people per household, so if it is assumed that this household composition is maintained, then there will be a requirement for 64 dwellings to accommodate them. If this is to eventuate, the 200 blocks subject to BRC and State Government negotiations as well as the additional 30 blocks that have been/are currently being released should meet the demand. Proactive engagement with council by the Proponent and the communication of project information in advance will assist Council in planning for additional housing supply. If there are significant delays in the release of these blocks, it is likely that there will be pressure on housing supply at least in the short term.

7 Impacts Assessment

This section assesses the potential strains on accommodation based on the current situation in Alpha, which suggests moderate population growth (<5%) is possible and significant population growth (>5%) is severely constrained.

It is important to note that Hancock has an ~1,500 acre plot of land near Alpha and will explore opportunities with BRC for future beneficial use. This may assist in housing and accommodation issues for the community, and/or a potential commercial/industrial area. The exact use(s) will be determined in consultation with BRC. Development of this plot could significantly assist BRC in the reduction of potential housing impacts as well as increase the likelihood of expanded business opportunities in the region.

7 Impacts Assessment

Table 7-4 Very High to Medium Potential Housing and Accommodation Impacts Summary Table

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement	Residual Ranking
Increased costs of housing and rental	Negative	Major	Local	Construction / Operation	Almost Certain	Very High	Mitigation	Medium - High

7 Impacts Assessment

Increased costs of housing and rental

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased costs of housing and rental	Negative	Very High	Life of Project	Medium-High

There has already been an increase in the price of land and housing in Alpha; consultations have indicated that this increase has been by up to a factor of 300%. This increase has been fuelled by speculation over the current mining projects proceeding. If these projects eventuate, this increase is only likely to continue. There has also been an increase, although considerably smaller, in the price of rental accommodation in the community. Further evidence that housing prices will increase if the mines proceed can be drawn from other communities across central Queensland that have experienced mining booms.

Lessons learned from areas such as the Bowen Basin, where affordable housing has come under pressure due to mining booms, suggest that the availability of land and the types of housing are critical factors in managing housing prices. The slow release of land can potentially magnify this. Prices can rise to artificially high levels when demand outstrips supply and then crash when supply is increased, with devastating results for individuals and families who may have bought at inflated prices. An example of this is the community of Moranbah, where demand has outstripped supply to such a degree that mine workers are nearly the only occupation with high enough wages to make housing affordable. The lack of affordable housing and housing supply in Moranbah has become a significant social driver for the community.

Housing stock, housing type and land availability are some indicators of council's ability to proactively manage housing. Proactive engagement with council by the Proponent and the communication of project information in advance can assist in developing solutions to future issues before they materialise.

There are a range of limitations in Alpha which will restrict the number of people seeking to move to the area. These limitations include the availability and quality of housing and residential zoned land; the availability of services in Alpha; the town infrastructure, particularly water, sewerage and electricity; and the demand for construction workers throughout Queensland.

While increasing house value is a positive impact for house owners and landlords, the potential benefit can only be realised if the house is sold and a new home purchased for a cheaper price. As rental demand increases, there is also the potential for landlords to seize the opportunity to increase their profit by raising rents and forcing current tenants out.

As more projects commence construction and operation around the Galilee Basin, the potential impacts associated with increasing house prices are likely to be magnified, particularly as the limitations are removed. The more people employed in the area, the more likely it is that some personnel will choose to relocate to the area, resulting in demand for housing. The isolated location of the community will encourage people to establish businesses located locally (rather than travelling from other centres) to service the mines and mine personnel.

Mitigation

To help mitigate this impact, the Project will undertake a range of activities including:

7 Impacts Assessment

- Consulting with local government regarding demand increases, new land releases and housing developments as well as the rezoning of land to allow residential development;
- Supporting BRC in their efforts to acquire funding for the provision of services in Alpha such as electricity, sewerage and water supply;
- Establishing a Community Liaison function that will aim to ensure coordination between Project policies and council planning; and
- Establish and / or participate in any forums intended to identify, monitor and manage any issues identified by the project's multiple stakeholders.

In addition to the above measures, SIMP Phase 2 discussions will examine benchmarks and monitoring strategies to support streamlined land acquisition and development processes.

Residual Impact

After mitigation the residual impact of increased costs of housing and rentals is expected to remain medium – high. Evidence shows that the price of houses in Alpha is already increasing with investors recognising the potential for demand to outstrip supply unless there is proactive development in the region. Improvements to services such as sewerage as well as water and electricity supplies, which currently represent limiting factors to development, will make development easier and relocation to the area more attractive.

There is restricted land currently available in Alpha for development. This limits opportunities for the establishment of mining service industries and for the relocation of mine personnel to the region. This places extreme pressure on existing supplies, causing prices to rise. Consultations have identified that there is a finite number of residential blocks available for development in Alpha and land will need to be rezoned in order to increase supply and remove pressure. This process can be time consuming and will require proactive action from the council in order to meet demand. The Community Liaison function and Community Forums will help to facilitate this process. Benchmarks will be established and associated mitigation strategies agreed to ensure proactive responses are adopted to manage population growth and economic development.

The high level of demand for housing construction services currently evident throughout Queensland, Australia and PNG has the potential to stand as a further factor restricting development of housing in Alpha. In particular, there are a number of resource projects in the central Queensland area whose permits require the proponent to construct an established number of houses over a limited time period. As a result of this, there will be additional pressure on construction services, allowing prices to increase and delays to be magnified. This has the potential to make it more difficult for demand increases in Alpha to be met in a timely and efficient manner.

7.5 Health, Wellbeing and Social Infrastructure

7.5.1 Regional Study Area

Context

Emerald has a 36 bed hospital that provides community and hospital services to the Emerald area and is the major health care centre for the Central Highlands region. The hospital provides a range of surgical and health care services (QLD Health, 2010). Consultations indicated that Emerald GPs appear to be catering to the mining industry (pers. comm., 2010). According to the Yellow Pages,

7 Impacts Assessment

there are nine dental practices in the Emerald region. The practices however are required to service a wide-catchment area; for example there are no dental services in Alpha and residents reported long waits for the public dentist in Emerald (pers. comm., 2010).

Clermont is also serviced by a 36-bed hospital and a new Ambulance station was recently built in town. The hospital provides a range of resident and visiting services and has a 24-hour emergency department. There is a Home and Community Care (HACC) program for elderly Clermont residents (QLD Health 2010).

At the time of the 2006 census, 267 people in IRC reported having a severe or profound disability requiring assistance. This represented 1.3% of the population, a much lower rate than across Queensland as a whole, where 4.0% of the population were in need of assistance. In CHRC the population proportion in need of assistance was similarly low at just 1.9% of the population.

There are fire, QAS and SES stations in both Clermont and Emerald. QAS also services the mining industry across the regional study area through direct commercial to provide pre-hospital emergency care at mine sites. Emergency helicopters and RFDS based in Rockhampton and Mackay also service the region (QLD Health 2010). There are several community groups present in the regional study area. There are also health care providers specialising in Indigenous health and social support based in Emerald.

There was an increase in birth rates in both IRC and CHRC between 1 January 2001 and 31 December 2007. This is aligned to the trends Australia wide, where the birth rate reached a record low in 2001 of 1.73 babies per women. By 2007 the birth rate had increased to 1.82 with women aged over 30 and women from more advantaged areas contributing the most to this increased fertility.

Over recent years, both the IRC and CHRC have undertaken community surveys as part of community planning processes. A key part of these surveys was identifying what people liked most and disliked most about living in their communities and to gather information about their future vision for where they live. The CHRC survey identified that the things people most like about living in the area was the friendliness and mix of people and the relaxed lifestyle. When asked what they disliked however, the majority of people reported the distance to major regional centres and services (particularly health). Other things people reported disliking included the limited availability of entertainment/cultural activities; cost of living/housing; and the impact of mining in particular shift work and its effects on sport and recreation (Hanley 2009).

In IRC, residents were surveyed as part of the 20:20 Vision community planning process (2009). Residents were asked to consider what the community has and identify potential opportunities or challenges over coming years. A number of Health, Wellbeing and Social Infrastructure challenges/opportunities were identified through this process including improved opportunities for aging population; upgrades to facilities; greater accessibility of services for the disabled; attraction and retention of health services and service providers to the region; and the impact of drugs and alcohol on the community (IRC 2009).

Impacts

It is not expected that the Project will have significant impacts on the Health, Wellbeing and Social Infrastructure of the regional study area. The main reason for this is the distance from the mine to the area and the high number of operational mines in the regional study area already. Those impacts that were considered were likely to be positive.

7 Impacts Assessment

Some key potential impacts to consider, however, are

- The stresses on employees and their families due to FIFO/DIDO/BIBO arrangements;
- Changes in the incidences of substance abuse (alcohol and drugs);
- Changes in the incidences of crime and deviant behaviour, including domestic violence; and
- Changes in the rates of gambling and other forms of problem gaming.

A summary of the potential medium and higher health, wellbeing and social infrastructure impacts is provided in Table 7-5. For a list of all the impacts assessed see Appendix B.

7 Impacts Assessment

Table 7-5 Very High to Medium Potential Health, Wellbeing and Social Infrastructure Impacts Summary Table

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement	Residual Ranking
Negotiation and uncertainty stresses	Negative	Moderate	Local	Feasibility	Unlikely	Medium	Mitigation	Low
Increased potential for accidents because of more traffic or driver fatigue	Negative	Major	Local	Life of Project	Likely	High	Mitigation	Medium - High
Increased demand on Alpha Hospital	Negative	Major	Local	Life of Project	Almost Certain	Very High	Mitigation	Medium - High
Increased community concern and anxiety because of perceived potential for increased crime and violence with miners	Negative	Moderate	Local	Construction / Operation	Possible	Medium	Mitigation	Low
Increased demand on emergency services in Alpha – police	Negative	Moderate	Local	Life of Project	Almost Certain	High	Mitigation	Medium
Increased demand on local community services and facilities	Negative	Moderate	Local	Life of Project	Likely	High	Mitigation	Medium
Increased use of social infrastructure requiring maintenance	Negative	Minor	Local	Life of Project	Likely	Medium	Mitigation	Low
Increased local health and community services	Positive	Moderate	Local	Life of Project	Possible	Medium	Enhancement	High
Increased wages as a result of employment on Project used on luxury goods and entertainment	Positive	Moderate	Local	Life of Project	Likely	High	Enhancement	Very High
	Negative	Moderate	Local	Life of Project	Possible	Medium	Mitigation	Low
Improved service capacity at the Alpha Hospital to service the local population and potentially the Project–immediate response	Positive	Minor	Local	Life of Project	Likely	Medium	Enhancement	High

7 Impacts Assessment

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement	Residual Ranking
Increased skills in the community to respond to emergencies	Positive	Moderate	Local	Life of Project	Possible	Medium	Enhancement	High
Increase in funds for social infrastructure	Positive	Moderate	Local	Life of Project	Unlikely	Medium	Enhancement	High
Potential for more volunteers to be available for sport and recreation activities, increasing the availability of these activities	Positive	Minor	Local	Life of Project	Likely	Medium	Enhancement	High – Very High

7 Impacts Assessment

Context

The BRC Community Plan (2009) identifies aged care as a crucial health care need in the community. Current health care services are limited and appear insufficient to cater for future population growth.

Alpha has a 10-bed capacity hospital with a further five aged care beds which can be used if required. The Alpha Hospital is serviced by a hospital ambulance, driven by volunteers and generally staffed by nurses. The hospital has an emergency department; however patients can only be admitted if the doctor is on duty. If not, they are transferred to Barcaldine, Emerald or Rockhampton (pers. comm., Alpha Hospital, 2010). The nearest QAS ambulance stations are located in Barcaldine, Anakie or Clermont.

There is no resident GP based in Alpha. One visits every Thursday and Friday from Barcaldine and there is a specialist who visits every three months. The nearest birthing suites are located in Emerald or Longreach. A stock of anti-venom is maintained at the hospital. Barcaldine is serviced by two doctors and a hospital. Serious cases however are transferred to Rockhampton Hospital, which services the southern part of Central Queensland. The Barcaldine Hospital provides a range of additional services through visiting specialists. Dental care is provided by a dentist who visits the community every six weeks under a partnership with a dental practice in Coopers Plains in Brisbane.

HACC services are available in Alpha and provide a valuable service to elderly people. HACC also provides a bus service to transport the elderly to visit people in other communities. People also have access to Home Assist Secure (BRC 2009). Spiritus Bush Nursing in Jericho provides a range of health services including home visits, preventative health projects and health promotion activities. An emergency ambulance is available between 8.00am and 4.00pm Monday to Friday. A fee applies to the use of this service (Spiritus 2010).

Residents were asked to highlight the aspects they appreciated about the current health services in the region as part of the BRC Community Planning Process. The key things identified by the respondents were RFDS service, based in Rockhampton and Longreach; the services of the visiting doctor; the hospital run pharmacy; and the patient transport service which provides subsidised transport to patients needing to transfer to regional centres (BRC 2009). As of mid 2010, there is also a private pharmacy in Alpha, the first one outside of the hospital system to service the community. Several visiting clinical and other health care services are made available to the Alpha community on a pre-established schedule (BRC 2010).

The lack of a permanent doctor in the community is the biggest health concern of most residents. Other concerns include the lack of dental services and limited nursing capacity. This represents a challenge to BRC as obtaining these services on a permanent basis requires some population growth, however the provision of these services is also critical to attracting new residents to the area (BRC 2009). The patient transport scheme is highly valued within the community, however residents reported that they felt that greater funding was required to increase the per kilometre and accommodation subsidies (BRC 2009). There are two organisations which provide health care and other support services to the Indigenous community. Both are located in Barcaldine.

At the time of the last census in 2006, 2.9% of the BRC population were in need of assistance with a severe or profound disability. Again this is below the Queensland rate of 4.0%.

7 Impacts Assessment

There is a police station and a voluntary fire and rescue service and SES in Alpha. The Fire and rescue service is alerted through an emergency page system operated from Rockhampton (pers. comm., Alpha SES and Fire and Rescue, 2010).

BRC residents valued their relaxed, outdoor way of life, and this is reflected in the wide range of recreational and sporting activities available across the region. For a small community there are a reasonable number of sporting opportunities in Alpha, and both children and adults participate actively. The Alpha show is held annually in May, and there is a vibrant and active arts and culture scene in Barcaldine. BRC maintains a number of parks and outdoor recreation facilities for residents and there are community swimming pools in Alpha and Barcaldine. Other recreational services/facilities include libraries, churches, town halls and various community services.

Consultations indicated that landholders in the mining lease area, along the Alpha–Clermont Road, may seek out health and other support services from Clermont rather than Alpha (pers. comm., 2010).

Health concerns related to coal dust from this Project have been assessed as a low impact, however there is potential for this impact to rise if cumulative impacts from the Alpha Coal projects are considered as well. Air quality impacts and related social impacts from this Project and from the Alpha Coal Project have been considered within the Air Quality Technical Report (see Volume 2, Appendix O). The Proponent will distribute key findings from these studies about the potential for dust to reach the community.

A number of potential impacts to health, wellbeing and social infrastructure that may arise as a result of the Project were identified by the social impact assessment team.

Negotiation and uncertainty stress

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Negotiation and uncertainty stress	Negative	Medium	Life of Project	Low

The negotiation and uncertainty stress is actually a direct impact of the Project location; however the assessment focuses on the subsequent stress resulting from uncertainty and negotiation about EIS process, as well as the process of land compensation and relocation within the mining lease itself. This stress results from the EIS process on the community, in particular the landholders and/or property managers with properties over the mining lease. Characterised as landholder stress, it encompasses the following:

- Consultation Issues:
 - Limited or no contact to date;
 - A lack of understanding of the project; and
 - A lack of understanding of the process.
- Understanding of rights:
 - No understanding of rights;
 - Limited understanding of rights;
 - Understanding of rights and recognizing the legal implications; and
 - An undefined grievance mechanism.

7 Impacts Assessment

- Dissemination of inaccurate information:
 - Communication breakdown or misunderstanding;
 - Unclear lines of communication;
 - Unclear plan and scheduling of works; and
 - Misinformation in the community, either unintentional or deliberate.
- Uncertain outcomes:
 - Resettlement / displacement (see Section 7.1);
 - Loss of access to property or restricted access;
 - Effects on livestock;
 - Effects on workers;
 - Effects on family;
 - Tension between neighbours; and
 - Fracturing of social networks.
- Cumulative effects:
 - Industry: No differentiation between different projects and companies;
 - Other events, including the effects of drought, financial issues, family issues, neighbour disputes, etc.; and
 - Negative precedent: bad experiences felt by other landholders:
 - From other projects;
 - From other companies;
 - From the Project; and
 - Unsubstantiated claims or incidences that have incorporated other events to make a single event that did not occur *per se*, but components have from various sources.

These stresses can affect the health and wellbeing of the community, subsequently impacting the social infrastructure. This stress will be felt primarily by landholders because of the immediate impact on their living situation, however the stress will also less commonly affect the broader community. This pre-construction stress on landholders is primarily focussed on the properties over the mine lease and rail corridor (rail corridor assessed separately, see Volume 6 Appendix K of the EIS). The stresses in the community as a whole can stem from the negative experiences of friends and family on the mining lease, as well as the uncertainty about the future of the community post-development of the Project.

The specific stresses can be roughly categorized into the following:

- Stress about who to turn to and being treated fairly;
- Stress and apprehension about the unknown;
- Stress about the loss of control and feelings of vulnerability; and
- Stress about what else they are entitled to but are not being told.

Quantifying such stresses is a difficult task, particularly within the scope of an EIS; however, the Project is aware of such stresses from consultation with landholders individually and in group settings and community events. The Project continues to work with individual landholders potentially affected by the project outside the EIS as part of their landholder negotiation process. It is important to note that the stresses identified in the SIA and consultation processes were not independently verified, and are based solely on the self diagnoses of those who self identified. The Project did not ask for a second opinion or verification from a medical professional. As a result the Project did assess this as a

7 Impacts Assessment

real impact; however, the information should not be taken as a scientific study or evidence of a relationship between mine development and increased stress. In the absence of resources to further examine the claims, the claims were taken at face value and recognised as an impact.

As the negotiation process for both the Kevin's Corner and Alpha Coal Projects are largely integrated and have been ongoing for some time, the magnitude of this impact is expected to be lower than that associated with the Alpha Coal Project. This will be particularly the case if the outcome of the negotiations and consultation on the Alpha Coal Project are positive for landholders and the community as these impressions will be carried forth on to Kevin's Corner negotiations.

It is important to note that the act of negotiation was deemed to be a stressful event, though a full assessment of the degree of stress per household/landholder was not undertaken. For some landholders the compensation package could produce the opposite effect since the deal could enhance their position. This was not assessed.

The Proponent will undertake ongoing communication and provide continued support to landholders throughout the resettlement process.

Increased potential for accidents because of more traffic and driver fatigue

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased potential for accidents because of more traffic and driver fatigue	Negative	Very High	Life of Project	Medium-High

The Project, which requires the transportation of large pieces of equipment and material, workers and supplies, will lead to an increase in traffic throughout construction and operation. These increases will be particularly evident on the main access routes such as the Capricorn Highway and the Alpha – Clermont road. This increase is expected to be most evident during construction, when there will be a high volume of large vehicles transporting heavy equipment to site. This impact will be magnified with each additional mining project.

Petkova et al (2009) reported an increase in traffic, and subsequently accidents, in all towns in the Bowen Basin as a result of the mining expansion in the area. In contrast to this, the Galilee Basin Economic and Social Impact Study (DEEDI, 2010) found no upward trends in the number of road crashes in areas impacted by mining. Road condition improvements, which were considered to offset some of the additional accident risk, were offset by increased travel times, fatigue, speed, heavy/wide loads and damage to road surfaces caused by increased traffic volumes.

The link between driver fatigue and accidents in the Bowen Basin was highlighted by Petkova et al (2009). The management of fatigue associated with working 12 hour shifts and the commute either side was identified by almost all mining companies operating in the area as a health and safety issue. A number of proactive programs which include driver education and the establishment of maximum working hours (including commuting time) have been developed to address these concerns.

Di Milla & Bowden (in Petkova et al, 2009) found that 13.0% of workers reported falling asleep (between one and four times) while driving to their shifts. This increased to 23.0% when driving home

7 Impacts Assessment

over the preceding 12 months. The results of these accidents included running off the road, crossing across into oncoming traffic and braking for no reason, all of which could have led to fatality or injury.

Because of its nature as a quiet rural town, there is potential that residents will take considerable time to become accustomed to the changing traffic patterns, increased volume and subsequent pedestrian movement across the Capricorn Highway. These conditions have the potential to magnify the potential impact of increased traffic on the community.

Mitigation

The Project will investigate a range of actions to mitigate this potential impact. The Proponent will engage proactively with the local police to develop and implement road safety programs and policies. The local community will be informed about road safety policies, programs and initiatives through the Communication and Community Engagement Plan. The Proponent will adopt a strategy that restricts mine personnel, contractors and suppliers from travelling to the mine site from Clermont via the Alpha – Clermont road because of the road condition and the associated safety issues. Consideration will be given to the development of workplace policies restricting personnel from driving to the mine site while the Alpha – Clermont road upgrade (proposed under the Alpha Coal Project) will be extended to the mining lease. The Proponent will also support Council efforts to secure funding to extend this upgrade all the way to Clermont.

The Proponent will also investigate opportunities to coordinate traffic management with the other projects in the region through the Community Forums. The Proponent will also explore opportunities to supply bus services from key regional centres such as Barcaldine, Clermont and Emerald to transport personnel to the mine site for their shift rotations. Policies regarding work day lengths and travel, in line with the fatigue management policy will also be considered.

Residual Impact

Proactive engagement with the police will support the development of appropriate road safety and driver education programs. The intention of these programs will be to install the importance of safe driving and pedestrian behaviour to mine personnel. This proactive engagement will also ensure police have input into the development of workplace policies aimed at improving traffic management and road safety.

It is not possible to reduce the impact of a serious motor accident on the affected persons or their families; however mitigation is expected to reduce the likelihood of such accidents occurring. Community awareness about the importance of driving safely and increasing community understanding about risky behaviour can be achieved through education programs. Restrictions on driving to the site will reduce the amount of traffic on the road, reducing the likelihood of accidents.

Coordinating traffic management with other projects in consultation with the councils and DEEDI SIA Unit will ensure a comprehensive approach to traffic management, reducing the risk associated with increased traffic. This action relies on the commitment of other projects to participate and the Proponent will welcome the input of other projects to assist with cumulative impact management. The DEEDI SIA Unit will be informed of these discussions as appropriate. The submission of the EIS will provide a baseline for future projects to enable consistent impact assessments, which is very important for the review of cumulative impacts.

The Proponent is reviewing the option to upgrade the Alpha-Clermont Road to the mine site and will consult Council in relation to this matter. The increased traffic using the Alpha – Clermont road will

7 Impacts Assessment

provide stronger reasoning to continue the upgrade to Clermont. Data collected by the Proponent may provide the evidence and documentation required to secure this funding. The provision of buses from key regional centres will also reduce Project traffic and driver fatigue associated with the transportation of personnel to and from site for their shifts. The strategy of restricting access from Clermont via the Alpha to Clermont road will further reduce the potential for accidents as a result of the poor road conditions, while support to council will assist in identifying third party support to extend the upgrade beyond the mine site. Also, the introduction of a maximum work hour policy will limit personnel from driving to site when fatigued or live a long distance from the mine.

The forums will provide a mechanism for discussing road safety issues and developing a coordinated approach across all projects in the Galilee Basin. It is important to note however that the Project does not have any direct control over the workplace or transport policies developed by other projects.

Through the combination of these mitigation approaches the impact is expected to be reduced significantly compared to before any mitigation.

Increased demand on Alpha Hospital

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased demand on Alpha Hospital	Negative	Very High	Life of Project	Medium-High

The Project will almost certainly result in increased demand on the Alpha Hospital. The extra population in Alpha associated with the Project will result in substantial increases to demand on the hospital. In addition, the Project workforce being located in the local area will result in additional, primarily indirect demand. An on-site clinic will be operated by the Proponent; however as the closest medical facility, it is possible that the Alpha Hospital may be called upon in the event of some emergencies.

The increased traffic, potential for driver fatigue and increased likelihood of accident associated with the Project may result in increased demand on emergency services. The current ambulance service is voluntary and is provided by the hospital and nursing staff, not QAS.

Mitigation

The Project will mitigate the potential impact of increased demand on the Alpha Hospital by consulting with local service providers and supporting BRC efforts to secure additional funding from State and Federal Government.

The establishment of an onsite medical clinic to service mine employees will further mitigate this impact. The Proponent, through the community forums, will work with OESR's PIFU unit to monitor full-time equivalent (FTE) population figures as has been done in the Bowen Basin. This will enable greater understanding of the demands on services through appreciation of the number of individuals within specified areas.

Residual Impact

After mitigation the residual impact is expected to be medium to high. The project will minimise direct demand on the Hospital by establishing an on-site medical clinic to provide routine medical assessments and support on site. The Proponent will explore options to enter into a contract for

7 Impacts Assessment

provision of emergency services with QAS, as is common with large construction and resource projects. These contracts may also provide the impetus for QAS to establish a permanent ambulance station in Alpha or nearby.

It is expected that support for BRC in their efforts to secure additional funding will result in the development of improved services in Alpha. Some of this funding could be used to improve capacity at the Hospital, particularly through the appointment of a full-time doctor. Such an appointment would benefit both the people of Alpha and BRC more broadly as demand on the doctor in Barcaldine will reduce.

PIFU and other statistics on population growth in Alpha will assist BRC determine increased service requirements. This will be performed with support from the community consultation forums that will support the collation of data and development of a rationale for requesting increased funding if necessary.

Increased demand on emergency services in Alpha – police

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased demand on emergency services in Alpha – police	Negative	High	Life of Project	Medium

It is almost certain that there will be increased demand on the Alpha police as a result of the Project. Demand for Police services is likely to be in the form of:

- Support for traffic management, particularly when large machinery is being transported to site;
- Provision of inductions to mine employees and contractors;
- Responses to potential emergencies if required (either on the mine site or vehicle accidents); and
- Provision of more law and order services if required.

Unless additional resources are made available to the Alpha Police, it can be assumed that the magnitude of this impact will increase as new projects are developed.

Mitigation

To mitigate this impact, the Project will undertake a range of activities including ensuring proactive engagement with the local police and other emergency service providers. As part of this engagement, the police will be actively consulted in the development of the Project's Traffic Management Plan and Emergency Response Plan. Police will also be provided with a full mine site induction in advance. The Proponent will consider ways to support BRC applications for additional funding and will cooperate with other projects through the Community Consultation Forums in an effort to coordinate needs for police support.

Residual Impact

This impact is expected to reduce from high to medium as a result of mitigation. By providing the Police with a full mine site induction they will be able to respond to emergencies in a timely manner, while consulting with them in developing relevant plans will ensure realistic and appropriate responses to traffic management and emergencies.

7 Impacts Assessment

Coordination with the other projects, particularly around traffic and workforce management, will minimise the potential demand increases on police resources and provide a dedicated avenue for consultation and engagement. The forum will also provide a means for reviewing service needs and resource availability and considering opportunities to support BRC efforts to attract additional funding from the State and Federal Governments.

Increased demand on local community services and facilities in Alpha

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased demand on local community services and facilities in Alpha	Negative	High	Life of Project	Medium

It is likely that the population increase in Alpha as a result of the Project will lead to increased demand on local goods, services and facilities. Given that current service levels are very limited the assumed population growth as a result of Alpha Coal Project would have required enhanced service levels to meet the revised demand. This assessment is based on the assumption that the mitigation actions to address this initial increase in demand were successful and services had been improved to reach the required level after 5% population growth, it is likely that any further population increase will place renewed pressure on service providers, again limiting access. This may be compounded as some services, such as childcare, may potentially have reached their maximum service level with further expansion requiring significant investment and infrastructure development.

It is important to note that in a community the size of Alpha, any increase in demand on services can have high negative impacts because of the low population and the absence of many key services. Conversely, an increase in demand for services may be a positive impact as it may lead to improved service delivery. A large number of people who live in the area already travel outside of the region to access services, in particular those related to health.

Increased pressure associated with the higher demand levels resulting from further population growth may put downward pressure on service quality as providers attempt to service the larger population within existing capacity levels. Conversely, further population growth may provide the impetus required for service expansion, or for new service providers to explore the increased market opportunities.

Mitigation

Strategies to mitigate this potential impact include the provision of support to BRC efforts to obtain more funding for services in Alpha; the use of the Project's Communication and Community Engagement Plan to ensure effective consultation with and support to existing local service providers; an employment program which will be developed by the Proponent that assists to identify opportunities for the partners of mine personnel moving to the area; and exploration of opportunities to provide counselling services for the local community and workforce.

Residual Impact

As a result of mitigation, this impact is expected to be reduced to medium. Providing support to BRC may improve the potential for sufficient funding to be made available to support facility development and service delivery in Alpha. These improvements will reduce the potential impact of increased

7 Impacts Assessment

demand on service providers and users in Alpha. By complimenting this with the employment program for mine personnel's spouses, particularly in high demand areas such as health care, education and child care, the Project will further contribute to enhanced service delivery capacity. Finally the provision of services such as counselling to personnel and making these available to the broader community will reduce some demand on other service providers including the State.

Increased community concern and anxiety

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased community concern and anxiety because of perceived potential for increased crime and violence with miners	Negative	Medium	Life of Project	Low

Concern over potential threats to community safety and security as a result of the project was highlighted by a number of respondents to the community questionnaire and participants in consultation events. Residents reported that they currently felt very safe and secure in the Alpha community, where everybody was known to one another. As they would not be known to other community members, and would be new residents, many respondents felt that the level of security would be reduced, and people would need to take additional security measures to ensure they remained safe.

The perceived association between mining communities and crime heightened the concerns of residents. Mining communities are typically characterised by a high proportion of itinerant, younger male residents, meaning that mining and crime are often perceived to go hand in hand. There is however little credible literature supporting this perception and consultation activities in the Bowen Basin indicate that such perceptions do not accurately reflect the reality in mining communities (pers. comm., Coppabella MAC Camp, 2009) (pers. comm., Moranbah MAC Camp, 2009) (pers. comm., Moranbah Police, 2009).

The establishment of the Alpha Coal Project will result in in-migration to Alpha, changing the dynamics of the community and bringing in new residents. It is anticipated that once they have assimilated into the community, the perceived risks associated with new residents will be eliminated and the potential impact lower as the result of migration to the area for employment on a second project.

Mitigation

The primary mechanism for mitigating this impact will be the development of a Project Community and Stakeholder Engagement Plan which will use proactive engagement with the local police and community to manage stakeholder expectations. An induction program will be designed and provided to all mine personnel upon commencement. This induction will provide an overview of community expectations and values as well as an introduction to workplace policies and procedures. If required the Proponent will consider supporting or establishing a local Neighbourhood Watch or similar program, while counselling services will be offered to personnel and the broader community.

7 Impacts Assessment

Residual Impacts

After mitigation, and as more new residents arrive in Alpha, the impact resulting from a perception that safety and security will be damaged is expected to be low. Proactive engagement with police will ensure that appropriate information is provided through the induction process and adequate workplace policies developed. This engagement will also enable the Proponent to identify if there are any changes in community crime levels and undertake further actions, including Neighbourhood Watch sponsorship if required. Counselling services will also enable the community to access support and identify strategies to help them manage the change process as new residents move to Alpha.

Increased wages as a result of employment used on entertainment and luxury items

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased wages as a result of employment on Project used on entertainment and luxury items	Negative	Medium	Life of Project	Low
	Positive	High	Life of Project	Very High

Increased wages in the local area as a result of working on the Project which is used on luxury items and entertainment is seen to have both positive and negative impacts. Negative impacts arise as this money is used in an unsustainable and wasteful manner, whereas positive impacts can arise as the money is used to improve lifestyle.

While increased wages are generally considered to be positive, the demographic profile common to the mining industry, which is largely dominated by younger males, can result in these higher wages used in an unsustainable manner with large proportions being used to purchase luxury items or in the pursuit of entertainment. This often leads to low levels of community saving combined with proportionately higher debt levels which can be unsustainable in the event of an economic downturn. This trend has been common in mining communities throughout Queensland, where measures were proposed to supplement mining incomes to assist with debt payments for miners who were temporarily unemployed due to the resource slow-down associated with the Global Financial Crisis (GFC). Given the high level of wages associated with mining, such bailouts should not be required during economic downturns provided salaries are used in a sustainable manner and consideration is given to appropriate financial management practices. It is important to note that while this is a common issue, how wages are used is the prerogative of the individual.

While such unsustainable use of higher wages is perceived as negative, the opportunity provided to improve lifestyles through enhanced entertainment and the purchase of luxury goods is a positive benefit for the community. An increase in disposable income not only allows workers to better support any dependents but also means they are able to undertake any home improvements, pursue entertainment or purchase items to make day to day life easier and more comfortable. These factors all contribute to an individual's sense of happiness, satisfaction and wellbeing.

In a close-knit community such as Alpha, it is expected that the benefits of higher incomes will be shared throughout the community in some form. For example, only a limited number of people will be actively employed in the mine; however it is likely that their friends and family will share the entertainment activities they enjoy as a result of their higher incomes.

7 Impacts Assessment

Further, the anticipated population increase resulting from the establishment of the projects combined with the higher level of disposable income is likely to make more leisure activities available within the BRC area - particularly sports. This will provide greater opportunity for residents to participate and offer more entertainment options for the broader community including children and younger people.

Mitigation and Enhancement

Opportunities to offer financial planning services to mine workers and the broader community will be the primary measure to help manage increased incomes are used in a sustainable manner and mitigate the negatives and enhance the positive impacts. The Proponent will also encourage volunteering and participation in community entertainment and leisure activities amongst mine personnel, as well as identifying potential opportunities to sponsor such activities.

Residual Impact

Mitigation, through the provision of financial planning services, is expected to reduce the residual impact ranking to low. While it is neither the Project's duty nor place to suggest how income is spent, saved or invested, financial planning services, information and guidance will support mine personnel to manage the higher incomes in a sustainable manner, generating wealth for the future.

Increased wages are expected to improve the quality of life of mine personnel. Although it is anticipated the majority of people will spend their income outside of the community, the flow on effects will likely provide broader benefits to the community. Enhancement of this benefit is expected to increase the impact ranking from high to very high.

By promoting opportunities for mine personnel to volunteer and engage in community activities as well as actively sponsoring such events, the Project will encourage greater variety and availability of entertainment and leisure activities in the BRC community.

Increased use of social infrastructure requiring maintenance

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased use of social infrastructure requiring maintenance	Negative	Medium	Life of the Project	Low

As reported through community consultation and the draft BRC Sport, Recreation and Open Space Plan, some of Alpha's social infrastructure is in need of upgrading or maintenance work. For example, the swimming pool, which is around 30 years old, is in need of an upgrade and an application for a Federal Grant has been submitted.

Other social infrastructure use will also require increased maintenance, including use of the hospital, school, child care and emergency services. This could be applied to both physical capital and human capital (i.e. staff).

With population growth there will be increased usage of social infrastructure requiring more intensive maintenance. Given the current pressures on service funding in rural areas, unplanned maintenance or upgrading of facilities will require additional funding to be generated. As this is the second project in the area and population growth will be in addition to that seen as a result of the Alpha Coal Project,

7 Impacts Assessment

the magnitude of this potential impact is expected to increase slightly, however the overall ranking will remain as medium. If however, BRC with support from the Alpha Coal Project has been successful in securing funding to maintain and upgrade social infrastructure, the magnitude of this impact will reduce (as will the impact ranking).

Mitigation

The key elements to mitigate this include supporting BRC in efforts to generate more funding for services from State and Federal government and ongoing consultation with and support to local service providers. The Proponent will continue to support/sponsor community development programs in the Alpha area. The Proponent will also coordinate efforts with local emergency service providers and identify areas for overlap/sharing of services. Where this occurs, the Project will explore opportunities with the service providers to enhance services and maintenance.

Residual Impact

The availability of additional funding to support service delivery and social infrastructure development in Alpha will allow council and other providers to maintain and in some cases upgrade infrastructure and services. This will reduce the residual impact ranking to low by negating the impact of increase usage causing greater wear and tear on infrastructure. Areas for expansion/improvement considered helpful in addressing certain social infrastructure priorities have been identified through the Barcaldine Regional Council draft Sport, Recreation and Open Spaces Plan. This information will be helpful in determining where to focus efforts.

Increased local health and other community services

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased local health and other community services	Positive	Medium	Life of Project	High

Community consultation has indicated that while the residents of Alpha are generally satisfied with the current level of services available in the community, the lack of a permanent doctor or QAS station was highlighted as one of the things people like least about living in the Alpha area. Population growth has been recognised as the critical element in ensuring the current level of services are improved, or at the least maintained.

It is anticipated that the establishment of Alpha Coal Project will stop the current trend of population decline and will have already resulted in the establishment of new and / or expansion of existing health services in Alpha to service the additional population. As a result the baseline level of services is expected to be marginally higher.

Additional population growth in the Alpha area will likely allow opportunity for local community and health services to expand. Population growth associated with the Project provides justification for increased funding and support to service delivery, improving both the availability and accessibility of services in the community and employment opportunities within service providers. There are also opportunities for new services to be established, for example if the mines require part time specialist services (such as dental or physiotherapy) this may encourage the provider to establish a private clinic in Alpha and extend the services to the community.

7 Impacts Assessment

Enhancement

The Project will support the BRC in their efforts to obtain additional funding to further improve service provision in Alpha to enhance the magnitude of this benefit. In addition, the Proponent will actively consult with local service providers to identify means where support and sponsorship will contribute to enhanced service provision. An employment program which focuses on identifying opportunities for mine personnel's spouses and dependents will also be established and opportunities to provide counselling services to employees and the community will be explored. The Proponent will also investigate establishing a spousal employment program.

Residual Impact

The Project's enhancement activities are expected to result in this impact increasing from medium to high. While improved service delivery, particularly a full-time doctor and establishment of a permanent QAS station in Alpha is a high priority for the population, realising these improvements relies on population growth. As such many residents believe population growth leading to improved services to be one of the most significant benefits of the Project.

Consultations with local service providers will focus on identifying and addressing current gaps in service provision, funding and skills shortages. This information will be used to design and implement appropriate support and sponsorship programs. These activities will be tracked and monitored through the SIMP and coordinated through the Project's community liaison role. Through support to the BRC efforts to obtain additional funding, the spousal employment program and sharing of resources with the Alpha community the Project will enhance the benefits from medium to medium-high. It is useful to note, that if more projects are established in the Alpha vicinity, the potential for additional services increases further.

Improved service capacity of the Alpha Hospital to service the local population and potentially the Project - immediate response

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Improved service capacity at the Alpha Hospital to service the local population and potentially the Project—immediate response	Positive	Medium	Life of Project	High

The initial population increase anticipated in Alpha as a result of the Alpha Coal Project, will have provided additional grounds and evidence of need for BRC to lobby state government for funding to secure additional service capacity of the Alpha Hospital. Assuming that these efforts to obtain additional funding have been successful, there will be a higher level of services available, potentially including a full-time doctor. This will have resulted in a dramatic increase in capacity and will provide a better baseline service level for the Alpha community including new residents arriving as a result of the Project. If however additional funding has not become available to increase the capacity of medical services in Alpha, the Project will provide additional weight to further BRC funding requests, and the combined population growth may be sufficient to warrant such increased services.

7 Impacts Assessment

The Project will have its own on-site medical facilities, however in the event of a mass casualty emergency; Alpha Hospital is the next closest medical facility to assist with management of the incident.

Again, the Alpha Coal Project may have resulted in sufficient population growth in Alpha to warrant the establishment of a QAS station to service the local population and surrounding area. If this has not occurred, this Project will provide further evidence to support BRC in its efforts to attract such a station. The Project will explore opportunities to enter into a commercial relationship with QAS to provide services to the mine. Such agreement might provide further impetus for the establishment of a permanent QAS station in Alpha.

Enhancement

To enhance this benefit, the Proponent will provide support to the BRC and local health service provider efforts to obtain funding from the State and Federal Government to improve services. Opportunities to establish an employment program that identifies opportunities for the employment of mine personnel's spouses and dependents will be explored. Such a program will have a particular focus on high priority skills and industries including health care.

Residual Impact

Access to improved services through the Alpha Hospital is perhaps the largest perceived potential benefit to the community as a result of the establishment of mining in BRC. Through the Project enhancement activities, there is the potential that the benefit of such impacts can be increased from medium to high. If however these changes are effected as a result of the, the actions of the Proponent on this Project will not be as important but are also less likely to have a significant impact in changing the magnitude.

Increased skills in the community to respond to emergencies

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased skills in the community to respond to emergencies	Positive	Medium	Life of Project	Medium - High

The establishment of the mining industry near the Alpha community provides significant scope to increase the community's capacity to respond to emergencies. This potential is both a result of new people, with new skills moving to the area and through the opportunity to engage the community in emergency response and other training provided to mining personnel such as first aid, fire fighting, workplace safety and HAZMAT response. As the Alpha Coal Project, which has the same training provisions and requirements will already be established the expected potential impact of an additional project being established on community capacity to respond to emergencies is expected to be reduced to medium. This is because it is expected that there will only be a limited number of people in the community who choose to participate in training and they will have been absorbed by the Alpha Coal Project training. Therefore any additional capacity increase is likely to come from new residents who move to the Alpha area bringing with them new and varied skill sets.

7 Impacts Assessment

Enhancement

Even though the community take up is expected to be minimal, the Proponent will still explore opportunities to provide emergency response training in the community, opening it up to participation by residents. The Proponent will also investigate establishing an employment program for mine personnel's spouses and dependents, linking them where possible with high priority services such as health care and emergency response.

Residual Impact

As the Project will not be the first to be established in the region, it is expected that enhancement activities will have less potential to extend the benefits. However, such activities will still have the potential to increase the impact from medium to high. Offering training to the community may result in additional residents participating, and will also provide the opportunity for refresher or extension training. While the establishment of an employment program will support the identification of high priority skills and support linkages between these people and service provision organisations.

Increases in funds for social infrastructure

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increase in funds for social infrastructure	Positive	Medium	Life of Project	High

Population growth provides justification for additional funds to be allocated for social infrastructure and service delivery. At present, Alpha is in an unsustainable position. Population trends indicate that there has been a decline in population over recent years. If this continues it is unlikely that current service levels in Alpha will be able to be sustained, let alone expanded. This concern was evident through consultation events with the BRC and the local community.

As some level of population growth is expected to have been experienced as a result of the Alpha Coal Project, it is possible that additional funding may have already been made available to improve social infrastructure and services in the community. These improvements will have had a direct impact on community health and wellbeing. Further population growth will add more justification to additional requests for funding and service improvement as well as increasing the pool of skills and resources available to support social infrastructure and services in both paid and voluntary positions.

Enhancement

The primary focus of enhancement activities will be on supporting BRC efforts to obtain additional funding, consulting with local service providers and exploring opportunities for counselling services. In addition, the Proponent will identify opportunities to provide sponsorship and support to community development programs in the region.

Residual Impact

While the Project itself is not expected to have a significant impact on the level of social infrastructure and services in the community, the cumulative effect of more than one project is expected to provide justification for improvements. The Proponent's enhancement activities are expected to increase this impact slightly from medium to high. Additional funding will enable new social infrastructure to be

7 Impacts Assessment

developed and services improved, while sponsorship will provide targeted support to service delivery organisations in Alpha.

Potential for more volunteers to be available for sport and recreation activities, increasing availability of these activities

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Potential for more volunteers to be available for sport and recreation activities	Positive	Medium	Life of Project	High-Very High

Small rural communities like Alpha rely heavily on volunteers to facilitate and support recreational activities, such as sport. The nature of mining, with shift work and extended periods off between shifts (for example a seven days on – seven days off rotation) means that mine personnel often have greater opportunities to become active community volunteers. Where an employee has a young child, this also provides greater opportunity to spend time together as a family.

Shift rotations, while often supporting increased opportunities for volunteering, can also serve as a limiting factor when the rotations do not align with a weekly schedule and allow for an ongoing, regular commitment. However, it might be possible for a mine worker on a seven day-on, four day-off rotation to commit to coaching a junior sports team in tandem with another mine worker (working the opposite rotation). CHRC highlighted successful examples of such arrangements, whereby the coaching role is shared between two mine workers on opposite shifts, where a seven day rotation allows.

An increased population also provides a larger pool of potential volunteers with a greater variety of skills and experience. Such increases are not restricted to the mine personnel themselves but include family or other new residents. Often following population growth there is greater availability and choice of sporting and other recreational activities because of the increase and greater diversity in resources within the community. Currently, there are limited opportunities available to engage in sport and other recreational activities in Alpha because of the limited availability of facilities, participants and coaches. For example, although touch football is played in Alpha, residents have to travel to Emerald or Longreach to watch or play rugby. The draft BRC Sports, Recreation and Open Spaces Plan identified expanded/improved sports facilities as a means for enabling the community to host sporting competitions. This Project will further compound any population growth achieved through the Alpha Coal Project,

Enhancement

The Proponent will encourage opportunities for personnel to undertake part-time or voluntary work in the community to enhance this impact. Consideration will be given to such commitments and the value of community engagement in determining shift rotations. Opportunities to sponsor local community and sporting organisations and facilities will also be considered.

Residual Impact

After enhancement the benefit of this impact is expected to increase from medium to high to very high. By considering potential volunteer and community commitments when developing shift rotations the Proponent will maximise opportunities for mine personnel to commit to community activities.

7 Impacts Assessment

Promoting and encouraging volunteering will further support this community involvement. Sponsorship of local community organisations and sports will improve facilities and provide opportunities to increase the breadth of activities available and to improve the facilities.

7.6 Education and Training

7.6.1 Regional Study Area

Context

The regional study area has a wide range of private and government education and training facilities. These facilities provide services ranging from childcare and early childhood development through to university or industry accredited training.

Childcare facilities in Emerald are currently in high demand with a waiting list of 290 children requiring places. Despite this high demand no childcare facilities have been built in the area since 2007. CHRC are currently working to attract other providers however has reported difficulties in identifying funding and skills necessary to establish a centre. Conversely the Clermont Kindergarten and Child Care Centre was recently expanded and additional places are available.

There are a number of primary and secondary schools in Emerald, both private and government. In Clermont the main state school has 250 students currently, but has capacity to cater to up to 400 students, provided teachers are available. There are also boarding facilities in Clermont, Rockhampton and Townsville.

Tertiary education facilities in the regional study area include the Agricultural College in Emerald, the Central Queensland Institute of TAFE which has a Central Highlands campus in Emerald and additional campuses in Blackwater and Clermont. Central Queensland University, which is headquartered in Rockhampton, also has a learning centre in Emerald.

In addition, there are a number of registered training organisations who provide education and training to industry, particularly the mining industry, located across the regional study area. Training through these providers focuses on health and safety in the resource industry and accreditation required to work in mines.

At the time of the 2006 census, 49.7% of the population in IRC and 46.7% of the population in CHRC aged 15 or over indicated that they have some post-school qualifications. These rates are lower than across Queensland as a whole where 50.4% of people have post school qualifications.

The potential impacts of the Project on education and training in the regional area were considered as part of the SIA process. While a number of, mainly positive, impacts were identified, none were considered to be of medium significance or higher. These impacts largely focused around opportunities for local service providers to deliver targeted and ongoing training to Project personnel, both on campus and at the mine-site. These benefits will likely be enjoyed by the community as well as the provider.

Impacts

The potential impacts to education and training in the regional study areas are low. The impacts are likely to be mainly low positives. There could be increased demand on child care facilities however

7 Impacts Assessment

there are spaces presently available, particularly in Clermont. Child care is often a difficult issue as there are limited opportunities in all centres across Queensland. This is because of both a general lack of spaces, and also personal preference as to the type of child care service desired.

7.6.2 Local Study Area

Context

Education opportunities in the local study area are limited and it is common for families with young children to leave the area when they reach high school age or to send their children to boarding school. The population pyramid supports this, showing a much lower proportion of people in these age groups than across Queensland as a whole.

Child care services in Alpha are provided through the Jelly Beans Community Centre and the Alpha Day Care Centre run by BRC. The centre is currently operating below capacity, however is unable to attract qualified staff required to allow more children to join. Childcare facilities in Barcaldine area limited to the local Kindergarten which also provides limited child care services.

Alpha has a P – 10 school which recently extended services to include the option to study year 11 and 12 via distance education. Most students however either travel to Barcaldine each day on an education department bus or leave the area to complete high school in a regional centre. The local school was well valued within the community; however, residents also recognised the educational limitations locally. Improvements to these services are dependent on population, industry and employment.

Barcaldine offers the largest primary and high schools in the local study area, with 150 primary students, 130 secondary students and 40 teachers. Out-of town students are transported to the school from four directions. Barcaldine also has a Catholic Primary School which caters for 22 students.

Barcaldine, with 14%, has the second highest proportion of Indigenous students of any school in the Central West region after Hughenden. In addition to normal curriculum, the school offers life-skills programs and school based apprenticeships. Specialist subjects are offered via distance education and virtual teaching facilities.

There is also a campus of Central Queensland TAFE in Barcaldine.

At the time of the 2006 census just 38.0% of all people aged 15 and over in BRC reported that they had post-school qualifications. This is significantly lower than the whole of Queensland rate, where 50.4% of all people aged 15 and over have post-school qualifications.

Impacts

A summary of the potential medium and higher education and training impacts is provided in Table 7-6. For a list of all the impacts assessed see Appendix B.

7 Impacts Assessment

Table 7-6 Very High to Medium Potential Education and Training Impacts Summary Table

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement	Residual Ranking
Increased demand for child care	Negative	Major	Local	Life of the Project	Likely	Very High	Mitigation	Medium - High
Potential for community to share in mine-specific training	Positive	Minor	Local	Life of the Project	Likely	Medium	Enhancement	High
Increase in school places due to population increase – elementary	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Increase in school places due to population increase – high school	Positive	Moderate	Local	Life of the Project	Unlikely	Medium	Enhancement	Medium – High

7 Impacts Assessment

Increased demand for child care

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased demand for child care	Negative	Very High	Life of Project	High-Very High

The experience of mining communities in the regional study area suggests a significant number of mining personnel who choose to move to the area will have young families. If this also occurs in Alpha, the demand for child care will increase. While the child care facilities in Alpha have limited scope for expansion from current levels (provided competent staff can be identified and recruited), it is anticipated that population increases from the Alpha Coal Project will have already used this additional scope. As such, further population growth as a result of the Project will place additional pressure on child care services, and require a more comprehensive strategy to address any shortfalls.

A strategy to assist in addressing these shortfalls that has been used across the regional study area has been the introduction of 'lifestyle packages' to replace salaries for mine personnel. These packages may include access to child care services, subsidised education and housing contributions in addition to regular salary payments.

Mitigation

The Proponent will provide support to BRC funding efforts to mitigate this impact. Consultation with local service providers will be used to identify gaps and encourage new service providers to enter the market when demand warrants. Consideration may also be given to providing Project support to the establishment of a new child care facility or staff training programs to increase the capacity, in the event of significant increased demand.

Residual Impact

Mitigation activities are expected to reduce the impact of increased demand on child care facilities slightly to high-very high. There are a number of other limiting factors in addressing potential shortages in child care facilities including the difficulty in attracting a suitable developer to establish new child care facilities as well as the difficulty in recruiting and retaining competent staff to manage the child care centre. Experience in communities such as Emerald where there are severe shortages in childcare places have indicated a reluctance within the market for developers to establish new child care facilities despite the high levels of unmet demand.

Providing support to expand current services, or establish a new one through additional funding or sponsorship will assist in mitigating this impact somewhat. The provision of training and other support to staff will encourage new people to enter the child care industry. While the development of 'lifestyle packages' as a form of compensation for workers will provide guaranteed demand, potentially encouraging developers to establish a new child care facility in Alpha.

7 Impacts Assessment

Potential for community to share in mine specific training

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Potential for community to share in mine-specific training	Positive	Medium	Life of Project	High

Mine personnel are provided with a wide range of mine induction and training programs including first aid, fire fighting, workplace safety and emergency response. There is the opportunity for this training to be offered to the broader community, extending the benefits.

As the Alpha Coal Project will be established and operational, it is anticipated that this benefit will have been largely experienced before the Project commences. There are however opportunities for more people in the community to take up the training, or to participate in regular refresher courses. This will have an ongoing impact on the community by enabling residents to better respond to emergencies.

Enhancement

To enhance this benefit, through the Community Liaison role the Proponent will consult with local services regarding upcoming training opportunities and community needs to coordinate efforts wherever possible. An element of this consultation will be exploring potential to offer training programs in Alpha as opposed to on the mine site, extending this to all community participation.

Residual Impact

Project enhancement activities are expected to increase the potential impact of this benefit from medium to high. Offering training that is both relevant and convenient to the community will enable them to participate and build their own capacity to contribute to emergency management. Participation however is based on individual choice and it is expected that only a limited number of residents will choose to take up these opportunities.

Increase in school places due to population increase – Elementary School

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increase in school places due to population increase – Elementary School	Positive	Medium	Life of Project	Medium - High

School capacity provided in Queensland State Schools is based on the school-age population in the catchment area and annual school enrolments. Consultation has indicated that when enrolments at the start of a new school year exceed the current capacity of the school, capacity will be increased through the use of temporary or portable structures and engagement of additional teachers. Given the experience of mining communities in the regional study area, where population growth has consisted of a high proportion of young families, it is reasonable to assume that population growth in Alpha will show the same pattern. This will increase the number of children enrolling at the local elementary

7 Impacts Assessment

school and result in additional pressure on existing capacity. There is potential that this increase will be sufficient to warrant additional resources to be allocated, benefiting the broader community.

Consultation has indicated that an assessment of school resources and capacity is not undertaken until enrolment is completed at the beginning of a school year. Therefore it is likely that there will be a lapse between the identification of additional capacity requirements and the expansion of capacity, placing additional pressure on existing resources in the interim period (Pers. Comms, 2010).

Enhancement

To enhance this impact, the Proponent will proactively identify the demographic profile and needs of personnel who intend to move to Alpha. The Project Communication and Community Engagement Plan will include consultation with the school to undertake an assessment of current capacity levels and identify when additional resources will be required. Support will be provided to BRC efforts to lobby for additional funding from the state government as required, while the Project will also investigate opportunities to support/sponsor local community organisations and facilities such as the School.

Residual Impact

Enhancement activities are expected to increase the potential benefit of this impact to the community from medium to medium – high. Additional funding allocated to Alpha can be used to create new places at the school and to enhance capacity, while direct sponsorship/support may be used to further extend school capacity. Strategic engagement with both mine personnel and the school will enable a more proactive approach and identify increased numbers and needs prior to the commencement of the school year to minimise the potential for any delays to expansion.

It is important to note however that the magnitude of this benefit will be determined more by the individual choice and preference of mine personnel than Project enhancement activities. If personnel with young families and school age children choose to move to the local study area there is potential for the number of school places in Alpha to be increased and the associated resources obtained. Further, if there is an increase in school numbers, resources and capacity it is more likely that mine personnel will choose to relocate to the area.

Increase in school places due to population increase – Secondary School

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increase in school places due to population increase – Secondary School	Positive	Medium	Life of Project	Medium - High

As with elementary school, the population increased anticipated in association with the establishment of the Kevin's Corner Project has the potential to result in more secondary students attending the Alpha State School. Currently year 11 and 12 students living in the Alpha region are required to travel to Barcardine or further, unless they are willing to complete matriculation through distance education. A greater population of students at school age has the potential to extend the opportunities of these students through greater student mass.

7 Impacts Assessment

The significance of this impact may also be magnified by the greater employment opportunities available in the area. Currently, education and employment opportunities in the Alpha area are limited making it more likely that children completing the final years of school often have to move away - sometimes accompanied by their parent's and entire family. Now however with significantly improved employment opportunities, combined with higher population numbers and an improved education system in the region may make it more attractive to remain in the BRC area to complete secondary school.

Enhancement

Recommended enhancement strategies are the same as those considered for elementary school enrolments above.

Residual Impact

As with the potential impact on elementary school enrolments, the increase in school places as a result of population growth is expected to remain medium or increase slightly to high.

For further information on the residual impact see the elementary school impact above.

7.7 Labour Market and Employment

The Proponent will implement an equal opportunity education, training and employment policy without exclusion except for instances conflicting with health and safety requirements and regulations. This policy will encourage opportunities for women, people with a disability and Indigenous peoples to seek employment with the Project. The Proponent will develop a local hiring policy to encourage local education, training and employment opportunities.

7.7.1 Regional Study Area

There is very low unemployment across the regional study area, with rates of 1.4% across IRC and 2.6% in CHRC. However the small area labour market for Clermont showed a slightly higher unemployment rate of 3.1% when compared to the overall IRC rate. Conversely unemployment in Emerald was lower than across CHRC as a whole (1.9% compared to 2.6%).

At the time of the 2006 census, 19.0% of all employed persons aged 15 and over were employed in the coal mining industry in Clermont. This was followed by the sheep, cattle and grain industries which employed 9.6%. School education (6.1%), supermarket and grocery stores (4.1%) and local government administration (3.5%) followed.

In Emerald, coal mining was also the most significant employer at the time of the 2006 census, employing 14.5% of all employed people. The next most significant industries of employment were school education (5.1%), heavy and civil industry (3.4%), supermarket and grocery stores (3.0%), and the food service industry (2.9%). The rate of employment in mining increased to almost 40% in IRC and 23% in CHRC showing the dominance of the mining industry across the regional study area. The Bowen Basin is within both regional councils.

When asked to categorise their employment based on profession, the majority of respondents at the time of the 2006 census classed themselves as Machinery Operators and Drivers (IRC 24.9% and CHRC 19.6%). The second most common profession was Technicians and Trades Workers (20.1% in IRC and 18.8% in CHRC).

7 Impacts Assessment

Mines across the regional study area were dependent on a combination of local employment and FIFO/DIDO to provide their workforce. Consultations indicated both successful and challenging elements attached to each of these models. CHRC highlighted the success of FIFO/DIDO mining where the site was located away from regional centres and employee movement away from the camp was restricted. While the IRC highlighted concerns over high staff turnover and training costs because of FIFO/DIDO. Both councils reported that residents felt that itinerant populations in town centres reduced community cohesion and integration and were a concern to the councils.

Impacts

A summary of the potential medium and higher labour market and employment impacts is provided in Table 7-7. For a list of all the impacts assessed see Appendix B.

7 Impacts Assessment

Table 7-7 Very High to Medium Potential Labour Market and Employment Impacts Summary Table

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement	Residual Ranking
Increased employment opportunities	Positive	Moderate	Regional	Life of the Project	Almost Certain	High	Enhancement	High – Very High
Skills drain from other industries (including council)	Negative	Major	Local	Life of the Project	Possible	High	Mitigation	Medium - High
Perception of workers leaving one sector for mine employment	Negative	Moderate	Local	Life of the Project	Likely	High	Mitigation	Medium - High
Change in occupation	Negative	Minor	Local	Beyond the Project	Likely	Medium	Mitigation	Low
Decrease in labourers available to assist on property	Negative	Moderate	Local	Life of the Project	Unlikely	Medium	Mitigation	Low
New people to area bring skills for other (non-mining) industries	Positive	Moderate	Local	Life of the Project	Almost Certain	High	Enhancement	High – Very High
Change in occupation	Positive	Minor	Local	Life of the Project	Likely	Medium	Enhancement	Medium – High
Increased competition within industry (large number of employment opportunities)	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	High – Very High

7 Impacts Assessment

Increased employment opportunities

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased employment opportunities	Positive	High	Life of Project	High – Very High

Mining is an integral part of the regional study area's economies, providing significant employment throughout both CHRC and IRC. The establishment of a second coal mining project in BRC will provide more employment opportunities for exposure to larger scale mining operations to residents of the regional study area, if they should choose to take them up. While these opportunities do not provide for new skills sets or industry sectors, the Project does represent significant employment opportunities within the mine itself, and also in the provision of services to the mine.

Enhancement

The Project will explore opportunities to provide BIBO services to transfer workers from regional centres to the mine for their shift rotations in an attempt to enhance the potential employment opportunities. Support will be given to council efforts to extend the Alpha – Clermont road upgrade and local employment opportunities will be promoted through the Project's community engagement activities.

Residual Impact

Because of the existing level of employment opportunities, low unemployment levels throughout the regional study area and distance to the mine site, the potential significance of this impact is limited. The establishment of BIBO services and improvements to the Alpha – Clermont road will provide greater access to the mine site from the regional study area. The promotion of opportunities across the regional study area will ensure that residents are aware of the opportunities available at any given time. As a result of these enhancements the impact is expected to remain high, or potentially increase slightly to very high.

7.7.2 Local Study Area

Context

At the time of the 2006 census, 2.6% of people in the labour force were unemployed. The rate for Alpha was slightly higher at 3.4%. These figures do not indicate however the extent of employment that is either seasonal or casual as opposed to full time.

The Agricultural industry is the largest employer in Alpha, employing 41.2% of the employed population (2006 census). This is followed by local government administration (10.4%), hospitals (6.71%) and school education (5.2%). The proportion of people employed in agriculture reduced to 33.5% when looking at the entire BRC area. Other industries providing significant employment in BRC included public administration and safety (11.7%), and Health Care & Social Assistance (8.6%).

When reporting employment by profession, the largest proportion of respondents reported themselves to be managers at the time of the 2006 census (29.7% of all employed persons). This was followed by labourers who accounted for 20.3% of the population, and technicians and trades workers with 12.2%.

7 Impacts Assessment

Unlike the regional study area, very few people in the local study area were employed in the mining industry at the time of the 2006 census. This is expected to change as a result of the development of this and other projects in the area.

Impacts

A number of potential impacts on labour and employment in the local study area were considered. The following were considered to have an impact ranking of medium or higher:

Skills drain from other industries (including council)

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Skills drain from other industries	Negative	High	Life of Project	Medium

Community consultations identified that the isolation and lack of career opportunities made recruiting and retaining competent, qualified staff challenging for BRC employers. The consultations went on to identify that the establishment of the mining industry was perceived as likely to further intensify these challenges, luring skilled workers away from their current employment. In particular, BRC reported that they are already finding it challenging to retain employees given the lure of the higher salaries paid at the mines in the Bowen Basin. The location of mines within the council area will likely compound this issue and result in some staff wanting to seek the higher wages available in the mining industry.

With particular respect to BRC, limiting factors to this occurring are the fact that many people work in local council because they enjoy the conditions and environment. They often see the positions as rewarding because they are able to contribute to development in their region. Also, population growth will result in more people living in the area, some of whom may have the right skills and desire to work with local council. The BRC have recognised they need to maintain flexibility in employment to address the challenges associated with attracting and retaining employees. Specifically, the council would like to explore opportunities to partner with mines to offer council-based apprenticeships for young people that have the added incentive of a position in the mines upon completion of their apprenticeship. They have also considered programs whereby mine personnel undertake part-time work for the council in their off-shift rotation as a means of ensuring sufficient employees are available to service council needs.

It is anticipated however that the majority of people who will choose to leave their current jobs for employment in the mine will do so when the initial project is established, meaning that a second project will have less of an impact. The Project description includes the establishment of a light industrial site within the mining lease. This may bring with it new opportunities however these are not expected to be to the detriment of the broader community. For example, a mechanic who currently provides services to the farming industry may identify an opportunity to expand their clientele to include the mine and establish or move their business to the Project's light industrial site.

Mitigation

Mitigation strategies the Proponent will adopt include exploring some of the BRC partnership ideas regarding sharing of employee resources and using the Communication and Community Engagement Plan to inform local businesses of project details and solicit feedback on potential impacts. Project

7 Impacts Assessment

communication will also provide a forum for the promotion of other employment opportunities throughout the community. These mitigation activities will tie into the SIMP and will be led by the Community Liaison function. The Proponent will consider supporting school and council based apprenticeship schemes and will explore opportunities for a spousal employment program. The Project will also consider developing and supporting community employment programs in consultation with council and will explore opportunities to support/sponsor council training and apprenticeship schemes. Consideration will also be given to promoting opportunities for employees to work part time with the council and the development of shift rotations which support such initiatives.

Residual Impact

After mitigation this impact of the potential skills drain from other industries is expected to be medium. Regardless of the strategies developed it is anticipated that some people will still choose to seek employment in the mining sector. It is however envisaged that the majority of people who will choose to change industries and seek employment in the mines will have already done so when the Alpha project is established, meaning that this Project is likely to have a lower impact than the first project established. By supporting school and council based apprenticeship programs, the Proponent will contribute to addressing skills gaps. Employment partnerships with the council will enable the sharing of resources further addressing the skills gap in BRC. Part-time employment of mine personnel to address council skills shortages will also provide a means of implementing desired programs and improving council capacity. Similar schemes have been cited as been highly successful in filling difficult positions by other councils throughout central Queensland. Mitigation activities will target high priority and high demand industries such as IT, education and health in order to maximise the benefits.

Perception of workers leaving one sector for mine employment

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Perception of workers leaving one sector for mine employment	Negative	High	Life of Project	Medium

As reported previously, consultations indicated that it is a challenge for businesses in BRC to attract and retain competent and qualified workers to Alpha. Consultations also indicated that many residents believe the establishment of mining in the area will amplify these staffing challenges. Although, it is anticipated that the vast majority of people to change industries will have done so with the establishment of the first mine in the region. Further, the Project will have an underground mine requiring a higher skill level than open-cut mining, making it more difficult for the local population to gain employment. Despite this, there is still expected to be the perception within the community that people will leave other industries in pursuit of mine employment.

Mitigation

The Project will use the Community and Stakeholder Engagement Plan to share information about their activities and support provided to the council to manage employment as a means of mitigating this impact. Policies and programs intended to directly reduce potential skills drain from other industries, particular high priority sectors such as health, education and council services will be

7 Impacts Assessment

developed in consultation with stakeholders. A spousal employment program will be considered and opportunities to support council and school-based apprenticeship programs explored.

Residual Impact

Project mitigation has the potential to reduce the impact to medium. Policies which aim to directly reduce skills drain from other industries will minimise the potential for poaching employees and communicating these messages will help to address community perceptions. The establishment of a spousal employment program will help identify the spouses of mine personnel with relevant skills and link them to high priority opportunities and support to council and school based apprenticeship programs will help to address skills gaps.

It is expected that some of the community perception around skills drain as a result of the establishment of mining in the community will be addressed through the Alpha project.

Change in occupation

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Change in occupation	Negative	Medium	Beyond the project	Low

Inevitably the establishment of a new industry will result in some people changing their occupation. It is likely that some people will move away from the agricultural industry which currently employs more than 40% of the population in Alpha to seek employment in the mines. While the skills required in the mining industry will limit the potential for this, this can be addressed through mine training and staff development programs. A further limiting factor may be age – the demographic of mining industry personnel is largely younger males, however the population of Alpha has a high proportion of people aged 45 and over. Because of these challenges it is anticipated that the majority of people who will change occupation will have already done so to seek employment on Alpha Coal Project.

The size and nature of many businesses in BRC will mean that the loss of one employee has the potential to have a significant impact on operations. As such, despite the limitations this impact is expected to be medium.

Mitigation

The Project will explore a range of activities as part of its efforts to mitigate this potential impact. These will include the development of anti-poaching policies, and the use of the Communication and Community Engagement Plan to inform businesses about its activities and solicit feedback that will be used to inform the SIMP.

Residual Impact

This impact is expected to reduce to low after mitigation. As the vast majority of people who will choose to change occupation will have already done so, there are not expected to be as many people seeking such opportunities as a result of the Project. This will be supported by the development of anti-poaching policies, community engagement and incorporation of community feedback into future strategy and policy development that will reduce the potential and impact of employee poaching.

7 Impacts Assessment

Decrease in labourers available to assist on property

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Decrease in labourers available to assist on property	Negative	Medium	Life of Project	Low

The salary and shift conditions offered in the mining industry may be attractive enough to lure some people who currently provide seasonal labouring to regional properties to the mining industry. This would impact the landholders in the area by impacting on their ability to carry out seasonal tasks or identify labourers to undertake specific tasks. This in turn can impact their economic output and income earning ability. To understand this potential impact further, it is necessary to identify the profile of agricultural labourers and determine if this matches with those likely to seek mine employment. For example, are they young and seeking career development or semi-retired and labouring as a part-time activity?

Given that not all labourers would seek employment in the mines, it is expected that of those who do, the majority will do so when the first opportunity arises. The number of people who choose to stop labouring to seek employment in the mine will decrease with each new project that is established. Consultations also reported that a number of young people have left the area to seek employment in the mines in the Bowen Basin region. Many of these people still have family living and working on the land in BRC. There is potential that they will choose to return home as opportunities for employment emerge. These people would be likely to provide labouring support on family properties during their off-shift rotation.

Given the seasonal nature of most labouring (such as harvesting, mustering, shearing etc) it is possible that mining will represent an opportunity for these people to obtain more secure employment whilst continuing to provide labouring support to properties at peak seasonal times. This has been evident in other mining communities, although on a limited basis.

Mitigation

The Community and Stakeholder Engagement Plan will be the main means of mitigation this impact. The Plan will undertake a profiling exercise to better understand who undertakes labouring work. Consideration will also be given to developing a shift alignment that allows workers to continue to support the agricultural industry at key times. The Plan will also inform the community about Project activities and solicit feedback. This feedback will be used to inform the SIMP. Opportunities to establish a spousal employment program will also be explored.

Residual Impact

The residual impact of decreased numbers for labouring work is expected to be low. As this Project will be preceded by the Alpha Coal Project it is expected that the majority of those labourers who want to seek alternative employment in the mine will have already done so. By aligning shifts to support agricultural work, the Proponent will enable labourers to obtain more secure employment, whilst continuing to support seasonal agricultural activities. By enabling opportunities for community feedback on Project activities, the Proponent will be able to align action plans with community needs

7 Impacts Assessment

and desire. The establishment of a spousal employment program will enable new residents to be linked with employment opportunities, such as labouring.

The opportunity of employment and the preference towards local employment within the Project is expected to provide encouragement to young people who previously left the area for employment to return. Many of these people will have been raised on the land, and will still have families who run properties. It is likely that such people would provide labouring support to their family, particularly in peak seasons, going some way to negating the potential skills drain from the region.

It is also worth noting that *ad hoc* research suggests that the majority of agricultural labourers in the region are males aged 50 and over. This suggests that the likelihood labourers will leave their current employment is low.

New people to area bring skills for other (non-mining) industries

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
New people to area bring skills for other (non-mining) industries	Positive	High	Life of Project	High-Very High

Based on the evidence in other towns across the regional study area, it is reasonable to assume that the majority of people moving to the area for employment will have young families. It is highly likely that the partners of these mine employees will have valuable skills which may be in demand in the BRC community. This represents an opportunity for non-mining businesses to develop and expand. For example it is possible that a spouse may be a doctor, dentist, physiotherapist, teacher or IT specialist. These skills are in demand in the community, and there may be an opportunity for them to gain employment either on a part-time or full-time basis. This represents significant potential to the community as they will be able to access services otherwise not available locally.

The level and array of skills available in the community is expected to increase with each new project. Therefore the impact ranking for the Project is considered to be higher than on Alpha as additional new and potentially complimentary skills are added to the pool. These new skills sets in the community will partially offset any skills drain cause by the Project and will allow local businesses to grow.

Enhancement

The Proponent will consider developing a spousal employment program to link spouses/partners of mine personnel to potential employment opportunities. Opportunities to advertise vacant positions and promote community volunteering opportunities will be explored through the Communication and Community Engagement Plan. Consideration will also be given to providing incentives for miners with partners who have high priority skills to relocate to the area as a means of further expanding capacity in the community.

Residual Impact

The Project's enhancement activities are expected to magnify the potential benefits of new skills sets within the community as the population increases. In particular, the spousal employment program will forge a linkage between community needs and available skills, and the promotion of non-mining

7 Impacts Assessment

opportunities will support the recruitment process of local business, reducing costs. There is also the potential that this program will encourage mine personnel to take a part-time position with another organisation, filling skills-gaps in other industries.

Increased competition within industry (large number of employment opportunities)

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased competition within industry (large number of employment opportunities)	Positive	High	Life of Project	High – Very High

There are a large number of mining projects operating across the regional study area in central Queensland as well as across the state more broadly. In addition, a number of new projects are under consideration in the BRC area. All of these projects will be competing for labour from the same general pool. This will mean additional employment opportunities for the local community, and will provide existing industry personnel with the opportunity to pick and choose the employment options that work for them. This breadth of opportunity is a positive for employees as it means they are able to choose where they would like to work and gives them greater bargaining power when negotiating salary and conditions.

This increased competition does represent a challenge for the Project proponents as it will make it more difficult to recruit and retain high quality personnel. Proponents will need to ensure that the salary is commensurate with their competitors and recognises the working/living conditions. Otherwise personnel will seek an alternative option which better supports their lifestyle and working requirements.

Enhancement

The Project will develop a range of employment policies and benefits which will ensure the benefit of increased employment opportunities will be maximised in the community. Through the Community and Stakeholder Engagement Plan, the Proponent will undertake extensive consultation to identify the most preferred shift rotations for personnel as well as considering a range of employment remuneration packages to best meet employee needs. The use of a local recruitment and procurement policy which favours residents of the local and regional study area will also be adopted to provide them with an advantage in gaining employment. A high standard of on-site accommodation will also be developed, with a range of facilities and activities.

Residual Impact

The residual impact is expected to remain stable at high or increase slightly to very high. By undertaking extensive consultations with prospective personnel and the broader community, the Proponent will be able to develop a shift rotation that best supports personnel lifestyle whilst achieving the Project's objectives. This will be further supported by the development of a range of remuneration packages, for example the provision of housing and childcare for personnel who live locally. These options will be developed to meet the needs of personnel at various stages throughout their working

7 Impacts Assessment

life. The development of high quality worker accommodation which supports a range of facilities and activities will be designed so as to ensure employee quality of life throughout shift rotations.

Change in Occupation

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Change in occupation	Positive	Medium	Life of Project	Medium-High

There are limited employment opportunities in Alpha and surrounds. The main industries present in the area are the agriculture and service industries (education, local government administration, health and retail (grocery)). These industries employ more than 55% of all workers in Alpha. The Project represents an opportunity for people who may wish to change their occupation and increase their wage whilst staying in the local area. There will be a range of employment opportunities in the mine itself as well as in businesses that will establish in the region to service the mine.

While the magnitude of this impact is expected to remain the same as on the Alpha Coal Project, the likelihood of people changing occupations is expected to be lower on this second project.

Enhancement

The primary mechanism for enhancing the benefits of a change in occupation will be the Project Communication and Community Engagement Plan that will be used to communicate information about business and employment opportunities to residents throughout the region.

Residual Impact

The benefit of there being more opportunities to change occupation is expected to remain at least the same or increase slightly after enhancement. By promoting the Project's employment and business opportunities throughout the community will increase the awareness of residents about the breadth of opportunities available to them as a result of the establishment of the Project.

7.8 Industry and Business

7.8.1 Regional Study Area

Context

The agricultural industry continues to generate significant revenue for the Regional Study Area. In the 2005 – 06 financial year, agricultural production generated \$449.6 million in revenue for CHRC. This represented 5.2% of Queensland's total agricultural production. Over the same period, agricultural production in IRC valued \$232.8 million (2.7% of Queensland's agricultural production). In both council areas, livestock slaughtering accounted for the majority of all agricultural production (about 70% in CHRC and 86% in IRC). Cropping was also an important sector in CHRC, accounting for approximately 30% of the total agricultural value in that area.

Mining is an even more significant contributor to the regional economy. According to the CHDC, the value of mining in CHRC over the financial year 2008/09 was \$2.6 billion. This represented 59.2% of CHRC total GRP, a 27.3% higher contribution than the previous year. In IRC, the regional economy is

7 Impacts Assessment

even more reliant on mining. The IRC reported that in 2006/07 76.1% of GRP was generated by mining. This represented a monetary value of approximately \$5.7 billion.

In the CHRC, there were 2,991 registered businesses in the 2006-07 financial year. When considering businesses based on the number of employees 96% were classed as small (less than 20 employees), 3.2% medium (more than 20 but less than 100 employees) while 0.8% are classed as large (100 or more employees). Conversely, when classifying them based on annual turnover, a large proportion had high turnover. Specifically, 38% had a turnover of less than \$100,000, 35.6% had a turnover between \$100,000 and \$500,000, 13.4%, and the remaining 12.3% had turnover in excess of \$1 million.

There were 1,635 businesses in IRC during the 2006-07 financial year. When classifying these businesses based on employment numbers, 95.8% were considered small, 3.3% medium-sized and the remaining 0.9% were large. When considering them based on annual turnover 44.4% reported turnover of less than \$100,000; 32.8% reported turnover between \$100,000 and \$500,000; 11.4% had turnover of \$500,000 to \$1,000,000; while 11.4% also had a turnover in excess of \$1,000,000. Based on this, it can be assumed that a number of businesses which have small employee numbers, have high turnover.

The Central Highlands Chamber of Commerce developed a program called Hi-Net. This program is now managed through the CHDC. The program aims to establish and develop linkages between local organisations seeking to gain mining contracts, but with insufficient resource or capacity to do it as an individual organisation. Through these linkages, their capacity can be expanded and a suite of mining service needs delivered. The program also undertakes training and capacity building to help small businesses build their contract management and reporting capabilities to meet the needs of mining companies and deliver contracts. This program has provided an excellent opportunity to maximise the benefits of mining to small business across the region, effectively spreading the benefits across a broader base.

The impact of the Kevin's Corner Project on local businesses across the regional study area was assessed as part of the SIA process. This analysis identified that the Project is likely to have some positive impacts on the regional study area, primarily around the opportunity to expand current service delivery to include the Alpha region and the Project. However given the significance of the mining industry in the region already, the magnitude of these impacts is considered to be low or insignificant.

Impacts

The impacts on the regional area are limited due to distances to the Project and access (predominantly in Clermont). However, the impacts associated with industry and business are positive. In Emerald, there is significant potential for independent contractors and service providers to establish businesses or expand current businesses to service the Galilee Basin. The establishment of a light industrial site within the mine lease will enable businesses to establish a satellite operation that can be used to service both this Project and other mine sites proposed for the BRC region. This is also the case for businesses in Clermont and other IRC communities except for the issues regarding access to the Project site.

The CHRC indicated there were plans for a new industrial precinct to the north west of Emerald along the proposed bypass that may also serve as a prime area from which to base a mine service

7 Impacts Assessment

business. The Proponent will explore opportunities with CHRC to promote this area and others to potential industrial development to support mines in the Galilee Basin.

7.8.2 Local Study Area

Context

Agriculture is the most significant industry in the local study area. The value of agriculture in 2005-06 was \$109.6 million, representing 1.3% of total agricultural production of Queensland. For most other statistics the region represents 0.1% of Queensland, like population. This indicates the region produces more agriculture proportional to its population.

Livestock slaughtering is the most significant agricultural activity, accounting for approximately 88.5% of agricultural production in BRC. Other livestock products are the next most significant contributor representing 9.1% of all production. Crops, while less significant, account for approximately 2.5% of all agricultural production in BRC.

During the 2006-07 Financial Year 567 businesses were registered in BRC. When these businesses were classified based on the number of employees, 97.4% were considered small (less than 20 employees) and 2.6% were medium sized (20 – 100 employees). There were no large businesses (i.e. those that employed more than 100 people) in BRC at this time. This is indicative of the predominance of agriculture and small business throughout the region, both of which require small numbers of employees. When considering businesses based on annual turnover the majority are also smaller – i.e. 43.8% have a turnover of up to \$100,000; 39.7% have turnover between \$100,000 and \$500,000; 10.6% have turnover between \$500,000 and \$1,000,000; while the remaining 12.7% have turnover in excess of \$1 million.

According the BRC Community Plan, long-term employment is needed to expand population and services. Alpha has very little in the way of career employment. The cattle industry, the largest employer, has been cutting jobs over the years because of decreasing margins and years of drought. As a result, young people have been leaving the area to seek employment in larger centres or on the coast.

Economic diversification is seen as important to the long-term sustainability of the region with mining and tourism seen as integral. The properties within the mining lease are engaged in cattle grazing.

Mining, particularly the coal and coal seam gas industries, are seen as excellent opportunities to generate long-term employment in the area. However, people are concerned about the potential environmental and social impacts of mining. They are looking to be closely engaged in issues related to their community and mining. Maintaining social cohesion and minimising environmental impacts is of major concern. In particular, some people are concerned about protecting existing Nature Refuges and areas of remnant vegetation from mining.

Impacts

A summary of the potential medium and higher industry and business impacts is provided in Table 7-8. For a list of all the impacts assessed see Appendix B.

It is important to note Hancock has an allotment of ~1,500 acres near Alpha and will explore opportunities with BRC for future beneficial use. This may assist in housing and accommodation

7 Impacts Assessment

issues for the community, and/or a potential commercial/industrial area. The exact use(s) will be determined in consultation with BRC.

7 Impacts Assessment

Table 7-8 Very High to Medium Potential Industry and Business Impacts Summary Table

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement	Residual Ranking
Increased traffic – large haul trucks/road trains	Negative	Major	Local	Construction	Almost Certain	Very High	Mitigation	Medium - High
Deterrence of the tourism industry	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low-Medium
Increased competition (loss of staff)	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low - Medium
Business opportunities – service and materials	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	Very High
Increased support, service and supplier opportunities	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High

7 Impacts Assessment

Increased traffic – large haul trucks/road trains

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased traffic – large haul trucks/road trains	Negative	Very High	Construction	Medium - High

A substantial amount of heavy equipment will need to be transported to the mine lease area, particularly during construction. This will require a large number of heavy haul trucks and road trains accessing the site throughout the construction phase. There is already significant freight movement through the area and the magnitude of this impact is expected to be greater with each project established, as it is likely that there will be overlap between the construction periods and programs. Police and landholders have raised their concerns about the impact this will have on their ability to manage traffic safely throughout the region.

While it is likely that there will be less local traffic using the Alpha - Clermont road between Alpha and the mine site because there will be less landholders, the increase in traffic on the Capricorn Highway will be quite significant. As this requires vehicles to pass through parts of Alpha and utilise the Alpha – Clermont road turnoff, the potential impact on residents is very high.

Once construction is complete the volume of traffic accessing the mine is expected to decrease.

Mitigation

The Project will use the Community and Stakeholder Engagement Plan to inform the community about traffic movement as a means of mitigating this impact. The Traffic Management and Emergency Response Plans will be developed in close consultation with local and regional police, extending this proactive engagement to other emergency service providers to enable coordination of resources where possible. Local police support for the transportation of oversized loads will be sought in a coordinated manner to minimise the impact of this on normal policing duties and traffic management.

The Proponent will consult with other project proponents and local landholders about their freight timetables and requirements in an effort to coordinate wherever possible. A maximum working hours policy (that includes travel time) will be developed by the Proponent in consultation with local police and council to reduce the potential for driver fatigue.

Residual Impact

It is expected that mitigation will be able to reduce the potential impact to medium or medium to high during construction. There will always be a potential impact as supplies need to be transported via the roads and highways to the mining lease throughout the construction phase. By working with the police to develop traffic management and emergency response plans and support effective traffic management the Proponent will mitigate the potential impacts of increased traffic. This will be supported by the community liaison function which will proactively inform residents of significant movement events that will impact road use. The community liaison function will also coordinate transport requirements with other proponents and landholders to minimise the potential for significant disruptions to road use.

7 Impacts Assessment

Deterrence of the tourism industry

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Deterrence of the tourism industry	Negative	Medium	Life of Project	Low-Medium

A large number of tourists, particularly 'grey nomads' use the Capricorn Highway and other key roads around Alpha between May and September each year. A large proportion of this traffic is made up of caravans and campervans that are being driven to the outback from other parts of Australia. The majority of these tourists pass through Alpha, without spending a large amount of time in the town. However, the community has recognised tourism as a potential industry for development and BRC has put significant effort into building tourism through projects such as the Grey Nomad Tourism Project and by focusing on the development of tourism attractions throughout the area.

The increased traffic as a result of a second project in the Alpha region has the potential to deter tourists from the region. Travelling on the Capricorn Highway between Emerald and Alpha is likely to become much slower. There are currently no overtaking lanes and some large hills, which will result in traffic slowing considerably when a large haul vehicle is navigating the road. This may lead tourists to select an alternative route to avoid being stuck behind a vehicle carrying an oversized load. Conversely, some other tourists may be attracted to the area to watch the large vehicle movement – particularly large mining equipment.

Mitigation

Communication about transportation schedules and the soliciting of feedback from the community and road users will be a key element of the mitigation of this impact. The information collected through this process will be used to inform the Project SIMP. The Proponent will also extend the Alpha – Clermont road upgrade to the mine site. The Proponent will also support council in their efforts to extend the road upgrade through to Clermont.

Residual Impact

After mitigation this impact is expected to remain at either medium or potentially reduce slightly to low. Any decisions to bypass the area by tourists will likely be based on multiple factors, one of which may be increased traffic. Others may not be aware of the development until it is too late, and therefore cannot be avoided. Inevitably therefore even without mitigation some tourists will continue to use the Capricorn Highway between Emerald and Alpha regardless.

There is also potential for the development of mining-based tourism or for mine support to the promotion and extension of regional tourist attractions and experiences. This may include as appropriate mine tours, which while not overly popular, will have the potential to keep tourists in the region overnight extending the benefits that can be derived by the community. This, combined with the Proponent's mitigation program will go some way to negating the potentially negative impact of increased traffic.

7 Impacts Assessment

Increased Competition (loss of staff)

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased competition (loss of staff)	Negative	Medium	Life of Project	Low-Medium

The BRC region is currently characterised by limited employment opportunities. This was evidenced through community consultations and by the large number of young people leaving the area in search of career opportunities. Community consultations indicated that residents felt the establishment of the mining industry in the region would result in increased competition for labour. Many residents indicated that they saw the high wages common across the mining industry as a disadvantage to other businesses because they would face significantly increased competition for a limited pool of workers. The higher wages in the mining industry may result in other employers having to increase their wages resulting in higher costs and profit reductions.

There is also the potential for higher staff turnover as people use other industries to gain experience required for employment in the mine. While this will be beneficial to employees seeking to maximise their position, it will increase the cost of recruitment, advertising and training further eroding potential business profits.

Mitigation

The Communication and Community Engagement Plan will be the primary mechanism for mitigating this potential impact. The Project will provide ongoing opportunities for other businesses to advertise vacant positions, supporting the recruitment process. The Proponent will also develop a number of recruitment policies in consultation with the BRC and local stakeholders including anti-poaching strategies.

Residual Impact

The residual impact after mitigation is expected to remain at medium or potentially reduce slightly to low. It is important to note however that regardless of mitigation, there will be greater competition for employees in BRC. The final decision regarding employment will be based on the individual's personal preferences and choice. By supporting the advertising process of other businesses, the Proponent will reduce the recruitment costs incurred by local businesses and promote opportunities more widely across the local and regional study areas.

Increased opportunities – services and materials

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased opportunities – services and materials	Positive	High	Life of the Project	Very High

With an average of ~ 1,000 people staying in the accommodation village at any one time, a large volume of produce and supplies will be required. This represents an opportunity for the local area,

7 Impacts Assessment

which is heavily reliant on agriculture, particularly cattle, to supply beef to the accommodation village, providing an excellent opportunity for the Project to support local businesses and guarantee long term incomes for producers through local procurement contracts. Specifically, local procurement represents an opportunity to partially negate some of the negative impacts on landholders within the mining lease area by establish contracts to procure produce from them to service the accommodation village. This would require livestock to be transported from the region to an abattoir and then returned as final product for use in the accommodation village. While this requires both competitive bidding and explicit contracts with local graziers, the opportunity is there.

This assessment assumes a similar approach has been applied to the procurement of beef for the Alpha Coal Project, the benefits of local procurement and exclusive contracts with local graziers for the supply of beef to the accommodation camp will be wider and greater. The flow on benefits to the community of local graziers having a higher disposable income guaranteed over time will also be larger.

Enhancement

A significant element of the enhancement strategy is a commitment by the Proponent to work with stakeholders and local council to develop a suitable Local Industry Participation Plan based on competitive bids and safe food practices. Feedback on the development of this policy will be solicited for inclusion in the SIMP. The Community and Stakeholder Engagement Plan will include strategies to ensure information about the Local Industry Participation Plan is adequately communicated with stakeholders.

Residual Impact

After enhancement this benefit is expected to be very high. Procurement of local producer will provide BRC producers a new market for their product, guaranteed over a longer period through contracts. It is anticipated that the flow on benefits of this strategy will be felt across the community and the region as a whole.

Increased support, service and supplier opportunities

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased support, service and supplier opportunities	Positive	Medium	Life of the Project	High

The operation of a mine requires a significant amount of support and services, representing an excellent opportunity for local residents to establish or extend businesses. For example, mine personnel will be transported to site from regional centres such as Barcaldine and Emerald (BIBO). This represents an opportunity for local/regional businesses to establish a transportation service and be awarded the contract. Other opportunities include servicing the accommodation village, providing retail/services at the on-site airfield or establishing a mine servicing business. Examples from other predominantly agricultural communities where mining has recently been established there is also an opportunity for existing businesses to expand service and benefit from the mine. For example the DEEDI GBSEIS identified that since the establishment of the Minerva and Rolleston mines nearby, at least one local engineering firm has expanded its services to include mining as well as agricultural

7 Impacts Assessment

equipment. Indirectly there will also be opportunities to service the Project through restaurants, grocers, service/petrol stations etc.

The availability of land on site will make it easier for local residents to establish new or expand existing businesses through access to light industrial land. Currently, there is a shortage of such land for business development in the Alpha community so this will provide opportunity and incentive.

There are large numbers of mining service organisations already established throughout the regional study area and Queensland more broadly. As this is the second project to be established in the Galilee Basin area it is more likely that these organisations will establish a satellite office specifically to service the new mines.

Enhancement

The Project will develop a Local Industry Participation Plan which favours competitive local and regional businesses as a means of maximising opportunities for local community members to service the mine. The Communication and Community Engagement Plan will be used by the Proponent to ensure the community is aware of these opportunities and to promote local businesses. The adoption of a BIBO service and restrictions on driving too and from the site will provide increased opportunities for bus business opportunities. Access to the onsite light industrial area will be made available to all relevant businesses,

Finally, the Proponent will investigate opportunities to support a program such as the Hi-Net Program in CHRC which actively supports the development of partnerships between local organisations to enable them to obtain the capacity necessary to deliver large mining contracts. This may be undertaken by expanding an existing program to include the Barcaldine area or establishing a similar initiative locally. The Proponent will explore also opportunities and partnerships through DEEDI and the Remote Area Planning and Development Board (RAPAD) to foster local business development.

Residual Impact

It is anticipated that through enhancement this benefit can be increased from medium to high, The use of local procurement policies will provide opportunities for regional organisations with a better chance of securing contracts to provide services to the mine. The Communication and Community Engagement plan will ensure that residents are aware of the opportunities to provide services to the mine. Supporting local government programs will provide local organisations with the opportunity to link with other local organisations expanding their capacity and ability to service mining contracts. While opening access to sites on the light industrial area of the mining lease will enable businesses to establish a satellite office, relocate and expand. Finally, by restricting workers from driving to the mine site beyond a set distance (100km) will ensure that there will be sufficient demand to warrant establishing a transportation service to provide BIBO to the mine site.

7.9 Income and Cost of Living

7.9.1 Regional Study Area

Context

At the time of the 2006 census, income levels across the regional study area were above those reported in Queensland as a whole. In CHRC 31.1% of people aged over 15, indicated they had a

7 Impacts Assessment

gross individual weekly income of less than \$400. Conversely, 9.5% reported their income to be in the highest bracket, at more than \$2,000 per week. At the same time, just 29.4% of people in IRC reported their gross weekly income to be less than \$400 per week, while 13.7% reported incomes above \$2,000 per week. This compared to the rates across Queensland as a whole, where 39.7% of all people aged over 15 reported that their gross weekly income was less than \$400 and just 2.9% reported incomes above \$2,000 per week. These disparities with the state as a whole are reflective of the high proportion of people in both areas who are employed in the mining industry, where wages are relatively higher than other industries.

Conversely, median household rental and loan repayments in 2006 were lower across the regional study area than the rest of Queensland, particularly IRC. Specifically, in 2006 the median weekly individual income in Emerald was \$689 and median weekly household income \$1,672. At the same time, median monthly loan repayments were \$1,500 which and weekly rental \$180. This equates to loan repayments valued at about of 22% of monthly household incomes and rental repayments of about 26% of individual weekly incomes.

In Clermont at the time of the 2006 census, the median individual weekly income was \$490 and the median household income was \$1,391. In comparison median monthly loan repayment was \$925 and median weekly rental was \$66. Thus the median loan repayments equates to 16.6% of median household income, while weekly rents average just 13.5% of individual median weekly incomes.

There are a number of things which should be taken into consideration when assessing the accuracy of these figures however. Namely the high numbers of people who are provided with employer subsidised accommodation or live in staff quarters, and the indications from consultations and recent studies by the Department of Communities that housing and accommodation prices have increased steadily since 2006.

Impacts

A summary of the potential medium and higher income and the cost of living impacts is provided in Table 7-9. For a list of all the impacts assessed see Appendix B.

7 Impacts Assessment

Table 7-9 Very High to Medium Potential Income and Cost of Living Impacts Summary Table

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement	Residual Ranking
Increase in cost of living (including housing costs)	Negative	Moderate	Regional	Life of the Project	Possible	Medium	Mitigation	Low – Medium
Increase in the cost of living (particularly housing costs)	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low - Medium
Increases in volume of high mining wages	Positive	Moderate	Regional	Life of the Project	Likely	High	Enhancement	High
Increase in wages – mining wages	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	High - Very High
Increased services and business in the region	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	High – Very High

7 Impacts Assessment

Increases in cost of living (including housing costs)

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increase in cost of living	Negative	Medium	Life of Project	Low – Low-medium

The establishment of this Project has the potential to place upward pressure on the cost of living in the regional study area. The Project will provide another opportunity for employment for residents of both the local and regional study area. While there is already a very low level of unemployment in the regional study area, additional projects will provide for more employment opportunities and contribute to a further increase in the median income across the region.

Community consultations indicated that the majority of residents in the local study area travel beyond BRC to undertake their shopping and to obtain services. As the population and median income level in the local study area is expected to increase as a result of the establishment of the Project, these shopping habits have the potential of contributing further to an increase in the cost of living in the regional study area.

Also, the population growth rates and house prices across the regional study area are above the state average. Community consultations indicated that Emerald in particular has experienced rapid growth in housing prices, and high levels of competition for a relatively small pool of rental houses. Some respondents reported that the area was quickly becoming too expensive for those who didn't work in the mining industry.

Emerald in particular provides relatively easy access to the site and as a regional centre has good services and amenities. It is already a service centre for much of the mining industry across the southern Bowen Basin. It is likely that these businesses will expand to provide services to this Project and other mines under consideration for the Alpha area. For example, Caterpillar is amongst the mine service companies that has already procured land in Emerald for the establishment of a service business. This growth will result in more jobs being available and will probably contribute to some level of population growth, leading to additional pressure on already stretched housing stocks. Further, it is likely that at least some of the training requirements of the Project will be filled by service providers in Emerald, and as such there may be a need for short-term accommodation for personnel in Emerald. Again this will place further pressure on already limited stocks.

Mitigation

The primary mechanism for mitigating this impact is through the Communication and Community Engagement Plan. The community liaison function will aim to benchmark the cost of living and the cost of housing and accommodation across the regional study areas and monitoring changes. Information will also be gathered around the causes of any changes to the cost of living – whether attributable to the Project or the result of cumulative impacts. This information will be used to inform the SIMP and strategies will be developed to manage the Project's impact. The Proponent will also work closely with service providers to coordinate training requirements with a view to delivering training in the Alpha community or on the Project site.

7 Impacts Assessment

Residual Impact

There is potential that through mitigation the impact will reduce to low or low to medium. It is important to note that there is a high level of construction and project activity currently underway or proposed to be developed across the regional study area. This is likely to result in upward pressure to the cost of living throughout the area. It is important to note that independent of this Project, there are a large number of projects either underway or proposed across the regional study area. Government projections also show that the current level of population growth is expected to continue over the immediate future. It is important to note that the potential impact of these developments is beyond the control of the Project.

By working with training providers to deliver training either in the Alpha community or on the mine site the Project will not further compound the current pressures evident on short-term accommodation in Emerald. While the establishment of benchmarks and ongoing monitoring of prices will enable proactive responses as required.

Increases in volume of high mining wages

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increases in volume of high mining wages	Positive	High	Life of Project	High

The establishment of the Project will provide another opportunity for people currently employed in other industries to move across to the mining industry if they choose (and are suitable). Provided all other things remain equal, this will increase the number of people earning high mining wages. The end result of this will be increases to median incomes across the region. The extent will be dependent on how many people from the regional study area choose to seek employment on the Project. The number of people earning high mining wages is likely to increase with each additional project.

Enhancement

The primary mechanism for enhancing this benefit will be the development and adoption of recruitment and procurement policies that favour the local and regional study areas. The opportunity to provide BIBO services to transport workers from various regional centres will be explored by the Proponent. Consideration will also be given to providing personnel and the community with access to financial planning services to support the sustainable management of their higher incomes.

Residual Impact

After enhancement the residual impact is expected to remain high. A considerable proportion of the population across the regional study area are already employed in the mining industry. This Project provides an opportunity to extend these employment opportunities and provide greater continuity to existing employees. By providing financial planning services, the Proponent will support mine personnel to manage their higher incomes in a more sustainable manner, potentially extending the benefits through wealth generation and accumulation. The provision of BIBO services will allow easier access and provide transport services for people to access the region.

7 Impacts Assessment

7.9.2 Local Study Area

Context

At the time of the 2006 census, 42.1% of people aged 15 and over in BRC reported that their weekly income was less than \$400. This was marginally higher than across the whole of Queensland where 39.7% of people aged 15 and over had weekly incomes below \$400.

Median incomes in Alpha were slightly higher than across the regional council as a whole. Specifically, the median individual weekly income in Alpha was \$469 compared to \$435 for the whole of BRC. There was less difference between the median weekly household incomes, although these figures Alpha were still marginally greater than BRC as a whole (\$1,048 compared to \$1,041).

Conversely, median weekly loan repayments were very high. In Alpha, the median weekly loan repayment was \$531, representing 61.4% of household incomes. Across the whole of BRC, median weekly loan repayments were \$547, or 68.4% of the median weekly household income. This is reflective of the high value of loans required to purchase and service large-scale agricultural holdings.

Median weekly rentals on the other hand, were very low at just \$47 per week in Alpha and \$48 per week across the whole of BRC. This represented approximately 10.0% of individual weekly incomes in Alpha and 11.0% across the whole of BRC. Consultations however have indicated that these rates may be slightly lower than current averages, particularly in Alpha. One local real estate agent for example, suggested that the current average weekly rental for houses in Alpha rented through them would be approximately \$180.

Many people in the local area rely on goods coming from outside of the area, namely Emerald, Rockhampton or to a lesser extent Longreach. The distance to these areas is considered by most residents as a fact of life and is not seen as a major concern. However the cost of petrol and time spent commuting are important aspects in understanding development potential in the area. Many people feel that the need to travel to obtain goods and services provides them with a reason to travel outside of the area and is not seen as negative. For the proportion of the population who are immobile however, the distances and costs associated with obtaining these goods and services can be prohibitive.

There is a potential for the cost of goods and services in the community to change, but both the potential positive and negative impacts were determined to be low.

Impacts

Increases in cost of living (particularly housing and accommodation)

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increases in cost of living (particularly housing and accommodation)	Negative	Medium	Life of Project	Low – Medium

Speculation over the development of the mining industry around Alpha has already led to an increase in the cost of housing. Community consultations and an assessment of sale prices for houses

7 Impacts Assessment

indicated that over the past few years house prices have increased by up to 300%. It is likely that this speculation will continue to result in significant price rises over the short-term, however over the longer term the fact that the Proponent is not conditioning employment on local residence is expected to see an easing in prices. As such, a decision to move to the local area will be based around individual preference and choice.

Increasing accommodation prices are considered to be positive from the perspective of home owners and landlords. However, in order to recognise these gains they will need to sell the house and purchase a new one of equivalent standard in a cheaper area. Conversely increasing house prices will mean rising rents for tenants. In some cases these increases may push existing residents, who do not gain employment in the mining industry, out of their houses and away from the community.

There are currently a number of limitations around the development of new housing stocks including the availability of land, as well as limited water and electricity supplies. The anticipated population growth of ~ 5% as a result of the Project is expected to be able to be largely absorbed within the current housing stock capacity, recent land sales and current developments.

One factor that is beyond the control of the Project but has the potential to impact on the cost of housing in the region is the demand for construction workers across central Queensland and Queensland more generally, particularly in light of the recent flooding events and Cyclone Yasi. There are currently a large number of housing and other construction activities proposed or commencing which will be competing for the same pool of workers. This may in turn increase the cost of building houses in Alpha or make it impossible for supply to meet demand resulting in increasing costs.

Mitigation

The primary mechanism for mitigating the potential impact of rising housing costs in and around Alpha will be the Communication and Community Engagement Plan. Through the plan ongoing engagement will be undertaken to benchmark current house prices and to determine the cause of any changes – whether this Project or cumulative. This information will be used to inform the SIMP. The Proponent will also provide ongoing support to BRC and the State government to enable the proactive and efficient release of land for subdivision and development. The Proponent will also provide a complete accommodation camp within the mine lease area for the majority of Project personnel throughout their shift rotations.

Residual Impact

While mitigation will not be able to stop the current speculation that is seeing housing prices in Alpha increase rapidly, it is anticipated that it will steady these increases over the longer term. As a result the impact is expected to be reduced to low – medium. By supporting the efficient release of land for subdivision, the Proponent will assist in ensuring sufficient land is available to meet demand. While the provision of an accommodation camp within the mining lease will enable the workforce, including any contractors and transport operators, to be accommodated on-site.

The Proponent will continue to monitor house prices over the life of the Project through the SIMP. As part of this process, strategies to ensure affordable and adequate supply of housing will be developed to ensure appropriate actions are taken as identified benchmarks are reached.

7 Impacts Assessment

Increases in wages – mining wages

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increases in wages – mining wages	Positive	High	Life of Project	High – Very High

At \$469 per week, the median individual weekly income in Alpha is higher than across the BRC area as a whole (\$435). It is however considerably lower than the median individual weekly incomes in Emerald (\$689) and Clermont (\$490). In addition, a higher proportion of residents in the BRC area reported earning less than \$400 per week than in the rest of Queensland. This data is reflective of the limited career opportunities and the reliance on agriculture as the primary source of employment throughout BRC. The introduction of mining to the region will lead to more people receiving higher wages, therefore increasing the median income across the region.

Because this will be the second project established in the area and one which requires a more specialised skill set (because of the underground component), it is considered that less people will obtain employment on this Project than on the Alpha Coal Project. There is however expected to be some and as such the potential impact is considered to be high.

Enhancement

The development of a policy that favours local recruitment and procurement will be the primary mechanism for enhancing this benefit. Consideration will also be given by the Proponent to providing mine personnel and the broader community with financial planning services to assist with the sustainable management of the higher wages.

Residual Impact

Through enhancement the impact is expected to remain as high or increase slightly to between high and very high. The development of policies that favour recruitment and procurement of local individuals and organisations will extend the benefits of higher wages across the community. Financial planning services will help support sustainable management of these higher incomes and help generate assets, wealth and savings within the community. Higher wages can also have a flow on effect. As disposable incomes increase, people will likely spend more in the community, sharing the benefits of the wage increase with small business owners and retailers.

Regardless of the enhancement efforts of the Proponent, the final decision to seek employment in the mining sector will be based around individual choice and preference.

Increased services and businesses in the region

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased services and businesses in the region	Positive	High	Life of Project	Very High

Higher median incomes in the local study area will encourage new service providers to enter the market, or existing providers to expand their service base. For example, the higher per capita income

7 Impacts Assessment

and disposable income may encourage a new retailer, restaurant or dentist to establish a business in the area. It is likely that there will be an incremental increase, in line with the higher median incomes as each new project is established.

Enhancement

Through the Community and Stakeholder Engagement Plan, the Proponent will consult with local service providers to promote new opportunities as well as new or expanded services as a means of enhancing this benefit. Consultation with local business providers and the community to determine community needs will also be undertaken. Local procurement policies will make it more attractive for businesses to establish in the area, with many providing services for the broader community.

Residual Impact

After enhancement the potential benefits of increased services and businesses in the region will be very high. This is partially because median incomes are anticipated to increase with each new project, providing a critical mass with high disposable incomes, and partially as a result of the Proponent's enhancement strategies.

Local procurement policies will make it more attractive for businesses to establish operations in the local area and provide services to both the mine and the community. Consultation with local providers and the community will identify key service requirements which will then be promoted by the Proponent. In turn, the services provided by these businesses will be promoted to raise awareness and encourage business development.

7.10 Governance

The amalgamation of shire councils into larger regional councils was undertaken in 2008 as a result of a recommendation of the Local Government Reform Committee report. The results of the amalgamation are still being experienced in 2010. *Ad hoc* research has indicated the effects of the amalgamation have been most noticeable to rural councils who are now tasked with governing large geographical areas with sparse populations.

7.10.1 Regional Study Area

Context

The two councils in the regional study area are each responsible for large geographic areas - CHRC for ~59,888 km² and IRC for ~58,862 km². Both councils were formed following the amalgamation of smaller shire councils in 2008, and are still implementing changes required to support such a large and diverse area.

At the time of the 2006 census, 64.7% of all households in CHRC and 70.4% in IRC reported they had an internet connection at home.

CHRC comprises a Mayor and eight Councillors. Council meets fortnightly on Tuesday's in Emerald. CHRC has assets in excess of \$800 million and manages approximately 5,000 km of roads. Council provides a range of services including youth services, arts services, cultural and community development. There are five separate departments within the Council – corporate services, civil operations, environmental & planning, governance & community services and commercial services.

7 Impacts Assessment

CHRC has recently amended the Corporate Plan 2009-2013 and is currently seeking comment and feedback before finalising the draft. The plan identifies the vision for CHRC and defines its key corporate values. The plan also establishes six key priorities for the region, namely:

- Creating a region of choice;
- Building and delivering sustainable infrastructure;
- Harnessing sustainable economic growth;
- Protecting the local environment;
- Community and lifestyle (in particular building networks across the region to enhance the area's unique lifestyle); and
- Strengthening the organisation.

Isaac Regional Council is also made up of a Mayor and eight Councillors. It meets on the second Tuesday of every month in Moranbah. Community Round Table Meetings are also held on a monthly basis to allow residents to book time with Council to discuss emerging opportunities and challenges in their community. The IRC sees its role as providing appropriate facilities throughout the region whilst encouraging a strategic environment and sustainable development that benefits all the people of the region.

IRC has more than 300 employees and an annual budget of more than \$20 million. Council currently maintains around 760km of road networks as well as operating and maintaining \$34 million worth of sewerage infrastructure. The IRC has seven directorates, each responsible for a different aspect of council activities – planning & environmental services; governance and community services; commercial services; corporate services; technical and civil services; financial services; and change management.

There are two regional plans which are relevant to the regional study plans – the Central Queensland Regional Development Framework and the Whitsunday, Hinterland and Mackay (WHAM) Regional Plan. The development plans of the local councils covered by these plans are expected to implement the plan's strategies through their own local planning processes.

Currently, neither of the regions have a statutory development plan, meaning that the plans that are developed are intended to provide a recommended framework and advice to the development planning process. They do not have statutory authority over development planning in the area, meaning they are only able to advise and recommend strategies for regional development. Conversely, statutory plans have precedence over other planning tools and can only be overturned through state planning regulatory provisions.

In March 2010, the state government announced that a statutory development planning process would be commenced for the WHAM region. This plan would recognise the strong growth experienced in the region over recent years as well as the region's diversity and importance from an economic and environmental perspective. The planning process will support the anticipated continued growth of the region over coming years, to ensure effective provision of services and infrastructure while managing sustainable, desired growth.

The regional study area has extensive experience in managing the impacts of mining on communities because of the Bowen Basin. While these developments have followed a different path to those proposed for the Galilee Basin, the lessons learned and successful strategies are worth noting. These include:

7 Impacts Assessment

- The development of proactive business partnerships designed to spread the benefits of mining across the community;
- Proactive engagement with mining communities to monitor and manage developments;
- Developing positive and transparent relationships with mining organisations; and
- Ensuring community views are identified and the impacts of mining monitored on a regular basis. This includes allowing sufficient flexibility in planning to respond to emerging opportunities or challenges.

Impacts

A summary of the potential medium and higher governance impacts is provided in Table 7-10. For a list of all the impacts assessed see Appendix B.

7 Impacts Assessment

Table 7-10 Very High to Medium Potential Governance Impacts Summary Table

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement	Residual Ranking
Failure to effectively engage with regional planning processes	Negative	Moderate	Regional	Life of the Project	Possible	Medium	Mitigation	Low
Delivery of health and emergency services not achieved	Negative	Major	Local	Life of the Project	Possible	High	Mitigation	Medium
Failure to effectively engage with regional and local planning process	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low - Medium
Loss of staff to the mining industry	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low-Medium
Delivery of services achieved – social, health and emergency services	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Increase in funds through rates, donations and taxes	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	High-Very High
Successful engagement with local and regional planning processes	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Development of effective links to local government programs	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Potential increase in candidates/staff due to population increases and new skills	Positive	Minor	Local	Life of the Project	Likely	Medium	Enhancement	High

7 Impacts Assessment

Failure to effectively engage with regional planning processes

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Failure to effectively engage with regional planning processes	Negative	Medium	Life of the Project	Low

A statutory regional planning process has recently commenced in the WHAM area. This process will establish the environment, objectives and strategies for long-term planning across the three local council areas. A similar process will likely be commenced in Central Queensland in the near future. If the Project does not effectively engage in these processes, the project and its potential impacts on the regional study area may not be adequately considered. These regional plans are the mechanism for guiding local government funding applications and budgeting processes, failure to effectively engage with these processes is likely to result in reduced potential for local council support in managing the social impacts of the Project.

Mitigation

The Project will adopt a range of strategies that will be documented in the Communication and Community Engagement Plan to support effective engagement with regional councils throughout the relevant planning processes. Effective engagement will be especially important with the IRC as the majority of mining activity within the council area is located in or around Moranbah, where there are different issues to the Project.

The Kevin's Corner Consultative Committee will include consultation and engagement with local councils as an integral part of its mandate. The Proponent will appoint a Community Liaison role to undertake ongoing engagement with councils and ensure Project participation in regional planning and review processes.

Residual Impact

If these mitigation strategies are implemented effectively the impact should not occur. Therefore the likelihood of this impact occurring is expected to be low reducing the overall residual ranking to low. In particular the Consultative Committee will provide an effective mechanism for ongoing engagement with regional planning bodies and will enable the Project to ensure messages about future activities and developments are fed into long-term regional strategies. This will increase the likelihood that potential social impacts arising from the Project will be effectively addressed through local government plans and programs. This will be taken into consideration in the development of Phase II of the SIMP.

The appointment of a Community Liaison role will provide a dedicated person/function for ongoing engagement and consultation with local councils and other project stakeholders. A key element of this person's job will be providing stakeholders with a consistent point of contact and establishing open and transparent relationships with all stakeholders to enable ongoing dialogue regarding social impacts and benefits.

7 Impacts Assessment

7.10.2 Local Study Area

Context

Formed by the amalgamation of Barcaldine, Aramac and Jericho shires in 2008, BRC covers an area of 53,677 km². The council is made up of a Mayor and six Councillors, all of whom are elected at large (i.e. they represent the whole council area rather than specific areas or wards). BRC meets on a monthly basis in Barcaldine and all Councillors are required to adhere to a Code of Conduct and undertake all business in a manner that ensures the best interests of residents.

The BRC Corporate Plan 2009 – 2013 identifies the role of the Mayor and Councillors and documents the Council vision. The vision states that BRC strives to be ‘a cohesive community with lifestyle, opportunities, facilities and services’. The Council states its mission is ‘to deliver the Region’s mission in partnership with community and other stakeholders through committed leadership, and the efficient delivery of quality services and facilities, that support the economic, environmental and social needs of our community’. The Plan goes on to detail the seven guiding principles that underpin this.

BRC operates under a planning process whereby the Barcaldine Regional Community Plan is developed to align with and implement the Central West Regional Plan. The Barcaldine Regional Community Plan in turn informs the Corporate Plan, Operational Plan, Budget and Annual Report.

BRC has 140 full time employees (35 based in Alpha) and 40 part time employees (20 Alpha based).

Concerned with the future development of Alpha town, BRC have commenced forward planning. The Council Planning Consultant has prepared a concept (with anticipated population numbers), for which defining infrastructure studies and securing budget for their implementation is underway. The Central West Regional Plan also gives an overview of the requirement of Local Government to consider the requirements imposed by resource developments.

The Central West Regional Plan acknowledges the importance of resource developments and the benefits they can bring to the community. These benefits include employment opportunities, investment attraction, economic diversification, attracting people to the region, and keeping young people in the region. The plan also recognises that such developments place a number of challenges on communities.

The Central West Regional Plan identifies resources development as a potentially significant industry in the region. The Queensland Government’s *Sustainable Resource Communities Policy (2008)* focuses on resource communities, where rapid development resulting from the resources boom has had significant impact on community infrastructure and services and on the social structure of local and regional communities. It outlines a partnership between State government, the Queensland Resources Council (QRC), local government and Local Government Association of Queensland (LGAQ). The Policy builds upon previous Sustainable Futures for Queensland Mining Towns and focuses on coordinating responses to cumulative social impacts, improving planning processes and the requirement for SIA to be undertaken for all new mining projects.

Planning schemes that cover the settlements of Alpha, Blackall and Jericho will need to consider the supply of serviced land with infrastructure sufficient to service mining activities. Local Governments surrounding these activities need to have their plans reviewed, to cater for any future developments.

BRC have recognised that while local mining development offers development opportunities, people want to see Alpha in the future as a sustainable community with a diverse economy. They want mining

7 Impacts Assessment

staff to integrate into the community and minimal environmental impacts. Therefore the focus is to ensure controlled, sustainable growth for Alpha as a result of mining. This requires council to proactively manage land release and infrastructure development through effective, transparent partnerships, continual monitoring and the establishment of benchmarks to manage social impacts.

Impacts

A number of potential impacts on governance in the region were identified. It is important to note at this point, that the magnitude and ranking of many of the potential HACP impacts on governance are highly dependent on population growth in Alpha and other issues. For example, failure to deliver improved social services in Alpha will only have a significant effect on the community if there is population growth. As such, it is critical that the Project regularly review these potential impacts based on emerging information and benchmarks established through the Project SIMP.

Delivery of health and emergency services not achieved

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Delivery of health and emergency services not achieved	Negative	High	Life of the Project	Medium

Current health and emergency service levels in Alpha are insufficient to support a large-scale mining project or population growth in the order anticipated by the BRC (500 – 2,000 people). Failure of the state and local agencies in BRC to enhance the level of these services to meet the increased needs will place initial pressures on services resulting in the local community experiencing supply shortages or access difficulty.

Mitigation

The Project will consult with local, state and private sector service providers to identify current service gaps and identify means of enhancing these services. This consultation will be extended to include proactive engagement by the Proponent with local police and other emergency service providers in the development of Project emergency plans and investigate opportunities for extending Project emergency response training. A fully staffed clinic will be established on the mine site by the Proponent and consideration will be given to the possibility of providing some of the clinic's medical services to the community. The Proponent will explore opportunities to establish a spousal recruitment program and will regularly liaise with hospital staff and council to identify synergies.

The Proponent will also explore opportunities to enter into a commercial contract with QAS for the provision of emergency services to the mine.

Residual Impact

After mitigation the residual impact is expected to be medium. Through consultation with local service providers the Project will be able to identify key service gaps and support programs to redress these gaps. Through the involvement of local police and other emergency service providers, the Project will be able to ensure suitability of and support for the emergency response plan. While the provision of training and establishment of a spousal employment program will enhance community capacity to respond to emergencies.

7 Impacts Assessment

By establishing a clinic on site and entering into a commercial contract with QAS the Proponent will minimise the impact of the Project on service delivery in Alpha.

Failure to Effectively Engage in Regional and Local Planning Processes

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Failure to effectively engage in local planning process	Negative	Medium	Life of Project	Low

The BRC undertakes and is involved with a number of strategic planning processes. These include:

- Strategic planning over the medium term (five years) which forms the basis of the council's infrastructure and service development and budgeting processes.
- Five year Community Plan which in turn informs the Corporate Plan, Budget and Annual Report. The five-year plan forms the basis for funding requests from State and Federal Government to meet anticipated service delivery and infrastructure needs. If the Project is not able to effectively engage in these processes, it is possible that changing and emerging needs as a result of the Project are not fully factored into forward plans.
- The Central West Queensland Statutory Regional Plan.
- Planning scheme updates

Failure to effectively engage with these processes will mean that the Project and any associated potential impacts may not be considered appropriately within council planning processes. If this is the case, the BRC will be limited in its ability to develop appropriate responses to manage and address potential social impacts or facilitate proactive development of the region's infrastructure, services and facilities. The potential impact of this would be high on the community as increased demand is placed on all services and facilities.

For the purpose of this assessment it has been assumed that the Alpha Coal Project will be successful in engaging in regional planning processes and as such many of the emerging needs will have been considered. As such, the overall impact ranking is reduced to low.

A further risk is the potential for council to be fatigued as the requirement to consult with additional projects emerges. Coordination between the various projects and provision of clear and transparent channels for ongoing engagement will minimise the potential of this.

Mitigation

The Communication and Community Engagement Plan will be used to ensure open, transparent relationships are developed with the local council. A key element of this will be the establishment of a Community Liaison function that will be tasked with developing relationships and engaging with planning.

The Project will establish a consultative forum that will undertake consultations with community, businesses and government. The Proponent will investigate opportunities to invite BRC representatives to participate in community development and consultation forums to enable coordination of government and Project activities.

7 Impacts Assessment

The Proponent will actively participate in any coordinated consultation committees or forums that bring the various projects together in a bid to minimise the potential for consultation fatigue within the council and community.

A Community Consultation Committee with representatives from the community, council and businesses will provide a forum for consulting with community and government. Opportunities to invite BRC representatives to participate in community development and consultation committees will be explored by the proponent.

Residual Impact

After mitigation the residual impact is expected to be medium. Open and transparent relationships will support a clear dialogue with local government to ensure the Project is considered and consulted during planning. This will also enable the Project to inform council of any emerging trends related to social indicators and support responses that pre-empt potential impacts. The Community Liaison role will support this function, and impacts will be monitored through the SIMP. Phase 2 of the SIMP will identify indicators and benchmarks for impacts.

The Project will engage with other projects to assist with the management of cumulative impacts and will ensure the outcome of cumulative impact discussions and management is provided to the DEEDI SIA unit.

Increase in funds through rates, donations and taxes

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increase in funds through rates, donations and taxes	Positive	High	Beyond the Project	Very High

It is anticipated that the Project will lead to the generation of additional funds for the BRC. This potential revenue increase is expected to come from the increased rate collection associated with population growth in and around the Alpha area. This additional revenue can be used to support enhanced service delivery and to improve council owned infrastructure. The magnitude of this impact is expected to increase slightly with the addition of each new project.

Enhancement

The Proponent will use the Project Community and Stakeholder Engagement Plan to coordinate goals, objectives and outcomes with local government as a means of enhancing this potential impact. The Proponent will also give consideration to the ongoing sponsorship of local community organisations, activities and groups. Proactive engagement with the Council will also enable the Proponent and council to consider strategies to manage population growth in the region, or encourage new residents such as the provision of incentives for personnel, particularly where they have partners or spouses with skills in high demand.

7 Impacts Assessment

Residual Impact

After enhancement the residual impact is expected to be high. One of the benefits arising from controlled population growth in and around the Alpha area is the potential for greater council revenue through an increased rate-paying base and greater potential for donations. These additional funds can be used to support improved service delivery, while encouraging personnel with spouses working in high priority areas will provide a greater human resource base for local service providers and community organisations.

Successful engagement with regional and local planning processes

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Successful engagement with regional and local planning processes	Positive	Medium	Life of Project	Medium - High

If the project is able to successfully engage in planning process such as the Central West Queensland Regional Plan, planning scheme developments and community planning, it is more likely that appropriate long-term strategies will be adopted to support the development of Alpha and surrounding communities to support Project associated population growth and service requirements across the range of service types. This will ensure that the BRC medium term plans, which are required to focus on the implementation of the regional strategic plan, will support the Project to manage social impacts in a proactive manner.

As construction of the Alpha Coal Project is a pre-requisite for the development of this Project, it is critical that the Alpha Coal Project successfully engages with local and regional planning processes ensuring that the requirements associated with the development of an alternative industry are considered. Therefore, successful engagement of this Project with these processes is expected to have a lower impact ranking of medium.

Enhancement

The Project's Community Liaison role as well as the KCCC will facilitate engagement with local and regional planning processes. This will be undertaken through the establishment of a consultative committee by the Proponent that supports consultation between the Project and the community as well as facilitating engagement with planning and monitoring processes. Strategies for engaging in the regional planning process, such as the development of open and transparent relationships with government and other stakeholders, will be documented in the Project Community and Stakeholder Engagement Plan.

Residual Impact

The impact after enhancement is expected to be medium-high. By ensuring open and transparent relationships are developed with local government and providing a dedicated point of contact through the Consultative Committee and Community Liaison role/function the Proponent will enable effective and ongoing communication between the Project and planning agencies. Strategies to support this

7 Impacts Assessment

process will be developed in consultation with key stakeholders and documented through the Community and Stakeholder Engagement Plan.

While enhancement activities are not considered likely to increase this impact significantly, they are considered very important to supporting the proactive management of social impacts through Project engagement in this important planning process.

Development of effective links to local government programs

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Development of effective links to local government programs	Positive	Medium	Life of the Project	High

Community support provided by the Project should compliment and strengthen work undertaken by local government. Opportunities to provide such support should be identified by the Project in consultation with local government to support and enhance the potential benefits of existing local government programs for the community. For example, programs which establish linkages between local businesses to give them the capacity to compete for mining contracts should be supported as a means of enabling local business opportunities and ensuring economic benefits are experienced in the community. Other opportunities to support local government programs may develop goodwill in the community or enhance economic diversity across the region.

Enhancement

Through the Communication and Community Engagement plan, the Proponent will consider opportunities to sponsor and support local government and community programs. The Community Liaison role and the Consultative Committee will be responsible for engaging with local government and facilitating cooperation on social development. The Proponent will investigate partnership opportunities with local government in a bid to enhance its ability to identify, assign responsibilities and join forces when approaching the State for funding to, for example, ensure strategic regional development opportunities stemming from the development of the Galilee Basin are captured.

Residual Impact

If the enhancement strategies are successful, the benefit to the community of the development of links between Project community support and government programs is expected to be high. The enhancement strategies have been developed to maximise the potential for cooperation between the council and the Project. The Community Liaison role will have responsibility for developing strong relationships with the local council. The council in turn will be expected to provide guidance to the Proponent in the identification and selection of projects that either benefit the community or will support community engagement with the Project (such as the Hi-Net example). This information will be documented in the Communication and Community Engagement Plan. PPP's have the potential to offer better business cases for local government programs from State and Federal governments and provide improved services to local communities.

7 Impacts Assessment

Potential increase in staff candidates/staff due to population increases and new skills

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Potential increase in candidates/staff due to population increases and new skills	Positive	Medium	Life of the Project	High

Some population growth in Alpha is expected to be a social impact of the Project. It is likely that this increased population will increase the potential number of applicants for positions with local government. It can also be assumed that the breadth of available skills will increase. The availability of new skills may lead to council engaging additional staff. While this has occurred in other areas such as the Bowen Basin, and the potential pool of candidates will increase with each additional project, the current difficulty in attracting new residents to the region meaning a lower likelihood of this occurring, the impact has been ranked as medium.

Enhancement

This impact was discussed previously in section 7.8.2.

Key enhancements strategies include the exploration of opportunities to establish a spousal/partner employment program to link high demand skills with service providers. Consideration will also be given to supporting BRC employment programs and strategies. Incentives for mine personnel with a spouse or partner who has high priority skills or is a service provider will also be explored.

Residual Impact

Through strategies such as the spousal employment program, employment incentives for location and support to BRC employment programs the potential benefit is expected to increase from medium to high.

7.11 Primary Infrastructure and Access

7.11.1 Regional Study Area

Context

The Peak Downs Highway is a high standard road which connects Mackay and Clermont. In turn, the Gregory Highway connects Clermont and Emerald. This highway is in relatively good condition and is heavily used by Road Trains and grey nomad tourists. The road connecting Alpha and Clermont is unsealed and single lane for most of its length and in need of an upgrade. This is a priority for the IRC and a desired upgrade for BRC.

The Capricorn Highway, which stretches from Rockhampton in the east to Longreach in the west, connects Emerald with Alpha. The Highway is generally flat and in good condition, however there are no designated passing lanes between Emerald and Alpha. The Capricorn Highway is heavily used by

7 Impacts Assessment

Road Trains, other freight transport and, between May and September, Grey Nomad Tourists. Highway maintenance for all three roads is the responsibility of the DTMR.

A proposal has recently been developed for the establishment of an arterial road which will connect the Capricorn and Gregory Highways in an industrial area to the west of Emerald. This would reduce the amount of heavy vehicle traffic passing through Emerald town. Currently the costs of this are considered too high, however funding opportunities are being considered.

There are currently public bus services between Rockhampton, Emerald and Alpha. There are also daily services from Emerald to Mackay via Clermont. Queensland Rail, Spirit of the Outback travels through Emerald to Alpha and beyond two times per week. There are charter bus companies based in Emerald which specialise in servicing the mining industry. CHRC highlighted the need for a more structured approach to mining transport. It is considering options for the establishment of a bus terminal to coordinate transport collections in Emerald. Some mines have purchased land to establish a staff car park in Emerald to address these concerns.

Emerald airport is the main airport for the region. There are 27 Qantas Link flights per week that service the airport. The airport is currently undergoing an upgrade from State Government funding. RTCA has made significant investments in upgrading the Clermont Airport over recent years to support the CCMP. Clermont airport now has the potential to handle commercial flights if demand warrants.

Emerald electricity supply is currently at its maximum, with no additional capacity to connect new houses or businesses. Ergon Energy acquired land for a new substation however CHRC are unsure of when building will commence on this at the time of the last SIA discussion in August 2010.

Emerald water is sourced from Fairbairn Dam/Lake Maraboon which was constructed in 1972. Clermont's water is supplied from Theresa Creek dam, which was constructed by RTCA in 1983.

Impacts

A summary of the potential medium and higher primary industry and access impacts is provided in Table 7-11. For a list of all the impacts assessed see Appendix B.

7 Impacts Assessment

Table 7-11 Very High to Medium Potential Primary Infrastructure and Access Impacts Summary Table

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement	Residual Ranking
Potential for spills, releases, fires or explosions causing safety hazards to communities	Negative	Major	Regional	Life of the Project	Rare	High	Mitigation	Medium
Increased road use – associated safety issues and maintenance - Capricorn Highway	Negative	Moderate	Local	Feasibility	Almost Certain	Medium	Mitigation	Low – Medium
		Major	Local	Construction	Almost Certain	Very High	Mitigation	High – Very High
		Moderate	Local	Operation	Almost Certain	High	Mitigation	Medium - High
Increased road use and associated safety and maintenance issues – Alpha–Clermont Road	Negative	Moderate	Local	Life of the Project	Likely	High	Mitigation	Medium – High
Potential for spills, releases, fires or explosions causing safety hazards to communities	Negative	Major	Local	Life of the Project	Rare	High	Mitigation	Medium
Increased access - Alpha–Clermont Road	Positive	Minor	Local	Life of the Project	Almost Certain	Medium	Enhancement	High
Improved telecommunications	Positive	Moderate	Local	Life of Project	Possible	Medium	Enhancement	High

7 Impacts Assessment

Potential for spills, releases, fires or explosions causing safety hazards to communities

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Spills, releases, fires or explosions causing safety hazards to communities	Negative	High	Life of Project	Medium – High

There will be a requirement to transport flammable and dangerous chemicals, explosives and other materials to the mine site for use in the construction and operation of the mine. As in the case of transporting of any dangerous goods there is a risk that there may be a spill, fire or explosion that can cause safety hazards for the surrounding communities. For example, an accident may result in the spill of a dangerous chemical that has the potential to seep into a nearby river or the soil causing contamination.

While it is considered unlikely that such an accident will occur, the resultant magnitude will be high on the affected persons and community. As such, this potential impact has been ranked as high.

Mitigation

Stringent policies and procedures governing the transportation, storage and use of dangerous materials, flammable chemicals and explosives will be adopted to mitigate the potential for an accident. In addition a comprehensive emergency response plan will be developed in consultation with police and other emergency services to minimise the impact in the event of an accident and ensure a coordinated response.

Residual Impact

After mitigation the impact is expected to be medium to high. While mitigation will significantly reduce the potential for such an accident to occur, the possibility of death or permanent injury, ecological damage or ongoing contamination to result in the event of an accident means that it is not possible to reduce the impact significantly. Further a comprehensive and regularly updated emergency management plan that is developed in consultation with police and is known to all parties will enable a quick and effective response so as to minimise the potential impact or damage resulting from an accident.

7.11.2 Local Study Area

Context

Having adequate infrastructure available to the community is seen by residents as crucial to the future and a core role for BRC. People want to retain existing infrastructure levels and make improvements based on available funding, particularly to water and electricity supply, and an integrated sewerage system.

The Alpha community water supply comes from the sub-artesian basin, requiring heavy reliance on bores. There is limited supply. Bore water is also the primary water source for the local cattle industry. Despite a heavy drilling program over recent years, capacity has not been significantly increased. The

7 Impacts Assessment

water supply is expected to reach full capacity if the 30 blocks recently subdivided in the community are developed. Negotiations for the supply of water are underway with SunWater Ltd. Letters of intent and commercial arrangements are being finalised to guarantee delivery of water at commencement of construction, and long-term delivery of the balance of the mine water demand. The water will be delivered to a dam on the lease, north of the rail line. This water will be suitable for immediate use in the CPP or pumped to the potable water treatment plant. This may enable relevant authorities to extend services to the community.

This is also the case for electricity supply. Alpha currently suffers from power brown-outs. Securing a reliable electricity source is a critical component for attracting and retaining people in the future. Currently electricity is sourced from a line from Barcaldine. Ergon Energy installed a generator in town as a back-up. The community plan highlights the need for continued lobbying of Ergon Energy to address these problems and upgrade the power supply.

The Alpha community at present does not have an integrated sewerage system. Most residences have their own septic field which requires additional land. The installation of a sewerage system in Alpha is identified as a high priority.

The Capricorn Highway is the main highway connecting Alpha with the coast and the main transport route from Emerald. The Highway is in relatively good condition and is heavily used by road trains and trucks. It is also the main corridor for current bus services between Longreach and Emerald, and future BIBO services from the regional centres to the east of the Project. According to consultation information, the State government is committed to a widening program for the highway.

According to the BRC Community Plan, having well maintained roads wherever possible is an important objective for the community. The Tambo–Clermont Road via Alpha (commonly referred to in this report as the Alpha-Clermont Road) is of particular priority to the council. This is seen as an important tourist route and would reduce truck transit times substantially.

There is a twice weekly bus service between Rockhampton and Longreach that passes through Emerald, Alpha, Jericho and Barcaldine. A local bus company provides a charter bus service including a daily bus run to primary and secondary schools.

Barcaldine airport is serviced by Qantas flights three times per week. The current Alpha airport is adequate for landing Dash-8 Q300 and Fokker F50 planes; however BRC has plans to upgrade the runway to handle jets. This upgrade will make Alpha Airport larger than Emerald Airport and potentially handle several mining project workforces.

The Telstra 3G Network services Alpha and Barcaldine. However, service is limited away from the main highway where satellite dishes represent the only reliable means of getting reception.

At the time of the 2006 census, 50.0% of houses had internet connection. Consultations indicate that now that there is 3G reception, many people use Telstra mobile internet services.

Most rural properties in the area have their own power generator, bores and airstrips.

7 Impacts Assessment

Impacts

Increased road use – associated safety issues and maintenance - Capricorn Highway

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased road use – associated safety issues and maintenance - Capricorn Highway	Negative	Medium	Feasibility	Low-Medium
	Negative	Very High	Construction	High - Very High
	Negative	High	Operation	Medium - High

It is inevitable that the Project will result in increased traffic use of the Capricorn Highway during construction. Associated with this will be the safety issues and increased maintenance requirements. If the required maintenance is not undertaken the highway condition will deteriorate rapidly bringing with it the associated safety hazards and increased travel time. This is particularly expected to be the case given the cumulative impacts of two projects in the area.

Higher levels of usage of the highway, particular by large vehicles, may increase the need for overtaking lanes between Emerald and Alpha. While there is no funding currently in place for this upgrade, the State Government has made a commitment to maintaining and widening this section of the road (see Transport Study Appendix R).

This potential impact will exist throughout the life of the Project however is assessed as having a different magnitude at various stages – medium during feasibility, very high during construction (when traffic volumes will be at their greatest) and high during operation. While each phase is given the same ranking as the corresponding Alpha Coal Project phase, the magnitude under this Project will be slightly greater because of the cumulative effect of two projects.

The safety issues associated with higher volumes of traffic have been explained in more detail in Section 7.5.2 Health and Wellbeing.

Mitigation

To mitigate this impact the Proponent will:

- Support BRC in funding applications for road maintenance and/or upgrades;
- Develop a proactive engagement program with local and regional police to support improved traffic management;
- Implement a comprehensive traffic and emergency management plan;
- Provide a BIBO service to transport personnel from regional communities;
- Investigate policies that restrict working hours (including travel time) to minimise fatigue;
- Establish a community liaison function to engage with other projects, council and emergency services to manage potential cumulative impacts; and
- Establish a Community Consultation Committee to consult with government agencies, community and other stakeholders to ensure effective traffic management policies are in place.

Residual Impact

It is important to realise that the potential magnitude of an accident is very high to those involved and their families. Therefore mitigation can only serve to reduce the likelihood of such an accident

7 Impacts Assessment

occurring. In this case the objective is to reduce this likelihood to rare. Specifically, by engaging with the police an effective traffic and emergency management plan will be implemented aimed directly at reducing potential for accidents. Supporting BRC to obtain funding will ensure the highway is maintained in a highly trafficable condition and potentially lead to any required upgrades or road widening programs. By providing a BISO service to transport personnel from regional centres to the mine site, the Proponent will be minimising the need for individuals to drive to site, and will also reduce the potential for fatigue to contribute to accidents. This will be further supported through maximum work hours which will restrict personnel from working above an agreed number of hours, inclusive of any travel time (for example this may be 14 hours per day including travel time).

These strategies will be supported by the establishment of a community liaison role and community consultation committee that will engage with other projects, the broader community, emergency service providers and council to ensure the Project and cumulative impacts are managed as effectively as possible.

Increased road use and associated safety and maintenance issues – Alpha to Clermont Road

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased road use and associated safety and maintenance issues – Alpha to Clermont Road	Negative	High	Life of Project	Medium – High

It is inevitable that the Project will result in increased road use on the Alpha – Clermont road between Alpha and the mine site. Associated with this are increased maintenance needs and a higher potential for accidents. These issues are amplified as the road is currently unsealed (although the Alpha Coal Project Description indicates that the Proponent will upgrade the road between Alpha and the Alpha Coal mine site). In the event of poor weather or rain particularly, the condition of the road deteriorates further. More detail about the safety issues are included under section 7.5.2 Health, Wellbeing and Social Infrastructure.

Community consultations highlighted this increase in usage and the associated maintenance and safety issues as a significant concern, particularly for residents who lived along or regularly travelled the Alpha – Clermont road. For additional information about the transport impacts of the project, see the Transport Study at Appendix R.

Mitigation

The Project does not intend to use the Alpha – Clermont road between Clermont and the Project site. Transport contracts will be developed to limit the potential for this and a policy to limit or prevent access from the Clermont end because of health and safety concerns for transport workers, personnel and residents from the area.

The Proponent will extend the road upgrade undertaken as part of the Alpha Coal Project to the mine site. The Proponent will also provide support to BRC and IRC efforts to identify and obtain funding should they choose to try and extend the upgrade through to Clermont. The Proponent will also explore opportunities with BRC for alternative access routes to the Project site from Alpha.

7 Impacts Assessment

In support of these strategies, the Proponent will conduct proactive engagement with police and other stakeholders to develop an effective Traffic Management Plan, Emergency Management Plan and ensure effective traffic management. The Proponent will also offer BIBO services to transport personnel from regional centres to the mine site to minimise the number of personnel driving to the mine site.

Finally the Proponent will establish a Community Liaison role to coordinate with other possible projects in areas such as traffic management. The Proponent will establish effective and ongoing community consultation programs to better integrate the activities and policies of the company, governments and service providers.

The Proponent will also make available limited seats on flights for the use of the immediate community, assisting with access in and out of the local community.

Residual Impacts

The objective of mitigation actions is to reduce the potential for accidents to occur on the Alpha – Clermont Road despite the extra traffic. This will be achieved through the further upgrading of the Alpha – Clermont road to the mine site and supporting BRC and IRC should they endeavour to obtain funding to continue this upgrade to Clermont.

The Traffic Management Plan and all transport contracts will restrict Project traffic from accessing the site from Clermont along the unsealed road, while the provision of BIBO services from regional centres will minimise the additional traffic to the site. These policies will be further supported through a coordinated, proactive and ongoing consultation program with the community, emergency services and other projects.

Potential for spills, releases, fire/explosions causing safety hazards to communities

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Potential for spills, releases, fire/explosions causing safety hazards to communities	Negative	High	Life of Project	Medium

There will be a requirement to transport flammable and dangerous chemicals, explosives and other materials to the mine site for use in the construction and operation of the mine. As in the case of transporting of any dangerous goods there is a risk that there may be a spill, fire or explosion that can cause safety hazards for the surrounding communities. For example, an accident may result in the spill of a dangerous chemical that has the potential to seep into a nearby river or the soil causing contamination. This is a potential risk for the Project in both the regional and local study area.

While it is considered unlikely that such an accident will occur, the resultant magnitude will be high on the affected persons and community. As such, this potential impact has been ranked as high.

7 Impacts Assessment

Mitigation

Stringent policies and procedures governing the transportation, storage and use of dangerous materials, flammable chemicals and explosives will be adopted to mitigate the potential for an accident. In addition a comprehensive emergency response plan will be developed in consultation with police and other emergency services to minimise the impact in the event of an accident and ensure a coordinated response.

Residual Impact

After mitigation the impact is expected to be medium to high. While mitigation will significantly reduce the potential for such an accident to occur, the possibility of death or permanent injury, ecological damage or ongoing contamination to result in the event of an accident means that it is not possible to reduce the impact significantly. Further a comprehensive and regularly updated emergency management plan that is developed in consultation with police and is known to all parties will enable a quick and effective response so as to minimise the potential impact or damage resulting from an accident.

Increased access - Alpha–Clermont Road

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Increased access - Alpha–Clermont Road	Positive	Medium	Beyond Project	High

The Alpha – Clermont road has been identified as a high priority by both the BRC and IRC and the local communities. While the road is currently unsealed and considered to be quite dangerous in poor weather, it is anticipated that this situation will have been at least partially addressed by the Alpha Coal Project. The Project then intends to extend this upgrade from the Alpha Coal Project to the mine site, ~ another 20km along the road. The cumulative effects of the two projects and the continued development of the Galilee Basin may provide the required impetus to extend this upgrade through to Clermont. While this will still be a very positive impact of the Project on the local and regional community, the magnitude is considered to be lower given that there will already be the benefit of upgrading the first 50km of the road.

It is important to note that it is likely that the magnitude and ranking of some impacts on the regional study area will likely change if the road, and therefore access from Clermont, is improved.

Enhancement

The Proponent will enhance this benefit by extending the previous road upgrade ~20km further to the mine site and will support BRC and IRC to apply for additional state or federal funding to continue this to Clermont. The Proponent will conduct proactive engagement with the police and other stakeholders to develop a Traffic Management Plan and to identify accident black spots and dangerous road conditions to feed into the planning of any further upgrades or improvements.

Information about road upgrade and maintenance issues as well as road safety and the Project Traffic Management Plan will be provided to the community through strategies identified in the Communications and Community Consultation Plan.

7 Impacts Assessment

Residual Impact

The Alpha – Clermont road is currently used by local residents, tourists and some freight transport companies. Therefore any upgrade to this road will have a positive impact on the community. As it has been assumed that the majority of this extension has been completed under the Alpha Coal Project however and the Project is extending this for ~ 20km further therefore the potential benefit is of lower magnitude. If the Project is successful in supporting IRC/BRC to obtain the necessary funding and extend the road upgrade however the potential benefit for both the regional and local community will be significant. Through ongoing engagement with the police an effective Traffic Management Plan will be developed while identifying accident blackspots will allow for addressing these in further upgrades or maintenance programs.

Improved telecommunications

Impact	Impact Category	Impact Ranking	Duration	Residual Impact Ranking
Improved telecommunications	Positive	Medium	Life	High

The Project will require the support of an appropriate telecommunications facility. As mobile telephone service is currently limited to a narrow corridor along the Capricorn Highway, improvement of these facilities will require the installation of mobile phone receivers, satellite dishes or other infrastructure improvements. There is the potential that these services will reach or can easily be expanded to the community, particularly landholders living near the mining lease on the Alpha – Clermont Road.

The Alpha Coal Project will already likely have undertaken some improvements to develop communication infrastructure, potentially bringing mobile phone connectivity to residents that were otherwise outside of range. A similar program will be adopted under this Project magnifying the improvements. Extending the 3G network access in this way will also provide more residents with access to high speed wireless internet.

Enhancement

To enhance this potential benefit, the Proponent will support BRC efforts to obtain State and Federal funding and will discuss infrastructure development opportunities for local economic development. These efforts will be supported by an effective and ongoing community consultation program.

Wherever possible, the Project will explore opportunities to situate telecommunications infrastructure so that it maximises community benefit, provided that the complete project coverage required can also be achieved. Thus priority will be given to identifying the location that is most beneficial to the community when multiple sights meeting project requirements can be identified.

Residual Impact

Currently 3G mobile and wireless internet is only available in Alpha and along the Capricorn Highway with the signal dropping out as you move away from these areas. The Project provides an excellent opportunity to extend this network around the mine lease. The Project, which will require high quality telecommunications, will build infrastructure to support this system. By identifying how this infrastructure can best support improved telecommunication in the community, whilst still meeting Project needs, the Proponent will extend this benefit across the broader community. This will be

7 Impacts Assessment

enhanced further through support to the BRC via the community consultative committee to assist in obtaining necessary funding to enable this to reach the maximum number of beneficiaries.

Mitigation and Management

This section outlines the scope of the various mitigation, enhancement and management mechanisms that the Project will implement in relation to social impacts. This is not a list of Project commitments. For Project commitments refer to Volume 2, Appendix G.

8.1 Kevin's Corner Consultative Committee

The Project will work with State and Local government to develop a Kevin's Corner Consultative Committee (KCCC). Clear terms of reference (ToR) for the KCCC have been developed below for the initial meeting in order to develop the official ToR for future meetings in collaboration with the participants. The role of the KCCC will initially be to assist in the Phase 2 SIMP process as outlined in Section 11. This will enable a more efficient process with key stakeholders to identify key indicators and tracking tools for the SIMP. It will also clearly define the roles and responsibilities of the key stakeholders within the SIMP. The KCCC should also transition the SIMP into Phase 3, and be an active participant in the SIMP throughout the life of the Project. The Project will manage the SIMP; however, there are significant opportunities for the KCCC to maintain a clear purpose through SIMP responsibilities and ongoing input and evaluation.

The KCCC should consider the following potential participants:

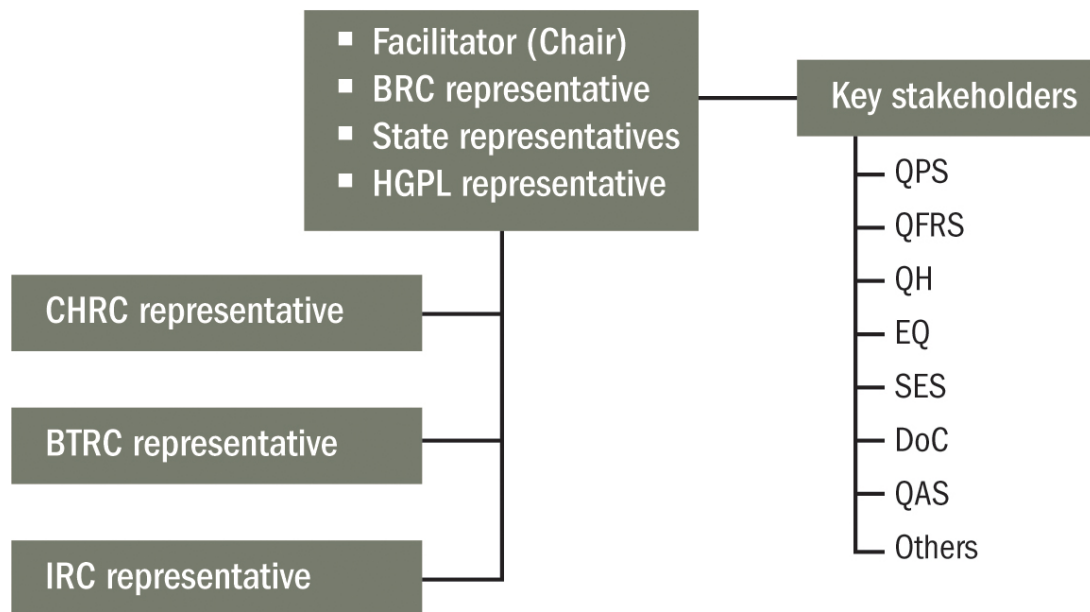
- An independent chair to facilitate the committee;
- Representative from the Kevin's Corner Coal Project;
- Representatives from the three local councils (as required);
- Representatives for the State Government (as required); and
- Key stakeholders (likely on a need be basis).

This structure is shown in Figure 8.1 below.

As the Project develops, consideration will be given to the potential to collaborate or join with other Project groups in the Galilee Basin, for the example the Hancock Consultative Committee (HCC) that is to be established as part of the Alpha Coal Project.

8 Mitigation and Management

Figure 8-1 Kevin's Corner Consultative Committee Structure



The core group of the KCCC will include State Government representatives, BRC, HGPL and independent facilitator. Councils should consider assigning one or two designated staffers to participate in the KCCC, and focus more on community liaison level participants. The Project should also assign one or two designated staff to participate. Additional stakeholders will be included on an as-needed basis to ensure the core group is consistent with Project issues, and to manage the participants more effectively and productively. These additional stakeholders will have roles and responsibilities associated with the social impact mitigation and action plans in the SIMP. Resourcing of the independent chair position as well as resourcing 'out of pocket expenses' for participants will be considered.

The KCCC should focus on assistance, collaboration and facilitating connections between key stakeholders. The KCCC should strive to integrate projects and processes to streamline development and provide consistency. The KCCC should act as a mechanism for coordination and not as a decision-making body, though some tasks will be assigned, particularly in the development of Phase 2 of the SIMP. Ultimately the final decision on Project related issues will lie with Hancock. It will be the decision of the Proponent and the government to determine what tasks (if any) the KCCC should make decisions on.

The KCCC will be the main driver for social impact management development and implementation, and will eventually likely take on some form of management and monitoring role. The KCCC will effectively become a cumulative forum with the inclusion of Kevin's Corner and will be open to the notion of other projects participating as well in the future.

Proponent and the government to determine what tasks (if any) the KCCC should make decisions on.

8 Mitigation and Management

HGPL will contact participants from State and local government (by phone or in face-to-face meetings) to outline the SIMP work carried out to date, the SIMP strategy, the KCCC strategy, and to determine whether there is a willingness to participate within the process. Draft ToR (see Section 8.1 below) will be presented to prospective participants at this time. Prospective participants will be selected based on their alignment with the subject areas of the identified key impacts and action plans that are to be developed as part of the SIMP, to ensure that there is appropriate expertise amongst the group.

8.1.1 Draft Terms of Reference for the KCCC

This draft ToR has been developed for the KCCC as a guide for the initial meeting. The ToR will be refined further in consultation with the KCCC. The draft ToR is outlined below:

Purpose

The purpose of the preliminary KCCC is to refine and finalise the action plans within the SIMP and identify any pre-construction impacts and mitigation strategies that may need to be undertaken. This is different to the ongoing KCCC which will operate once the SIMP has been initiated, prior to construction of the Project. Once the Project has begun development, the KCCC will facilitate communication between the Proponent and key Project stakeholders regarding key aspects of the construction, operation and de-commissioning phases of the Project for SIMP monitoring and management.

Objective

The objective of the KCCC is to review the draft SIMP action plans and provide feedback for finalisation. During Project development, the objective will be to identify the core group responsible for review, monitoring, evaluation and management of the SIMP and reporting to regulators and the community.

Responsibilities

HGPL will:

- Provide secretariat services to the KCCC;
- Resource all operational costs of the KCCC; and
- Transfer outcomes from meeting into the SIMP for finalisation.

Members will:

- Act as representatives of their organisations/agencies; and
- Provide feedback on specific Action plans to align with their organisational objectives.

Timing

HGPL will initiate establishment of the KCCC in the first half of 2012. It is envisioned that the KCCC will run for the life of the Project, including having a role in decommission-planning and implementation.

Actions

- To develop a working Terms of Reference for the KCCC in collaboration with the group; and

8 Mitigation and Management

- Finalise action plans within the SIMP, to complete Phase 2 and transition to Phase 3.

8.2 Project Community Liaison

As part of the EIS, the Proponent has committed to the establishment of a community liaison function tasked with maintaining ongoing consultation with stakeholders, and council in particular. The Community Liaison function will encompass a number of elements, such as

- Facilitate interaction with councils and key stakeholders;
- Coordinate Project policies and strategies with council planning;
- Represent the Project in planning and other strategic development forums with BRC;
- Consult with local services about upcoming training opportunities and community needs and coordinating efforts where possible;
- Identify and facilitate synergies with relevant policies and programs, particularly with emergency service providers;
- Explore some of the BRC ideas regarding incentive programs and shared resources;
- Assist in notifying residents of significant movement events that may impact road use;
- Coordinate with other potential projects to ensure effective traffic management and coordination with other social issues;
- Proactively develop and nurture relationships critical to ensuring effective participation in regional and local planning processes;
- Identify high priority focus programs that the Project may be able to support through sponsorship or in-kind support;
- Liaise with hospital staff and managers to identify opportunities and synergies through shared resources;
- Participate in the KCCC, which will provide a cohesive mechanism for information to be shared between the Project, local government, other stakeholders and other projects as appropriate;
- Inform local planning functions of emerging trends in relation to key social indicators, to support proactive responses or pre-empt potential impacts; and
- Report important social and community feedback to the Project for consideration in future Project design, policies and strategies.

8.3 Social Impact Management Plan

The social impact management plan methodology is explained in detail in Section 2.9. The SIMP is located in Section 11.

The Project commitment to develop the SIMP in a three phase approach will enable key stakeholders (including council) the opportunity to participate in the identification and defining of impact benchmarks and mitigation objectives in the Phase 2 process. It will also allow council the opportunity to be an active participant in the management and monitoring of the SIMP through Phase 3. For more information on these and other commitments refer throughout Section 7 of this report, and Volume 2 Appendix G of the EIS.

The SIMP strategy (which is to be employed for both the Alpha Coal and the Kevin's Corner Coal projects) was presented to CHRC on 18 August 2010, BRC on 19 August 2010 and IRC on 20 August 2010. Since then, discussions with the councils regarding this approach to the SIMPs have continued in an *ad hoc* manner (i.e. during other ad hoc discussions and scheduled consultations with councils relating to the projects). It was explained that the SIMP would be developed through a three phase

8 Mitigation and Management

approach. Phase 1 would be a foundation document and included as part of the EIS (see Section 11 and Volume 2, Section 27 of the EIS). Phase 2 would require council input to develop benchmarks, and establish roles and responsibilities. This would occur between EIS submission to the government and the commencement of construction. Phase 3 is the implementation and ongoing management of the SIMP, and will commence prior to construction. Phase 3 is essentially transitioning the SIMP from a draft to a final, and the SIMP 'going live'.

8.4 Cumulative Impact Management

The Proponent will welcome input from other projects to assist (the Project and councils) on cumulative impact management. The Proponent will ensure the DEEDI SIA Unit is informed of the discussions and outcomes for cumulative impacts when appropriate, and will include consulting with State Governments departments and agencies. The Proponent will provide a baseline through the submission of the EIS which will provide future projects with a consistent foundation for impact assessment. This consistent baseline is an important component for future cumulative impact assessments.

9 Other Projects

Other Projects

Projects identified by DEEDI and the Proponent as existing or likely to occur in the area during the same time frame as the Project were reviewed in order to inform the cumulative effects assessment. The rationale for the projects considered can be found in Volume 1, Section 27 of the EIS.

9.1 List of Existing Projects Considered

Table 9-1 lists the current existing projects in the region relevant to the Project.

Table 9-1 Existing projects relevant to the Kevin's Corner Coal Project

Project	Location	Description	Project Status
Blackwater, BMA	Blackwater	Open cut coal mining operation producing 11 Million tonnes per annum (Mtpa) and employing 1,570 personnel.	30 year mine life remaining.
Blair Athol, Rio Tinto Coal Australia Ltd	Clermont	Open cut coal mine operation producing 11 Mtpa with 290 employees.	5 year mine life remaining.
Clermont, Rio Tinto Coal Australia Ltd	Clermont	Open cut coal mine operation producing 12 Mtpa with 360 employees.	7 year mine life remaining.
Cook, Caledon Resources PLC	Blackwater	Underground coal mine operation producing 12 Mtpa with 360 employees.	At least 10 year mine life remaining.
Crinum, BMA	Tieri	Underground coal mine operation producing 4 Mtpa with 420 employees (live in Emerald).	15 year mine life remaining.
Curragh, Wesfarmers Ltd	Blackwater	Open cut coal mine producing 7 Mtpa.	Curragh operations employ 1,530 staff, in total. At least 10 year mine life remaining.
Curragh North, Wesfarmers Ltd	Blackwater	Open cut coal mine producing 3 Mtpa.	
Ensham, Ensham Resources Ltd	Emerald	Open cut coal mine producing 7 Mtpa with 600 employees.	At least 20 year mine life remaining.
Gregory, BMA	Tieri	Open cut coal mine producing 2 Mtpa with 225 employees (live in Emerald).	Only two years of mining remaining.
Jellinbah East, Jellinbah Resources Ltd	Blackwater	Open cut coal mine producing 4 Mtpa with 380 employees.	At least 10 years of mine life remaining.
Kestrel, Rio Tinto Coal Australia Ltd	Tieri	Underground coal mine producing 4 Mtpa with 515 employees (live in Emerald).	At least 20 year mine life remaining.
Yarrabee, Yancoal Australia Ltd	Blackwater	Open cut coal mine producing 2 Mtpa with 220 employees.	15 year mine life remaining.

Source: HGPL and DEEDI

All of the projects listed in Table 9-1 are mining operations in the neighbouring Bowen Basin. The proximity to the Project site and the shared transportation networks are important factors to consider, as is potential workforce sourcing. Projected project closures from these mines are of particular importance given the scale of the Project, and the number of workers required to construct and operate the Alpha mine.

9 Other Projects

9.2 List of Proposed Projects Considered

Table 9-2 lists the current proposed projects in the region relevant to the Project.

Table 9-2 Proposed projects relevant to the Kevin's Corner Coal Project

Project	Description	Location	Project Status
Galilee Basin Power Station, Galilee Power Pty Ltd (fully owned subsidiary of Waratah Coal Pty Ltd)	Coal-fired power station producing 900 MW (net). Maximum personnel – 1,000	Alpha, 30 km north-west, immediately to the east of Waratah Galilee Coal Mine.	IAS completed
Alpha Coal Project, Hancock Galilee Pty Ltd	Open cut coal mine producing 30 Mtpa. Maximum personnel – 2,300.	Alpha, 40 km north-west.	SEIS completed
Waratah Galilee Coal Mine, Waratah Coal Inc. (China First)	Open cut mine with export capacity of 25 Mtpa and capability to expand to more than 50 Mtpa. Maximum personnel – 2,200	Alpha, 13 km west and 35 km north.	EIS advertised
The South Galilee Coal Project (SGCP), joint venture of AMCI (Alpha) Pty Ltd and Kevin's Corner Coal Pty Ltd.	15-20 Mtpa open cut and underground mining operation and associated infrastructure. Maximum personnel – 1,500	Alpha, immediately south-west.	IAS completed
Galilee Basin Transmission project, Powerlink power	Transmission lines from Lilyvale substation to a new Galilee Hub substation (during construction phase of the project). Maximum personnel – 500	N/A	EIS advertised
Water for Bowen Project, SunWater	Water pipeline from Connors River Dam to raw water dam within MLA (during construction phase of the project). Maximum personnel – 500	N/A	-

Source: HGPL and DEEDI

The projects listed in Table 9-2 are predominantly mining projects, as well as utilities. These projects will be competing for personnel for their various construction and operation workforces. The other Projects in the Galilee Basin region will potentially amplify Project social and economic impacts, and may create new potential impacts by altering the social environment.

Section 10 examines the potential effects of cumulative projects on the region from a social perspective.

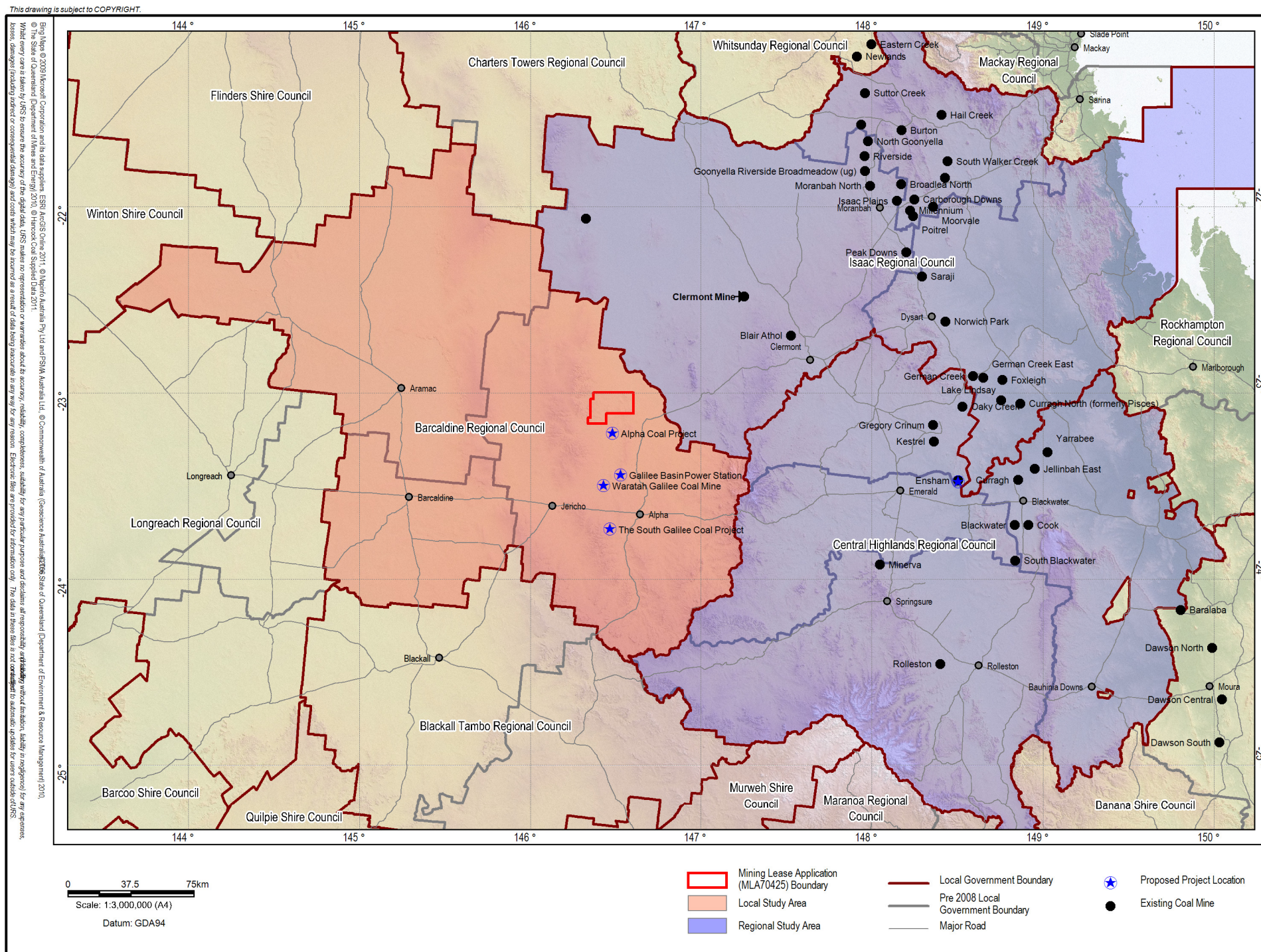
Cumulative Impacts

The SIA for this Project is a cumulative assessment of the social impacts of the Kevin's Corner Project in addition to the social impacts that are deemed to be likely to have occurred as a result of the Alpha Coal Project. The rationale for this approach is that to be a viable project, the Kevin's Corner Coal Project is dependent on the rail infrastructure of the Alpha Coal Project. As such the scope of the SIA for the Kevin's Corner Project includes the Alpha Coal Project, and this SIA focuses on the successive, incremental and combined social impacts (Franks et al, 2010) that are likely to occur as a result of the Kevin's Corner project in addition to the Alpha Coal project.

The cumulative impacts assessment for the SIA is based on the projects identified in Section 9. The projects assessed were collected based on availability of information in consultation with DEEDI (formerly DIP). For more information on the methodology and rationale behind the cumulative impacts refer to Volume 1, Section 27 Cumulative Impacts.

The cumulative impacts section assumes all projects listed in the existing projects list will continue as scheduled, with closure occurring as currently reported. All proposed projects are anticipated to proceed according to their schedule with the workforce and other details described in their IAS/EIS.

Figure 10-1 shows the various projects considered in reference to the regional council areas. The power line and water pipeline are not included as the anticipated routes are not known. These infrastructure projects will be coming to the Project area roughly from the east. The figure shows the level of development in the Bowen Basin to the east of the Project, as well as the greenfield nature of the Galilee Basin. Of note also are the road networks in the region as they are important considerations in the cumulative assessment. Consideration was also given to the potential for a third party (non-Project) upgrade of the Alpha-Clermont Road from the Project to Clermont. This upgrade is not part of the Project and is not listed in the Project list of potential cumulative impacts; however, should such an endeavour be undertaken, it would have significant impacts on how the Project (and other Galilee Basin projects) affected IRC and the Clermont area in particular.



10 Cumulative Impacts

10 Cumulative Impacts

Cumulative impacts for social and community are inherently difficult to identify or assess because they are based on assumptions of assumptions, many of which are unknown because they were developed by other projects. Therefore, the purpose of this social cumulative assessment is to identify potential key considerations in the Project regional and local study areas, and identify a mechanism for better identifying and planning for cumulative impacts. The regional study area includes Isaac Regional Council (with a focus on Clermont), and Central Highlands Regional Council (with a focus on Emerald). The local study area includes Barcaldine Regional Council with a focus on Alpha. Table 10-1 lists key considerations for each valued social component (VSC) assessed in the social impact assessment (SIA).

Table 10-1 Key Considerations for the Study Areas regarding Cumulative Impacts

Valued Social Component	Key Considerations
History and Settlement	<ul style="list-style-type: none"> Increased rate and scale of profile change; Increased rate and scale of settlement pattern shift to accommodation village style arrangements; Increased potential for in-migration to local and regional communities; and More rapid transition from a predominantly agricultural area to a mining area.
Demographic	<ul style="list-style-type: none"> Increased population to local and regional centres; Increased rate of population growth; Increased number of males aged 20 to 45; and Increased ratio of non-Indigenous to Indigenous.
Culture and Community Dynamics	<ul style="list-style-type: none"> Increased ratio of non-Indigenous to Indigenous; Increased number of people from outside the region; Increased potential for volunteers; Increased disposable income; and Predominance of shift-style employment.
Housing and Accommodation	<ul style="list-style-type: none"> Increased cost of housing: <ul style="list-style-type: none"> Increased demand; Decreased supply; and Increased speculation. Increased rents; Increased pressure for land availability; and Increased demand on short-term accommodation.
Health, Wellbeing and Social Infrastructure	<ul style="list-style-type: none"> Increased demand on local and regional emergency services providers; Potential for service providers to reach critical mass and acquire additional staffing/upgrades; Potential for service providers to be stretched to their limits (service delivery and staff fatigue); Potential for community to feel overwhelmed/helpless; Potential for local social infrastructure to fall further behind demand; and Potential for increased skills and services in the region. Increased health concerns relating to coal dust
Education and Training	<ul style="list-style-type: none"> Increased training opportunities and skills development; Potential for local school to reach critical mass and receive additional staff; Potential for child care to reach limit; Potential for child care to acquire additional staff; and Potential for dedicated training to move to the region to service multiple mines.

10 Cumulative Impacts

Valued Social Component	Key Considerations
Labour Market and Employment	<ul style="list-style-type: none"> Increased employment opportunities; Increased competition for workers; Increased wages at mines; Increased potential for skills drainage from other industries; and Increased potential for FIFO reliance by all projects.
Industry and Business	<ul style="list-style-type: none"> Increased competition for workers; Increased business opportunities in the region; Increased potential for development of an Alpha light industry precinct; and More rapid transition from a predominantly agricultural area to a mining area.
Income and Cost of Living	<ul style="list-style-type: none"> Increased disposable income; Potential increase in goods and services in the area; Potential increase in cost of local goods from businesses increasing prices to capture mining incomes; and Potential increase in housing costs and rent.
Governance	<ul style="list-style-type: none"> Increase in demand on councils; Increase in taxes and rates; Increased demand on services and infrastructure; and Increased profile with State and Federal governments.
Primary Infrastructure and Access	<ul style="list-style-type: none"> Reduction in effect of limiting factors in Alpha from increased investment; Increased pressure on limiting factors in Alpha if not addressed effectively; Increased demand on/use of State roads; Increased traffic and safety issues; Increased maintenance required on roads; Potential expansion of Alpha aerodrome; and Potential to increase rail activity along Longreach to Rockhampton line.
Other - Access	<ul style="list-style-type: none"> Potential for DTMR and councils to upgrade Alpha-Clermont Road from the Project to Clermont: <ul style="list-style-type: none"> — Potential to increase impact on Mackay businesses and community; — Reduce impacts (positive and negative) to BRC and CHRC; — Potential to transfer more road transport to Mackay via IRC; — Transfer of impacts from Alpha to Clermont; — Potential to increase population in Clermont and subsequent spin-off impacts; and — Potential for Alpha to receive minimal positive and negative impacts.
Other – consultation	<ul style="list-style-type: none"> Consultation fatigue for councils; Consultation fatigue for communities; Confusion differentiating projects; and Issues overlooked or under considered by key stakeholders due to other commitments/distractions.

The cumulative effect of more than one project in the Galilee Basin will likely result in an amplification of the Project impacts assessed for the regional study area and local study area. Impacts are limited by several key factors for each area which would remain limiting factors, unless one of the other projects intends to remove one of those factors. As an example, a project providing Alpha with a

10 Cumulative Impacts

secure source of electricity and water directly to the community would significantly impact on the potential for people to relocate to the region for all projects. An upgrade of the Alpha-Clermont Road to Clermont would significantly impact on the geographic location, frequency and magnitude of impacts of the Project. Most impacts would likely transition away from Alpha and towards Clermont. Clermont is a larger centre with more services and better access to other major centres.

Overall the cumulative social impacts due to more than one of the proposed projects going ahead in the Alpha area are likely to be fairly significant in both the regional and local study areas. In the regional study area (IRC and CHRC), the existing and other proposed projects in those regional councils will reduce the noticeable impact from the Alpha Project, and Alpha will essentially be an amplification of the other Projects. The Project will be a cumulative effect on the regional councils. This is because of the distance the Project is to those councils, and because the existing and other proposed projects (not in the Galilee Basin) are within those councils boundaries. The Project therefore will be viewed more as a secondary concern for IRC and CHRC than a primary concern. As more projects develop in the Galilee Basin, the profile of the basin as a whole may increase for IRC and CHRC, making the basin a primary concern.

In the local study area, the amplification effect from the other projects has the potential to create near limitless scenarios. The primary factor will be the policies and programs each project implements regarding workforce sourcing, transport and accommodation. If additional projects to the Kevin's Corner Coal Project go ahead, local opportunities for mine employment should remain the same; however, the choice of which project to seek employment with will increase. The lure of many projects may attract newcomers and former residents back to the region. This will increase business profits and opportunities.

The key to managing cumulative impacts is to have various projects proponents considering more than their own project in the development and implementation of their strategies, policies, and programs. This is best achieved through a high level, strategic forum which will enable key stakeholders to better understand the requirements and outcomes of multiple projects. There are several opportunities available to achieve this and the Proponent will explore opportunities for effective cumulative impacts management in consultation with the DEEDI SIA Unit.

The Kevin's Corner project will link with the Kevin's Corner Consultative Committee, already established as part of the Alpha Coal Project. This committee will be the mechanism for on-going examination of the cumulative impacts of these two projects, and will be open to the notion of other emerging projects linking in to consider cumulative impacts more broadly. Hancock would be interested in participating within an ongoing cumulative impacts forum to address these types of impacts as a result of these multiple emerging projects within the region, whether this is the KCCC, or if one is organised by another body (such as the Galilee Basin Common Issues Forum).

Key considerations for potential emerging cumulative impacts which relate to the valued social components have been identified as part of this assessment (Table 10-1 above) as a basis for the KCCC's role of on-going impact monitoring and management.

11 Social Impact Management Plan

11

Social Impact Management Plan

A draft social impact management plan (SIMP) was stipulated in the TOR as a requirement for the SIA; this draft SIMP is presented here. The Project SIMP is modelled from the Alpha Coal Project SIMP within which both Council and the DEEDI SIA Unit were consulted. The SIMP is also modelled on the DEEDI SIA Unit SIMP Guidelines (previously DIP) and subsequent modifications have been made to the SIMP format to better align with the current SIA. The DEEDI SIA Unit has been consulted regarding the SIMP layout and contents, and concurs with its structure.

11.1.1 Social Impact Management Plan Development Strategy

Overview of the SIMP Methodology and Rationale

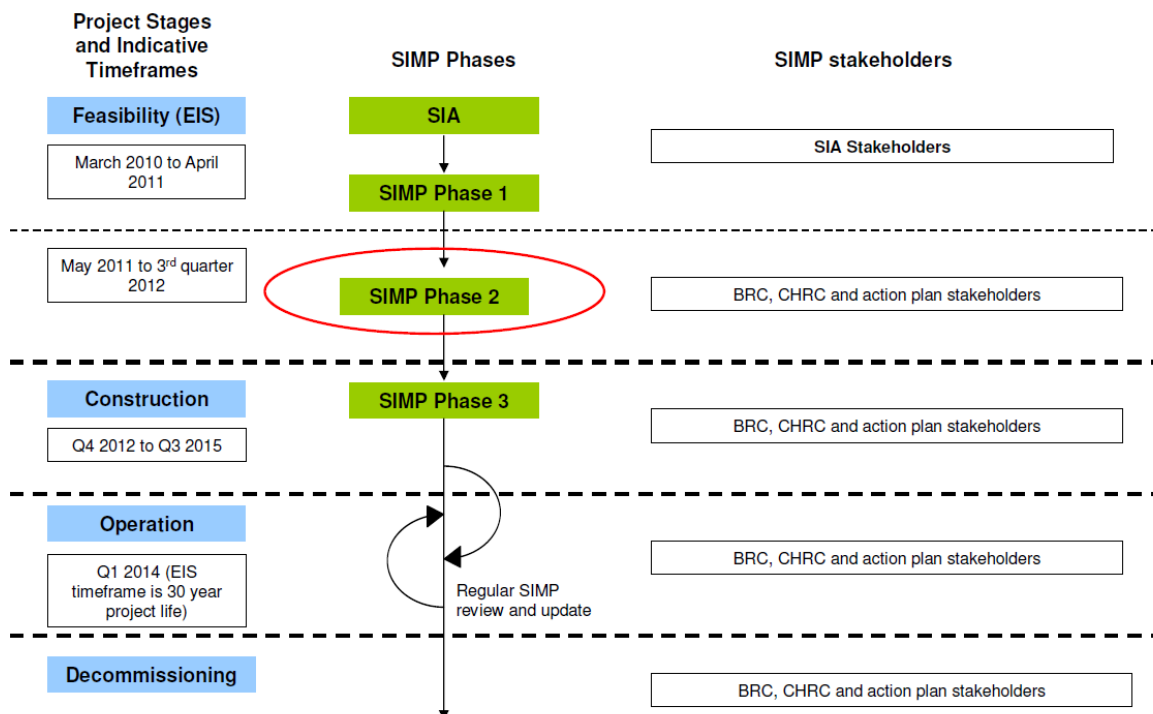
The SIMP is based on a three phased approach:

- Phase 1 SIMP Foundation: Develop the draft SIMP based on the SIA analysis and conclusions
- Phase 2 SIMP Details: Consult key stakeholders on the details of the SIMPs, roles and responsibilities, benchmarks, reporting, monitoring and program evaluation; and
- Phase 3 SIMP Implementation: Initiate SIMP including mitigation, monitoring, management, and reporting. Review and adapt the SIMP as the Project and community evolve.

This approach is outlined in Figure 11.1 below. This approach was described to councils in the August and November 2010 consultation meetings as the preferred process for developing the SIMP for the Project. Councils were told that the phased approach for the SIMP would result in a foundation being developed for inclusion in the EIS SIA as Phase 1, the goal being to develop a template for Phase 2 rather than a complete SIMP. Phase 2 would occur between EIS submission to the government and construction commencement, and would detail the benchmarks, roles and responsibilities for the SIMP. Phase 3 would occur prior to construction, as the implementation and ongoing management of the SIMP. The implementation of this phased process was also used on the Alpha Coal Project, and continuing *ad hoc* discussions with the councils have extended the discourse relating to this approach.

11 Social Impact Management Plan

Figure 11-1 Kevin's Corner Coal Project - SIMP approach



The Proponent recognises that local council roles and inputs into the EIS and SIA process are currently limited. The Proponent has designed a three phase process for the Project SIMP in order to increase local council involvement in the development of key SIMP criteria (Phase 2) and implementation through ongoing monitoring, review and adaptation (Phase 3). Phase 3 is the implementation and ongoing management of the SIMP, and will commence prior to construction.

The Proponent envisions a coordinated SIMP finalisation approach with BRC and CHRC as well as other stakeholders (where appropriate) in order to align the SIMP with council plans and programs. The objective is to leverage off the systems already in place. This process is yet to be determined, but could be coordinated through the proposed Kevin's Corner Consultative Committee or similar body (see Section 8 of the SIA –Volume 2, Appendix T).

This draft SIMP submitted with the Project EIS is within Phase 1. Submission of the draft SIMP does not necessarily signify completion of Phase 1. Further consultation with the DEEDI SIA Unit, local governments as well as state governments (through the SIAU's Social Impact Assessment Cross Agency Reference group) may be required to refine the template prior to expansion of the various components. The guideline version available at the drafting of the SIA has many limitations including the suggestion to assess all potential impacts rather than key trigger impacts like population change and increased access. As a result the Project SIMP has been modified to better reflect the findings of the SIA.

This draft SIMP in its current form is a template designed to be refined with input from key stakeholders, including from local government. The purpose of the SIMP is to establish the roles and responsibilities of the proponent, government, stakeholders, and communities for the mitigation and management of social impacts and enhancement of benefits and opportunities that may be associated with the construction,

11 Social Impact Management Plan

operation and decommissioning of the Project. The specific mitigation strategies for each of these key impacts will be further developed within Phase 2 of the SIMP, as will overarching action plans focussing on key themes.

This draft plan has identified the key indicators from each of the VSCs which should be tracked for the initial phases of the project. The indicators that will trigger the need for the following actions could include:

- No change – no action required;
- Positive change – continue to monitor and explore opportunities to enhance; and
- Negative change (measurable):
 - Less than 5% change – continue to monitor and examine mitigation strategies; and
 - Greater than 5% change – implement mitigation strategies and increase monitoring to track effectiveness of mitigation and degree of change.
- Negative change (immeasurable) - implement mitigation strategies and increase monitoring to track effectiveness of mitigation and degree of change.

The 5% population change rule was used as this is an industry standard for considering impacts to be significant enough to warrant additional assessment (Burdge, 2004).

Some mitigation measures will be implemented immediately to reduce the likelihood of the negative change occurring. Others will be implemented as a secondary mitigation if a change occurs to reduce the possibility of the change becoming unmanageable. A hypothetical example of this could be housing, where the current Project policy of on-site accommodation and a FIFO/DIDO/BIBO model limits the likelihood that workers would relocate to the area. If this strategy does not reduce the likelihood and workers start relocating at a rate that triggers noticeable change, the Project and council may examine alternative housing options like Project housing in Alpha, rezoning of Project land, or apartment style units to accommodate the new arrivals to the area. The details of secondary (and possibly tertiary mitigation strategies) should be developed in Phase 2, and re-evaluated periodically through Phase 3 to evolve with the natural changes in society.

The benchmarking exercise in Phase 2 will identify population benchmarks (i.e. critical mass populations) that are likely to be necessary for leveraging additional service responses for a range of services, for example an additional teacher at the school. Conversely negative benchmarks for critical mass will examine unmanageable change resulting in a decrease in liveability or standard of living, such as a community losing a teacher. Action plans focussing on detailed planning for key themes will be developed as part of Phase 2 the SIMP.

It is important to note that there are five major factors to consider for all three study areas (though to various degrees) which will influence change. These are:

- Increased population (a desired outcome if manageable by all three councils – note the definition of manageable is different for each and will be determined during the next phase of SIMP development);
- Increased access (bypasses, airport upgrades and increased services, road upgrades, FIFO/DIDO/BIBO, etc.);
- Primary infrastructure and services (more applicable to Alpha);
- Land and housing availability (and the subsequent impact on housing costs); and
- Governance and project coordination (the ability of government to address change or potential change and the ability of the government and Hancock to coordinate efforts effectively including program implementation and policy development).

11 Social Impact Management Plan

Cumulative Social Impact Assessment

Further discussion about the cumulative social impact assessment (CSIA) is required with the SIAU. The SIAU has indicated in their responses to the SIA and draft SIMP that they are willing to discuss this with the Proponents.

Topics for discussion with the SIAU include:

- Definition of cumulative, is it:
 - More information on the cumulative social impacts and opportunities between the mine and the rail; or
 - Cumulative social impacts and opportunities of the Project (mine and rail) with other projects in the region. If so, the specific Projects to be included in the CSIA need to be agreed upon prior to undertaking the work, and information will need to be provided by the SIAU.
- Progress on DEEDI funded project to develop a Cumulative Social Impact Assessment methodology.

HGPL will develop a methodology (including time frames) to undertake this work in consultation with the SIAU.

It also needs to be noted that the assessment of social impacts for the Kevin's Corner Project (see EIS Volume 2 Appendix T) was carried out as a cumulative assessment of the social impacts of the Project in addition to the social impacts that are deemed to be likely to have occurred as a result of the Alpha Coal Project.

Overview of SIMP Consultations

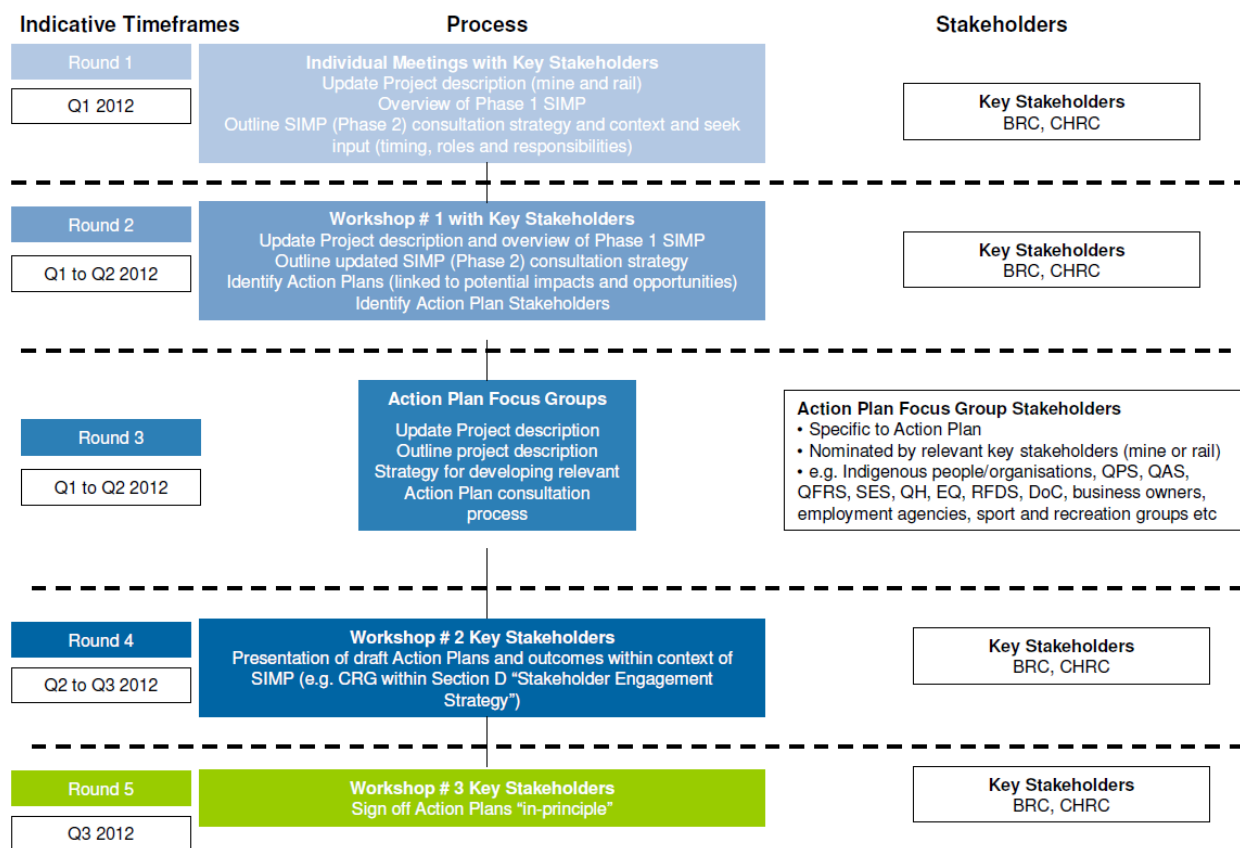
As outlined above, consultations with relevant stakeholders are critical throughout the SIMP development process. Figure 11-2 below sets out the consultation process to finalise the SIMP. Timings are indicative only and are subject to:

- Availability of key identified stakeholders and their input into the consultation strategy; and
- A collaborative approach between the SIAU and the Proponent regarding the methodology for the CSIA.

Figure 11-2 presents a proposed consultation strategy, which is subject to feedback from key stakeholders during initial meetings which are planned to be held in Q1 2012. Indicative time frames are included in Figure 11-2 that may be subject to change. This is the time frame HGPL will be aiming to achieve, which is subject to third party commitments.

11 Social Impact Management Plan

Figure 11-2 Proposed SIMP Phase 2 Consultations



SIMP Round 1 Consultations

The first round of consultations will involve the setting up of the Phase 2 SIMP consultations. This will involve individual meetings with the relevant key stakeholders to find out how they would like to participate and any issues with participation.

Key stakeholders in the SIMP consultations have been identified as:

- Barcaldine Regional Council (BRC) – primary;
- Central Highlands Regional Council (CHRC) – secondary;
- Blackall – Tambo Regional Council (BTRC) – secondary; and
- Isaac Regional Council (IRC) – secondary.

BRC will be a principal stakeholder and will therefore form part of a core group within the Kevin's Corner Consultative Committee (KCCC) identified in the EIS. The purpose of the Round 1 meetings is to:

- Update stakeholders regarding the Project Description;
- Outline Project Description (what is in and out); and
- Present the strategy for developing the SIMP (i.e. the consultation process).

The state and local government representatives participating in the key stakeholder workshops may choose to perform a coordination role with their relevant departments. The SIAU has also invited the SIMP development team to present at the SIACAR Group (Social Impact Assessment Cross Agency Reference

11 Social Impact Management Plan

Group) meetings. The SIAU indicated the following departments, among others, are invited to the meetings:

- Department of Employment, Economic Development and Innovation (DEEDI),
- Skills Queensland;
- Department of Local Government and Planning;
- Urban Land Development Authority;
- Queensland Police;
- Queensland Treasury (OESR);
- Department of Local Government and Planning;
- Department of Education and Training;
- Department of Community Safety;
- Department of Communities;
- Department of Main Roads;
- Queensland Health; and
- Department of Environment and Resource Management.

SIMP Round 2 Consultations

The details of this step will be developed in Step 1, with final decision with HGPL. An outline of what Step 2 might entail is presented here.

All key stakeholders will be invited to a workshop - 'Workshop 1', subject to guidance from HGPL and the SIAU. Key stakeholders participating in the workshops are likely to be:

- Barcaldine Regional Council (BRC);
- Central Highlands Regional Council (CHRC) (secondary);
- Isaac Regional Council (IRC) (secondary); and
- Blackall - Tambo Regional Council (secondary).

The purpose of the workshop is to:

- Formalise the Round 1 findings described above;
- Finalise the number and scope of management plans (link to potential impacts and opportunities); and
- Identify management strategy stakeholders.

The location, date, timing and agenda for the workshop will need to be determined.

Based on the impacts and opportunities identified in the SIA and feedback received during the EIS public consultation, the proposed action plans include, but not limited to:

- Stakeholder Engagement Strategy, encompassing:
 - Kevin's Corner Consultative Committee (includes a focus on cumulative impact considerations);
 - Landholder Management Plan; and
 - Community Liaison Role.
- Housing and Accommodation Management Plan, encompassing:
 - Camp Management Plan;
 - Employee Code of Conduct (encompassing a Fatigue Management Plan);
 - Local Housing Strategy;

11 Social Impact Management Plan

- Workforce Housing Strategy and
- Cumulative Impact considerations.
- Alpha Community Development Fund, *with potential for*:
 - Community Support and other Social Infrastructure contributions (including potential to address cumulative impacts).
- Local Economic Development Strategy, encompassing:
 - Indigenous Participation Plan;
 - Local Industry Participation Plan (LIPPs) incorporating a Local and Regional Supply Chain Involvement Plan
 - Workforce Management Plan
- Components of the Environmental Management Plan that will address key social impacts:
 - Traffic Management Plan;
 - Community Safety and Health Plan; and
 - Dust Management Plan.

A Workforce Housing Strategy will be developed and a Fitness for Work Management Strategy may also be considered.

SIMP Round 3 Consultations

Based on the recommendations of the key stakeholders, subcommittees or focus groups will be established to develop specific management strategies. Management strategy focus group stakeholders may include, but not be limited to, the relevant representatives from the following groups' regional offices:

- Indigenous people and their representative organisations;
- Central Highlands Regional Council;
- Department of Employment, Economic Development and Innovation;
- Department of Education and Training;
- Department of Communities;
- Queensland Police Service;
- Queensland Fire and Rescue Service;
- Queensland Ambulance;
- Queensland Health and other health service providers;
- Education Queensland;
- Department of Transport and Main Roads;
- State Emergency Service;
- Royal Flying Doctor Service;
- Commonwealth Department of Education, Employment and Workplace Relations;
- Housing service providers;
- Chambers of Commerce and business owners;
- TAFE, registered training providers and recruitment companies;
- Skills Queensland;
- Local Industry Participation Plan (LIPP) (through DEEDI); and
- Recreational organisations.

11 Social Impact Management Plan

There is a potential that different representatives may be required for different action plans.

Based on the outcomes of Workshop 2 (see Figure 11-2), a consultation strategy for each of the action plans will need to be developed. This will need to include the logistical details of the management strategy consultations. The following provides a potential guide for the focus groups:

- Formalise the Round 1 findings;
- Begin development of context of the specific Management Plan and relevant potential impacts and opportunities;
- Conduct initial discussion of potential indicators and thresholds.
- Confirm indicators and thresholds;
- Develop action plans (scale for level of impact and opportunity).
- Confirm action plans if impact or opportunity occurs.

There is a six-month window identified to undertake the consultations for the draft action plans.

SIMP Round 4 Consultations

Workshop 2 will also be held with the combined key stakeholders. The purpose of the workshop will be to present the draft action plans for the key stakeholders to consider and provide feedback on (see Figure 11-2).

Key stakeholders will be informed of a time frame to provide any feedback on the draft management strategies.

The location, date, timing and agenda for the workshop will need to be determined.

SIMP Round 5 Consultations

Once feedback has been received on the draft management strategies, the final workshop will be held to seek “in principle” sign-off for the action plans at Workshop 3 (see Figure 11-2).

Once “in principle” sign-off has been received (at the workshop), the action plans will be incorporated into the draft SIMP.

The location, date, timing and agenda for the workshop will need to be determined.

Timing of Consultations

The time frames outlined on Figure 11-2 have taken into consideration the following advice from the SIAU:

- Regular versions of the draft (see Table 11-1 below);
- Version of the draft SIMP to be presented to the SIACAR (provided to the SIAU prior to the meeting for distribution);
- Version of the updated draft SIMP provided to the SIAU for the Coordinator-General’s Report; and
- Recognition of the need to undertake proactive and considered consultations in order to develop a working relationship with stakeholders and to gain their support for the SIMP processes and outcomes.

Time frames for consultations will also be subject to feedback from key stakeholders and stakeholders participating in the development of management strategies.

11 Social Impact Management Plan

The SIAU recognised that longer timeframes are required to allow for SIMP consultations, including stakeholder feedback on the mitigation and management of social impacts identified by the Proponent for the project. The draft SIMP is required to align with the Queensland Government – Social impact assessment: guideline to preparing a social impact management plan (DIP, 2010). The assessment carried out in the EIS process will inform the preparation of the Coordinator-General's report in relation to the draft SIMP and any further work required by the Proponent to finalise the SIMP for the project.

The Proponent will provide regular updated versions of the draft SIMP throughout the consultation process

11.1.2 Social Impact Management Plan (SIMP) – Action Plans

The SIAU has requested that action plans be developed to address potential social impacts and opportunities. HGPL will develop these plans as outlined above, through the Phase 2 SIMP process. Hancock will aim to finalise these action plans within the next phase of the EIS.

Potential Action Plans

Based on the impacts and opportunities identified in the SIA, the proposed action plans are set out as follows (but not limited to):

- Stakeholder Engagement Strategy, encompassing:
 - Kevin's Corner Consultative Committee (includes a focus on cumulative impact considerations);
 - Landholder Management Plan; and
 - Community Liaison Role.
- Housing and Accommodation Management Plan, encompassing:
 - Camp Management Plan;
 - Employee Code of Conduct (encompassing a Fatigue Management Plan);
 - Local Housing Strategy;
 - Workforce Housing Strategy and
 - Cumulative Impact considerations.
- Alpha Community Development Fund, *with potential for*:
 - Community Support and other Social Infrastructure contributions (including potential to address cumulative impacts).
- Local Economic Development Strategy, encompassing:
 - Indigenous Participation Plan;
 - Local Industry Participation Plan (LIPPs) incorporating a Local and Regional Supply Chain Involvement Plan
 - Workforce Management Plan
- Components of the Environmental Management Plan that will address key social impacts:
 - Traffic Management Plan;
 - Community Safety and Health Plan; and
 - Dust Management Plan.

A Fitness for Work Plan may also be considered.

11 Social Impact Management Plan

The action plans will include the following elements:

- Potential impacts and opportunities, related indicators and thresholds for action plans to be implemented;
- Action plans for potential impacts and opportunities during construction, operation and decommissioning if thresholds have been triggered;
- Roles and responsibilities for relevant stakeholders;
- Planning, monitoring and reporting; and
- Stakeholder engagement.

The action plans will feed into the broader SIMP sections as per the SIMP Guidelines of:

- Monitoring and Reporting; and
- SIMP Dispute Resolution.

The SIMP action plans will be non-binding while being developed and will be subject to HGPL final sign-off as part of the internal Project approval process (during construction, operation and decommissioning) to allow for Project changes and amendments. All action plans will be conditional on a range of commitments from the Queensland Government, Regional Councils and other stakeholders throughout Project construction, operation and decommissioning.

With respect to the Landholder Management Plan, the KCCC will have input into the development of the draft plan, and the draft plan will then be provided to landholders for feedback before finalisation.

11.1.3 Phase 2 Social Impact Management Plan (SIMP) Roles and Responsibilities

HGPL has the long-term management and implementation responsibility of the SIMP throughout the Project life cycle; however, it is acknowledged that the SIMP cannot be developed nor implemented without the support of government (at all levels), non-government organisations and community members. During the Phase 2 development of the SIMP (in particular the development of action plans), HGPL will work with relevant stakeholders to identify the appropriate roles and responsibilities.

11.1.4 Social Impact Management Plan (SIMP) Consultation and Reporting Time Frame

Phase 2 SIMP consultations will be built on the consultations undertaken in the SIA as part of the EIS. Throughout Phase 2 of the SIMP development, a number of versions will need to be supplied to the SIAU. Each version of the draft SIMP will include the updates from the work undertaken. A time frame for the SIMP versions to be provided to the SIAU is shown in Table 11-1.

Table 11-1 SIMP reporting - Phase 2

Milestone	Estimated Timeframe
Round 1: Minor comments from SIAU and other agencies (through SEIS) already addressed, including finalised consultation process for the Phase 2 SIMP (key stakeholders only)	Q1 2012

11 Social Impact Management Plan

Milestone	Estimated Timeframe
Round 2: Initial feedback from key stakeholders during Phase 2 SIMP consultation set-up, including number of action plans to be developed and stakeholders to be invited in the development of the action plans. This version of the SIMP will aim to be provided to the SIACAR group	Q1 to Q2 2012
Round 3: Initial outcomes from Action Plan Focus Groups Draft Management strategies	Q1 to Q2 2012 Q2 to Q3 2012
Round 4: This version of the SIMP will aim to be provided to the SIACAR group	Q2 to Q3 2012
Round 5: In-principle support from Key Stakeholders	Q3 2012
Final SIMP	Q3 2012

A key deliverable will be the draft SIMP submitted in mid 2012, after edits and initial stakeholder feedback. This version will be used by the SIAU for the Coordinator-General's Report. At the end of the SIMP Phase 2 process, the final SIMP will be provided to the SIAU.

Phase 3 of the SIMP will begin to be implemented as soon as approval on the final SIMP has been provided by the SIAU and the Project is ready to begin preliminary construction phases. This will continue through the Project life cycle (construction, operation and decommissioning).

11 Social Impact Management Plan

11.2 Section A - Project Overview

11.2.1 Project Location

The Project is located in the Galilee Basin, approximately 90 km (by road) to the north of the community of Alpha in the Barcaldine Regional Council area. The population of Alpha was estimated in 2009 to be 416 people (OESR, 2010). The Project is situated to the west of the Alpha-Clermont Road (also known as the Clermont-Alpha Road and the Tambo-Clermont Road). This road is a single lane, predominantly gravel road which will require upgrading between the Project site and Alpha in order to accommodate the Project associated transportation requirements. The Project is accessible to the rest of the State via Alpha along the Capricorn Highway. This highway connects the community of Longreach in the west to Rockhampton in the east via Emerald. Barcaldine is the nearest community via appropriate road networks with a population over 1,000 and is situated to the west of Alpha. Emerald is the closest population centre over 10,000 and is situated to the east of Alpha. The population density for the region is less than 1 person per square kilometre. The Project will require water and electricity services to be sourced from the east because there are insufficient supplies in the region. Figure 11.1 below shows the geographical location of the Project.

11.2.2 Brief Project Summary

The proposed Kevin's Corner Coal Project (the Project) aims to develop a 30 million tonnes per annum (Mtpa) product capacity open cut and underground thermal coal mine to target the coal seams in the Upper Permian coal measures of the Galilee Basin, Queensland, Australia. The coal mine will be supported by privately owned and operated rail and port infrastructure facilities. At the Project site the coal will be mined, washed and conveyed to a train load-out facility where it will be transported to the east coast of Australia to the port facility of Abbot Point for export.

The Project will look to employ a combined workforce of approximately 2,500 at the peak of construction in 2014. Long-term employment during operations will be maintained at approximately 1,500 people per year for the Life of Mine (LOM), scheduled across a 30 year span. The Project will also create flow-on (indirect) employment opportunities for the region.

The Project will accommodate the majority of the construction and operational workforce in an on-site accommodation village within the Project boundary. The workforce is anticipated to be predominantly fly in, fly out (FIFO) due to the location and distances to population centres capable of accommodating the workforce. The Project will also have drive in, drive out (DIDO) opportunities for some local residents, and bus in, bus out (BIBO) opportunities from key regional centres. FIFO workers will be collected from key regional centres throughout Queensland based on workforce sourcing realities at the time, and flown to the on-site aerodrome for their work rotations. FIFO personnel will be transferred from the on-site airport to the on-site accommodation village via a mine-provided bus service.

11.2.3 Social and Cultural Area of Influence

The regional study area includes Isaac Regional Council (with a focus on Clermont), and Central Highlands Regional Council (with a focus on Emerald). The local study area includes Barcaldine Regional Council with a focus on Alpha. Figure 11-3 shows the Project in relation to the regional

11 Social Impact Management Plan

councils. Potential FIFO airports will be identified based on workforce numbers from various regions throughout Queensland, and possibly Australia as a whole.

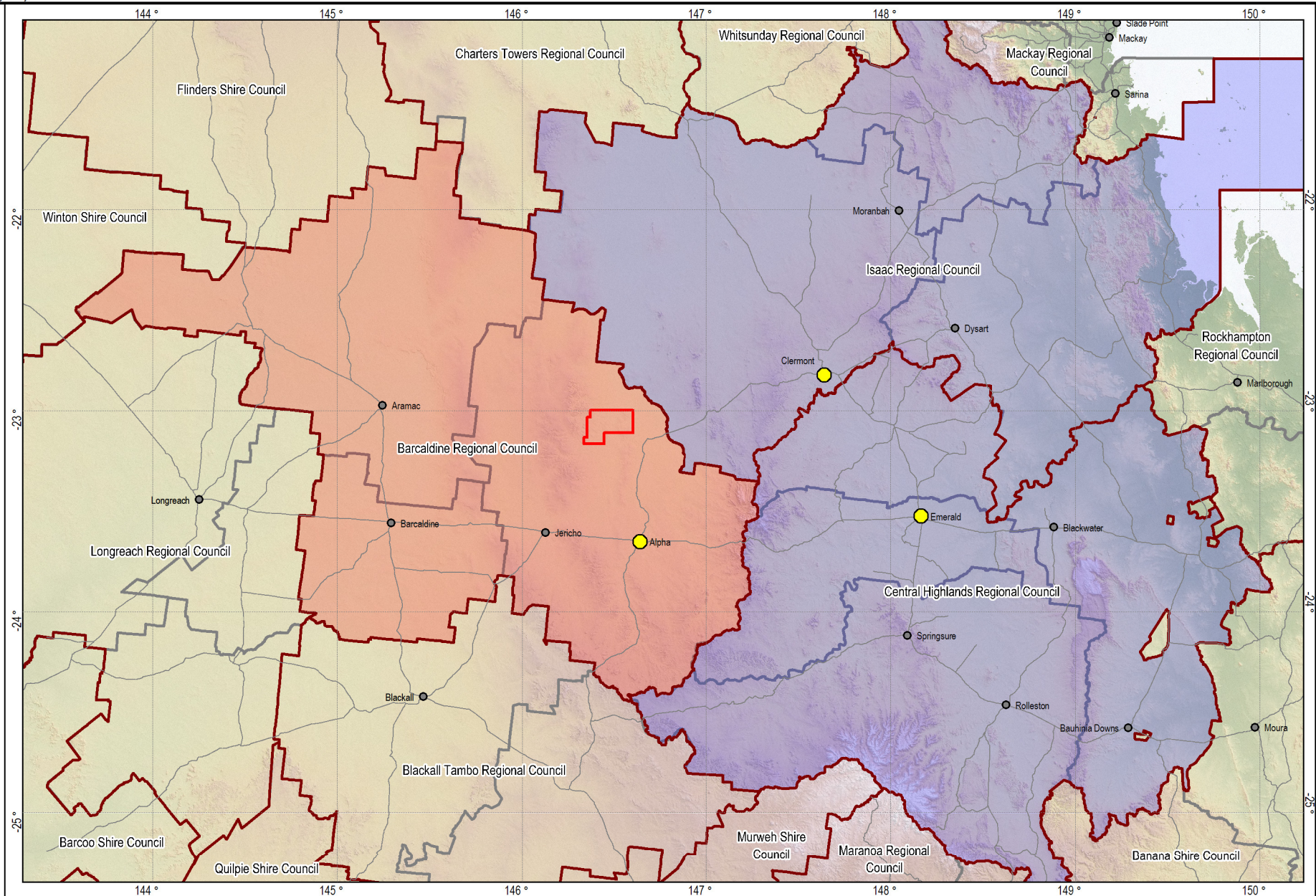


STUDY AREAS

 :#### | HANCOCK GALILEE PTY LTD
Kevin's Corner Project
Environmental Impact Statement



This drawing is subject to COPYRIGHT.



0 37.5 75km
Scale: 1:3,000,000 (A4)
Datum: GDA94

-  Mining Lease Application (MLA70425) Boundary
 Local Study Area
 Regional Study Area
 Local Government Boundary
 Pre 2008 Local Government Boundary
 Major Road
 Community
 Primary Study Community

11 Social Impact Management Plan

11 Social Impact Management Plan

11.2.4 Social baseline summary

Regional Study Area

The CHRC and IRC regions are predominantly agricultural, though mining is the primary industry. Both councils are within the Bowen Basin, which is synonymous with coal mining. Mining development has increased in the regions since the 1950s with significant expansion in recent times as a result of high coal prices and increased access.

The population of Emerald is 17,298, and Central Highlands as a whole is 30,403. The population of Clermont is 2,496 and Isaac Council as a whole is 22,417 (OESR, 2010). Both regions have significant numbers of workers active in the area from outside the region, identified as full-time equivalent (FTE) residents. These FTEs are mainly employed in the mining industry. Both CHRC and IRC are projected to maintain their current growth trends for the next 20 years (PIFU, 2008).

The regional councils both maintain a country Queensland culture despite the various levels of mining activity. The mining culture has permeated the social fabric but has not replaced it. The two are capable of coexisting within the community, with the agricultural culture being the dominant cultural characteristic. The level of mining development in the regions influences this dynamic, with the ascendancy of mining influence being highest in IRC and lowest in CHRC. Clermont regards itself as an agricultural community with mining influences, while Emerald is more identified as a regional services centre in an agricultural region with mining influences. This is an interesting self identification given the predominance of mining in both communities as opposed to agriculture. This is a reflection of the rural identity more so than the predominant occupational and economical driver.

There are housing issues in both communities, though with different characteristics. Emerald has a shortage of land available for housing which has resulted in increased housing costs and under supply. Recent land releases were purchased immediately, many by private citizens as opposed to developers and agents. Clermont has more housing available though there are restrictions on future land development, mainly due to allocation of land from the State, and subsequent land availability.

Both communities are serviced by a local hospital each having 36 beds. There are varying levels of social infrastructure aligned with the population size for each community. Emerald's social services and infrastructure are well developed. Emerald's population size and role as a regional centre means it has several State and local council services available. Rockhampton is the major regional centre for the area and is ~270 km east of Emerald on the Capricorn Highway. This proximity limits additional social services and infrastructure in Emerald. Clermont is within the Mackay regional service zone which is located ~270 km to the north-east. Clermont has adequate infrastructure and social services to support a rural community of its size.

Both communities are well serviced by education facilities. Emerald has a number of schools, both state and non-government. As a regional centre, the town also has a range of tertiary education institutes and private registered training organisations (RTOs) including an agricultural college, campuses of Central Queensland University (CQU) and Central Queensland TAFE and various RTOs specialising in the provision of training for the resource sector. However, Emerald does not have sufficient child care facilities and there are approximately 270 children on waiting lists. Conversely Clermont Child Care Centre and Kindergarten has recently been expanded and has further capacity. Clermont is also serviced by a P-12 state school, which also has further capacity and has boarding facilities for both primary and secondary students.

11 Social Impact Management Plan

Unemployment is low across the entire regional study area, with current estimated rates below 2.5%. Coal mining represents the most significant industry of employment in both Emerald and Clermont, with a high degree of coal mining specialisation evident. The Blair Athol coal mine, near Clermont is scheduled for closure in ~2016, and its replacement, the Clermont Coal Mine Project (CCMP) has an anticipated mine life of ~17 years (~16 remaining). Unless alternative employment industries are identified, there may be an increase in unemployment in Clermont when the CCMP closes.

The regional economy is heavily reliant on coal mining. IRC in particular generated approximately 76.1% of its gross regional product (GRP) from coal mining in 2007-2008. The proportion of revenue generated by the mining industry has risen substantially over recent years, demonstrating the continued growth of the Bowen Basin region. The Central Highlands Development Corporation (CHDC) has developed a program called Hi-Net which aims to link businesses together with the aim of developing capacity to successfully tender for mining contracts. The purpose of this program is to maximise the potential local benefit from mining service provision. Despite this heavy reliance on mining, the traditional regional industry of agriculture continues to play an important role in the regional economy, with cropping, fruit, cattle and sheep grazing the key activities. The citrus canker of the early 2000s had a large impact on cropping in CHRC and the industry is only now beginning to recover.

Median income levels across the regional study area are above those of Queensland as a whole, particularly in Emerald. This is indicative of the influence of the mining industry, which is known for its high salaries. Correspondingly, housing is also more expensive than across Queensland as a whole, particularly in Emerald, where 2008 median weekly rental prices were approximately \$50 above the rest of the State. Community consultation indicated that demand for housing is high in Emerald, and current prices can be prohibitive for people who don't work in the mining industry. These prices are largely fuelled by shortages in housing supply. Consultation with CHRC revealed that land supply is available for development however no developers were acting on this at the present time.

Both regional councils came into existence in early 2008 through the amalgamation of smaller shire councils, and are still coming to terms with this process. The amalgamation was the result of recommendations of the Local Government Reform Commission which were released in mid-2007. The Regional Councils are responsible for establishing the vision and objectives for the council areas and develop services and programs with the aim of achieving these goals. To achieve these goals the councils have developed strategic plans in consultation with communities. Under Queensland state government requirements, these plans need to implement the regional strategic plans covering the greater area.

Primary infrastructure throughout the region is reasonably well developed. Emerald's airport, which has 27 commercial flights weekly, serves the Central Highlands and southern Bowen Basin. The Capricorn Highway which runs from Rockhampton in the east to Longreach in the west and dissects Emerald is in reasonably good condition, while the Gregory Highway connects Emerald and Clermont with other towns in the southern Bowen Basin. Emerald's electricity supply is nearing capacity, however this has been recognised by Ergon Energy who have purchased land for the development of a new substation to service the area.

Local Study Area

Barcaldine Regional Council is a predominantly agriculture based region in central west Queensland. The area around the Alpha community is a primarily cattle region with a population of approximately 450 residents. The population of the council area as a whole is 3,376 (2009 estimate) and covers an

11 Social Impact Management Plan

area of 53,677 km², which works out to 1 person per 15.9 km². The population of the council area is predominantly located in five main communities. The number in brackets indicates the distance to the Project site by main road:

- Alpha (~90 km);
- Jericho (~140 km);
- Barcaldine (~230 km)
- Aramac (~300 km); and
- Murrumbidgee (~390 km).

The culture of BRC is largely rural with a strong sense of family values. Residents of Alpha enjoy the rural lifestyle and cohesive community where everyone knows each other. The sense of safety and security is important and volunteers underpin community activities. Many residents have expressed concerns that mining coming to the area has the potential to change this balance.

Housing supplies are limited in Alpha, with most houses currently occupied and limited land available for subdivision. Speculation about the growth of mining in the Galilee Basin has fuelled price rises in land and housing over the last two to three years. This has seen prices in Alpha increase up to 300%, and resulted in the 10 lots released by council in 2010 being purchased immediately. Council has 20 more lots to release in the future, and is exploring opportunities with the State to unlock up to 200 more. The residential property market has slowed over the past five months with no sales finalised in the area (Century 21, 2011).

Alpha has limited social services and infrastructure. The town is serviced by a hospital; however services are provided by a visiting GP from Barcaldine as there is no fulltime GP. Patients with more serious or critical medical needs are sent to Emerald or Rockhampton for medical attention. The closest QAS stations are located in Anakie ~100 km to the east, or Barcaldine ~ 170 km to the west. The lack of medical services is a concern for residents and the potential to redress this issue is considered one of the major benefits of mining development in the community.

Education facilities are limited in BRC, particularly in Alpha. The Alpha School provides classes for students up to Year 10 only, with Year 11 and 12 students required to study by distance or travel to Barcaldine or beyond. The school has recently introduced a distance education program for Years 11 and 12 for those who do not want to commute to another school. Many students leave the area and go to boarding school, with few returning. There is a small TAFE campus in Barcaldine and limited child care facilities available in Alpha. Attracting and retaining qualified child-care workers and teachers is a continuing problem.

Unemployment across BRC is relatively low, at ~3.4%, however as agriculture is the dominant industry of employment there is potential for underemployment. Cattle and sheep grazing employ almost half of the population in Alpha, and there are few options in the way of career level employment in the area. The prospect of mining development provides an excellent opportunity for diversification and may encourage more young people to remain in the area after finishing school.

The region is heavily reliant on agriculture, with the Alpha area industry and businesses almost exclusively dependent on cattle grazing. This makes the regional economy extremely sensitive to impacts on a single industry, particularly from drought. Economic diversity in the region would have a significant effect on long-term sustainability. The current population trend is of decline due to the prolonged drought over the past decade (recently ended). The total value of agricultural production in

11 Social Impact Management Plan

BRC in 2005–06 was \$109.6 million, 1.3% of the total value of agricultural production in Queensland. There were 567 businesses in BRC in 2006-07, none of which employed more than 100 people.

Incomes in the region are substantially lower than in the rest of the State, with average individual incomes of \$435/week and an average family income of \$1,041/week. In Alpha the incomes were \$469/week and \$1,048/week respectively (ABS, 2006). The cost of living was also relatively low with housing prices reflecting incomes; however, recent mining boom speculation has resulted in significant house sale price increases of over 300%. Rental rates have also increased with the average weekly rental price now ranging between \$180 and \$230 (Century 21, 2011). Most people do the majority of their spending outside the community due to the limited number of stores and merchandise/goods available. Local business expansion is limited by the population size, subsequent market size and freight barriers, which means the cycle of people travelling outside the region for goods, is likely to continue.

The council itself was formed in 2008 with the amalgamation of the former shires of Aramac, Barcaldine and Jericho. The resulting regional council covers an area of approximately 53,677.3 km², or 3.1% of the total area of Queensland. The council has a Mayor and six Councillors, and conducts its activities throughout the region rather than remaining centrally located in Barcaldine town. BRC lies within the jurisdiction of the Central West Regional Plan, a statutory long-term strategic framework covering Barcaldine, Blackall-Tambo and Longreach regional councils. BRC has a community plan and corporate plan, and recognises the opportunities mining development can bring to the region if managed appropriately.

Primary infrastructure in the region is lacking, particularly in Alpha. This is due to the population size, distances between communities, and distances to sources of electricity and dammed water. Alpha community experiences occasional brownouts and is reliant on bore water to supply town water. Recent attempts to expand the bore water availability have not produced positive results. Alpha does not have an integrated community sewerage system and the majority of dwellings rely on individual septic fields or other systems. This requires large lots/land per property. Access to the Alpha by land is well developed with the Rockhampton to Longreach rail line passing along the northern edge of town, and the Capricorn Highway passing through the community. The Alpha-Clermont Road connects Alpha to Clermont at the intersection with the Capricorn Highway in the centre of Alpha. The Project is situated along this road approximately 50 km north of Alpha, and the portion between the Project site and Alpha will be upgraded to meet Project requirements.

11.2.5 Potential Contribution to Regional Development

Hancock Galilee Pty Ltd (HGPL), (the Proponent), will work with the Barcaldine, Isaac and Central Highlands regional councils to identify and contribute (where possible and appropriate) to regional development that is supported by the relevant plans developed under the *Sustainable Planning Act 2009* or the *Local Government Act 2009* e.g. Community Plans.

The Proponent will work with local businesses and service providers to minimise the negative impacts on their operations. The Proponent will continue to sponsor community development programs and opportunities in the region.

11 Social Impact Management Plan

11.2.6 SIA Stakeholder Engagement

Stakeholder engagement in the local and regional study area mainly recognised the potential benefits from the Project, including

- Population growth/housing;
- Local economy (employment and business opportunities);
- Power supply (brought to the region);
- Health (increased services);
- Roads (upgrades);
- Infrastructure (upgrades);
- Education (increased opportunities); and
- Community services.

The engagement process also identified concerns regarding law and order, housing prices, roads (traffic increases) and air quality. Perception fears regarding increases in crime and deviance from outsiders coming to the community was also raised. The results were largely mixed for responses to the 'Impacts on the respondent and their family' question between positive and negative. Despite the numerous opportunities to comment on the Project the actual attending numbers were low. This is assumed to be due to any of the following:

- Other projects also conducting consultation;
- Relatively small population;
- Perception that your opinion does not matter;
- Lack of interest in the Project;
- Difficulty in engaging some members of the public (silent majority);
- Support for the Project;
- Failure of the Project to effectively engage the community (not indicated); or
- The Project effectively engaged the community so no additional queries were required (by members of the public).

In the regional setting consultation fatigue from the numerous other project consultation events over the years results in very low turnout to events, and generally only councils, service providers and key opinion makers attend. In the rural communities often people attending events are distrustful of the situation, and are more inclined to have a look rather than engage in the consultation process. The Proponent will continue to engage the community because their understanding and feedback are important to social impact management and fostering positive relationships with the community.

The Proponent will maintain an ongoing Community and Stakeholder Engagement Plan for the Project. The plan focuses on multiple consultation techniques in order to provide opportunities for stakeholders to be engaged with the Project. This plan will progress past the EIS development phase of the Project as it transitions into permitting, construction, operation and closure.

The Proponent will establish a dedicated Community Liaison role (either a dedicated person or group) tasked with managing relationships in the communities. This role will be the primary line of communication between the Project and stakeholders. Some key objectives with council will be to maintain current relationships, proactively engage in coordination efforts with planning, identify and exploit synergies with council policies and programs, and collaborate on future initiatives.

In the absence of a similar body or forum, the Proponent will establish the Kevin's Corner Consultative Committee (KCCC). The KCCC will act as a forum for the Project and councils to work collaboratively

11 Social Impact Management Plan

on Phase 2 of the SIMP and eventually collaborate on the management and monitoring of the active SIMP (Phase 3). The KCCC may eventually transition to a forum for the discussion of future planning and other issues relevant to the Project and councils.

The Proponent will welcome input from other projects to assist (the Project and councils) on cumulative impact management. The Proponent will ensure the DEEDI SIA Unit is informed of the discussions and outcomes for cumulative impacts when appropriate. The Proponent will provide a baseline through the submission of the EIS which will provide future projects with a foundation for impact assessment. This baseline is an important component in future cumulative impacts assessment.

11.2.7 Project Monitoring Process

The Proponent will implement a social impact monitoring process that will monitor impacts as well as the effectiveness of action plans throughout the construction and operational stages of the Project.

11.2.8 Proposed Workforce Profile

Construction

The anticipated mine workforce during the construction phase is ~1,500 people, approximately a quarter of which will be on site at any time. The construction split will be based around activities and work. The split will be Group A (construction including Mine Infrastructure Area [MIA] and Mine Enabling Infrastructure scope), and Group B (the Coal Handling and Preparation Plant [CHPP] workforce).

While the Proponent would like to recruit locally the reality is that limited numbers of personnel will be sourced from the local area because of the low population levels as well as the likely drain on the existing pool of potential workers that would have occurred as a result of the Alpha Coal Project. Therefore it is assumed that the majority of the construction workforce will originate from or at least depart for the Project site from South East Queensland. Previous experience of new mine developments suggest that a percentage will originate from Central and North Queensland regional centres such as Mackay, Rockhampton, and Townsville.

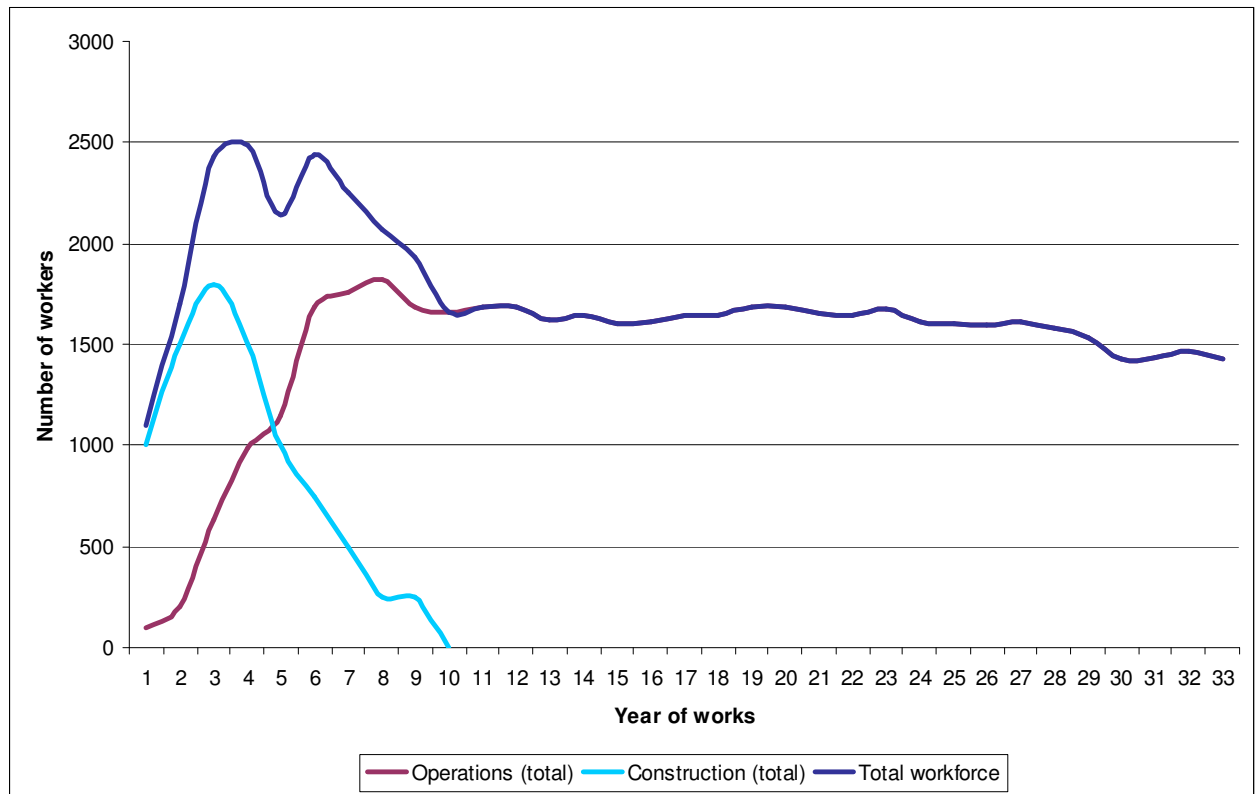
It is therefore likely that approximately 95% of the construction workforce will be brought to the site using FIFO arrangements from South East Queensland, other regional areas of Queensland and the rest of Australia.

It is expected that the workers will be predominately in the 20 - 35 age group and the majority will be male. Given their age profile, it is likely that a large proportion of these employees will be either single with no dependents, or have young families.

Figure 11-4 illustrates the construction workforce numbers per year as well as the operations workforce numbers and the total workforce numbers per year. The construction workforce will ramp up over a three year period before beginning to ramp down as civil earthworks activities are completed.

11 Social Impact Management Plan

Figure 11-4 Kevin's Corner Coal Project Construction and Operations Workforce Numbers

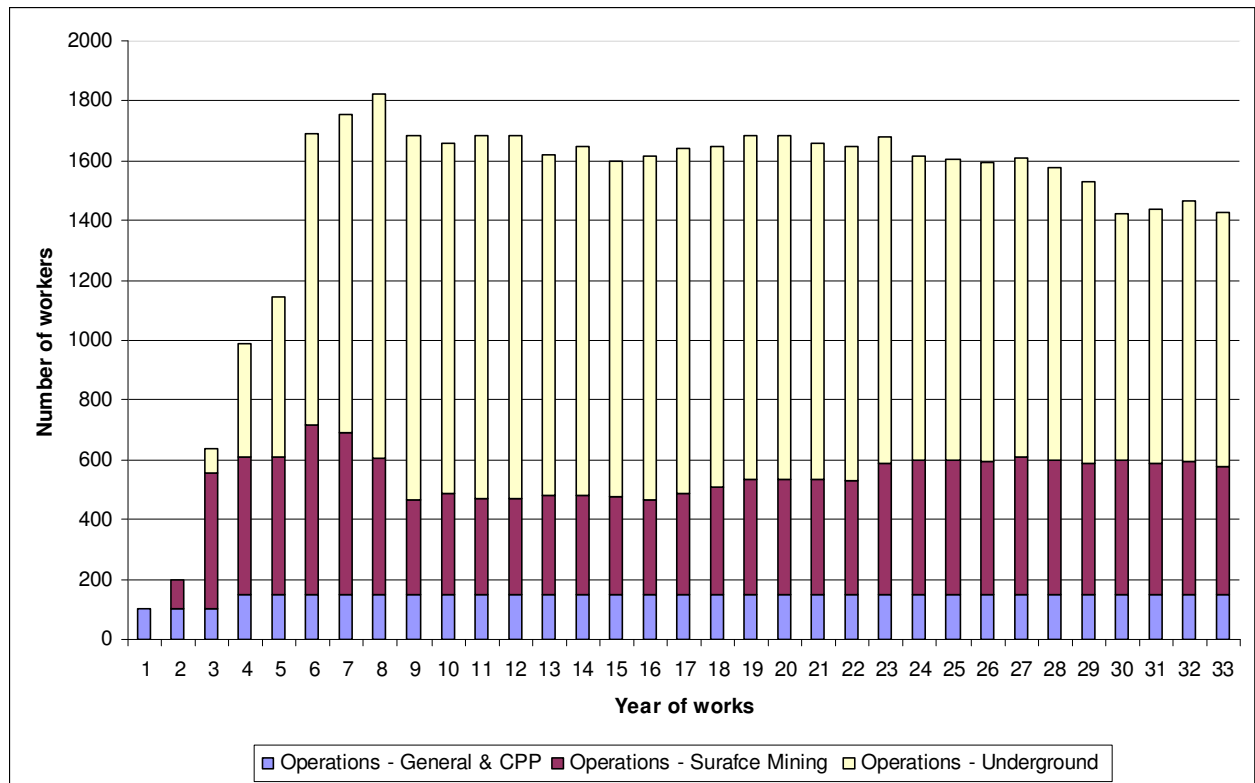


Operation

The Project will have a peak workforce of approximately 1,800 workers. These are approximate numbers as the exact numbers are likely to change, but within the anticipated range for the final workforce. Figure 11-5 illustrates the workforce numbers required for the project based on a 30 year mine life. The ramp up process takes approximately six years.

11 Social Impact Management Plan

Figure 11-5 Kevin's Corner Coal Project Operation Workforce Numbers, 30 Year Mine Life



There is currently limited relevant experience within the local study area, with only 0.7% of all employed people employed in the mining sector. This combined with a low population base and the likely drain on the existing pool of potential workers as a result of the Alpha Coal Project makes it impossible to source the workforce from the local study area. Despite the vast coal mining experience in the regional study area, the small population and high employment will impact on the ability of the Proponent to attract suitably qualified workers from within the regional area. Because of this, it is expected that the majority (at least 95%) of the Project's operational personnel will be recruited from outside the area.

Basing assumptions on the experience of other mines in the region and across Australia, it can be assumed that the profile of the workforce will be predominately from the 25 – 35 year old age groupings with a male majority (although the adoption of proactive recruitment policies and a commitment to training act to lessen this dominance).

Operational personnel will be accommodated in an accommodation village which will be located in the north-east of the mine lease where the disturbance to off-duty employees from noise, vibration and light will be minimal. The accommodation village for permanent personnel will be designed and constructed to fit in with the environment. The accommodation village will include comfortable, en-suite accommodation, catering facilities and appropriate recreational facilities. The final transport and logistical arrangements for the operational workforce will be based on the home community of the workforce and confirmed during mine start up through a consultation program.

11 Social Impact Management Plan

Local Employment and Procurement

The Proponent prefers to hire locally and regionally but has designed a mainly FIFO project with on-site accommodation in anticipation of the high likelihood workers will need to be sourced outside the region. The Proponent will develop a local employment policy and a Local Industry Participation Plan for the Project, targeted at increasing the opportunities for local and regional employment and business.

11.3 Section B - Social Impacts and Impact Management

11.3.1 Impact Categories and Context

Categories

Potential social impacts during the construction and operational stages of the Project include the following key social areas:

- History and Settlement;
- Demographic;
- Culture and Community Dynamics;
- Housing and Accommodation;
- Health, Wellbeing and Social Infrastructure;
- Education and Training;
- Labour Market and Employment;
- Industry and Business;
- Income and Cost of Living;
- Governance; and
- Primary Industry and Access.

These categories are referred to as valued social components (VSCs) of the study areas. The SIMP is arranged according to these VSCs.

Context

The purpose of the impact assessment is to identify and assess key potential impacts associated with the Project and how they will affect the population in the study areas. A brief overall assessment of the potential impacts is provided below, followed by a more thorough assessment of the individual impacts assessed in the sub-sections for each VSC. The SIA for the Project should be the first point of reference for clarification on the impacts assessed and the context behind the assessment. Table 11.1 below shows the impacts that were assessed as part of the SIA that were ranked as medium or above, as well as summarising the analysis behind these assessments. Further details regarding the mitigation and enhancement strategies addressing these impacts will be developed through Phase 2 of the SIMP. The SIMP is a management plan for those assessed impacts. For more details regarding the SIA, refer to Volume 2, Appendix T.

The impact assessment found that the impacts in both study areas will be able to be managed provided an effective SIMP is developed prior to construction. There were no key impacts identified that indicate the Project should be delayed, postponed or re-structured due to potential social issues. Consultation with key stakeholders including all three regional councils found that the councils were

11 Social Impact Management Plan

capable of managing potential changes and all were encouraged by the prospect of economic and employment opportunities associated with the development of the Galilee Basin. Open and ongoing consultation and collaboration with councils (by the Project) was identified as the primary driver for managing potential impacts.

Impacts attributed to the regional study area were primarily positive and focussed around employment and business opportunities. These in turn resulted in potential population stability through increased opportunities or population growth. Sustainable, manageable population growth was identified by IRC and CHRC as a core regional council goal. Increased population for both councils could help them achieve critical mass in services like education and health, which would be of benefit to the community as a whole, particularly for Clermont in IRC and Emerald in CHRC, but not limited to those communities. Benefit for Clermont was more dependant on increased access to the Project area either through road upgrades (not part of the Project scope), or Project policies like DIDO/BIBO options or even a FIFO option from Clermont to Alpha (currently no such route exists or is planned). Emerald (2009 estimated population of 17,298) is a land transportation hub for the Project as well as the closest centre with a population over 10,000. Emerald is likely to experience some level of growth as a result of the Project, though likely less than 5.0% based on the current community size and proximity to the Project site. It will be difficult to link any changes in Emerald (and the region) to any single project due to the current levels of activity with other projects in the region.

Negative impacts attributed to the regional study area are manageable provided the Project and the councils stay ahead of potential impacts and implement relevant programs. The main potential negative impact is the increase in traffic and thus the potential for accidents and road damage. The vehicle movements associated with the Project were determined to be within the current range acceptable to the road standards; however, the increase is sufficient to warrant the Project and councils exploring road safety programs in conjunction with local police and emergency service providers. Education programs and company policies are proven means for reducing traffic accidents, and can include reduced shift lengths on the last rotation day to allow travel time, and fatigue management plans. The Proponent is examining policies regarding maximum work hours per day to reduce the potential for fatigue and maintain worker health and safety. For more information on the potential traffic issues see Volume 2, Appendix R.

Unmanageable population growth is not anticipated to occur as a result of the Project; however, Phase 2 of the SIMP will identify indicators and mitigation options should this eventuate. This is more likely to be a result of cumulative impacts than directly attributable to the Project, though the removal of key limiting factors in the region such as essential service upgrades or improvements in health facilities in Alpha could change that.

Housing and accommodation could also be impacted by the Project, more so in Emerald than Clermont. Clermont currently has some available land though limited and Rio Tinto may also potentially have accommodation available for sale or lease. Emerald has land currently available for residential development though there has been minimal movement by developers to purchase this land, the result of which has been increased housing prices. Supply is not keeping up with demand. Both councils could still benefit from a more efficient land release process from the State government. This will be explored further in Phase 2 of the SIMP. Emerald also currently has a limited supply of temporary accommodation in the form of hotels, motels, bed and breakfasts, and other short-term accommodation. This again is attributed to demand outstripping supply. The Project is more likely going to result in a slight amplification of the current housing and accommodation situation; however,

11 Social Impact Management Plan

the issue is such in Emerald that it could be a limiting factor in the community maximising potentially beneficial impacts associated with the Project.

The local study area is also expected to experience predominately positive impacts. This is because the Project is far enough away from the community of Alpha to not have direct impacts associated with the accommodation village housed workforce. There are also significant limiting factors in the community that reduce the likelihood of an unmanageable population boom. These are:

- Limited land available for expansion – the south and west area of Alpha town is flood prone;
- Limited electricity available to supply the community;
- Limited water supply for the community;
- Lack of an integrated community sewerage system;
- Limited businesses to support an increased population;
- Limited available services;
- Limited schooling and child care – the school is only up to Year 10 (Year 11 and Year 12 can take distance education or else commute to a school in Barcaldine or elsewhere, and the child care centre is limited by staff numbers, not spaces); and
- Limited opportunities for spouses/partners and families of potential mine workers.

Council is already developing plans and solutions to some of these factors and sees the Project as a catalyst to reducing others. The removal of some of these limiting factors gives the potential for Alpha's population to increase but there are no real indications that an unmanageable population boom would occur. Council indicated that they would like to see the Project act as a stabilising force for the area and potentially encourage some people who have left the area to return. This is a reasonable expectation given the current situation.

Traffic is seen as both a positive and a negative impact in the local study area. The negatives reflect the same assessment for the regional study area above. The positive is the business opportunity associated with increased activity in the area. Since the Project workforce will be situated on site, the most likely source of potential economic gain for the community comes from servicing the transportation component or the accommodation village. Conversely Project attributed infrastructure upgrades and Project contributions to infrastructure upgrades will increase access to the area, which is a benefit to the population, businesses and the tourism industry.

Increased demand on social infrastructure is likely to be a negative impact in the event of unmanageable population growth within Alpha. To mitigate this potential impact, the SIMP will provide a mechanism to monitor population growth, and through a consultative process, will benchmark levels of service for a range of potentially impacted social infrastructure types to key population levels. Increased demand on social infrastructure also has the potential to result in greater ability to leverage funding from the State and Federal governments for additional service delivery.

Housing and accommodation impacts have already been experienced in the Alpha community due to the speculation derived from several proposed mining projects going ahead. This speculation has been further perpetuated by the EIS processes for the potential Galilee Basin projects including the Project. The fact that houses have sold at inflated prices will encourage some people to maintain high prices regardless of the supply – demand ratio. This speculation scenario tends to last longer in small population centres with limited population migration to the area than larger centres. The development of the Project (or any project in the Galilee Basin) is expected to exacerbate the situation; however, the high prices have both positive and negative impacts on the population. Owners and landholders

11 Social Impact Management Plan

tend to gain, but only if they sell and relocate to a more affordable area. Newcomers, renters and new starters in the housing market tend to lose. A release of more land for development is the mostly likely way speculation will decrease and the more predictable market indicators of supply and demand will return to the market. Otherwise the speculative housing prices become another limiting factor to population stability or growth in the area. Hancock currently owns an ~1,500 acre property near the Alpha town and will explore opportunities with council for future beneficial use. There are also opportunities for accommodation businesses to benefit by providing short-term accommodation to mine contractors and consultants.

BRC is anticipated to experience both positive and negative impacts. The positive impacts are upgrades to infrastructure or assistance on upgrades to infrastructure, an increased priority profile from the State and Federal government, and potential increases in rates from a higher population. There is also a potential for the council to attract new staff and/or new skill sets, particularly through partners of mine employees. However, the potential that council may also lose staff to the Project is slightly higher. Council has expressed an awareness of this potential though it is obviously not a desired outcome. There are also potential positive impacts on local business. The Proponent will explore opportunities and partnerships through DEEDI and the Remote Area Planning and Development Board (RAPAD) to foster local business development.

There are a number of properties within the mining lease that will have significant impacts attributed to a loss of the use of significant portions of their property. This is likely to result in those agricultural businesses becoming unsustainable. The Proponent is in the process of negotiations with these landholders. These discussions and the outcomes of those negotiations are confidential and are not included in the EIS because individuals cannot be protected from identification. Therefore at this stage, as URS does not have access to the details of the negotiated agreements, it is unknown whether these people will have to be relocated or not. The negotiations and the compensation packages are the basis of the Proponents mitigation process. It is important to note that the SIA (Section 7.5.2) has assessed these impacts as very high; however, this is based on the assumption that landholders and their families will be impacted negatively by the loss of land.

Traffic impacts will also be experienced by properties along the transportation corridor, though these are limited by the proximity of the homestead/station to the road and the landholder's amount of use of those roads. There are also ongoing discussions between council, State and Project representatives regarding alternative transportation routes and options. Hancock will continue to work with relevant stakeholders regarding traffic and transportation, including government, emergency service providers and area residents. The Proponent will also make available limited seats on flights used to transport FIFO workers to site, for the use of the immediate community.

The primary impacts to the landholders are the most difficult to quantify or assess. These are the stresses they are experiencing to varying degrees, categorised as:

- Uncertainty stress; and
- Negotiation stress.

Uncertainty stress is generally a direct result of the consultation program but can also be attributed to other factors like:

- The level of trust the individual has in the messages;
- Poor communication;
- A lack of desire to be consulted;

11 Social Impact Management Plan

- External factors like relationship and family concerns compounding issues;
- Rumours and innuendoes;
- Multiple projects affecting multiple areas (or the same areas) differently; and
- A lack of understanding of one's rights.

Consultation records indicate there are varying levels of uncertainty amongst people within the local study area and the mining lease area. Ongoing consultation is the most effective means for addressing this uncertainty; however, the consultation needs to be considerate of the needs of the individual. Hancock has an ongoing consultation program outside the EIS process to manage mining lease stakeholders. The Proponent will undertake ongoing communication and provide continued support to landholders throughout the resettlement process.

Negotiation stress, as discussed above, is a confidential matter and cannot be fully defined in the SIA. It is important to recognise it is occurring and the Proponent has made efforts to reduce the stresses on the landholders and their families by conducting consultation and negotiations in a manner more acceptable in rural areas. The Proponent has employed land access managers, and visits to the area to nurture relationships and trust.

Other concerns raised in the local study area were the potential for crime and decreased security. This was seen as a low likelihood, primarily because the workforce will be isolated from the community by being housed in the on-site accommodation village, and because the initial population growth (if it occurs) is likely to be former residents of the area or people who are also from a rural background and thus share similar social norms and values. This also ties in to the low potential for changes to community values and social cohesion. If population change occurs at a higher rate than mitigation measures like block watch and welcoming committees will help integrate people into the community and establish community norms. Health concerns related to coal dust from this Project have been assessed as a low impact, however there is potential for this impact to rise if cumulative impacts from the Alpha Coal projects are considered as well. Air quality impacts and related social impacts from this Project and from the Alpha Coal Project have been considered within the Air Quality Technical Report (see Volume 2, Appendix O). The Proponent will distribute key findings from these studies about the potential for dust to reach the community.

All three councils acknowledged the potential for other issues to manifest like drug and alcohol use/abuse (substance abuse), and domestic violence. These were seen to be issues often attributed to miners; however, further discussion and analysis did not identify a rate of occurrence above the background societal levels. Regardless, it is important to recognise that any rise in population, and changes in a community have the potential to increase these issues, and any level of abuse and violence should be addressed. Hancock intends to implement random drug and alcohol testing for employees as per relevant standards, and will explore the availability of counselling service opportunities. The Proponent will also investigate opportunities to work with key stakeholders including councils, social service providers and emergency service providers to address increased issues of substance abuse and violence.

Considerations

In developing the SIMP, it is important to note the key variables to consider for the study areas. For the regional study area the principal variable influencing the frequency and magnitude of social impacts is access. Any changes to the current access conditions can significantly influence the potential impacts, both positive and negative. As an example, an upgrade of the Alpha-Clermont Road

11 Social Impact Management Plan

from the Project site to Clermont would have significant implications for all study areas in terms of impacts associated with the Project. This increase in access would likely result in decreased impacts to Alpha and increased impacts to Clermont. Since this would also make Mackay closer to the Project site than Rockhampton, Emerald and Rockhampton may also experience decreased impacts. This would change the entire situation regarding impact management, and which councils are likely to experience which impacts.

In the local study area the majority of potential impacts are linked to population increases. The Project is of a sufficient distance from Alpha to negate direct impacts with the exception of traffic through the community. The Project policies of FIFO/DIDO/BIBO and the design feature for an on-site accommodation village further isolate the Project from the resident population. Alpha has significant limiting factors to consider as well which were listed previously. A change in population in Alpha is currently restricted by those limiting factors which makes in-migration prediction challenging. BRC has provided estimates ranging from a total resident population in Alpha of 500 to 2,000 (including current residents). The Planning and Information Forecasting Unit (PIFU) within the Office of Economic and Statistical Research (OESR) at the Queensland Treasury has suggested ~150 people in the region could be employed but did not differentiate between current residents and new arrivals, and which communities in the region these workers would reside (prediction is ~300 people for the Alpha and Kevin's Corner projects combined). The DIDO/BIBO options complicate this. For example, workers from Barcaldine or Jericho could potentially travel to site on the same bus as workers from Alpha. The only difference between them is the length of time on the bus. Therefore, location is less of an issue if the same transportation service is offered by the Project. In this case personal preference and fatigue management becomes the largest influencers in the prediction of in-migration. This results in significantly reduced confidence in predictions. As a result, multiple benchmarks and indicators is the most appropriate means of developing and managing the SIMP, in collaboration with councils, particularly BRC.

Table 11-2 below shows the impacts that were assessed as part of the SIA that were ranked as medium or above, as well as summarising the analysis behind these assessments. Table 11-3 is an overview of current action plans identified for local and regional study areas

It needs to be noted that further details regarding both the mitigation and enhancement strategies outlined in Table 11-2, addressing the identified medium and higher ranked impacts as well as further details regarding the action plans (see Table 11-3) and how all these elements align, will be developed as part of Phase 2 of the SIMP.

11 Social Impact Management Plan

Table 11-2 Project Impacts Assessed Based on an Impact Ranking of Medium or High

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement*	Residual Ranking
History and Settlement								
Larger distance between properties or reduced access may breakdown family/social relations	Negative	Moderate	Local (mining lease)	Beyond the Project	Likely	High	Mitigation	Low - Medium
Profile changing from agriculture to include mining	Negative	Moderate	Local	Feasibility	Possible	Medium	Mitigation	Low - medium
	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Increased long-term stability to Clermont (and region)	Positive	Minor	Regional	Life of the Project	Likely	Medium	Enhancement	Medium - High
Increased long-term stability to Emerald (and region)	Positive	Moderate	Regional	Life of the Project	Likely	High	Enhancement	High – Very High
People move to Alpha from other parts of BRC	Positive	Moderate	Local	Construction, Operation	Possible	Medium	Enhancement	High
Demographic								
Population increase in Alpha of more than 5%	Negative	Serious	Local	Life of the Project	Possible	Very High	Mitigation	Medium - High

11 Social Impact Management Plan

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement*	Residual Ranking
Population increases by less than 5% in Alpha	Negative	Minor	Local	Life of the Project	Likely	Medium	Mitigation	Low - Medium
Population Increase	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Culture and Community Dynamics								
Lifestyle changes as a result of increased wages	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low - Medium
	Positive	Moderate	Local	Life of the Project	Unlikely	Medium	Enhancement	High
New arrivals upset balance of power in the community	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low
Local capacity increased	Positive	Moderate	Local	Life of Project or beyond	Almost certain	High	Enhancement	High - Very High
Housing and Accommodation								
Increased costs of housing and rental	Negative	Major	Local	Construction / Operation	Almost Certain	Very High	Mitigation	Medium - High
Health, Wellbeing and Social Infrastructure								
Negotiation and uncertainty stresses	Negative	Moderate	Local	Feasibility	Unlikely	Medium	Mitigation	Low

11 Social Impact Management Plan

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement*	Residual Ranking
Increased potential for accidents because of more traffic or driver fatigue	Negative	Major	Local	Life of the Project	Likely	High	Mitigation	Medium - High
Increased demand on Alpha Hospital	Negative	Major	Local	Life of the Project	Almost Certain	Very High	Mitigation	Medium - High
Increased community concern and anxiety because of perceived potential for increased crime and violence with miners	Negative	Moderate	Local	Construction / Operation	Possible	Medium	Mitigation	Low
Increased demand on emergency services in Alpha – police	Negative	Moderate	Local	Life of the Project	Almost Certain	High	Mitigation	Medium
Increased demand on local community services and facilities	Negative	Moderate	Local	Life of the Project	Likely	High	Mitigation	Medium
Increased wages as a result of employment on Project	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low
	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	Very High

11 Social Impact Management Plan

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement*	Residual Ranking
Increased use of social infrastructure requiring maintenance	Negative	Minor	Local	Life of the Project	Likely	Medium	Mitigation	Low
Increased local health and community services	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Improved service capacity at the Alpha Hospital to service the local population and potentially the Project–immediate response	Positive	Minor	Local	Life of the Project	Likely	Medium	Enhancement	High
Increased skills in the community to respond to emergencies	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Increase in funds for social infrastructure	Positive	Moderate	Local	Life of the Project	Unlikely	Medium	Enhancement	High
Potential for more volunteers to be available for sport and recreation activities, increasing the availability of such activities	Positive	Minor	Local	Life of the Project	Likely	Medium	Enhancement	High – Very High

11 Social Impact Management Plan

Education and Training								
Increased demand for child care	Negative	Major	Local	Life of the Project	Likely	Very High	Mitigation	Medium - High
Potential for community to share in mine-specific training	Positive	Minor	Local	Life of the Project	Likely	Medium	Enhancement	High
Increase in school places due to population increase – elementary	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Increase in school places due to population increase – high school	Positive	Moderate	Local	Life of the Project	Unlikely	Medium	Enhancement	Medium – High
Labour Market and Employment								
Skills drain from other industries (including councils)	Negative	Major	Local	Life of the Project	Possible	High	Mitigation	Medium - High
Perception of workers leaving one sector for mine employment	Negative	Moderate	Local	Life of the Project	Likely	High	Mitigation	Medium - High
Change in occupation	Negative	Minor	Local	Beyond the Project	Likely	Medium	Mitigation	Low
Decrease in labourers available to assist on property	Negative	Moderate	Local	Life of the Project	Unlikely	Medium	Mitigation	Low

11 Social Impact Management Plan

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement*	Residual Ranking
Increased employment opportunities	Positive	Moderate	Regional	Life of the Project	Almost Certain	High	Enhancement	High – Very High
New people to area bring skills for other (non-mining) industries	Positive	Moderate	Local	Life of the Project	Almost Certain	High	Enhancement	High – Very High
Change in occupation	Positive	Minor	Local	Life of the Project	Likely	Medium	Enhancement	Medium – High
Increased competition within industry (many employment opportunities)	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	High – Very High
Industry and Business								
Increased traffic – large haul trucks/road trains	Negative	Major	Local	Construction	Almost Certain	Very High	Mitigation	Medium - High
Deterrence of the tourism industry	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low-Medium
Increased competition (loss of staff)	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low - Medium
Increased support, service and supplier opportunities	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High

11 Social Impact Management Plan

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement*	Residual Ranking
Business opportunities – service and materials	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	Very High
Income and Cost of Living								
Increase in cost of living (including housing costs)	Negative	Moderate	Regional	Life of the Project	Possible	Medium	Mitigation	Low – Medium
Increase in the cost of (particularly housing costs)	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low – Medium
Increases in volume of high mining wages	Positive	Moderate	Regional	Life of the Project	Likely	High	Enhancement	High
Increase in wages – mining wages	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	High – Very High
Increased services and business in the region	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	High – Very High
Governance								
Failure to effectively engage with regional planning processes	Negative	Moderate	Regional	Life of the Project	Possible	Medium	Mitigation	Low

11 Social Impact Management Plan

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation / Enhancement*	Residual Ranking
Delivery of health and emergency services not achieved	Negative	Major	Local	Life of the Project	Possible	High	Mitigation	Medium
Failure to effectively engage with local and regional planning process	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low - Medium
Delivery of services achieved – social, health and emergency services	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Increase in funds through rates, donations and taxes	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	High-Very High
Successful engagement with local and regional planning processes	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Development of effective links to local government programs	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Potential increase in candidates/staff due to population increases and new skills	Positive	Minor	Local	Life of the Project	Likely	Medium	Enhancement	High

11 Social Impact Management Plan

Primary Infrastructure and Access								
Potential for spills, releases, fires or explosions causing safety hazards to communities	Negative	Major	Regional	Life of the Project	Rare	High	Mitigation	Medium
Increased road use – associated safety issues and maintenance - Capricorn Highway	Negative	Moderate	Local	Feasibility	Almost Certain	Medium	Mitigation	Low – Medium
		Major	Local	Construction	Almost Certain	Very High	Mitigation	High – Very High
		Moderate	Local	Operation	Almost Certain	High	Mitigation	Medium - High
Increased road use and associated safety and maintenance issues – Alpha–Clermont Road	Negative	Moderate	Local	Life of the Project	Likely	High	Mitigation	Medium – High
Potential for spills, releases, fires or explosions causing safety hazards to communities	Negative	Major	Local	Life of the Project	Rare	High	Mitigation	Medium
Increased access - Alpha–Clermont Road	Positive	Minor	Local	Life of the Project	Almost Certain	Medium	Enhancement	High
Improved telecommunications	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High

11 Social Impact Management Plan

11 Social Impact Management Plan

Table 11-3 Overview of Action plans for Local and Regional Study Areas

Action plans	Impact Areas																					
	Local Study Area											Regional Study Area										
	HS	D	CC	HA	HW	ET	LM	IB	IC	G	PI	HS	D	CC	HA	HW	ET	LM	IB	IC	G	PI
Stakeholder Engagement Strategy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Landholder Management Plan	✓	✓	✓	✓	✓																	
Alpha Community Development Fund	✓		✓		✓	✓		✓		✓				✓		✓	✓				✓	
Local Economic Development Strategy	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	
Housing and Accommodation Management Plan	✓	✓	✓	✓	✓		✓	✓	✓		✓		✓	✓	✓	✓		✓	✓	✓		✓
Component of the Environmental Management Plan																						
Road Use Management Plan		✓			✓				✓	✓						✓					✓	✓
Emergency Response Plan			✓		✓			✓		✓					✓				✓		✓	
Community Safety and Health Plan	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓

Note - HS – History and Settlement, D – Demographic, CC – Culture and Community Dynamics, HA – Housing and Accommodation, HW – Health, Wellbeing and Social Infrastructure, ET - Education and Training, LM – Labour Market and Employment, IB – Industry and Business, IC – Income and Cost of Living, G – Governance, PI – Primary Industry and Access

11 Social Impact Management Plan

11.4 Section C - Monitoring, Reporting and Review

11.4.1 Monitoring

Table 11-4 Potential Monitoring Programs

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
History and Settlement					
Landholder's property	Communication with landholders about the Project (inc. land liaison officers, complaints database and landholder survey)	To reduce the type and frequency of physical splintering	HGPL and landholders	As required	Ability to access Time to access
Regional community	Communication with regional community members about the Project (inc. stakeholder engagement specialists and complaints database)	To reduce the type and frequency of physical splintering	HGPL and members of the regional community	As required	Ability to access Time to access
Physical construction impacts	Communication with landholders about the Project (inc. land liaison officers, complaints database and landholder survey)	To reduce the type and frequency of physical construction impacts	HGPL and landholders	As required	Physical construction impacts as reported by landholders

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Change in regional profile	Media coverage, feedback form for tourists, feedback form at councils for residents	Promote the mining and agricultural aspects of the region	Council and HGPL	Ongoing	Feedback from tourists Feedback to councils
Attracting and retaining people and families	New arrival questionnaire (voluntary), relocation (moving away) questionnaire (voluntary), current resident questionnaire (voluntary)	Determine the pros and cons of residing in the area – help inform council of future planning decisions	Council in collaboration with HGPL	Ongoing	Questionnaire results on questions such as: Number of people staying in the region Number of people coming to the region Number of former residents returning to the region Level of satisfaction with community infrastructure and services Areas to improve Reason for movement Views on the current mine accommodation strategy

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Demographic					
Change in population numbers	Changes to population numbers and characteristics (review ABS data) compared to Human Resources data on workforce (including relocations and camp numbers)	To increase the population of the local and regional study area in a manageable way	HGPL and councils	PIFU/OESR – annual ABS Census – every 5 years	Population numbers across the local and regional study area Other projects and policies impacting the local and regional study area that will change the population numbers Council records and feedback Differences between changes and population projections
Demographic change	Changes to population numbers and characteristics (review ABS data) compared to Human Resources data on workforce (including relocations and camp numbers)	To develop programs and policies to better integrate newcomers into the community	HGPL and councils	PIFU/OESR – annual ABS Census – every 5 years	Population numbers across the local and regional study area Other projects and policies impacting the local and regional study area that will change the population numbers Council records and feedback

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Number of full time equivalent (FTE) workers in the region – effect on emergency services responsibilities	HGPL HR data and accommodation village stay data	Determine the increased level of emergency service delivery requirements in the area (factoring in onsite services)	HGPL, OESR (PIFU), and BRC	Annually	Number of workers employed from outside the region Number of stays at the accommodation village Number of stays at other temporary accommodation in the region (hotels, motels, bed and breakfast, caravan)
Changes in Indigenous population (including ratio)	Changes to population numbers and characteristics (review ABS data) compared to Human Resources data on workforce (including relocations and camp numbers)	To monitor changes in the Indigenous population and develop policies and strategies to manage any change	HGPL and BRC	Annually	Population changes in general Population changes for Indigenous Groups Effectiveness of Indigenous programs
Culture and Community Dynamics					
Increased local capacity for non-mine related work	Business survey / questionnaire, social services survey / questionnaire	To monitor increased local capacity	HGPL and BRC	Every 5 years	Positions filled Skills identified Skills shortages

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Concern about construction workers and construction camps affecting community	Communication with community about the Project (inc. land liaison officers, complaints database and landholder survey)	If a landholder or the community requires support, it is provided in a timely and sensitive manner.	HGPL and community	As required	Type and length of support provided Complaints from landholders and the community about workforce or construction camps
Increased crime and deviance – including drug and alcohol use, property crime and domestic violence	HGPL code of conduct violations, police incident reports, police feedback	To monitor changes in crime and deviance prevalence in the community and develop strategies to address	HGPL and police	Annually	Number of violations for the code of conduct regarding failed drug and alcohol tests Change in crime and deviance incidences annually (OESR data) Police perceptions of changes
Integration of new arrivals into the community	Community survey / questionnaire	To increase the rate of integration into the community	BRC and HGPL	Every 5 years	Feedback on the welcome to community and welcome to country worker orientations Feedback on the community mine orientation Feedback from Alpha residents

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Housing and Accommodation					
Changes in land availability (residential, commercial, industrial, open spaces)	Amount of land available to council	Maintain a balance between land availability and demand	Council with HGPL support	Annually	Land availability Unsold land / housing Future land available to develop
Increased cost of housing – rentals and purchases	Realtors lists of rental rates, sales prices, and volume of sales	Maintain reasonable housing supply and costs	HGPL, BRC and selection of real estate agents	Quarterly – Annually	Change in rental rates Change in house prices Change in sale volumes Change in listing volumes
Effect of onsite accommodation strategy	Community survey / questionnaire	Maintain a balance between Project requirements and community growth objectives	HGPL, BRC and selection of real estate agents	Every 5 years	Change in population Change in housing costs Changes in public sentiment

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Health, Wellbeing and Social Infrastructure					
Increased demand on health and emergency service providers	Feedback for emergency services providers	Manage changes in the level of demand on regional emergency services providers. Not impact on local services delivery as a result of the Project demands	HGPL and emergency services providers	Ongoing	FTE workforce Auditing of emergency response plans Feedback on shared training and operations Feedback on impact of Project demands Feedback on incidences where the community coverage was reduced by Project requirements
Increased stress	Community survey / questionnaire, feedback to council/social service providers, feedback to HGPL	To manage Project related stresses on the community and landholders and action incidences appropriately	HGPL	Ongoing	Number and types of incidences recorded in the Issues and Risks Registry Number and types of incidences reported to council/social service providers

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Increased crime and deviance – including drug and alcohol use, property crime and domestic violence	HGPL code of conduct violations, police incident reports, police feedback	To monitor changes in crime and deviance prevalence in the community and develop strategies to address	HGPL and police	Annually	Number of violations for the code of conduct regarding failed drug and alcohol tests Change in crime and deviance incidences annually (OESR data) Police perceptions of changes
Decreased road safety	Police and emergency services reports of accidents and near misses, worker reports of incidents and near misses, traffic volume counters in the Alpha/key locations	Increase road safety by increasing awareness and changing behaviours	HGPL, emergency service providers, BRC	Ongoing	Number of accidents and outcomes – including who was involved Number of health and safety incidences reported by workers regarding road safety Feedback on road safety and driving habits programs and strategies
Changes in existing social networks	Community survey / questionnaire	To increase the rate of integration into the community	BRC and HGPL	Every 5 years	Feedback on the welcome to community and welcome to country worker orientations Feedback on the community mine orientation Feedback from Alpha residents

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Changes in services demands result in hitting critical mass on services (ambulance, doctor, nursing, police, other services and organisations)	Internal systems for the allocation of additional staff and service delivery	Proactively manage services demands in order to maximise opportunities for a manageable and rational expansion of services	Service providers in collaboration with HGPL	Ongoing	HGPL HR to provide information on workforce movements and strategies that could impact on service requirements Service providers monitor changes in demand
Increased funds for service providers and government	Budgets	Sufficient funding available to manage service delivery	BRC and service providers – supported by HGPL	Ongoing	Number of applications completed Value of funding received Amount of funding required
Changes in the use and maintenance of community infrastructure	Feedback from council and community (survey / questionnaire)	Manage changes in the level of demand for community infrastructure	HGPL and emergency services providers	Annually	Feedback on impact of Project demands Feedback on incidences where the community coverage was reduced by Project requirements Feedback from community survey / questionnaire

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Education and Training					
Increase in child care demand	Feedback from child care centre	Provide sufficient levels of child care services for the community	Child care providers, with support from BRC and HGPL	Ongoing	Number of spaces available Limiting factors like available staff and number of options
Changes in demand result in hitting critical mass for schools	Internal systems for the allocation of additional staff and service delivery	Proactively manage services demands in order to maximise opportunities for a manageable and rational expansion of services	Alpha school in collaboration with HGPL	Annually	HGPL HR to provide information on workforce movements and strategies that could impact on service requirements School monitors changes in demand
Increased training opportunities	Community survey / feedback	Increase training opportunities in the community	HGPL	Every 5 years	Opportunities for the public or other organisations to participate in Project training Level of interest in opportunities offered

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Labour Market and Employment					
Potential loss of staff to mine	Business survey / questionnaire, feedback from council and other businesses/service providers	Employ locals where possible while managing the effect on other businesses and services providers	HGPL and councils	Ongoing	Number of workers lost to the Project Impact of loss on the business / services provider
Increased employment opportunities	ABS Census data, local employment numbers, business survey / questionnaire	Increase employment opportunities	HGPL, council	ABS (every 5 years) Survey (every 5 years)	Number of locals employed by the Project Number of new businesses Business expansion
Increase in skilled workers	ABS census data	Increase the number of skilled workers in the region	HGPL	ABS (every 5 years)	Employment by industry Employment by trade Level of qualifications
Industry and Business					
Increased competition for workers	Business survey / questionnaire	Employ locals where possible while managing the effect on other businesses and services providers	HGPL	Every 5 years	Number of workers lost to the Project Number of workers gained Changes in skills of workers

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Increased support and supplier opportunities	Business survey / questionnaire	Increase potential customer base for regional businesses through Project policies and programs	HGPL	Every 5 years	Increased business profit Increased workforce Ability to compete for and win contracts with the Project
Increased customer base	Business survey / questionnaire	Increase potential customer base for regional businesses through Project policies and programs	HGPL	Every 5 years	Increased business profit Increased workforce Increased sales
Potential loss of livelihood	Business survey / questionnaire, feedback from council and other businesses/service providers	Employ locals where possible while managing the effect on other businesses and services providers	HGPL and councils	Ongoing	Number of workers lost to the Project Impact of loss on the business / services provider
Increased accommodation and service business opportunities	Business survey / questionnaire	Increase potential customer base for regional businesses through Project policies and programs	HGPL	Every 5 years	Increased business profit Increased workforce Ability to compete for and win contracts with the Project

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Income and Cost of Living					
Increased income/disposable income	Business survey / questionnaire, community survey / questionnaire	Monitor effects of increased disposable income on the community	HGPL and BRC	Every 5 years	Increased sales for regional businesses Changes in community dynamics
Changes in the cost of living	Community survey / questionnaire, Business survey / questionnaire, Realtors lists of rental rates, sales prices, and volume of sales	Maintain reasonable housing supply and costs	HGPL, BRC and selection of real estate agents	Surveys / Questionnaires (every 5 years) Real estate data (quarterly–annually)	Changes in costs of goods and services Change in number of businesses and services provided Change in rental rates Change in house prices Change in sale volumes Change in listing volumes
Increased services locally due to increased demand	Business survey / questionnaire, community survey / questionnaire	Monitor changes in services available in the community	HGPL and BRC	Every 5 years	Increased sales for regional businesses Changes in population

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Governance					
Local capacity building and skills development	Council reporting	To monitor increased local capacity at BRC	HGPL and BRC	Annually	Positions filled Skills identified Skills shortages Positions lost to the Project Positions gained by the Project
Increase in governmental responsibility	Council reporting	To monitor increase in levels of responsibility at BRC and the ability of council to manage increases	HGPL and BRC	Annually	Increases in demand Ability to keep up with demand Skills and workforce requirements
Increased profile with State and Federal governments	Council reporting	To monitor increased profile of BRC with State and Federal governments	HGPL and BRC	Annually	Number of funding grants received Value of funds received Feedback from State and Federal regulators regarding regional requirements and their commitments

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Increased rates due to population growth	Council reporting	To monitor ability of council to manage changes	HGPL and BRC	Annually	Increase in rates Infrastructure expansion, upgrades and new development to accommodate increased demand – including cost
Primary Industry					
Change to access via roads	Department of Transport and Main Roads (DTMR) reporting, council feedback, community survey / questionnaire	Monitor impacts on road access and manage change	HGPL and councils	DTMR & council - ongoing Surveys / Questionnaires (every 5 years)	Increased use by Project Increased or decreased use by tourists Increased or decreased use by regional residents
Change to access via airport	Councils and airport operators' feedback	Monitor impacts on air access and manage change	HGPL and councils	Ongoing	Change in airport use Commercial flight opportunities available
Change to access via rail	Councils and rail operators' feedback	Monitor impacts on rail access	HGPL and councils	Ongoing	Changes in rail use

11 Social Impact Management Plan

Potential Impact	Potential Monitoring Tool	Potential Objective	Potential Responsibility	Potential Timing	Potential Indicators to be Monitored
Key utilities (water and electricity) brought into the region by the Project	Councils feedback	Monitor changes to water and electricity supply in the community and the cumulative effect on the Project impacts	HGPL and councils	Ongoing	Utilities continued to Alpha Impact of utilities on community Impact of utilities on impact of the Project on Alpha
Infrastructure upgrades (project related and council anticipated)	Councils feedback	Monitor impacts on infrastructure and the cumulative effect on the Project impacts	HGPL and councils	Ongoing	Impact of infrastructure upgrades on community Impact of infrastructure upgrades on impact of the Project on Alpha

11 Social Impact Management Plan

11.4.2 Reporting

Reporting to stakeholders

The Proponent will report the findings of the monitoring strategy as part of their Project annual reporting through the SIMP, will be complimented by the Community and Stakeholder Engagement Plan, Community Liaison role and/or Kevin's Corner Consultative Committee (KCCC). The Proponent and the councils will determine the most appropriate reporting mechanism as part of Phase 2 of the SIMP development process.

Reporting to the Social Impacts Assessment Unit

During the construction phase, as per the SIMP Guidelines, the Proponent will submit an annual report on progress against the social impact management plan.

The Proponent will report on the operational impacts of the Project to the Social Impact Assessment Unit of the Department of Employment, Education and Innovation every three years, or as requested by the SIAU.

As per the SIMP Guidelines, reports prepared for the Social Impact Assessment Unit will include:

- An overview of the effectiveness of implementation;
- An assessment of progress against nominated performance indicators;
- An explanation of why any actions were not undertaken as planned and if required; and
- Recommendations to improve future performance.

11.4.3 External Review

The Proponent will agree to an external review of the SIMP when requested by the Social Impact Assessment Unit of the Department of Employment, Education and Innovation. Details of the review will be determined at a later date.

11.4.4 Amendment and Termination

Amendments and updates to the SIMP will be considered as part of the SIMP internal SIMP Review, which will be timed with the Reporting to the SIA Unit and councils, and will consider findings of the external reviews.

11 Social Impact Management Plan

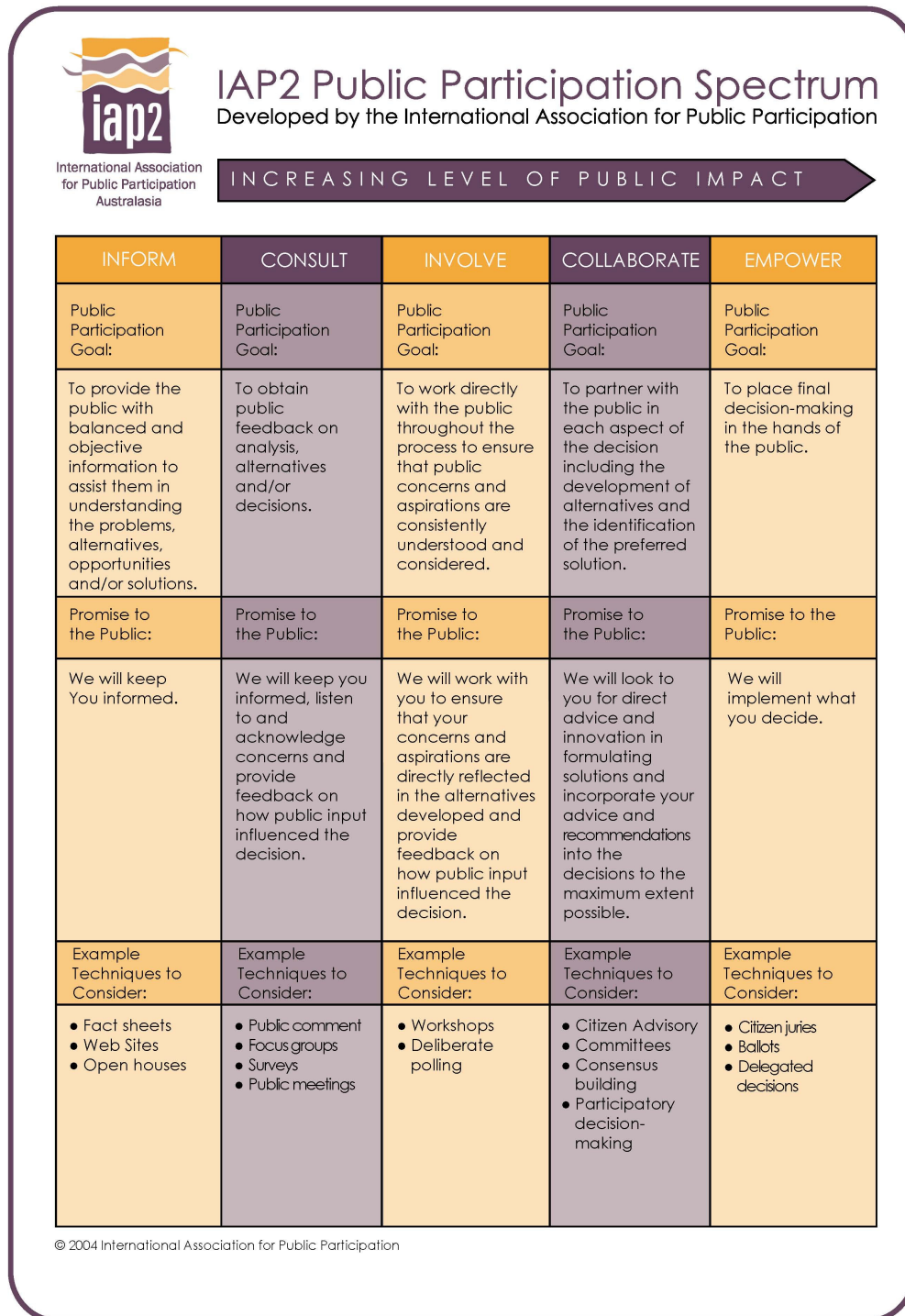
11.5 Section D - Community and Stakeholder Engagement

11.5.1 Overview

The Proponent will develop a Community and Stakeholder Engagement Plan for the construction and operation of the Project. The Community and Stakeholder Engagement Plan will align with the International Association for Public Participation (IAP2) Spectrum (refer to Figure 11-6). The KCCC will be a key component of the plan as well as the SIMP development and implementation (refer to Section 8.1).

11 Social Impact Management Plan

Figure 11-6 IAP2 Spectrum



The Proponent will allocate resources to ensure that the Community and Stakeholder Engagement Plan is able to be developed, implemented and reviewed in a timely fashion. Resources include stakeholder engagement personnel at the corporate level and on site, appropriate funding and relevant policies and procedures.

11 Social Impact Management Plan

11.5.2 Construction and Operations

Stakeholders

Stakeholders who will be included (but not limited to) in the Community and Stakeholder Engagement Plan are summarised in Table 11-5.

Table 11-5 Community and Stakeholder Engagement Plan – Stakeholders

Stakeholder Group	Stakeholders
Landholders	<ul style="list-style-type: none"> Landholders will be directly impacted by the Project
Regional Councils	<ul style="list-style-type: none"> Barcaldine Regional Council Isaac Regional Council Central Highlands Regional Council Blackall-Tambo Regional Council
Queensland Government	<ul style="list-style-type: none"> Department of Employment, Education and Innovation (Social Impact Assessment Unit) Department of Employment, Economic Development and Innovation; Department of Communities; Department of Education and Training; Queensland Police; Department of Transport and Main Roads; Department of Environment and Resource Management; and Queensland Health.
Residents of the local and regional study areas	<ul style="list-style-type: none"> People living in the Local Government Areas of Barcaldine, Isaac and Central Highlands regional councils.
Service providers in the regional study area	<ul style="list-style-type: none"> For example, health, education, training, emergency services.
Businesses in the regional study area	<ul style="list-style-type: none"> Businesses based in the towns of Alpha, Clermont, and Emerald, this may occur through local progress associations or Chambers of Commerce. Additional businesses in other communities may be considered
Interest groups	<ul style="list-style-type: none"> For example, environmental groups, industry groups

11.5.3 Actions

Actions or tools which could be used (but not limited to) to implement the Community and Stakeholder Engagement Plan are summarised in Table 11-6.

11 Social Impact Management Plan

Table 11-6 Community and Stakeholder Engagement Plan – Tools and Actions

Action	IAP2 Spectrum	Stakeholder	Purpose	Timing
Land liaison officers	Collaborate	Landholders	Provide Project updates, raise, discuss and address ways of addressing any issues specific to landholders	As required (at least fortnightly contact)
Meetings with Regional Councils	Collaborate	Barcaldine Regional Council, Isaac Regional Council and Central Highlands Regional Council Blackall-Tambo Regional Council	Provide Project updates, participation in Regional planning exercises, raise, discuss and address ways of managing any issues at the regional level	Every two months
Kevin's Corner Consultative Committee	Collaborate	The Project, regional councils – potentially other projects and State agencies. Possible inclusion of other key stakeholders by invite as necessary	Collaborate on Phase 2 of the SIMP, provide Project updates, raise, discuss and address ways of managing any issues at the regional level, review planning documents, and align activities.	Varies depending on tasks and phase of the Project
Other Community Consultative Committees	Involve	Residents, businesses and services providers in the regional study area	Provide Project updates, raise, discuss and address ways of addressing any issues at the regional level	Every quarter
State Government Committee	Involve	Relevant State Government Departments	Provide Project updates, raise, discuss and address ways of addressing any issues.	Every 6 months
Participation in Regional Shows	Consult	Residents in the regional study area	Provide Project updates, raise, discuss and address issues.	Annual
Project website	Inform	All stakeholders	Provide Project updates, and publish newsletters, monitoring data, and minutes of relevant Project meetings.	Updated as required
Project newsletter	Inform	Landholders; residents, businesses and service providers in the regional study area	Provide Project updates	Quarterly
Meetings with SIA Unit	Inform	SIA Unit	To provide Project updates	Annual with SIMP review
1300 number	N/A - Collect	All stakeholders	Stakeholder's contact HGPL regarding the Project	Daily

11 Social Impact Management Plan

Management Strategies

The Proponent and their construction contractors will develop management policies and processes to support the development and implementation of the Community and Stakeholder Engagement Plan. The Community Liaison role will be the principle contact between all stakeholders and the plan, and will be responsible for implementation and management of the plan.

Review

The Community and Stakeholder Engagement Plan will be reviewed by the Community Liaison role and other relevant representatives from the Proponent, and their contractors on an annual basis. The review will include an assessment of the effectiveness and efficiency of engagement policies, processes and tools. Relevant stakeholders may be requested to participate in the review, including but not limited to councils.

11.6 Section E - Dispute Resolution

11.6.1 Complaints, Enquiries and Comments

Tracking complaints, enquiries and comments are vital for improving interactions with community members and stakeholders as it allows for the development of proactive communication activities and robust mitigation options. Comments will be passed onto management through standard reporting procedures. The following definitions classify the feedback that will be received from external parties. These definitions have been used to determine how reasonable and consistent responses will be supplied in a timely manner.

Complaint: An expression of dissatisfaction with the organisation, its processes or operation; the complainant seeks a response about a particular matter/s.

Enquiry: A question about the project's development that requires analysis or further examination of project details; negative viewpoints are not articulated.

Comment: Positive, negative or neutral feedback about the project is provided and no further interaction with project personnel is required.

Feedback may come directly from the complainant, via Hancock Coal, PMC team or a contractor. Members of the team's PMC Community and Stakeholder Engagement Team will use the Project's Community Consultation Form to record complaints, enquiries or comments and update within the Project's e-database accordingly. Contractors are required to appoint community personnel and will be provided access to the e-database to be updated according to reporting expectations defined by Hancock Coal and the PMC. A Community Consultation Form will be used by contractors to record the feedback before the complaint, enquiry or comment is passed to the PMC via the Project's 24/7 hotline. Comments will also be logged into the Project's e-database. Matters unrelated to the Alpha Coal Project will not be logged.

Members of the PMC's Community and Stakeholder Engagement Team will be the first point of contact for managing complaints, enquiries and comments. On-going communication with the complainant will also be undertaken by this team. Although the PMC's community team will be the primary contact for the complainant, in certain cases technical information may be sought from a contractor before a response is provided to the complainant. Project feedback may be received

11 Social Impact Management Plan

directly by the contractor's social performance practitioner, staff or sub-contractor. Therefore the contractor will establish a system for capturing and communicating this feedback directly to PMC and ultimately Hancock Coal.

Service standards associated with responding to complaints, enquiries and comments have been established by Hancock and the PMC and require the contractor to communicate details directly to the PMC to enable a prompt response to be provided. Failure to pass feedback directly to the PMC is regarded as a breach of the contract and disciplinary actions will be pursued by the PMC on behalf of Hancock Coal.

Depending upon the frequency and number of complaints received, the contractor will receive weekly or monthly reports that outline the status of the complaints, enquiries and comments. Assistance to close-out certain issues and/or implementing new project standards or addressing behaviour may be required. A site-based Community and Stakeholder Engagement Officer will be employed for certain project areas and will assist with managing the interface between the contractor, and community issues and opportunities.

From the outset negotiable issues and non-negotiable issues will be defined to assist the community's understanding for the Project's opportunities and limitations. For example, noise and dust management strategies will be developed in consultation with the community and contractors, yet be constrained by regulatory standards and construction methods.

Table 11-7 below describes the Project's service standards for responding to complaints and enquiries.

Table 11-7 Response Times for Complaints and Enquiries

Category	Response time	Resolution time
Complaints – hotline calls received 24 hours a day.	Initiate investigation upon receipt of complaint. Within two hours of receiving the complaint provide an update to the complainant about the actions being taken to investigate the matter.	As soon as practicable
Complaints – office phone, face-to-face, emails and written complaints	Response as above, but only within business hours.	As soon as practicable
General enquiries	Response to the initial contact is provided within two business days.	Five business days
Written enquiries	Response to the initial contact is provided within seven business days.	Five business days

Management of Feedback and Issues

Identifying and classifying potential issues/risks are vital for developing effective communication tools and consultation activities. Consultation activities can be re-prioritised and a more proactive approach to responding to community and stakeholder issues can be achieved. The roles and responsibilities of key project personnel will be used to describe how feedback and issues will be managed, as follows.

11 Social Impact Management Plan

PMC's Community and Stakeholder Engagement Officer

For any given interaction with a community member or a stakeholder, the PMC's Community and Stakeholder Engagement Officer will ensure all relevant information is recorded on the Community Consultation Form or recorded directly into Consultation Manager.

The Officer is responsible for ensuring any actions from these entries are closed-out. Furthermore, any documents created as part of the investigation need to be uploaded into Consultation Manager by this Officer. All communication with the community member or the stakeholder should be led or facilitated by the Officer. Although involvement from other project personnel may be required in some instances, the Officer will remain actively connected to these interactions.

Common themes or major issues from feedback provided by community members or stakeholders should be highlighted to the PMC's project management and in turn, the contractor. Mitigation options to address issues will be investigated and where appropriate strategies should be implemented as a means to reduce the impact associated with the concern. In other instances, recommendations that alter the project and/or a contractor's standards and processes may need to be drafted, reviewed and approved by management. This information would be prepared by the Officer in partnership with the Action Officer.

Action Officer

The Action Officer is any member of the project team (including contractor) who has been assigned an action associated with responding to details provided by the PMC's Community and Stakeholder Engagement team. A query presented to the Action Officer may stem from interaction with a community member or stakeholder or in response to an issue that requires a strategic and project-wide review.

Working in close consultation with the PMC's Community and Stakeholder Engagement Officer, the Action Officer will ensure the action is closed-out in a timely manner and the appropriate information is supplied for uploading to the e-database.

The Action Officer may alert the PMC's Community and Stakeholder Engagement Officer to the feedback, yet the PMC's Community and Stakeholder Engagement Officer is responsible for making decisions for managing the issue.

11.6.2 Escalation and Dispute Resolution

When considering issues for escalation, the following matters will be considered:

- The seriousness of the issue in terms of the impact it may have on safety (public and workers), stakeholders or the Project's reputation;
- Measures taken by Project personnel have failed to quell or prevent a potentially damaging issue;
- The issue may have a negative impact on the Project owners or other government stakeholders, as opposed to the project itself;
- The issue is outside of the Project scope but may have impact on the long-term implementation of the Project;
- The issue has potential to escalate in seriousness or affect more people; and
- The issue has potential or existing negative media connotations.

When a complaint has not been answered to the satisfaction of the person making the complaint or within a reasonable amount of time, the matter is elevated to the PMC's Community and Stakeholder

11 Social Impact Management Plan

Engagement Manager. An independent mediator may be used if the complaint still cannot be resolved.

In certain cases an independent technical assessment may also be required. Should the matter relate to damage to property an independent insurance assessor would be included in the investigation.

Details of any communication about complaints must be recorded on the project's e-database by any party who receives the feedback. Furthermore, minutes generated from discussions with the complainant will be distributed to Hancock Coal, the PMC's Project Director and the contractor, where applicable, by the independent mediator within two business days of each meeting.

The following steps should be used as a guide when escalating a complaint.

1. Complaint received by the PMC's Community and Stakeholder Engagement Team.
2. Community Team is unable to provide a satisfactory response to the complainant. An invitation to meet with the project's Community and Stakeholder Engagement Manager is offered to the complainant.

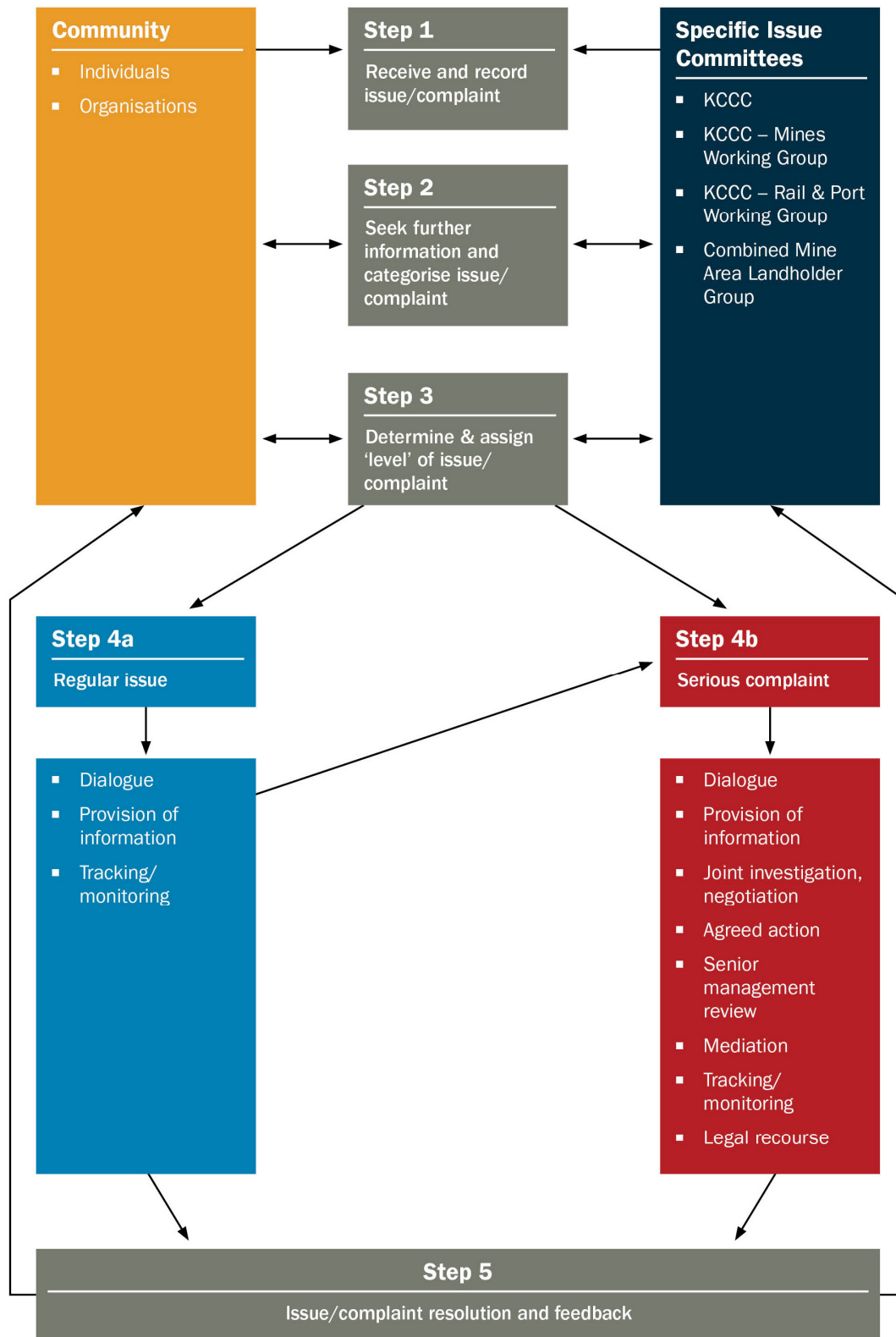
If a resolution is still not reached, the complainant is invited to meet with the PMC's Project Director, PMC's Community and Stakeholder Engagement Manager and an independent mediator.

11.6.3 Issues and Risks Register

In previous Coordinator-General Reports there has been a requirement for a complaints process to be developed in accordance with the *ICMM Good Practices Guideline for Handling and Resolving Local Level Concerns and Grievances 2009*. The schematic diagram in Figure 11-7 outlines the general arrangement for such a procedure based on a five step process.

11 Social Impact Management Plan

Figure 11-7 Proposed Kevin's Corner Site-Level Community Issues and Risks Registry Overview



11 Social Impact Management Plan

Responsibility for development of the Issues and Risks Register will reside with the Hancock Community Engagement Manager, and it will be managed by the PMC's Community and Stakeholder Engagement Team with assistance from the CLOs. The grievance mechanism will be a part of this register. All staff will be made aware of the existence of the register during staff inductions and trained according to their link to using the register.

11.6.4 Database software

Community consultation software will be used to capture and respond to complaints, enquiries and comments. Further details about costs and technical matters associated with licensing matters are being investigated. Community issues will also managed through the tracking of trends presented within this e-database.

12 References

References

Books

- Bealey, T.B. & Newton, P.W. (1978), *Migration and New Mining Towns*, In Petkova A, Lockie, S, Rolfe, J and Ivanova, G (2009), *Mining Development and Social Impacts on Communities: Bowen Basin Case Studies*, published in Rural Society, Volume 19: Number 3 October 2009.
- Burdge, 2004. A Community Guide to Social Impact Assessment: 3rd Edition. Social Ecology Press. Middleton, Wisconsin.
- Burdge, 2004. The Concepts, Process and Methods of Social Impact Assessment: Rabel J. Burdge and Colleagues. Social Ecology Press. Middleton, Wisconsin.
- Lockie, S., Franettovich, M., Petkova-Timmer, V., Rolfe, J., Ivanova, G. *Coal Mining and the resource community cycle: A longitudinal assessment of the social impacts of the Coppabella coal mine*, Environmental Impact Assessment Review 29 (2009), pp 330-339.
- Taylor, *et al.*, 2004. Social Assessment: Theory, Process and Techniques: 3rd Edition. Social Ecology Press. Middleton, Wisconsin.
- Taylor, N., Goodrich, C., Fitzgerald, G. and McClintok, W. (2003) "Undertaking longitudinal research", *The International Handbook of Social Impact Assessment: Conceptual and methodological advances* Becker, H A and Vanclay, F (eds) Edward Elgar Cheltenham

Reports/Guidelines

- Barcaldine Regional Council, 2010. Draft Sport, Recreation and Open Spaces Plan, June 2010. Prepared by ROSS Planning Pty Ltd.
- Beer, A. and Keane, K. (2000); *Population Decline and Service Provision in Regional Australia – A South Australian Case Study*; People and Place, Vol 8, no 2.
- Christine Hanley, Centre for Social Science Research, CQ University, January 2009 *Central Highlands Regional Council 2008 Survey of Residents, Final Report*.
- Department of Communities, Planning Supply and NRAS Private Housing Programs, Office of Economic and Statistical Research, Central Queensland Office, Treasury (June 2010), *Background Statistics for Affordable Housing, Central Highlands Regional Council*.
- Department of Transport and Regional Services, Bureau of Transport and Regional Economics (2006); *Skill Shortages in Australia's Regions – Working Paper 68*; Canberra; available at www.bitre.gov.au/publications/19/Files/wp68.pdf

12 References

- DIP, 2010. Social impact assessment: Preparing a social impact management plan: draft guideline. March 2010 – for consultation.
- Franks, D., Fidler, C., Brereton, D., Vanclay, F., and Clark, P. 2009. Leading Practice Strategies for Addressing the Social Impacts of Resource Developments. Centre for Social Responsibility in Mining, Sustainable Minerals Institute, The University of Queensland. Briefing paper for the Department of Employment, Economic Development and Innovation, Queensland Government. November. Brisbane.
- Franks, DM, Brereton, D, Moran, CJ, Sarker, T and T, Cohen. 2010. *Cumulative Impacts – A Good Practice Guide for the Australian Coal Mining Industry*. Centre for Social Responsibility in Mining & Centre for Water in the Minerals Industry, Sustainable Minerals Institute, The University of Queensland. Australian Coal Association Research Program. Brisbane.
- Hancock, 2009. Kevin's Corner Coal Project Pre-Feasibility Study. Commercial In Confidence. March, 2009.
- Holmes, J., Charles-Edwards, E., Bell, M. (2005); *Population Dynamics in Rural and Remote Queensland*; University of Queensland, Brisbane.
- Maude, A. & Hugo, G. (1992), *Mining Settlements in Australia*, In Petkova A, Lockie, S, Rolfe, J and Ivanova, G (2009), *Mining Development and Social Impacts on Communities: Bowen Basin Case Studies*, published in Rural Society, Volume 19: Number 3 October 2009.
- Miles, R. et al *The Attraction and Retention of Professionals to Regional Areas*. Paper presented to National Regional Research Colloquium 2004, DOTARS, Canberra.
- Newton, P. & Robinson, I. (1987), *Settlement Options: Avoiding Local Governments with Fly-in, Fly-out*, in Petkova A, Lockie, S, Rolfe, J and Ivanova, G (2009), *Mining Development and Social Impacts on Communities: Bowen Basin Case Studies*, published in Rural Society, Volume 19: Number 3 October 2009.
- Pilgrim, R. (1988), *Normalisation of the Pilbura Townships in Western Australia*. In Petkova A, Lockie, S, Rolfe, J and Ivanova, G (2009), *Mining Development and Social Impacts on Communities: Bowen Basin Case Studies*, published in Rural Society, Volume 19: Number 3 October 2009.
- Rolfe, J., Lockie, S. and Franettovich, M. *Economic and Social Impacts of the Coppabella Mine on the Nebo Shire and the Mackay Region*, Final Report prepared for Australian Premium Coals Pty Ltd, Central Queensland University, April 2003
- Sharma, P.C. (1983) *The New Mining Towns: Outback Suburbias?* In Petkova A, Lockie, S, Rolfe, J and Ivanova, G (2009), *Mining Development and Social Impacts on Communities: Bowen Basin Case Studies*, published in Rural Society, Volume 19: Number 3 October 2009.

12 References

Presentations

Marshall, C., Mayor IRC presentation to Regional Economic Development Forum February (2010), (OESR) *Isaac and Mackay Whitsunday Regional Economic Reports*, in IRC 15 February 2010, *Resource Development and Healthy Communities* available at: http://www.lgaq.asn.au/c/document_library/get_file?p_l_id=189033&folderId=624362&name=DLFE-8143.pdf (accessed on 25 August 2010).

Website Information

ABC News, (23 January 2009). Accessed online on 25 August 2010 at: <http://www.abc.net.au/news/stories/2009/01/23/2473097.htm>

ABC News, (19 January 2008), Accessed online on 25 August 2010 at: <http://www.abc.net.au/news/stories/2008/01/19/2142306.htm>

ABC News, (23 January 2010), Accessed online on 25 August 2010 at: <http://www.abc.net.au/news/stories/2008/01/23/2144729.htm>

About Australia (2010), Accessed online on 12 August 2010 at: <http://www.about-australia.com/queensland/capricorn/destinations/emerald/>

ABS, 2006a. *Census Quick Stats: Alpha (Jericho Shire)(State Suburb)*. Accessed online on 26 June 2010 at: <http://www.censusdata.abs.gov.au/ABSNavigation/prenav/LocationSearch?locationLastSearchTerm=Alpha&locationSearchTerm=Alpha&newarea=SSC35055&submitbutton=View+QuickStats+%3E&mapdisplay=on&collection=Census&period=2006&areacode=SSC35055&geography=&method=Place+of+Usual+Residence&productlabel=&producttype=QuickStats&topic=&navmapdisplayed=true&javascript=true&breadcrumb=PL&topholder=0&leftholder=0¤taction=104&action=401&textversion=false&subaction=2>

ABS, 2006b. *Census Quick Stats, Barcaldine (Barcaldine Shire) (State Suburb)*. Accessed online on 29 June 2010 at: <http://www.censusdata.abs.gov.au/ABSNavigation/prenav/LocationSearch?locationLastSearchTerm=Barcaldine&locationSearchTerm=Barcaldine&newarea=SSC35167&submitbutton=View+QuickStats+%3E&mapdisplay=on&collection=Census&period=2006&areacode=SSC35167&geography=&method=Place+of+Usual+Residence&productlabel=&producttype=QuickStats&topic=&navmapdisplayed=true&javascript=true&breadcrumb=PL&topholder=0&leftholder=0¤taction=104&action=401&textversion=false&subaction=1>

ABS, 2006c. *Census Quick Stats, Clermont (Belyando Shire) (State Suburb)*. Accessed online on 29 June 2010 at: <http://www.censusdata.abs.gov.au/ABSNavigation/prenav/LocationSearch?locationLastSearchTerm=Clermont&locationSearchTerm=Clermont&newarea=SSC35601&submitbutton=View+QuickStats+%3E&mapdisplay=on&collection=Census&period=2006&areacode=SSC35601&geography=&method=Place+of+Usual+Residence&productlabel=&producttype=QuickStats&topic=&navmapdisplayed=true&javascript=true&breadcrumb=PL&topholder=0&leftholder=0¤taction=104&action=401&textversion=false&subaction=1>

12 References

- ABS, 2006d. *Census Quick Stats, Emerald (Emerald Shire) (State Suburb)*, Accessed online on 29 June 2010 at:
<http://www.censusdata.abs.gov.au/ABSNavigation/prenav/LocationSearch?locationLabelTextSearchTerm=Emerald&locationSearchTerm=Emerald&newarea=SSC35925&submitbutton=View+QuickStats+%3E&mapdisplay=on&collection=Census&period=2006&area code=SSC35925&geography=&method=Place+of+Usual+Residence&productlabel=&producttype=QuickStats&topic=&navmapdisplayed=true&javascript=true&breadcrumb=PL&topholder=0&leftholder=0¤taction=104&action=401&textversion=false&subaction=1>
- Airports Australia 2010. Accessed online on 27 August 2010 at:
<http://www.airport-information.org/AU/>
- Alpha Queensland (2010). *Alpha: Gateway to the West*. Accessed online on 12 August 2010 at: <http://www.alphaqueensland.com.au/>
- Barcaldine Regional Council, 2009. *Barcaldine Regional Council Community Plan*. Accessed online on 13 July 2010 at:
<http://www.barcaldinerc.qld.gov.au/council/documents/Community%20Plan%20-%20Adopted%2018%20Nov%202009.pdf>
- Barcaldine Regional Council (2010). Accessed online on 12 August 2010 at:
<http://www.barcaldinerc.qld.gov.au/>
- BBC, 2010. 18 May 2010, *Australia's Coal Mines Blamed Over Asthma*. Accessed online on 12 August 2010 at: <http://news.bbc.co.uk/2/hi/8688820.stm> (
- Beach, R, Brereton, D and Cliff, D, 2003. Centre for Social Responsibility in Mining, University of Queensland, *Workforce Turnover in FIFO Mining Operations in Australia: An Exploratory Study*. Accessed online on 27 August 2010 at:
http://www.csr.uq.edu.au/docs/TURN_FINAL.pdf
- Belyando Livestock and Property Pty Ltd, 2011 Belyando Livestock and Property Pty Ltd, *Rural Property*. Accessed online on 16 March 2011 at:
<http://www.belyando.com.au>
- Blackwater International Coal Centre, 2008. Accessed online on 31 August 2010 at:
<http://www.bicc.com.au/about.html>
- BRC, 2008. *Barcaldine Regional Council Corporate Plan 2009 – 2014*. Accessed online on 27 August 2010 at:
<http://www.barcaldinerc.qld.gov.au/council/documents/Corporate%20Plan%20-%20Adopted%2018%20Nov%202009.pdf> (accessed on 27 August 2010).
- BRC, 2009. *Barcaldine Regional Council Annual Report for the period 15 March 2008- 30 June 2009*. Accessed online on 27 August 2010 at:
<http://www.barcaldinerc.qld.gov.au/council/documents/BRC%20-%20Annual%20Report%202009%20Adopted%2027%20Nov.pdf>

12 References

- BRC, 2010. Health Services. Barcaldine Regional Council Website. Health Services Section. Accessed online on 19 July 2010 at:
<http://www.barcaldinerc.qld.gov.au/community/HealthServices.shtml>
- BRC, 2011. List of Businesses, Barcaldine Regional Council Website, Business Section. Accessed online on 16 March 2011 at:
<http://www.barcaldinerc.qld.gov.au/business/listofbusinesses.shtml>
- CHDC, 2010. Central Highlands Development Corporation: *Central Highlands Economic Profile*. Accessed online on 26 August 2010 at:
http://www.chdc.com.au/documents/Reports/Economic_Profile/Central_Highlands_Economic_Profile_2010.pdf
- CHRC, 2009. *Central Highlands Regional Council Annual Report 2008 – 2009*. Accessed online on 27 August 2010 at:
http://www.centralhighlands.qld.gov.au/c/document_library/get_file?uuid=6f1d0bf0-18b2-4de3-96e7-5aa4bf1a53fd&groupId=381737
- CHRC, 2010. *CHRC Corporate Plan 2009-2013: Valuing People, Partnerships and Place*. Accessed online on 27 August 2010 at:
http://www.centralhighlands.qld.gov.au/c/document_library/get_file?uuid=a426304d-4239-4304-8d69-e09d0522f5b7&groupId=381737
- Community Rights at Work, April 2010. Accessed online on 2 August 2010 at:
<http://community.rightsatwork.com.au/Blogs/RAW-News/April-2010/What-s-with-Rio-Tinto-.aspx>
- Department of Communities (Housing and Homelessness Services) Central Highlands Regional Council (May 2009), *Housing Market Report, Central Highlands Regional Council*. Accessed online on 6 July 2010 at:
http://www.housing.qld.gov.au/rti/pub/services/pdf/central_highlands_market_report
- Department of Infrastructure and Planning (DIP), 2007, *Bowen Basin Population Report 2007: Full-time Equivalent Population Estimates at 31 July 2007*. Accessed online on 25 August 2010 at: <http://www.dip.qld.gov.au/docs/temp/bowen-basin-study-2007.pdf>
- Department of Industry and Planning (DIP) 2010, *Regional Planning*. Accessed online on 6 September 2010 at: <http://www.dip.qld.gov.au/regional-planning.html> & http://www.dip.qld.gov.au/index.php?option=com_content&task=view&id=55&Itemid=142
- Department of Industry and Planning (DIP), 2010. Accessed online on 12 August 2010 at:
<http://www.dip.qld.gov.au/projects/mining-and-mineral-processing/coal.html>
- Duaringa Shire, 2010. *Blackwater*. Accessed online on 2 July 2010 at:
<http://www.duaringa.qld.gov.au/visitors/Blackwater.shtml>
- Emerald Coaches, 2010. Accessed online on 27 August 2010 at:
<http://www.emeraldcoaches.com.au/>
- Environmental Literacy Council, 2010. *Coal Mining*. Accessed online on 6 September 2010 at: <http://www.enviroliteracy.org/article.php/1122.html>

12 References

- George A. Mayes (1991), *Behold Nebo, a History of the Nebo Shire*. Accessed online on 13 July 2010 at:
http://www.isaac.qld.gov.au/c/document_library/get_file?uuid=caf59219-2a0b-4806-b3e5-0209032d26e0&groupId=12238
- Isaac Regional Council, 2009. *20:20 Vision 2009-2019 Your Vision, Our Community. The Region of First Choice*. Accessed online on 25 June 2010 at:
http://www.isaac.qld.gov.au/c/document_library/get_file?p_l_id=33959&folderId=45222&name=DLFE-6921.pdf
- Isaac Regional Council, 2010. *Community Facilities*. Accessed online on 20 July 2010 at:
<http://www.isaac.qld.gov.au/web/guest/community/84home.html;jsessionid=22755D20B8454DF683E1DCC142300EBD>
- Isaac Regional Council, 2010. Accessed online on 13 July 2010 at:
http://www.isaac.qld.gov.au/web/guest/council/document/isaac_regional_council/shtml
- Jamie Wade (19 June 2008) *Back in Black in the Bowen*. Accessed online on 19 July 2010 at: www.miningaustralia.com.au/news/back-in-black-in-the-bowen
- Lennon Training 2010, Accessed online on 31 August 2010 at:
<http://www.lennontraining.com.au/website2006/index.html>
- Local Government Reform Commission (2007), *Report on the Local Government Reform Commission*. Accessed online on 13 July 2010 at:
<http://www.dip.qld.gov.au/resources/report/commission-recommendation/vol-01/volume-1-report.pdf>
- Mines and Communities (MAC), 2010. *Residents Fears over Australia's Coal Mines*. Accessed online on 6 September 2010 at:
<http://www.minesandcommunities.org/article.php?a=10118&highlight=health>
- Mining Communities Research Exchange 2010, *Cappella*. Accessed online on 2 July 2010 at: http://www.bowenbasin.cqu.edu.au/basin_data/town.html
- OESR, 2010a. *Queensland Regional Profiles, Isaac Regional Council*. Accessed online on 2 July 2010 at: http://statistics.oesr.qld.gov.au/report-viewer/run?_report=qld-reg-profile.rptdesign&sessionId=8B3EC3B50DC260C4E043A18F392960C4&format=pdf
- OESR, 2010b. *Queensland Regional Profiles, Central Highlands Regional Council*. Accessed online on 2 July 2010 at: http://statistics.oesr.qld.gov.au/report-viewer/run?_report=qld-reg-profile.rptdesign&sessionId=8BCC484972D650F0E043A18F392950F0&format=pdf
- OESR, 2010c. *Health and Wellbeing Statistics, Central Highlands Regional Council*. Accessed online on 20 July 2010 at:
[http://qrsis.oesr.qld.gov.au/pls/qis_public/QIS1110W\\$UDQCTL1.ProcessActions](http://qrsis.oesr.qld.gov.au/pls/qis_public/QIS1110W$UDQCTL1.ProcessActions)
- OESR, 2010d. *Health and Wellbeing Statistics Isaac Regional Council*. Accessed online on 20 July 2010 at:
[http://qrsis.oesr.qld.gov.au/pls/qis_public/QIS1110W\\$UDQCTL1.ProcessActions](http://qrsis.oesr.qld.gov.au/pls/qis_public/QIS1110W$UDQCTL1.ProcessActions)

12 References

- OESR, 2010e. *Small Area Crime Profiles 2002 – 03, Emerald (S), Bauhinia (S), Peak Downs (S) Local Government Areas (LGAs)*. Accessed online on 21 July 2010 at: <http://www.oesr.qld.gov.au/products/profiles/crime-fitz-sd/crime-profiles-em-ba-pe-2002-03.pdf>
- OESR, 2010f. *Small Area Crime Profiles 2002 – 03, Fitzroy Statistical Division (SD)*. Accessed online on 21 July 2010 at: <http://www.oesr.qld.gov.au/products/profiles/crime-fitz-sd/crime-profiles-fitz-sd-2002-03.pdf>
- OESR, 2010g. *Small Area Crime Profiles 2002 – 03, Jericho (S), Aramac (S), Barcaldine (S), Blackall (S), Isisford (S), Tambo (S), Local Government Areas (LGAs)*. Accessed online on 22 July 2010 at: <http://www.oesr.qld.gov.au/products/profiles/crime-fitz-sd/crime-profiles-je-ar-ba-bl-is-ta-2002-03.pdf>
- OESR, 2010h. *Local Government Areas Household Statistics, Aramac, Barcaldine, and Jericho*. Accessed online on 22 July 2010 at: [http://qrsis.oesr.qld.gov.au/pls/qis_public/QIS1110W\\$UDQCTL1.ProcessActions](http://qrsis.oesr.qld.gov.au/pls/qis_public/QIS1110W$UDQCTL1.ProcessActions)
- OESR, 2010i. *Barcaldine Regional Profile*. Accessed online on 2 July 2010 at: http://statistics.oesr.qld.gov.au/report-viewer/run?_report=qld-reg-profile.rptdesign&sessionId=8E9E42CBA8646016E043A18F39296016&_format=pdf
- OESR, 2010j. *Estimated Resident Population by Urban Centre and Locality, Queensland 2001 – 2009p*. Accessed online on 12 August 2010 at: <http://www.oesr.qld.gov.au/regions/north-west/tables/erp-ucl-qld/index.php>
- Paradise Coaches, 2010. Accessed online on 2 July 2010 at: <http://www.paradisecoaches.com.au/buses/home/>
- Queensland Chamber of Agricultural Societies, 2010. *Show Schedules Alpha*. Accessed online on 26 August 2010 at: <http://qcas.net.au/default.asp?PageID=97>
- Queensland Health, 2010. *Services by Hospital and Facility*. Accessed online on 5 July 2010 at: <http://www.health.qld.gov.au/healthservices/byFacility.asp>
- Queensland Holidays (2010), *Barcaldine*. Accessed online on 12 August 2010 at: <http://www.queenslandholidays.com.au/destinations/outback/places-to-visit/barcaldine/index.cfm>
- Queensland Places (2010), *Alpha*. Accessed online on 12 August 2010 at: <http://queenslandplaces.com.au/alpha>
- Queensland Places, *Blair Athol*. Accessed online on 30 July 2010 at: <http://queenslandplaces.com.au/blair-athol>
- Queensland Places (2010), *Clermont and Copperfield*. Accessed online on 12 August 2010 at: <http://queenslandplaces.com.au/clermont-and-copperfield>
- Queensland Rail, 2010. *Spirit of the Outback*. Accessed online on 12 July 2010 at: <http://www.emeraldcoaches.com.au/>

12 References

- RTCA, 2007. Rio Tinto Coal Australia: *Charter for Clermont Community Consultative Committee*. Accessed online on 31 August 2010 at:
[http://www.riotintocoalaustralia.com.au/documents/Charter for Clermont Community Consultative Committee.pdf](http://www.riotintocoalaustralia.com.au/documents/Charter%20for%20Clermont%20Community%20Consultative%20Committee.pdf)
- Rio Tinto, 2009, *Clermont Conveyor – A Community Newsletter of Blair Athol and Clermont Mine*. Accessed online on 30 July 2010 at:
[http://www.riotintocoalaustralia.com.au/documents/Clermont Conveyor July 2009 FINAL.pdf](http://www.riotintocoalaustralia.com.au/documents/Clermont%20Conveyor%20July%202009%20FINAL.pdf)
- Rio Tinto, 2010. *Clermont Coal Project* Accessed online on 11 July 2010 at:
http://www.riotintocoalaustralia.com.au/321_clermont_mine_project.asp
- Rio Tinto, 2010. *Clermont Mine*. Accessed online on 19 July 2010 at:
http://www.riotintocoalaustralia.com.au/321_clermont_mine_project.asp
- SGL Consulting (Seriously Good Leisure), 2007. *Emerald Open Space and Recreation Plan 2007 – 2017*. March 2007. Accessed online on 12 July 2010 at:
[http://www.emerald.qld.gov.au/Temp_pages/Open Space and Recreation Plan/Documents/Background%20Research%20Report%20Amended.pdf](http://www.emerald.qld.gov.au/Temp_pages/Open_Space_and_Recreation_Plan/Documents/Background%20Research%20Report%20Amended.pdf)
- SMH, 2004. *Clermont*. Accessed online on 12 August 2010 at:
<http://www.smh.com.au/news/Queensland/Clermont/2005/02/17/1108500202251.html>
- Spiritus, 2010. Jericho Bush Nursing Service. Accessed online on 5 July 2010 at:
<http://www.spiritus.org.au/services-and-locations/western/community-care/jericho-bush-nursing.aspx>
- Sydney Morning Herald, 8 February 2008 – *Clermont*. Accessed online on 19 July 2010 at:
www.smh.com.au/news/Queensland/Clermont/2005/02/17/1108500202251.html
- Travelmate.com.au, 2010. Clermont. Accessed online on 12 August 2010 at:
[http://www.travelmate.com.au/Places/Places.asp?TownName=Clermont %5C QLD](http://www.travelmate.com.au/Places/Places.asp?TownName=Clermont%5C QLD)

Personal Communication

- Consultations with Landholders, week commencing 17 May 2010, undertaken by AARC.
- Pers. Comm., Barcaldine Regional Council, October 2009.
- Pers. Comm., Barcaldine Regional Council, May, 2010.
- Pers. Comm., Barcaldine Regional Council, August, 2010.
- Pers. Comm., Barcaldine Regional Council, March, 2011.
- Pers. Comm., Central Highlands Regional Council, May, 2010.
- Pers. Comm., Central Highlands Regional Council, August, 2010.
- Pers.Comm., Century 21 Emerald, March, 2011.

12 References

Pers. Comm., Coppabella MAC Camp, 2009. Discussions regarding the level of interaction between the camp accommodated workforce and the community, and perceptions of crime and deviance.

Pers. Comm., Isaac Regional Council, May, 2010.

Pers. Comm., Isaac Regional Council, August, 2010.

Pers. Comm., Individuals from Alpha town, March, 2011.

Pers. Comm., Moranbah MAC Camp, 2009. Discussions regarding the level of interaction between the camp accommodated workforce and the community, and perceptions of crime and deviance.

Pers. Comm., Moranbah Police, 2009. Discussions regarding the level of interaction between the camp accommodated workforce and the community, and perceptions of crime and deviance.

Pers. Comm., PIFU, 2010. Discussions regarding the appropriate population projection for Barcaldine Regional Council, the rationale and potential mining impacts on that figure.

Pers. Comm., QSNTS, 14 July 2010. Discussion regarding the population of the Wangan and Jagalingou People and their distribution throughout Queensland. Hancock and QSNTS.

Note – personal communications with individuals not wanting to be named was referenced as pers. comm., date. The report also uses the term *ad hoc* to denote research done for a specific purpose based on the information provided by stakeholders. Again the stakeholder name is left out at the request of the individual.

Limitations

URS Australia Pty Ltd (URS) has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of Hancock Galilee Pty Ltd (HGPL) and only those third parties who have been authorised in writing by URS to rely on the report. It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this report. It is prepared in accordance with the scope of work and for the purpose outlined in the Proposal dated May 2010.

The methodology adopted and sources of information used by URS are outlined in this report. URS has made no independent verification of this information beyond the agreed scope of works and URS assumes no responsibility for any inaccuracies or omissions. No indications were found during our investigations that information contained in this report as provided to URS was false.

This report was prepared between May 2010 and September 2011 and is based on the information available at the time of preparation. URS disclaims responsibility for any changes that may have occurred after this time or in conjunction with other projects being developed in the region at the same time.

This report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

Appendix A International Association for Impact Assessment – Social Impact Assessment International Principles

International Association for Impact Assessment (IAIA) - Social Impact Assessment International Principles.

The following guiding principles have been utilised when identifying social impacts and management strategies:

- **Precautionary principle** - In order to protect the environment, a concept which includes people's way of life and the integrity of their communities, the precautionary approach shall be applied. Where there are threats or potential threats of serious social impact, lack of full certainty about those threats should not be used as a reason for approving the planned intervention or not requiring the implementation of mitigation measures and stringent monitoring;
- **Uncertainty principle** - It must be recognised that our knowledge of the social world and of social processes is incomplete and that social knowledge can never be fully complete because of the social environment and the processes affecting it are changing constantly, and vary from place to place over time;
- **Intra and intergenerational equity** - The benefits from the range of planned interventions should address the needs of all, and the social impacts should not fall disproportionately on certain groups of the population, in particular children and women, people with disabilities and the socially excluded, certain generations or certain regions. Development activities or planned interventions should be managed so that the needs of the present generation are met without compromising the ability of future generations to meet their own needs;
- **Recognition and preservation of diversity** - Communities and societies are not homogenous. They are demographically structured (age and gender) and they comprise different groups with various values systems and different skills. Special attention is needed to appreciate the existence of the social diversity that exists within communities and to understand what the unique requirements of special groups may be. Care must be taken to ensure that planned interventions do not lead to a loss of social diversity in a community of diminishing social cohesion;
- **The prevention principle** - It is generally preferable and cheaper in the long run to prevent negative social impacts and ecological damage from happening than having to restore or rectify damage after the event;
- **The protection and promotion of health and safety** - Health and safety are paramount. All planned interventions should be assessed for their health impacts and their accident risks, especially in terms of assessing and managing the risks from hazardous substances, technologies or processes, so that their harmful effects are minimised, including not bringing them into use or phasing them out as soon as possible. Health impacts cover the physical, mental and social wellbeing and safety of all people, paying particular attention to those groups of the population who are more vulnerable and more likely to be harmed, such as the economically deprived, Indigenous groups, children and women, the elderly, the disabled, as well as to the population most exposed to risks from the planned intervention; and
- **The principle of subsidiarity** - Decision making power should be decentralised, with accountable decisions being made as close to an individual citizen as possible. In the context of SIA, this means about the approval of planned interventions, or conditions under which they might operate, should be taken as close to the affected people as possible, with local people having an input into the approval and management processes.

Appendix B Impact Tables

The following is a summary table of all the potential impacts assessed during the impacts workshop. The impact assessment elaborated on the impacts that were ranked medium or higher. The case studies, SIA team experience, and baseline data factored in the assessment of impact rankings.

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
History and Settlement								
Negative								
Larger distance between properties or reduced access may breakdown family/social relations	Negative	Moderate	Local (mining lease)	Beyond the Project	Likely	High	Mitigation	Low - Medium
Profile changing from agriculture to include mining	Negative	Moderate	Local	Feasibility	Possible	Medium	Mitigation	Low - medium
	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
People move to Alpha from other parts of BRC	Negative	Minor	Local	Construction / Operation	Unlikely / Possible	Low	N/A	N/A
People move to Alpha from other parts of Queensland or Australia	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Perceptions of impact of mining on health and farming reduce mobility (difficulty in selling properties)	Negative	Minor	Local	Life of the Project	Unlikely	Low	N/A	N/A

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Loss of industry due to degradation of grazing land and existing pastures resulting from an increase in dust pollution (fodder for cattle will be exposed to increased dust emissions that could affect quality and sale price of cattle).	Negative	Insignificant	Local	Construction / Operation	Possible	Low	N/A	N/A
Positive								
Increased long-term stability to Clermont (and region)	Positive	Minor	Regional	Life of the Project	Likely	Medium	Enhancement	Medium - High
Increased long-term stability to Emerald (and region)	Positive	Moderate	Regional	Life of the Project	Likely	High	Enhancement	High – Very High
People move to Alpha from other parts of BRC	Positive	Moderate	Local	Construction, Operation	Possible	Medium	Enhancement	High
Demographic								
Negative								
Population increase in Alpha of more than 5%	Negative	Serious	Local	Life of the Project	Possible	Very High	Mitigation	Medium - High
Population increases by less than 5% in Alpha	Negative	Minor	Local	Life of the Project	Likely	Medium	Mitigation	Low - Medium

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Change in demographic profile – negative perception (e.g. Increase in working age population)	Negative	Minor	Local	Construction	Possible	Low	N/A	N/A
Increased indigenous population – new groups to the area (potential to cause conflict with other indigenous groups)	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Positive								
Population Increase	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Increased indigenous population – claimant group of others move back to the area	Positive	Minor	Local	Life of the Project	Unlikely	Low	N/A	N/A
Ageing population	Positive	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Culture and Community Dynamics								
Negative								
Lifestyle changes as a result of increased wages	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low – Medium
	Positive	Moderate	Local	Life of the Project	Unlikely	Medium	Enhancement	High

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Decrease in feeling of security	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Community changes from rural / agricultural to mining	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Change in social networks	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
New arrivals upset balance of power in the community	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low
Decrease in volunteering in community	Negative	Minor	Local	Life of the Project	Unlikely	Low	N/A	N/A
Increase in crime and deviance	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Attitudes towards development	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Erosion of the family lifestyle and community values	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Positive								
Local capacity increased	Positive	Moderate	Local	Life of Project or beyond	Almost certain	High	Enhancement	High – Very High

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Increase in volunteering in the community	Positive	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Change in social networks	Positive	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Housing and Accommodation								
Negative								
Increased costs of housing and rental	Negative	Major	Local	Construction / Operation	Almost Certain	Very High	Mitigation	Medium - High
Increased demand on short term accommodation in Alpha	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Increased housing demand outstrips supply	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Amenability – allowing properties to run down	Negative	Minor	Local	Life of the Project	Unlikely	Low	N/A	N/A
Positive								
Increased supply of housing as investors capitalise on demand for housing	Positive	Minor	Local	Life of the Project	Possible	Low	N/A	N/A

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Increased opportunity for investment in housing, accommodation and service providers	Positive	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Health, Wellbeing and Social Infrastructure								
Negative								
Negotiation and uncertainty stresses	Negative	Moderate	Local	Feasibility	Unlikely	Medium	Mitigation	Low
Increased potential for accidents because of more traffic or driver fatigue	Negative	Major	Local	Life of the Project	Likely	High	Mitigation	Medium - High
Increased demand on Alpha Hospital	Negative	Major	Local	Life of the Project	Almost Certain	Very High	Mitigation	Medium - High
Health concerns – coal dust (perception issues)	Negative	Minor	Local	Life of the Project	Unlikely	Low	N/A	N/A
Increased community concern and anxiety because of perceived potential for increased crime and violence with miners	Negative	Moderate	Local	Construction / Operation	Possible	Medium	Mitigation	Low
Increased demand on emergency services in Alpha – police	Negative	Moderate	Local	Life of the Project	Almost Certain	High	Mitigation	Medium

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Health concerns associated with road dust as a result of increased traffic (perceptions and realities)	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Increased social problems and deviance (anti-social behaviour) as a result of increased disposable income being spent on higher drug and alcohol consumption	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Increased demand on local community services and facilities	Negative	Moderate	Local	Life of the Project	Likely	High	Mitigation	Medium
Increased wages as a result of employment on Project	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low
	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	Very High
Increased use of social infrastructure requiring maintenance	Negative	Minor	Local	Life of the Project	Likely	Medium	Mitigation	Low
Increased pressure on air ambulance and Royal Flying Doctor's Service in response to emergencies at the mine	Negative	Minor	Regional	Life of the Project	Possible	Low	N/A	N/A

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Increased demand on Emerald hospital in response to injuries, accidents and emergencies at the mine site	Negative	Minor	Regional	Life of the Project	Possible	Low	N/A	N/A
Increased air pollutants due to emissions from moving (e.g. vehicle and rail transportation) and stationary (e.g. mine operations) sources that could affect localised ambient air quality	Negative	Insignificant	Local	Life of the Project	Almost certain	Low	N/A	N/A
Noise level will increase due to continuous traffic and mine operations	Negative	Insignificant	Local	Life of the Project	Almost certain	Low	N/A	N/A
Increased stress on family units due to FIFO arrangements	Negative	Minor	Regional	Life of the Project	Possible	Low	N/A	N/A
Positive								
Increased local health and community services	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Improved service capacity at the Alpha Hospital to service the local population and potentially the Project–immediate response	Positive	Minor	Local	Life of the Project	Likely	Medium	Enhancement	High
Increased skills in the community to respond to emergencies	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Increase in funds for social infrastructure	Positive	Moderate	Local	Life of the Project	Unlikely	Medium	Enhancement	High
Potential for more volunteers to be available for sport and recreation activities, increasing the availability of these activities	Positive	Minor	Local	Life of the Project	Likely	Medium	Enhancement	High – Very High
Education and Training								
Negative								
Increased demand for child care	Negative	Major	Local	Life of the Project	Likely	Very High	Mitigation	Medium - High
Positive								
Potential for community to share in mine-specific training	Positive	Minor	Local	Life of the Project	Likely	Medium	Enhancement	High
Increase in school places due to population increase – elementary	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Increase in school places due to population increase – high school	Positive	Moderate	Local	Life of the Project	Unlikely	Medium	Enhancement	Medium – High
Labour Market and Employment								
Negative								
Skills drain from other industries (including councils)	Negative	Major	Local	Life of the Project	Possible	High	Mitigation	Medium - High
Perception of workers leaving one sector for mine employment	Negative	Moderate	Local	Life of the Project	Likely	High	Mitigation	Medium - High
Change in occupation	Negative	Minor	Local	Beyond the Project	Likely	Medium	Mitigation	Low
Decrease in labourers available to assist on property	Negative	Moderate	Local	Life of the Project	Unlikely	Medium	Mitigation	Low
Perception of workers leaving one sector for mine employment opportunities (including government)	Negative	Minor	Regional	Life of the Project	Unlikely	Low	N/A	N/A
Potential loss of livelihood as a result of decrease in cattle weight and thus sale prices (from dust pollution to existing pastures) and depletion of groundwater supplies	Negative	Minor	Local	Life of the Project	Rare	Low	N/A	N/A

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Positive								
Increased employment opportunities	Positive	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Employment diversification	Positive	Minor	Local	Life of the Project	Possible	Low	NA	N/A
Continuity of employment – Clermont	Positive	Minor	Regional	Life of the Project	Possible	Low	N/A	N/A
Increased employment opportunities	Positive	Moderate	Regional	Life of the Project	Almost Certain	High	Enhancement	High – Very High
New people to area bring skills for other (non-mining) industries	Positive	Moderate	Local	Life of the Project	Almost Certain	High	Enhancement	High – Very High
Change in occupation	Positive	Minor	Local	Life of the Project	Likely	Medium	Enhancement	Medium – High
Increased competition within industry (many employment opportunities)	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	High – Very High
Industry and Business								
Negative								
Increased traffic – large haul trucks/road trains	Negative	Major	Local	Construction	Almost Certain	Very High	Mitigation	Medium - High

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Deterrence of the tourism industry	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low-Medium
Increased competition (loss of staff)	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low - Medium
Change in industry (perception) – addition of a new industry	Negative	Insignificant	Local	Life of the Project	Possible	Low	N/A	N/A
Loss of livelihood (due to loss of staff, competition for labour)	Negative	Minor	Local	Life of the Project	Unlikely	Low	N/A	N/A
Positive								
Increased support, service and supplier opportunities	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Business opportunities – service and materials	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	Very High
Income and Cost of Living								
Negative								
Increase in wages – Results in increase for all sectors (non-government, business)	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Increase in cost of living (including housing costs)	Negative	Moderate	Regional	Life of the Project	Possible	Medium	Mitigation	Low – Medium

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Increase in the cost of (particularly housing costs)	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low - Medium
Positive								
Increases in volume of high mining wages	Positive	Moderate	Regional	Life of the Project	Likely	High	Enhancement	High
Increase in wages – mining wages	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	High - Very High
Increased services and business in the region	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	High – Very High
Governance								
Negative								
Failure to effectively engage with regional planning processes	Negative	Moderate	Regional	Life of the Project	Possible	Medium	Mitigation	Low
Delivery of health and emergency services not achieved	Negative	Major	Local	Life of the Project	Possible	High	Mitigation	Medium
Failure to effectively engage with local and regional planning process	Negative	Moderate	Local	Life of the Project	Possible	Medium	Mitigation	Low - Medium
Failure to engage local government in community engagement processes	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Delivery of Social Services not achieved	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Increased responsibility of council results in fatigue	Negative	Moderate	Local	Life of the Project	Likely	Low	N/A	N/A
Failure to effectively link in and support local government programs	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Failure to effectively engage local government in corporate community engagement process	Negative	Minor	Regional	Construction	Possible	Low	N/A	N/A
Failure to effectively engage with local planning processes	Negative	Minor	Regional	Construction	Possible	Low	N/A	N/A
Failure to effectively link in and support local government programs	Negative	Minor	Regional	Life of the Project	Possible	Low	N/A	N/A
Change to balance of power from locals to new arrivals	Negative	Minor	Local	Life of the Project	Unlikely	Low	N/A	N/A
Positive								
Success in linking and supporting local government programs	Positive	Minor	Regional	Life of the Project	Possible	Low	N/A	N/A
Delivery of services achieved – social, health and emergency services	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Increase in funds through rates, donations and taxes	Positive	Moderate	Local	Life of the Project	Likely	High	Enhancement	High-Very High
Successful engagement with local and regional planning processes	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Development of effective links to local government programs	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High
Potential increase in candidates/staff due to population increases and new skills	Positive	Minor	Local	Life of the Project	Likely	Medium	Enhancement	High
Primary Infrastructure and Access								
Negative								
Potential for spills, releases, fires or explosions causing safety hazards to communities	Negative	Major	Regional	Life of the Project	Rare	High	Mitigation	Medium
Increased road use – associated safety issues and maintenance - Capricorn Highway	Negative	Moderate	Local	Feasibility	Almost Certain	Medium	Mitigation	Low – Medium
		Major	Local	Construction	Almost Certain	Very High	Mitigation	High – Very High
		Moderate	Local	Operation	Almost Certain	Medium	Mitigation	Medium - High

Appendix B

Potential Impact	Impact Category	Magnitude	Geographic Context	Duration	Frequency	Impact Ranking	Mitigation/ Enhancement	Residual Ranking
Potential increase to use of airport	Negative	Insignificant	Local	Life of the Project	Unlikely	Low	N/A	N/A
Increased air traffic	Negative	Minor	Local	Life of the Project	Possible	Low	N/A	N/A
Increased road use and associated safety and maintenance issues – Alpha–Clermont Road	Negative	Moderate	Local	Life of the Project	Likely	High	Mitigation	Medium – High
Potential for spills, releases, fires or explosions causing safety hazards to communities	Negative	Major	Local	Life of the Project	Rare	High	Mitigation	Medium
Positive								
Increased access - Alpha–Clermont Road	Positive	Minor	Local	Life of the Project	Almost Certain	Medium	Enhancement	High
Potential electricity, water and sewerage upgrades	Positive	Insignificant	Local	Beyond the Project	Unlikely	Low	N/A	N/A
Increased access to Alpha	Positive	Insignificant	Local	Beyond the Project	Unlikely	Low	N/A	N/A
Improved telecommunications	Positive	Moderate	Local	Life of the Project	Possible	Medium	Enhancement	High

Appendix C A.104.2 Socio-Economic Indexes for Areas – Background

The information contained in this sub-section (background) is sourced from the ABS – Socio-Economic Indexes for Areas (SEIFA) – Technical Paper 2006 (ABS, Catalogue no. 2039.0.55.001).

The ABS first produced a measure of relative socio-economic disadvantage following the 1971 Census. SEIFA in its present form began as five indexes produced from the 1986 Census. The number of indexes was reduced to four in SEIFA 2001, when the Urban Index of Relative Socio-economic Advantage and the Rural Index of Relative Socio-economic Advantage and Disadvantage were replaced with a single index. SEIFA 2006 is a set of four indexes:

- The Index of Relative Socio-economic Disadvantage;
- The Index of Relative Socio-economic Advantage and Disadvantage;
- The Index of Education and Occupation; and
- The Index of Economic Resources.

The Index of Relative Disadvantage, using indicators of low socio-economic wellbeing, provides a general measure of disadvantage. The Index of Relative Advantage and Disadvantage extends this measure to encompass the entire socio-economic spectrum. The Index of Education and Occupation focuses specifically on the educational and occupational aspects of socio-economic status. The Index of Economic Resources focuses specifically on financial aspects of relative advantage and disadvantage.

SEIFA indexes are assigned to areas, not to individuals. They indicate the collective socio-economic status of the people living in an area. A relatively disadvantaged area is likely to have a high proportion of relatively disadvantaged people. However, such an area is also likely to contain people who are not disadvantaged, as well as people who are relatively advantaged. When area level indexes are used as proxy measures of individual level socio-economic status, many people are likely to be misclassified. This is known as the ecological fallacy.

Baker and Adhikari (2007) investigated the potential for misuse of SEIFA to lead to an ecological fallacy. They created experimental socio-economic indexes for individuals and families, using variables from the 2001 Index of Relative Disadvantage. When individuals' indexes were compared to the index for the area in which they lived, there were significant discrepancies. They concluded that using SEIFA as an individual or family level measure led to a high risk of ecological fallacy.

As measures of socio-economic level, the indexes are ordinal. They can be used to rank areas, but cannot be used to measure the size of the difference in socio-economic level between areas. For example:

- We cannot infer that an area with an Index of Relative Disadvantage value of 500 is twice as disadvantaged as an area with an index value of 1,000; and
- The difference in relative socio-economic disadvantage between two areas with values of 900 and 1,000 is not necessarily the same as the difference between two areas with values of 1,000 and 1,100.

We recommend using the indexes to group areas into quantiles (e.g. deciles), then using these quantiles as the basis for analysis, rather than using the index scores.

Appendix C

Each index is constructed based on a weighted average of selected variables. The indexes are dependent on the set of variables chosen for the analysis. A different set of underlying variables would result in a different index. At the same time, because of the large number of variables in each index, removing or altering one variable will not usually have a large effect. Each variable set was selected based on our notion of relative socio-economic advantage/disadvantage or the particular aspect of socio-economic status for that index (e.g. economic resources). The list of potential variables was constrained by what was available from Census.

Users should consider the aspect of socio-economic status, in which they are interested, and examine the underlying set variables in each index. This will allow them to make an informed decision on whether a SEIFA index is appropriate for their particular purpose.

SEIFA is designed to compare the relative socio-economic status of areas at a given point in time, not to compare individual areas across time. We do not recommend performing analysis which aims to compare change in socio-economic conditions using SEIFA indexes from different Census years. The reasons why we do not advocate this type of longitudinal analysis include:

- The constituent variables and variable weights for the index are likely to have changed;
- The boundaries of the relevant small area(s) may have changed;
- The distribution of the standardised index values will have changed (e.g. a score of 800 does not represent the same level of disadvantage in different years); and
- The 2006 indexes are calculated using the characteristics of an area's usual residents, rather than those of the people in the area on Census Night (as was done in previous editions of SEIFA).

The Index of Relative Socio-economic Disadvantage summarises variables that indicate relative disadvantage at the small area level. The index is designed to focus on disadvantage only. A low score on this index indicates a high proportion of relatively disadvantaged people in an area. We cannot conclude that an area with a very high score has a large proportion of relatively advantaged ('well off') people, as there are no variables in the index to indicate this. We can only conclude that such an area has a relatively low incidence of disadvantage.

The Index of Relative Socio-economic Advantage and Disadvantage summarises variables that indicate either relative advantage or disadvantage. This index can be used to measure socio-economic wellbeing in a continuum, from the most disadvantaged areas to the most advantaged areas.

An area with a high score on this index has a relatively high incidence of advantage and a relatively low incidence of disadvantage. Due to the differences in scope between this index and the Index of Relative Disadvantage, the scores of some areas can vary significantly between the two indexes. For example, consider a large area that has parts containing relatively disadvantaged people, and other parts containing relatively advantaged people. This area may have a low Index of Relative Disadvantage, due to its pockets of disadvantage. However, its Index of Relative Advantage and Disadvantage may be moderate, or even above average, because the pockets of advantage may offset the pockets of disadvantage.

The Index of Economic Resources summarises variables relating to the financial aspects of relative socio-economic advantage and disadvantage. These include indicators of high and low income, as well as variables that correlate with high or low wealth.

Areas with higher scores have relatively greater access to economic resources than areas with lower scores. Note that because of the new variables introduced to improve the wealth aspect of the index,

as well as the use of equivalised household income, the 2006 Index of Economic Resources is not comparable with its 2001 predecessor.

The Index of Education and Occupation summarises variables relating exclusively to education, employment and occupation. This index focuses on the skills of the people in an area, both formal qualifications and the skills required to perform different occupations.

A low score indicates that an area has a high proportion of people without qualifications, without jobs, and/or with low skilled jobs. A high score indicates many people with high qualifications and/or highly skilled jobs.

The SEIFA variables can be categorised into the following broad socio-economic dimensions:

- Income variables;
- Education variables;
- Employment variables;
- Occupation variables;
- Housing variables; and
- Other indicators of relative advantage or disadvantage.

For more information on SEIFA refer to the technical paper or ABS downloads.



URS Australia Pty Ltd
Level 17, 240 Queen Street
Brisbane, QLD 4000
GPO Box 302, QLD 4001
Australia

T: 61 7 3243 2111

F: 61 7 3243 2199

www.ap.urscorp.com