

ENVIRONMENTAL IMPACT STATEMENT

RED HILL
MINING LEASE

Section 18
Social Impact Assessment

Section 18 Social Impact Assessment

18.1 Introduction

BHP Billiton Mitsubishi Alliance (BMA), through its joint venture manager, BM Alliance Coal Operations Pty Ltd, proposes to convert the existing Red Hill Mining Lease Application (MLA) 70421 to enable the continuation of existing mining operations associated with the Goonyella Riverside and Broadmeadow (GRB) mine complex.

This chapter presents the findings of social impact assessment (SIA) undertaken for the project Environmental Impact Statement (EIS).

Additional information is provided in **Appendix P**.

18.2 The Project

The proposed project is located adjacent to the existing GRB mine complex in the Bowen Basin, approximately 20 kilometres north of Moranbah and 135 kilometres south-west of Mackay, Queensland. The location of the project in context with BMA's assets is shown in **Figure 18–1**. The project is located in the Isaac Regional Council (IRC) Local Government Area (LGA).

The key objectives of the project are to:

- utilise BMA-owned land on the GRB mine complex mining leases to minimise the environmental impacts from additional infrastructure and to provide project efficiencies;
- maximise resource recovery and sustain existing operations;
- operate a profitable project to provide high-quality hard coking coal to the export market; and
- design, construct and operate a project that minimises adverse impacts on the social environment; complies with all relevant statutory obligations; and continues to improve processes which enhance sound environmental management, including the social environment.

The project includes the following components:

- An extension of three longwall panels (14, 15 and 16) of the existing Broadmeadow Underground Mine (BRM). Key aspects include:
 - No new mining infrastructure is proposed other than infrastructure required for drainage of incidental mine gas (IMG) to enable safe and efficient mining.
 - Management of waste and water produced from drainage of IMG will be integrated with the existing BRM waste and water management systems.
 - The mining of the Broadmeadow extension is to sustain existing production rates of the BRM and will extend the life of mine by approximately one year.
 - The existing BRM workforce will complete all work associated with the extension.
- A future incremental expansion option of the existing Goonyella Riverside Mine (GRM). Key aspects include:
 - underground mining associated with the Red Hill Mine (RHM) underground expansion option to target the Goonyella Middle Seam (GMS) on mining lease (ML) 1763;

- a new mine industrial area (MIA);
 - a coal handling and preparation plant (CHPP) adjacent to the Riverside MIA on MLA1764 and ML1900 – the Red Hill CHPP will consist of up to three 1,200 tonne per hour modules;
 - construction of a drift for mine access;
 - a conveyor system linking RHM to the Red Hill CHPP;
 - associated coal handling infrastructure and stockpiles;
 - a new conveyor linking product coal stockpiles to a new rail load-out facility located on ML1900; and
 - means for providing flood protection to the mine access and MIA, potentially requiring a levee along the west bank of the Isaac River.
- A future RHM underground expansion option located to the east of the GRB mine complex to target the GMS on MLA70421, key aspects include:
 - a network of bores and associated surface infrastructure over the underground mine footprint for IMG pre-drainage and management of goaf methane drainage to enable the safe extraction of coal;
 - the proposed mine layout consists of a main drive extending approximately west to east with longwall panels ranging to the north and south;
 - a ventilation system for the underground workings;
 - a bridge across the Isaac River for all-weather access. This will be located above the main headings, and will also provide a crossing point for other mine related infrastructure including water pipelines and power supply; and
 - a new accommodation village (Red Hill accommodation village) for the up to 100 per cent remote construction and operational workforces with capacity for up to 3,000 workers.

The three key project elements described above are collectively referred to as ‘the project’.

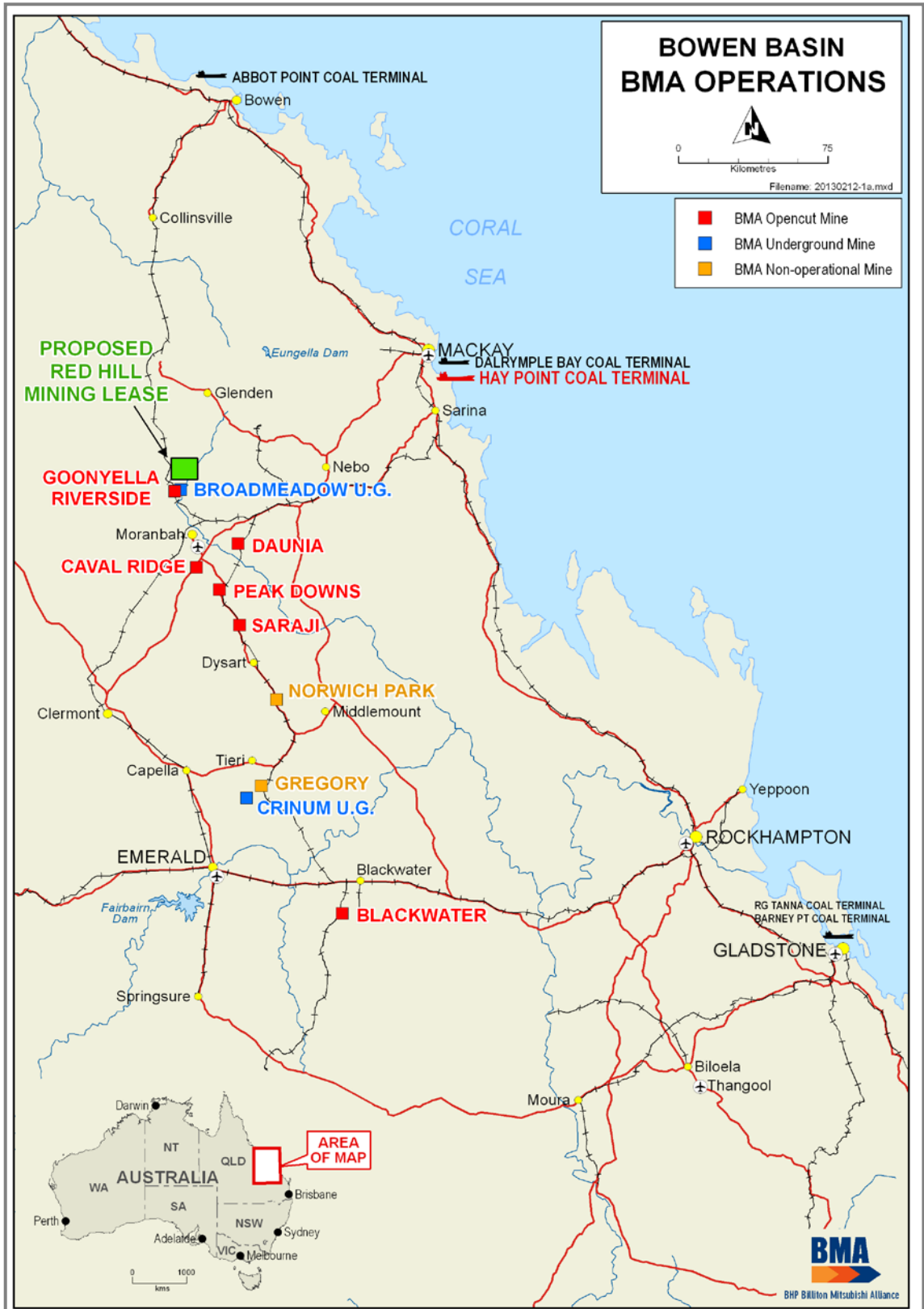
Figure 18-1 illustrates the location and layout of the proposed project.

The potential impacts associated with the BRM panel extensions are confined to incremental surface impacts associated with mining during Financial Years 2016 and 2017. Apart from the extension of employment periods for existing staff, which is a positive impact for population stability and income security, the BRM component is not expected to result in any social impacts or opportunities of significance to the local or regional community.

This SIA therefore focuses on the GRM incremental expansion and the RHM underground expansion option.

The timing for commencement, the rate of development and scale of future production for GRM incremental expansion and RHM underground expansion option are subject to the owners’ capital investment approval. For the purposes of impact assessment, a scenario has been developed which assumes the commencement of construction in 2020, and commencement of operations in 2022 for the GRM incremental expansion and RHM underground expansion option.

Figure 18-1 BMA Bowen Basin Operations



18.3 Workforce

18.3.1 Construction

The GRM incremental expansion and the RHM underground expansion option have the potential to employ up to 2,000 construction employees. BMA will contract the construction of the CHPP, MIA, drift and supporting infrastructure, plant and equipment including buildings, conveyors and roads to construction contractors. The construction stage will involve site preparation, civil works, building the MIA, CHPP construction, and construction of the workforce accommodation village.

Mine construction and operational hours within the GRB complex are currently 24 hours a day, seven days a week, 365 days a year. The proposed RHM would maintain the same hours of operation for construction and operation.

18.3.2 Operation

The potential capacity of the extended complex (GRB and RHM) would be up to approximately 32.5 mtpa during the years when the GRB mine complex and RHM are both operating.

The GRM incremental expansion and the RHM underground expansion option have the potential to employ up to 1,500 operational employees. This includes 500 employees per operating long wall, approximately 450 intermittent staff to support shut-down and long wall moves, and 50 employees for the new CHPP. The estimated workforce numbers presume a greenfield expansion option is undertaken, and do not account for potential synergies with existing operations.

The workforce is to be comprised of up to 100 per cent remote workers. Workforce availability will be evaluated prior to construction, to ensure the workforce recruitment strategy avoids social impacts and maximises opportunities for social and economic benefits at local, regional and State level.

18.4 Accommodation

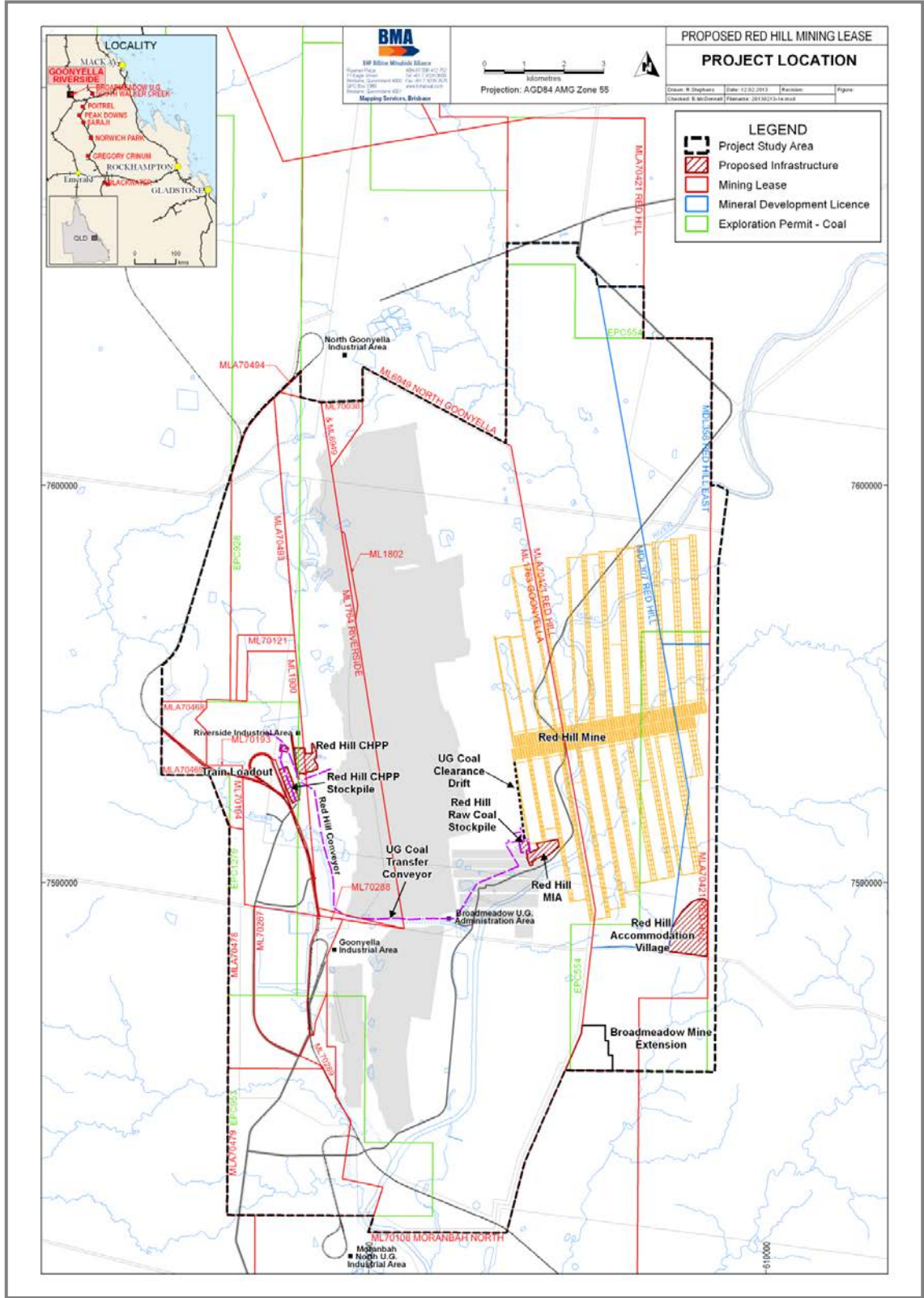
A new accommodation village, to be known as the Red Hill accommodation village, is proposed to be located on the mining lease (MLA70421). The accommodation village would accommodate both the construction workforce and operational workers. The location of the proposed Red Hill accommodation village is shown in **Figure 18–2**.

The ultimate capacity of the accommodation village will be determined by the rate and scale of future development sanctioned by the owners. A village with accommodation for 3,000 workers is proposed to account for a peak workforce arising out of a potential overlap between construction and operations.

A village of up to 3,000 accommodation units will require a range of management and monitoring strategies to avoid impacts on the Moranbah community and local infrastructure. These are described in **Section 18.11**, and detailed in **Appendix P**. They include:

- workforce health and support services;
- a Workforce Code of Conduct;
- an Accommodation Village Management Plan;
- engagement with community members to anticipate and avoid impacts on community values; and
- BMA's investment in community development in Moranbah and the region.

Figure 18-2 Red Hill Mine Project Location and Layout Scope for Assessment



BMA will arrange air transport and/or bus transport for remote workers both during construction and operations, and all transport between the mine site and the Red Hill accommodation village. Operating with an up to 100 per cent remote workforce will limit the number of vehicles travelling principally between Moranbah and the mine site.

18.5 SIA Methodology

This SIA defines and assesses likely social impacts and opportunities, based on an understanding of:

- the existing local and regional social environment;
- requirements specified in the EIS Terms of Reference and Queensland Government policies;
- plans for location, design, staging, workforce management and project management;
- the likelihood of effects on local and regional social conditions; and
- how the proponent will work with other stakeholders to enhance social and economic vitality.

The assessment focuses on the impacts and opportunities which are of moderate to high risk, in the context of BMA's existing commitments and practices for mine development and management, and recognising existing local, State and industry initiatives.

The assessment considered existing initiatives and project strategies before determining the likely significance of social impacts and opportunities. Significance was assessed, having regard to:

- the stages (construction or operation) when an impact or opportunity could occur;
- existing and likely future conditions, and vulnerability to change as the result of development, including the GRM incremental expansion and the RHM underground expansion option; and
- the range of potential impacts identified as relevant to construction, operations or both.

The likelihood of impacts and opportunities occurring was also assessed, considering:

- stakeholders' input, including their experience with previous projects;
- assessment of similar project's impacts;
- BMA strategies and specific strategies for the GRM incremental expansion and the RHM expansion option designed to avoid or mitigate impacts;
- existing local and State Government commitments to address social impacts and maximise opportunities from mining projects;
- the consequence of the impact or opportunity, according to the Queensland Government Social Impact Assessment Guideline consequence table; and
- the potential consequences for social values and indicators.

Where impacts of moderate to high significance were identified, additional mitigation and enhancement strategies are provided.

Mitigation strategies are detailed in **Sections 18.12 to 18.19**. Opportunities to link with local and State initiatives are identified in respect to maximising positive social outcomes. This includes how BMA will work with communities, councils, the Queensland Government and industry stakeholders to maximise social outcomes.

Given policy, plans, and local and State initiatives may have changed substantially by the time construction commences, there are some constraints in aligning BMA strategies to specific initiatives. As such, BMA will consult State agencies and IRC about current initiatives prior to finalising its training and stakeholder engagement plans for construction.

Impacts and mitigations are summarised in **Section 18.20** along with the social monitoring framework.

Additional information on the methodology is detailed in **Appendix P**.

18.6 Cumulative Impacts

The number, size and location of major projects being constructed or operated in the region generally provide the basis for forecasting cumulative social impacts. For the scenario assessed, construction is assumed to commence in 2020. It is therefore difficult to define, with accuracy, the number or location of major projects whose construction or operation will coincide with this project under the scenario assessed.

The key determinant of cumulative social impacts in the Moranbah and Isaac regional context is the number of and demographic characteristics of additional people, including non-resident workers, in the region as a result of major projects. This affects:

- population characteristics (e.g. the total number of people in the region);
- the labour force (e.g. employment duration, opportunities and supply issues);
- housing (e.g. demand associated with the project); and
- impacts on community values or social indicators.

As such assessment of cumulative impacts has been based on the effect of the project's workforce on the number of residents and non-residents in the IRC LGA during its construction and operational phases, as described in **Section 18.19**.

18.7 Stakeholder Inputs

The project is located adjacent to the existing GRB mine complex in the Bowen Basin, approximately 20 kilometres north of Moranbah and 135 kilometres south-west of Mackay and is located in the IRC LGA.

The study area for the SIA therefore includes the Moranbah State Suburb (as defined by the Australian Bureau of Statistics) and the IRC LGA. Baseline and assessment data are also provided for the Mackay, Isaac and Whitsunday (MIW) Region where relevant. The study area is described in detail in **Appendix P**.

Stakeholders in this study area include:

- directly affected land holders and potentially affected neighbouring land holders;
- community members, businesses and organisations in Moranbah;
- IRC; and
- local, regional and state agencies and organisations that plan for or service the MIW region.

The scope of assessment has been guided by the results of consultation with stakeholders in the Moranbah area and related regions. BMA undertook extensive consultation in the Moranbah and MIW region during 2011-12, in regards to a number of growth projects then proposed. This included specific consultation as part of assessing potential for development of the future RHM. Given cyclical changes in resource development and a number of other factors, the findings of 2011/12 consultation were tested for relevancy and validity in this SIA process. A summary of the key findings of BMA's consultation in 2011/12 and where they are considered in the assessment are shown in **Table 18-1**.

Table 18-1 Stakeholder Inputs BMA 2011/12 Consultation

Issue	Stakeholder input	SIA Technical Report Section
Community values	Some stakeholders believed the growing use of remote workforces would lead to a decreased feeling of community in Moranbah, prompting residents to leave the region. These concerns were based on a perception that non-resident workers may not have the same respect for Moranbah and the region as locals do, and that remote workforces may negatively affect local participation in activities such as volunteerism and sport.	18.3.4
Health and emergency services	Stakeholders identified that health and emergency services in Moranbah and the greater Isaac and Mackay regions were already under pressure. This was due to services responding to the needs of a larger population base than they were resourced for. As such they were concerned the increased remote workforce could aggravate the problem.	18.3.6
Remote workforce arrangements	Remote workers increase draw down on already at-capacity health and emergency services, at a local and regional level. Community cohesion and perception of community safety are declining with the increase in non-resident workers. Some stakeholders recognised the need for remote workers to fulfil long-term growth plans.	18.3.6
Housing and/or accommodation affordability	Housing costs were discouraging families from settling, and making it difficult for businesses and services to attract and retain workers. (This is likely to have changed with the recent significant decrease in rental prices). Stakeholders were concerned that the lack of affordable housing leads to overcrowded, communal homes which impact community safety. This was not attributed directly to BMA but is part of the cumulative context.	18.3.6
	The growth of mining in Bowen Basin had increased demand for rental and permanent accommodation for mine workers in the region, reducing the availability of accommodation for families and permanent residents.	18.3.6
Accommodation villages	Most stakeholders felt the use of workforce accommodation villages for all staff and contractors helps to decrease housing stress in Moranbah, however some stakeholders raised concerns about village locations and management, and the potential increase in demand on local health and emergency services.	18.3.8
Workforce behaviour	Some stakeholders had negative experiences with non-resident workers misbehaving in public places and/or showing disrespect to local staff. Stakeholders suggested enforcement of behaviour standards and induction processes needed to be implemented by the owners to manage the potential for such incidents.	18.3.6

Issue	Stakeholder input	SIA Technical Report Section
Community safety	Some stakeholders felt the increasing number of non-resident workers in Moranbah negatively impacts the 'family feel' of the township, including community perceptions of safety and security. Others felt remote workforces were, or were perceived to be, contributing to an increase in alcohol and drug incidents in the community.	18.3.6
Dissatisfaction with government investment level	Some stakeholders voiced dissatisfaction with various levels of government and their delivery of social infrastructure and services to Moranbah. They also said there was a misconception in government that the majority of people residing in the Moranbah region were earning high wages, and therefore not requiring resourcing and / or funding for various social services	N/A

Key issues identified in BMA's most recent regular consultation include:

- development of more diverse and affordable housing;
- increasing the capacity of Moranbah's medical services; and
- improving environmental outcomes in Moranbah, such as air quality.

Stakeholder inputs have been considered throughout the assessment.

18.8 Assumptions and Limitations

This assessment was conducted during an environment of some change, including:

- a recent restructure of Australian Statistical Geographies;
- application of new guidelines, policies and processes for social and environmental impact assessment in Queensland;
- a recent industry-wide contraction in mining activities; and
- significant decreases in housing prices across the Bowen Basin.

Given the economic environment, timing for delivery of the GRM incremental expansion and the RHM underground expansion option is not certain. For the purposes of impact assessment, a scenario has been developed which assumes the commencement of construction in 2020 and commencement of operations in 2022. The timeframes provided in the project scenario are for assessment purposes only and do not reflect a commitment by the project owners to proceed with the project. As such, the assessment is based on existing conditions, population projections, and known social trends.

The assessment also assumes that:

- the project proceeds within the timeframes assumed for the scenario assessed;
- there will be no alteration from the current project description sufficient to negatively change social conditions;
- both construction and operation workforces are engaged as an up to 100 per cent remote workforce; and
- all visitors including contractors, subcontractors, and consultants, will stay in the purpose-built accommodation village while on site.

18.9 Social Baseline

Appendix P provides a detailed description of the EIS study area’s social baseline by documenting the social environment, social conditions and local and regional values. It includes:

- planning context, including local, State government and industry initiatives;
- settlement pattern and social land uses;
- community values and history;
- demographic characteristics and projections;
- community health and wellbeing;
- social infrastructure; and
- housing and accommodation.

Social values and conditions identified through consultation, research and analysis are summarised in **Table 18-2**, along with an estimation of their current status (at June 2013).

Table 18-2 Baseline Indicators of Local and Regional Settlement Patterns

Social condition / value	Status
SETTLEMENT PATTERNS	
Properties near the project site	Two properties (one landowner) directly affected by RHM underground expansion option and the Broadmeadow panel extensions.
	Five properties potentially indirectly affected (adjacent to or within 10 kilometres).
Local land owner values	Existing uses in the immediate area include grazing and rural uses. Social values include homes, businesses (principally grazing) and family heritage.
Local and regional settlement patterns	Mining activity has existed in this region for more than 40 years. Local connector roads are heavily trafficked and in poor condition in places.
	Moranbah Airport was recently upgraded.
SOCIAL AND CULTURAL VALUES	
Indigenous values	Key issues include securing opportunities for Indigenous business development, and training and employment opportunities. Concerns raised in consultation about potential for erosion and subsidence to impact on native flora and fauna or places of cultural heritage.
Local and regional values	Local and regional values centred on families, school communities, community participation and events, recreation, and employment in mining and related industries.
Community participation	Community participation has been affected by mining shift rosters and volunteer resources have declined in the past 3-5 years.
DEMOGRAPHIC CHARACTERISTICS	
Population size and growth	Moranbah's resident population in 2011 was 8,990, non-resident population of ~4,585 contributing to an overall FTE population of 13,575.

Social condition / value	Status
Gender diversity	Moranbah's 2011 resident population was 55.49 per cent male and 45.51 per cent female (4,988 males).
Vulnerable Groups	Likely vulnerable population groups in the area include Indigenous people, women and children.
COMMUNITY HEALTH AND SAFETY CHARACTERISTICS	
Cost of living	In 2010 the cost of living as defined by the 'basket of goods' index in Moranbah was 13.9 per cent above Brisbane. Average incomes in Moranbah were above the Queensland average in 2011 and this is expected to be maintained.
Advantage and disadvantage	2011 Socio-Economic Indices for Areas (SEIFA) indicates higher than average levels of socio-economic advantage (in the 8th decile) in Moranbah.
Health indicators	Belyando Shire (2010) compared to other former shires in the Isaac LGA had lower self-assessed health status of fair/poor, lower rates of delayed medical consultation, higher rates of unpaid voluntary work. Perceptions of safety walking alone after dark were modelled as higher in Broadsound and Nebo Shire compared with Belyando Shire.
Community safety	Community concern expressed about violence and community safety in Moranbah during 2013. Community members' concerns include road safety, in town and on local connector roads. Crime data indicate no worsening of crime in Moranbah over the past five years, and a decline in some offence rates. Local emergency service capacity for responses to multi-vehicle accidents, bus accidents or air traffic accidents is less than optimal.
TRAINING, EMPLOYMENT AND LOCAL BUSINESS	
Education and training	A range of local and regional training organisations are available to support increased training and capacity development initiatives. Moranbah includes 3 primary schools, 1 high school and continues to have unmet demand for childcare services.
Opportunities for local businesses	Community concerns exist that commute workforces don't spend locally to the same extent as resident workers. BMA Local Buying Program has increased local supply options.
Labour force	Workforce participation in the Moranbah area is high, particularly for men.
Employment diversity and other characteristics	Lower rates of overall educational attainment, female labour force participation and occupational diversity in Moranbah.
Skill shortages	The number of occupations in shortage nationally was at its lowest since 2007 at last report in 2012. Major shortages still exist for technicians and trades workers and machinery operators and drivers which are prevalent occupations in Moranbah and Isaac LGA. Moranbah businesses have difficulty attracting and keeping workers in all occupational areas due to the higher salaries available in the mines.

Social condition / value	Status
SOCIAL INFRASTRUCTURE AND SERVICES	
Health Services and Facilities	<p>Moranbah Hospital has limited capacity to meet the demand of non-resident workers.</p> <p>GP services in Moranbah currently have adequate capacity but will need to recruit additional doctors to keep up with any increases in non-resident workforce demand.</p> <p>BMA has an existing service arrangement with a local medical firm.</p>
Police, Emergency Services and Justice	<p>Moranbah and Isaac region's emergency services have limited capacity to service their geographic region, as staffing levels are generally calculated on the resident population, and non-resident workers may increase the load by up to 50 per cent.</p>
Community and Civic Services	<p>Moranbah's community and civic services such as counselling, financial counselling and referral to support services have limited capacity for an increased population, but services report negligible demands from non-resident workers.</p>
Recreation and Cultural Facilities	<p>Moranbah has a good level of recreational facilities.</p> <p>The cumulative increase in non-local residents has resulted in some increases in demands for sporting fields and some concerns about behaviour at sporting events.</p>
HOUSING	
Housing availability and purchase costs	<p>Housing affordability is a key concern creating pressure on low income families, young families and non-mining businesses seeking workers.</p> <p>At the time of assessment, Moranbah rental housing prices were above state and regional averages, but significantly more affordable than in the previous three years.</p> <p>Rental prices for all housing types in Moranbah as at March 2013 were clustered in a band from \$450 to \$650/week.</p> <p>Moranbah's housing market is likely to experience ongoing fluctuations along with changes in mining growth plans.</p>
Dwelling structure and occupancy trends	<p>Stakeholders have raised concerns that the lack of affordable housing in Moranbah leads to overcrowded, communal workers' homes, which impact on neighbourhood amenity and community safety.</p>

18.9.1 Impacts, Opportunities and Mitigations

This section summarises the likely social impacts of the GRM incremental expansion and the RHM expansion option and proposes appropriate mitigation strategies, and identifies opportunities and strategies to enhance potential benefits. It describes, for each key social factor specified in the ToR:

- potential impacts and opportunities;
- relevant local, regional and State initiatives;
- BMA's relevant existing strategies and management practices;
- the likelihood of the impact or opportunity occurring;
- project-specific mitigations indicated; and
- the desired social outcomes.

18.10 Regional Planning Outcomes

The project's contributions to local and regional planning outcomes are detailed in **Appendix P** (Section 3.1), and include:

- a contribution to the longevity of mining as a key regional strength;
- contributions to community development programs, social and recreational infrastructure and community events;
- avoidance of impacts or constraints on residential or commercial land, and on local character;
- synergies achieved through the project's location with respect to infrastructure provision (e.g. water and electricity); and
- a contribution to cumulative demand for transportation, health services and emergency services.

18.11 BMA Strategies

BMA has a well developed set of corporate programs as detailed in **Appendix P**, which include:

- community development programs, co-operation with local communities and industry partners, the Five Year Communities Strategy, and significant community investments;
- economic development, BMA's Local Buying program and support for a range of training initiatives;
- Indigenous engagement, through the Indigenous Engagement Strategy, Indigenous training and recruitment, cultural heritage management, and Indigenous Business Development;
- workforce development strategies, at local, regional and state level; and
- support for local values, including the Workforce Code of Conduct, Matched Giving and volunteer programs, participation in local sporting and cultural events, and complaints procedures.

BMA also has a comprehensive community and stakeholder engagement program, ranging from regular formal meetings with the IRC, to the Moranbah BMA Community Network (BCN), and a range of interactions between BMA Community Liaison officers, individuals, and groups.

As the SIA is based on a project scenario which assumes the commencement of construction in 2020 and commencement of operations in 2022, it is anticipated that some current policies, initiatives and strategies will change over time. The status of local, State and BMA initiatives, and of the social baseline, will need to be reviewed prior to construction, in order to adapt mitigation strategies to current circumstances as discussed in following sections.

Existing BMA strategies designed to avoid or mitigate impacts of BMA projects are outlined below. Specific strategies to mitigate social impacts and maximise opportunities are outlined in each section as relevant, and summarised in **Section 18.20**.

18.11.1 Workforce Development

BMA undertakes a number of strategies to strengthen the skills base and availability of labour for project construction and operations. BMA's current strategies include school and industry based training partnerships across the Bowen Basin, structured training through traineeships and apprenticeships, and strategies to increase employment opportunities for Indigenous people in BMA

operations. BMA is also facilitating training and trade qualifications for local young people through its support for the Coalfields Training Excellence Centre (CTEC) in Moranbah.

For the construction phase, an engineering, procurement and construction management (EPCM) contractor is likely to be appointed and will coordinate across construction contractors to manage the demand for tradespeople over the course of construction. To facilitate opportunities for training and employment of local people, the EPCM contractor is likely to require liaison with Construction Skills Queensland and the Department of Education Training and Employment.

For operations, BMA will co-ordinate direct employment of apprentices and trainees. As an indication, BMA currently has 49 apprentices and 22 traineeships across the Bowen Basin, many of whom are recruited locally.

BMA is also committed to ensuring all aspects of workplace diversity are addressed throughout operations, including:

- ensuring the workforce is representative of the gender, ethnicity, abilities and age of communities;
- ensuring the workforce has a wide range of experience, capability, beliefs and perspectives that influence the organisation; and
- providing equal opportunity, where everyone is encouraged to be the best they can be, and recognised for it.

BMA's Employment Diversity strategy applies to BMA's new projects. Prior to commencement of construction, BMA will establish targets for female and Indigenous workforce participation. BMA would also commit to undertaking training and recruitment strategies to significantly increase the number of workers who are new entrants to coal mining.

18.11.2 Accommodation Village

BMA will develop the Red Hill accommodation village as part of the RHM expansion option to avoid local housing impacts. Rooms will be made available for all BMA and contracted workers. An Accommodation Village Management Plan (AVMP) will be finalised prior to village operation, and will include:

- workforce well-being and facility provision;
- engagement with local services including Queensland Police Service, Fire and Rescue and Ambulance Services;
- management of behaviour in the accommodation villages;
- gender and cultural issues; and
- the complaints management procedure.

The accommodation village will also support BMA's commitment to maintaining the health and well-being of its workers and contractors' workers. Health facilities and service provision for all persons accommodated by BMA in relation to the project will include access to a health clinic, gyms, outdoor recreation space, and social meeting places, Employee Assistance Program for counselling and emotional health issues, and regular health promotion programs.

18.11.3 Workforce Management

BMA's Workplace Conduct Policy requires all workers to treat others in the workplace with courtesy, dignity and respect, both at work and outside of work. The Workplace Conduct Policy provides clear guidelines to follow concerning conduct. Recruitment of workers will occur across a range of age, gender and other groups to promote balance and positive behaviour amongst the workforce.

Expectations of behaviour in town, and respect for local values, will be made explicit in on-boarding and induction programs for the project. Compliance with the EPCM's 'Work Rules' (for construction, outlining expectations of behaviour) and BMA's Workplace Conduct Policy (for operations) will be required. Workers demonstrating behaviour that does not comply with the company requirements will face disciplinary action in line with the terms of their employment.

BMA will ensure both workers and local residents are aware of commitment to respect local values. Strategies for both construction and operations include:

- providing induction training and a welcome pack to workers, including locals, the importance of respecting Moranbah as a family-friendly town and expected standards of behaviour; and
- providing information to the local community about BMA's expected standards of behaviour, and access to its complaints mechanism.

18.11.4 BMA's Local Buying Program (BLBP)

BMA has committed to the Queensland Resource and Energy Sector Code of Practice for Local Content 2013, administered by the Queensland Resources Council.

BMA's Local Buying Program (BLBP) is a targeted program providing opportunities for small businesses to competitively supply goods and services to BMA and BMC throughout the Bowen Basin. As noted in **Appendix P** Section 3.4.3, the large majority (93.9%) of businesses in the Isaac region employ less than 20 staff.

BLBP targets businesses with less than 25 full-time employees, registered or operating as their primary place of business in the townships of Moranbah, Dysart, Blackwater, Emerald and Nebo. Further detailed information is available at <http://c-res.com.au>. In partnership with the Mackay Whitsunday Regional Economic Development Corporation (REDC), BMA has also developed, C-Res (Community Resourcing) to support delivery of BLBP.

The BLBP results from the first 12 months (to mid 2013) include:

- more than 300 approved C-Res Suppliers (of whom 190 are new suppliers to BMA/BMC);
- more than 830 work opportunities made available to local businesses;
- \$12.38M worth of approved work packages; and
- more than \$170,000 allocated to the Local Buying Community Foundation.

18.11.5 Community Development Strategy

BMA's Community Development Strategy includes current BMA community support activities and proposed further activities for 2011-2016. The Strategy's current focus is on strengthening the social resources including:

- quality education and training, employment choice, and adequate incomes;
- community, recreational and health facilities which support personal and family health;
- community cohesion, including shared values and positive community relations; and
- a healthy environment and good public amenity.

BMA's Community Development Program (reviewed annually) includes a Community Partnership Program (CPP) that supports regional community programs, with current priorities including youth development, economic development, community development and welfare, community safety, sport, wellbeing and recreation, and cultural development.

Strategies are developed for five-year terms, so the 2017-2021 strategy will include engagement and social investment projects that address current social conditions, and are relevant to the project's potential impacts and opportunities.

18.11.6 Community Safety

Community safety is a core value for BMA, and is addressed through:

- workforce management;
- accommodation village rules and management;
- co-operation with local Police services;
- the complaints process;
- support for community development initiatives; and
- monitoring, with the BCN and police.

18.12 Settlement Patterns

18.12.1 Directly Affected Properties

The social baseline identified one land owner directly affected by the project. BMA's consultation with the land owner indicates that the proximity of project operations and the Red Hill accommodation village to homesteads is a concern, as are the impacts of project construction and operations on grazing activities, the potential impacts of subsidence on homesteads and general property, and the potential for increased noise and litter.

BMA is committed to good faith engagement and negotiation with directly affected land owners in accordance with the relevant legislation and the Queensland Government's Land Access Code (2010). BMA is in discussions with the directly affected landholder to either acquire or access the properties long-term. If the land owner chooses to sell their property, they would likely experience a

sense of disruption, loss and the stress of re-establishing elsewhere, however the terms of the settlement would support them in doing so.

The effect of transforming the land use from grazing to mining is not considered significant in terms of broader land use and settlement patterns.

In the context of existing policy and practice commitments by Queensland Government and BMA, the impacts that remain of or above a medium likelihood and significant consequence include:

- interruption of land management, business and livelihood (including on-farm employment); and
- potential displacement and loss of social / family connectivity.

Table 18–3 outlines the existing government and BMA strategies in place to address impacts to directly affected properties.

Table 18-3 Existing Policies and Commitments

Local/State Policy Initiatives	BMA Strategies	EIS Strategies
Land Access Code 2010 <i>Land Act 1994</i> <i>Environmental Protection Act 1997</i>	Stakeholder and Community Engagement Plan BMA monitors and mitigates noise and land use impacts through existing noise and environmental management plans	Noise Management Plan Air Quality Management Plan

Mitigation strategies for social impacts include:

- Compliance with the Land Access Code, including land access and acquisition agreements which ensure land owners’ needs and expectations are considered.
- Regular communication with the land owner regarding construction plans and potential impacts, the effectiveness of mitigation strategies (e.g. dust management), and resolution of any complaints.

Recognising the likelihood of impacts, it is recommended that baseline conditions are documented as part of land access or acquisition negotiations, including:

- the extent of property management and business operations (including livelihood of owners and on-farm employers); and
- individual land owner concerns regarding potential displacement and loss of social/ family connectivity.

The desired social outcome if these impacts are effectively managed through construction and operations will involve reaching a satisfactory, mutual agreement with land owners for the project’s terms of land access or acquisition. This outcome will require regular, ongoing and transparent engagement between BMA and directly affected land owners.

18.12.2 Properties Nearest the Project Site

Two privately-owned and occupied dwellings are identified within 10 kilometres of the project. These properties represent value as homes and temporary workers’ accommodation, as businesses (principally grazing), places of family heritage, and as places of family recreation and quiet enjoyment.

Adjacent landholders to the Project have expressed concern regarding the impact of dust and other windblown particulate contaminants, increased vehicular traffic and associated impacts on access to key markets areas for cattle (e.g. Rockhampton).

BMA's existing strategies with respect to avoiding impacts on nearby properties are summarised in **Table 18-4**.

Table 18-4 Existing Policies and Commitments - Residential Amenity

Local/State Policy Initiatives	BMA Strategies	EIS Strategies
EP Act	Multi-site dust monitoring program Overarching stakeholder and community engagement mechanisms	Stakeholder and Community Engagement Plan Air Quality Management Plan Noise Management Plan Road Use Management Plan Traffic Management Plan

The social impacts evaluated above are of medium likelihood and significant consequence and in the context of BMA's existing commitments include potential for increased traffic, noise or dust, to affect amenity, as discussed in relevant sections of the EIS.

Mitigation strategies for social impacts include:

- Regular communication with adjacent land owners regarding construction plans, potential impacts, the effectiveness of mitigation strategies (and resolution of any complaints).
- Project-specific road use and traffic management strategies to effectively manage potential disruptions.

The desired social outcome is no worsening of existing environmental conditions. This includes the current level of traffic safety, and community and stakeholder satisfaction with the information provided by BMA with respect to potential impacts of the project, such as aspects of individual land use and amenity; mitigation strategies (e.g. traffic or dust management); and resolution of any complaints. This outcome will require regular, ongoing engagement between BMA and adjacent land owners.

18.12.3 Regional Settlement

Grazing and the cultivation of good quality agricultural land occurs in a number of areas in and around Moranbah and Isaac LGA, including on privately-owned properties north of the EIS study area. Direct impacts are expected on only two properties (owned by one landholder), and this is not seen as significant in terms of changes to regional settlement patterns.

Local and regional roads in the EIS study area, including Peak Downs Highway, Suttor Development Road, Moranbah Access Road and Goonyella Road, are already heavily trafficked and in poor condition in places. Potential for an increase in traffic and any associated safety issues is discussed in **Appendix N**.

Alternative transport options include travel by air via Moranbah Airport, which has recently been upgraded by BMA to support capacity for an increased commuter workforce.

Table 18–5 outlines existing policy and commitments by Queensland Government and BMA in relation to local and regional settlement conditions.

Table 18-5 Existing Policies and Commitments - Regional Settlement Pattern

Local/State Policy Initiatives	BMA Strategies	EIS Strategies
Royalties for Regions to support infrastructure and economic growth of regions. Regional and Resource Town Action Plan for short-term initiatives	Moranbah Airport	Road Use and Traffic Management Plan Project-specific road use and traffic management strategies to effectively manage potential disruptions

There is a medium likelihood of short-term changes to existing road and air traffic conditions, including:

- potential increase to air transport demand at Moranbah Airport, in the context of its upgraded capacity;
- demand and supply issues for airport facilities at workers’ origins, where QantasLink, Virgin and other suppliers will plan services in accordance; and
- potential impacts to road conditions and/ or residents’ access and safe use of the Goonyella Access Road and Peak Downs Highway.

It is anticipated that BMA communication and engagement activities with local residents, road users and commercial engagement with airport facility staff and service providers, will provide all stakeholders with substantial capacity to effectively adapt and cope with temporary changes.

Mitigation strategies for social impacts include:

- consultation and commercial negotiations with managers of air services in advance of construction commencing to ensure capacity is adequate with no negative impacts on the travelling public; and
- regular communication with local residents and possible users of road and air transport regarding project timing, potential changes to current conditions, targeted mitigation strategies (e.g. road diversions, closures and traffic control), and resolution of any complaints.

Where impacts are effectively anticipated and managed through construction, the desired social outcomes will include:

- a well-informed local and regional community regarding changes to road use and demonstrable community adaptation to road use or traffic management alternatives employed as per BMA’s Road Use Management Plan and Traffic Management Plan; and
- an airport service capacity that sustains the demand of the GRM incremental expansion and the RHM underground expansion option commuting workforce during construction.

Progress toward and achievement of desired social outcomes will be monitored annually during construction and for the first two years of mine operations.

18.13 Social and Cultural Values

18.13.1 Indigenous Values

Indigenous values are described in detail in the **Section 18.13.1**, as are potential impacts to cultural heritage values. BMA and representatives of the Barada Barna and Wiri Core traditional owner groups are in regular discussion regarding the use and values of land in the Moranbah region.

Opportunities for Indigenous engagement and employment are discussed in **Section 18.16** and include:

- opportunity to increase Indigenous workforce capacity and BMA workforce diversity; and
- opportunity for Indigenous businesses in the region to benefit from supplying goods and services for the project.

The social outcomes will include:

- increased project employment uptake by Indigenous personnel (locally or regionally-based); and
- increased participation of Indigenous business in BLBP and supply opportunities for the GRM incremental expansion and the RHM underground expansion option.

18.13.2 Local and Regional Values

The values, lifestyle and dynamics of Moranbah and Isaac region are centred on family, schools, community participation and sport. Connections between neighbours, workmates and family communities are strong, and the town has an active social life with frequent community events, and cultural and sporting activities throughout the year. Moranbah holds its family-friendly nature as central to local character.

The local and regional community has experienced and interacted with mining activities for over 40 years, and values the contributions made by the industry. However some community members are concerned by increased remote working options, and fear that local values will decline because workers are no longer invested in local communities, either socially or economically.

Moranbah being a small and closely connected town, the presence of large numbers of strangers affects the perception of community safety.

Housing affordability is another key local value. The proposed up to 100 per cent remote workforce is unlikely to affect housing affordability, given the commitment to accommodate all non-local workers in accommodation villages.

With respect to regional values, the key potential impact is the increase in employment options for people in the Mackay, Isaac and Whitsunday regions, along with opportunities for workers in other Queensland regions. There is also likely to be an increase in demand for mining industry products and services in the local and regional areas, which would be a welcome uplift for the local economy.

Table 18-6 outlines existing policy and commitments by the Queensland Government and BMA in relation to current local and regional values. Existing strategies and commitments to support community values are outlined below.

Table 18-6 Existing Policies and Commitments - Local and Regional Values

Local/State Policy Initiatives	BMA Strategies	EIS Strategies
RART Action Plan Royalties for Regions Queensland Police Services consideration of the need for increased resources and/or flexible delivery models to address population fluctuations and increased non-resident worker numbers	Workforce Code of Conduct BMA Community Development Strategy Regular engagement with IRC Moranbah-BCN consultation BLBP	Accommodation village provision for non-local workers Worker transport provision and discouragement of private vehicle use

In this context, the following impacts and opportunities have been identified as significant:

- potential for an increased number (up to 2,000 at peak) and percentage of non-resident workers compared to residents to impact community perceptions of community safety and belonging;
- potential for anti-social behaviour from project workers (addressed in **Section 18.15**); and
- cumulative issues (such as non-resident workers from multiple projects inundating events or public places).

Mitigation strategies for social impacts include:

- BMA’s Workforce Code of Conduct and local values induction materials, to manage workforce behaviour and encourage respect and integration with existing community values;
- the Red Hill Accommodation Village Management Plan, which will outline objectives and practices to ensure a safe and attractive environment for workers, along with support for positive interactions between the workforce and community members (e.g. sporting and volunteering activities);
- engagement with Queensland Police Service (QPS) to monitor any changes to community safety issues and statistics;
- ongoing support for school programs which encourage young people’s resilience, positive role modelling and community safety initiatives;
- the Stakeholder and Community Engagement Plan including complaints management, monitoring and reporting; and
- discussion with other industry representatives to encourage consistent high standards of behaviour for all projects’ workforces.

The desired outcome of mitigation strategies for local community values is to align with existing BMA strategies including:

- the integration of local values in workforce culture, behaviour and practice;
- well-informed stakeholders regarding the range of BMA strategies in place to address their concerns; and
- stakeholders do not attribute a decline in existing regional community values, such as character, amenity, safety, or social capital to the GRM incremental expansion and the RHM underground expansion option.

18.14 Demographic Characteristics

18.14.1 Population Size and Growth

In 2011, Moranbah's resident population was 8,990 with a non-resident population (NRP) of approximately 4,585 people, contributing to an overall full time equivalent (FTE) population of 13,575.

According to OESR's Series A population projections, the non-resident population of the Isaac Region LGA is likely to remain relatively stable at around 17,200 between June 2012 and 2013, including 4,585 people (or 26.7 per cent of Isaac's NRP) in the Moranbah area. Under Series A, Isaac's non-resident workforce is expected to decline to 14,920 by 2019. Under Series B, there would be approximately 15,460 non-resident workers by 2019. As an average, this assessment has assumed a non-resident population in the Isaac region of 15,300 in 2020, around the time construction could commence, of which around 4,085 (26 per cent) may be in the Moranbah area.

With an estimated average of 1,000 construction workers over a two-year construction period, the workforce is assumed to represent an increase of around 20 per cent in the non-resident workforce in the Moranbah region. Assuming a resident population of 12,000 people in Moranbah by 2020, this would represent an approximate increase of 6.25 per cent in the FTE population over the two-year period.

Moranbah's resident population is projected to approach 14,000 people in 2026. If non-resident worker numbers otherwise remain steady at 4,085 workers, an estimated operational workforce of 1,500 is expected to represent an increase of approximately 36 per cent in the non-resident workforce in the Moranbah area, and 8 per cent of the FTE population.

These forecasts represent the highest possible impact scenario, i.e. an average of 1,000 construction workers over two years, and an operational workforce of 1,500 people. There is a range of other scenarios, such as a change in other non-resident workforce numbers, different rates of population growth, and staging (with lower workforce numbers). As such, these modelling results should be considered indicative, and should be revisited (with the OESR and Isaac Council) prior to construction commencing, so that appropriate local and State responses can be planned if required.

The key issue with respect to population impacts is the need for industry stakeholders to work with local and State Government representatives in forecasting potential population changes so that government services can be planned commensurate with growth, and industry stakeholders can adopt consistent standards for behavioural management and interactions between workers and the local community.

Table 18–7 outlines existing policy and commitments by Queensland Government and BMA to respond to and manage population growth in the region.

Table 18-7 Existing Policies and Commitments - Demographic Characteristics

Local/State Policy Initiatives	BMA Strategies	EIS Strategies
Regional and Resource Town Action Plan Royalties for Regions	Workforce Diversity strategies Accommodation Village Community Development Strategy	Not required

It is intended the Red Hill accommodation village largely absorb most workforce demands on recreation, health and support services. Social impacts as a result of the potential contribution to FTE population increases include:

- increased gender disparity (addressed in **Section 18.14.2**);
- increased potential for anti-social behaviour to affect community values and lifestyle and increase in perceived risk to personal and community safety (addressed in **Section 18.15**); and
- increased demand and stress on social infrastructure such as hospital services and emergency services (addressed in **Section 18.17**).

Increased employment of women, including supervisors and managers through BMA's employment diversity strategies, is known to improve workforce culture.

There are also likely to be links between industry priorities (for safe, liveable local communities), the Regional and Resource Town Action Plan, and Royalties for Regions initiatives in the Isaac LGA, and opportunities for industry to support Moranbah's economic growth and infrastructure needs may be addressed through partnership between BMA, other industry partners and the IRC.

The desired outcomes of an effectively managed and mitigated FTE population increase include:

- The Red Hill accommodation village largely absorbing any impacts from the increase in FTE population, including adequate facilities and services to mitigate local and essential service demand.
- Adverse social impacts are mitigated through targeted measures that address key aspects such as community cohesion and essential service demand, in co-operation with local and regional agencies.

18.14.2 Gender Diversity

Moranbah's 2011 resident population was 45.51 per cent female and 55.49 per cent male. With the GRM incremental expansion and the RHM expansion option contributing a small increase in FTE population during both construction and operations, it will also contribute to increased gender disparity in the Moranbah area.

A construction workforce made up of approximately 90% males would see an increase in the total male population of around 1,800 at peak construction. However the majority of workforce activity will be on the work site or in the accommodation village, and assuming behavioural issues are well managed (see **Table 18-8**), impacts on social values are not expected.

Remote workforce recruitment allows for a larger and more diverse applicant pool which creates an opportunity for significant diversity outcomes for the operational workforce. Prior to the commencement of construction, BMA will establish targets for female and Indigenous workforce participation. BMA would also commit to undertaking training and recruitment strategies to significantly increase the number of workers who are new entrants to coal mining.

BMA's strategies for enhancing gender diversity and managing workforce behaviour are presented in **Table 18-8**.

Table 18-8 Existing Policies and Commitments - Gender Diversity

Local/State Policy Initiatives	BMA Strategies	EIS Strategies
Not applicable	BMA Diversity Strategy Workforce Code of Conduct Communication with Council, emergency services and other stakeholders	Red Hill accommodation village Accommodation Village Management Plan

It is expected that any impacts and risks of increased gender diversity can be managed through BMA's existing standards for operations, with the addition of support for community initiatives (though the Community Development Strategy) that deliver safe and active community participation programs for women. Where diversity, participation and support strategies are effectively implemented, the social outcomes will include:

- effects of increased male FTE population substantially absorbed by the Red Hill accommodation village; and
- increased percentage of female employees in operations.

18.14.3 Vulnerable Groups

The demographic and social characteristics of Moranbah and Isaac LGA indicate that likely vulnerable population groups in the area include Indigenous people, women and children. The GRM incremental expansion and the RHM expansion option create an opportunity to increase workforce diversity and female participation rates as discussed in **Section 18.11.1**.

The community identifies the effects of large, predominantly male workforces on children and young people with respect to role modelling (e.g. poor behaviour in public) and concerns about women's safety due to larger numbers of unknown men around the community. These issues are addressed in **Section 18.11**, including a recommendation for the Project to strongly enforce the code of conduct, and enforce the withdrawal of accommodation rights to any non-local worker reliably reported to have affected perceptions of public safety.

In the context of the strategies and commitments outlined the desired social outcomes for vulnerable groups include:

- increased numbers of female and Indigenous employees;
- increased diversity of participation programs and increased female participation; and
- well-informed stakeholders regarding BMA programs for children and young people in Moranbah.

18.15 Community Health and Safety

18.15.1 Community Health and Wellbeing

Community health and wellbeing concerns raised during consultation in 2012 focused on the increase of non-resident workers adversely affecting local service demand, decline in support for volunteer services, and demand on local General Practitioners (GPs) and the hospital displacing local residents' needs. It appears unlikely that the GRM incremental expansion and RHM underground expansion

option will accelerate the decline in volunteering. The decline in availability of GPs has substantially been addressed and other impacts on health services are addressed in **Section 18.17.2**.

Existing operations at the GRB mine complex make some contributions to baseline conditions for air quality and dust. The potential for the GRM incremental expansion and RHM underground expansion option to adversely affect air quality and the health of residents within the affected area is addressed in **Section 11** of the EIS.

In terms of other health and wellbeing indicators, Moranbah and Isaac LGA indicate sustained economic activity, employment, income and skills development opportunities resulting from the mining industry. The project will contribute to sustaining and the continued enhancement of these indicators at a regional and state level, however the effects may not be measurable due to the diffuse nature of the effect and the interplay of other factors in the region.

The project will also contribute to sustaining and enhancing opportunities for mining-related service industries and businesses in Moranbah (discussed further in **Section 18.16.2**) and therefore potentially to local and regional economic and social wellbeing. Existing commitments that protect or enable better community health are described in **Table 18-9**.

Table 18-9 Existing Policies and Commitments - Community Health and Wellbeing

Local/State Initiatives	BMA Strategies	EIS Strategies
Contribution to improved health services in Dysart (reducing impacts on Moranbah services)	Workforce Code of Conduct Engagement with IRC; Moranbah BCN BMA Diversity Strategy Indigenous Relations Plan BLBP Community Development Strategy	Air Quality Management Plan Red Hill accommodation village

The social impacts evaluated as of or above a medium likelihood and significant consequence in the context of BMA's existing commitments include:

- enhanced health and wellbeing opportunities experienced at regional and state level; and
- potential impacts to other health and wellbeing factors (community connectedness, access to services, and perceptions of personal and community safety) as addressed in relevant sections of this SIA.

Mitigation and enhancement strategies addressing community health and wellbeing include:

- project-specific air quality management plans;
- equal employment and procurement opportunities at local, regional and State level;
- targeted programs for positive behaviour and community development; and
- regular engagement with IRC and Moranbah BCN to monitor and address changes to community health and wellbeing indicators.

The desired social outcome if opportunities to enhance community health and wellbeing are realised include:

- community and stakeholder satisfaction with BMA's level of information provision, engagement and targeted initiatives in addressing aspects of community health and wellbeing, as gauged through a six-monthly monitoring program with the Moranbah BCN;
- baseline rates of economic activity, income and employment are sustained or enhanced; and
- opportunities for skills development and lifelong learning among vulnerable groups (Indigenous, women and young people) are increased.

18.15.2 Advantage and Disadvantage

The Socio-Economic Indices for Areas (SEIFA Index) of Relative Socio-economic Advantage and Disadvantage (2011) indicates higher than average levels of socio-economic advantage (in the 8th decile) in Moranbah. However, the Index of Education and Occupation in Moranbah was substantially lower (in the 4th decile) indicating lower overall educational attainment, post-school qualification levels, female labour force participation and occupational diversity.

The non-resident population of Moranbah is not counted as part of the SEIFA indices, however the demographic factors which would influence SEIFA at the local level are unlikely to change.

Proposed employment may increase income levels, however this is only one factor in the index, and as workers are likely to be drawn from various centres in Queensland, measurable effects on advantage are not likely.

The expected social outcome is the retention of mining as a key local and regional socio-economic strength, contributing to socio-economic advantage. It may also offer an increase in employment opportunities for women in the region, but is otherwise not expected to change the Index of Education and Occupation index rating.

18.15.3 Cost of Living

In 2010, the cost of living in Moranbah was 13.9 per cent above Brisbane. Average individual and household incomes in Moranbah were more double than the Queensland average in 2011 (see **Appendix P** Section 4.4.2) which offsets costs for those on higher incomes.

Housing prices in Moranbah have decreased since 2010, however food, energy and transport costs have increased across Queensland. Regional towns often experience higher costs than coastal centres due to transport costs, lack of competition and, in mining towns, capacity within the community to pay higher prices. Moranbah is likely to continue to have a higher cost of living than Brisbane based on these factors. In recognition of higher costs of living, BMA subsidises housing for its workforce, so that housing costs are reduced to approximately \$70/week.

The GRM incremental expansion and RHM underground expansion option are not expected to increase the cost of living in Moranbah.

18.15.4 Community Safety

Stakeholder consultation in 2012 revealed concerns that the increasing number of non-resident workers in Moranbah negatively impacts the ‘family feel’ of the township, including community perceptions of safety and security.

Five year trend data indicates Moranbah’s rate of offences against people and other offences peaked in 2007/08, while offences against property peaked in 2010/11. Offence rates in Moranbah were generally trending down in 2011/12 to rates lower than in 2007/08. This has been during a period that saw non-resident workforce numbers in Isaac LGA increase from approximately 9,380 in 2008 to approximately 17,125 in 2012. As such, there does not appear to be clear evidence that the increase in non-resident workers has negatively affected the rate of offending in the Moranbah/Isaac area.

Other community safety concerns raised in consultation related to road safety, both in town and on local connector roads. Existing constraints on police resourcing and emergency service capacity also have a strong influence on local community safety, and are addressed in **Section 18.17.3**.

Table 18–10 outlines BMA’s existing policy and commitments to community safety. In this context, the following impacts have been identified:

- the number of people in an area may increase the likelihood of offences or anti-social behaviour occurring, particularly if positive behaviour and respect for local values are not strictly enforced;
- the risk that the cumulative impacts of non-resident workers from a variety of projects and operations will decrease levels of safety in Moranbah, dependent on consistent standards of workforce management, and sufficiency of Police resources; and
- an increase in the number of buses and trucks in the area, in the context of emergency services’ current strained capacity, may require a corollary increase in the capacity of emergency services. The risk of decreased traffic safety in the Moranbah area has been assessed in **Section 14** of the EIS.

Table 18-10 Existing Policies and Commitments - Community Safety

Local/State Government Initiatives	BMA Strategies	EIS Strategies
Monitoring of need for increased or more flexible resources to assist emergency services and Police to respond to large numbers of non-resident workers	Emergency Management Protocols Fatigue Management Plans Workforce Code of Conduct Alcohol and drug policies Stakeholder and community engagement, including: <ul style="list-style-type: none"> • Regular engagement with IRC; and • Moranbah-BCN consultation 	Stakeholder and Community Engagement Plan Provision of bus transport between the airport, job site and accommodation village to decrease congestion and the potential for small vehicle accidents.

Mitigation strategies to address community safety issues include:

- workforce behaviour management through plans as described in **Section 18.11.3**;
- inclusion of local values in workforce induction material, and ongoing enforcement of expected standards of behaviour;

- ongoing working relationship with QPS and other emergency services to implement the co-developed Emergency Response and Management Protocol;
- explore co-training and engagement opportunities to strengthen local emergency response capacity; and
- develop targeted strategies as required for training, positive behaviour-modelling and road safety needs.

The desired social outcome will be achieved where BMA protocols are effectively enforced and targeted mitigation strategies developed in consultation with QPS, IRC and emergency services. The improved social outcomes will manifest as negligible safety incidents or community safety complaints attributed to the project.

18.16 Employment and Economic Development

18.16.1 Indigenous Engagement

Strategies for Indigenous business participation currently being implemented or in planning include:

- working with Indigenous people in the region to identify their needs and aspirations in relation to employment;
- setting a target for Indigenous employment in operations for the GRM incremental expansion and the RHM underground expansion option;
- identifying appropriate training programs in consultation with Indigenous people; and
- rolling out the Indigenous pre-employment training and trainee employment initiative across the business

As part of its Indigenous Relations Plan, BMA will also develop initiatives aimed at increasing Indigenous businesses' participation in BMA's operations. These include:

- developing an awareness program with Indigenous stakeholders to outline the process for tender based contracts;
- working with Indigenous people of Central Queensland, and elsewhere, to identify opportunities to supply BMA operations directly, or in collaboration with other business and industry; and
- supporting a three year Indigenous community development program with Central Highlands Regional Council, which is intended to enhance capacity, community strengths and positive relationships within the Indigenous and wider communities.

Positive impacts will include:

- increased opportunities for Indigenous employment in underground mining;
- increased Indigenous workforce skills levels; and
- supply opportunities for Indigenous businesses.

18.16.2 Opportunities for Local Business

Community concerns exist regarding the need for population growth to support business growth and diversification. These concerns were reinforced in recent media releases by IRC regarding the project and the opportunity it represents for local employment and for transport, goods and service industries.

The BLBP provides opportunities for small businesses to competitively supply goods and services to BMA. BLBP supports the Queensland Resources and Energy Sector Code of Practice for Local Content (2013) which offers guidance for further refinements and access to details of key supplier and buyer government programs.

Table 18–11 outlines the existing policies and commitments by state government and BMA to local content. The BLBP is discussed in detail in **Appendix P**. The general trade of non-resident workers (e.g. accessing local shops or the hotel) is likely to provide a small stimulus to the local economy, which may result in increased local business trade, and potentially increased employment.

Table 18-11 Existing Policies and Commitments - Local Business

Local/State Policy Initiatives	BMA Strategies	EIS Strategies
Endorsement of Queensland Resources and Energy Sector Code of Practice for Local Content 2013	BMA Local Buying Program Indigenous Relations Plan	Support for Queensland Resources and Energy Sector Code of Practice for Local Content 2013 through BLBP

The desired social outcome of BMA's well-established and successful Local Buying Program will involve:

- locally-awarded contracts, demonstrated through existing BMA public reporting of quarterly local buying activities for its northern Bowen Basin projects; and
- decreased feedback received regarding adverse impacts to local or regional business operations as a result of remote workforce effects.

Given timing for the delivery of the GRM incremental expansion and the RHM underground expansion option is uncertain, it is recommended that 12 months prior to construction, BMA engage with the Queensland Resources Council regarding the BLBP to ensure these established mechanisms remain aligned with Code of Practice for Local Content.

18.16.3 Skill Shortages

Findings from the social baseline assessment confirm workforce participation rates in Moranbah are high. At last report in 2012 (DEEWR), national occupation shortages were also at their lowest since 2007. Major shortages continue to include technicians and trades workers and machinery operators and drivers. These are prevalent occupations in Moranbah and Isaac LGA due to the concentration of mining industry activity. Moranbah businesses have expressed difficulty attracting and retaining workers in all occupational areas due to the higher salaries available in the mines.

Table 18–12 outlines the strategies employed by BMA in response to national skill shortages in technical areas of high need for its current operations and projects in the northern Bowen Basin.

In this context, the proposal to draw up to 100 per cent of the labour from other centres will have the following benefits:

- lower rates of labour draw locally, presenting opportunities for local business and service industries to attract and retain local employees; and
- equal opportunity for the employment of skilled labour from local or regional settings.

Table 18-12 Existing Policies and Commitments - Skills development

Local/State Policy Initiatives	BMA Strategies	EIS Strategies
Great skills. Real opportunities. Solid partners Solid futures Women in Resources Strategy	Support for Coalfields Training Excellence Centre Recruitment across Queensland regions Ongoing support for local businesses through BLBP	Recruitment of up to 100 per cent remote workforce

Given there are relatively few underground mines compared to open cut mines, the future RHM represents an opportunity to increase workforce participation and skills in underground mining. Should skills and labour shortages persist to 2020, training for RHM's workforce will need to focus on new entrants to mining, whereas the availability of labour could see re-training for underground mining as the opportunity.

BMA will assess skills availability for construction and operation 12 months prior to construction and two years prior to operations, to enable training and recruitment strategies to be established in time to resource the construction and operational activities.

It is recommended that, 12 months prior to construction, the owners develop a training supply strategy with a focus on:

- capacity development of training organisations that support mining and related service industries;
- increased training opportunities for young people, women and Indigenous people;
- co-operation with Department of Education, Training and Employment (DETE) training initiatives which address shortages in the mining and mining services industry; and
- lifelong learning and skill development programs that support workforce and employment diversity, including 'back-to-work' training support.

Given timing for the delivery of GRM incremental expansion and the RHM underground expansion option is uncertain, it is recommended that 12 months prior to construction, BMA engage with the DETE and registered training organisations to align BMA's training supply strategies with current policy objectives and initiatives.

The success of the training supply strategy will be realised through sustained or enhanced capacity of industry-related training organisations during construction and the first two years of operations. The desired social outcomes of these strategies are:

- no exacerbation of current skills shortages at local and regional level; and
- negligible draw on local businesses staff who may be attracted to mine work.

18.17 Social Infrastructure

This section examines potential impacts on social infrastructure, including facilities, services and networks. Impacts in this section are assessed in the context of an up to 100 per cent remote workforce, and provision of adequate social, health and recreational infrastructure within the Red Hill accommodation village. Additional notes on the adequacy of services and strategies which may be required are identified in the relevant sections below. Existing strategies and commitments are shown in **Table 18–13**.

Table 18-13 Existing Policies and Commitments – Social Infrastructure

Local/State Government Initiatives	BMA Strategies	EIS Strategies
RART and Royalties for Regions focus on improved social and health infrastructure in the Bowen Basin (e.g. funding or Dysart Medical centre)	Community Development Strategy, including investment in community facilities Community development projects and partnerships as identified through regular stakeholder engagement	Recruitment of up to 100 per cent remote workforce Provision of a range of recreational, health and support services within the Red Hill accommodation village

18.17.1 Education and Training

Demand for childcare and school services is unlikely to increase in Moranbah given the proposed up to 100 per cent remote workforce. Increased demand on public and private training providers is likely to be spread across Queensland regions. Many are private organisations and will appreciate the opportunity for extra supply. Strategies for increased training supply would need to focus on the capacities existing within the Isaac and MIW regions, if their turnover and opportunities for local people to access training opportunities are to be increased. It is recommended that BMA assess the capacity of local and regional training providers 12 months prior to construction to inform training supply.

18.17.2 Health Services and Facilities

Moranbah Hospital and GP services in the Isaac region have limited capacity to service the demands of Moranbah’s population, including non-resident workers’ demands on services. This has recently been addressed through a partnership between BMA, Moranbah medical centres, other industry proponents and local Medicare. Local doctors report there is currently adequate local capacity, and they plan to recruit additional staff to respond to growth.

Given a peak of 2,000 construction workers and 1,500 operational workers, increased demands on local health facilities (ambulance, GPs, Hospital and allied health) are expected. BMA’s construction workforce of up to 2,000 is expected to require the equivalent of access to one full-time doctor, as well as to allied health services. This demand may be moderated given workers may see their own doctors when off-shift.

Increased demand can be reduced through provision of on-site medical staff, or through collaborative arrangements for local service provision commensurate with the size of the workforce, relative to benchmarks for GPs per population. BMA is currently working with local medical service provider ER24 to provide paramedic and medical care to its local mine operations.

Given timing for the delivery of the GRM incremental expansion and the RHM underground expansion option is uncertain, it is recommended that 12 months prior to construction, BMA engage with local

medical providers, including Moranbah Hospital, local GPs and the Queensland Ambulance Service (QAS), to assess capacity for additional demand to be absorbed by local service provision arrangements. The capacity of health services will also require monitoring by the Queensland Government as part of its assessment of cumulative impacts, and as part of planning for regional population growth.

The desired social outcome for managing workforce demand on local health services is that non-resident workers' needs are addressed sufficiently to avoid any impact on residents' access to local medical and health services.

18.17.3 Police and Emergency Services

Moranbah and Isaac region's emergency services currently have limited capacity to service their geographic region and the FTE population. During consultation, regional police and ambulance officers noted constraints on resourcing in Moranbah, and the fact that permanent staff are not allocated or don't stay, leading to staff shortages. Local emergency service capacity for responses to multi-vehicle accidents, bus accidents or air traffic accidents is also less than optimal.

Table 18–14 outlines the strategies employed by BMA to manage demand on local and regional emergency services. In this context, it is expected that the impacts are of medium likelihood and consequences will include increased demand on QPS, QAS and QFRS in response to accommodation village call outs, traffic incidents, and wide load supervision.

This is part of a cumulative demand on police and emergency services due to non-residents workforces for a number of operations, and requires a government planning and resourcing response.

Table 18-14 Existing Policies and Commitments - Police and Emergency Services

Local/State Government Initiatives	BMA Strategies	Project specific mitigations
Monitoring of and response to cumulative impacts on police and emergency services	<ul style="list-style-type: none"> Stakeholder engagement mechanisms including regular engagement with QPS Existing cooperative engagement framework and emergency response protocols with QPS, QAS and RFB Workforce Code of Conduct Fatigue Management and co-developed Emergency Response Protocol Stakeholder Engagement and Communications Plan 	<ul style="list-style-type: none"> Road Use and Traffic Management Plans Accommodation Village Management Plan

The mitigation strategies required in respect to demands on police and emergency services include:

- the Accommodation Village Management Plan, which outlines behavioural standards, policies on alcohol and drug use in the village, and emergency response procedures;
- a commitment to engagement with local and regional police and emergency services, ahead of construction and operational commencement, including orientation to the Red Hill accommodation village and its emergency response procedures prior to the village's operation; and

- consultation on the Emergency Response Protocol, to ensure effective co-operation between Project staff and local services.

The desired social outcome is for appropriately managed demand on police and emergency services including good working relationships between the workforce and QPS, QAS and QFRS in Moranbah, and minimisation of demands on services as a result of on-site behavioural and safety management procedures.

18.17.4 Community and Civic Services

Moranbah's community and civic services such as counselling, financial counselling and referral to support services have limited capacity to service an increased population, however, support services report negligible demands from non-resident workers. BMA's existing Employee Assistance Program includes the provision of on-site counselling and employee wellbeing coordinators' services, which are expected to reduce impacts on civic and community services to negligible levels.

An opportunity exists to increase workforce participation in community volunteering and support initiatives if structured opportunities for such contributions are provided. Existing strategies that provide structured opportunities for community participation are addressed within BMA's Community Development Strategy. Where opportunities for increased community participation are realised, the social outcomes will be:

- no negative feedback regarding low community participation rates attributed to the GRM incremental expansion and RHM underground expansion option; and
- increased BMA reports of structured workforce / community participation events.

18.17.5 Recreation and Cultural Facilities

Moranbah has a good level of recreational facilities, with numerous sporting fields, club houses, and a recently upgraded aquatic centre. The cumulative increase in non-local residents has resulted in some increases in demands for sporting fields and some concerns about behaviour at sporting events, given the number of families who attend (e.g. football fixtures and rodeos). Strategies in place to address these concerns include:

- Red Hill accommodation village provision, including recreational facilities commensurate with the size of the village;
- local values induction material;
- Stakeholder Engagement Plan including complaints management, monitoring and reporting; and
- regular engagement with QPS and IRC regarding any impacts on facilities and services.

In this context, the impacts and opportunities of or above a medium likelihood and significant consequence are:

- potential impact on locals' enjoyment of sporting and recreational activities if workers do not behave appropriately; and
- potential increased pool of participants for local fixtures and competitions.

Strategies to address these impacts and opportunities include:

- the Workforce Code of Conduct;

- provision of recreational facilities within the Red Hill accommodation village; and
- provision and management of opportunities for scheduled sporting activities between town residents and workers during operations.

Assuming provision of adequate recreational facilities within the Red Hill accommodation village, and opportunities for workforce/community recreational activities are provided, the desired social outcome of no impact on locals' use and enjoyment of recreational facilities is likely to be met.

18.18 Housing

House prices (both rental and purchase) in Moranbah have generally been higher than comparators over the last ten years. At the time of assessment, Moranbah housing prices were above state and regional averages, but significantly more affordable than in the previous three years. Cost reductions are attributable to BMA's rent control policy instituted in 2011, a decrease in speculative housing purchase for rental, development of the BMA accommodation villages and the 2012 downturn in the coal industry.

In July 2013, BMA completed the construction of the 400th new employee home built during 2011-2013, reflecting BMA's commitment to ensuring its host communities are attractive places for employees to live and work. BMA has also recently contributed to the delivery of affordable housing in Dysart and Moranbah, through its contribution to the Isaac Affordable Housing Trust.

Stakeholders' key concerns as expressed in consultation were that the cumulative impacts of demands on local housing stocks by mining projects leads to decreased affordability, and overcrowded, communal workers' homes, which impact neighbourhood amenity and community safety.

Given provision of accommodation for all non-local workers including contractors, the GRM incremental expansion and the RHM underground expansion option are unlikely to exacerbate demand for housing or short-term accommodation.

Table 18–15 outlines the existing strategies of government and BMA to manage the availability and affordability of housing and rental accommodation.

Table 18-15 Existing Policies and Commitments - Housing

Local/State Policy Initiatives	BMA Strategies	EIS Strategies
IRC planning scheme in preparation to increase land availability Regional and Resource Town Action Plan priorities - development of the Belyando Estate	BMA Rent Control Policy BMA provision of housing for all residential workers	Red Hill accommodation village

Given the expansion in BMA's housing stocks of 400 dwellings in the Bowen Basin during 2011-13, plans by IRC to increase residential land availability, and the UDA's development of affordable housing in Moranbah, it is more likely that housing stocks in 2020 could absorb and adapt to any additional demand on housing from locally resident workers compared to conditions which have existed in recent years.

An evaluation of social impacts in this context finds:

- impacts on availability and affordability of housing supplies in Moranbah will be largely mitigated through accommodation provision for the workforce, including adequate accommodation village capacity and management planning; and
- increases in service staff (e.g. police) or business staff as a result of cumulative demands may require Council or Government consideration of housing development, dependent on the availability of housing stocks from 2020.

The social impacts and opportunities evaluated as of or above medium likelihood or significant consequence include:

- increases in local service staff (e.g. police) or business staff may require local or State Government consideration of cumulative housing demands, dependent on the availability of housing stocks from 2020.

Housing impacts and outcomes will be realised in a cumulative context rather than as a direct impact of the GRM incremental expansion and the RHM underground expansion option. As such, the desired social outcomes is for maintenance of at least current affordability levels (i.e. housing costs as a proportion of gross income) in Moranbah during the 2020-2022 period, which will require coordinated and cooperative responses from local and State Governments with resource companies.

18.19 Cumulative Impacts

The cumulative social impacts of mining activities on Moranbah and the Isaac region are mostly felt through an increased demand on physical and social infrastructure and services from an increased resident and non-resident population. There may also be increased demand for housing, goods and services from the MIW Region if workers in projects located within Isaac region (and the central Highlands region) relocate their families to the Mackay and Whitsunday regions.

The key determinant of cumulative social impacts in the Isaac regional context is the number and demographic characteristics of additional people, including non-resident workers, in the region as a result of major projects. The lead time between the project's EIS and potential construction of the largest component from around 2020, and current volatility in mining growth projections, makes it difficult to accurately define the number or location of major projects whose construction and/or operation will coincide with that of the GRM incremental expansion and the RHM underground expansion option.

This assessment of the GRM incremental expansion and RHM underground expansion option therefore bases prediction and evaluation of contribution to cumulative social impacts on the likely contribution to the total non-resident workforces and FTE population forecast in the Isaac region, based on OESR's current projections of non-resident numbers to 2019 (the latest currently available estimate).

OESR projections (calculated in 2011) estimate Isaac LGA's annual rate of growth at three per cent (OESR, 2011b), from a population of 23,277 in 2011 to 31,418 in 2021. On this basis the resident population of Isaac LGA (based on 2008 ASGC) is likely to be approximately 31,000 in 2020.

OESR's projections of non-resident workers are largely based on companies' estimations of workforces over time. Series A is based on the non-resident population on-shift in the area at June 2012. It includes non-resident workers associated with existing operations, as well as future projects

that have reached final investment decision (FID) and commenced construction. Series B includes Series A, plus the projected non-resident population growth from projects that have an EIS approved but have yet to reach FID. The number of non-resident workers on shift in the Isaac region was estimated (in early 2013) at 17,190 in 2013. This is currently expected to decrease to 14,920 in 2019 under Series A, or to 15,460 under Series B. The projections included an assumption that RHM would commence construction in 2018 with a small number of workers.

The construction workforce is assumed to build from a small workforce (a few hundred) in 2020 to a peak (potentially in 2021) of 2,000 workers. For the purpose of modelling cumulative impacts, an average of 1,000 construction workers has been assumed across the two year construction period. As such, the GRM incremental expansion and the RHM underground expansion option are assumed to represent some 6.5 per cent of the projected number of non-resident workers in the Isaac region during 2020-2021. Figures and timing are presented for modelling purposes and do not represent a commitment by BMA.

Operations are assumed to commence in 2022. Based on the OESR's projection of an average increase in Isaac LGA's population between 2021 and 2026 of 570, the resident population in 2022 could be assumed at approximately 31,989 people. Adding the number of non-residents, this would see a total FTE population of 46,980 people, if the number of non-residents workers remains constant at around 15,000 (the average of Series A and B projections for 2019). The estimated operational workforce of 1,500 is therefore expected to represent approximately 10 per cent of the Isaac region's non-resident population and approximately three per cent of the FTE population.

The contribution of the GRM incremental expansion and RHM underground expansion option to cumulative impacts is expected to consist of:

- a long-term increase in the FTE population of around two per cent from around 2022, declining as a percentage of the population if the Moranbah region's population continues to grow;
- a small increase in the percentage of males in the FTE population (see **Section 18.14.2**);
- an incremental increase in demand for police and emergency services in the Isaac region;
- an increase in demand for health and medical services if these are not delivered through existing partnerships with local providers;
- negligible impact on cumulative impacts on housing access and affordability in Moranbah; and
- potential increased road traffic (primarily buses and trucks) on the Goonyella Access Road, Moranbah Access Road and Peak Downs Highway (discussed in **Section 14** of the EIS).

BMA is currently active in a number of collaborative efforts to address cumulative impacts, including participation in the Moranbah Cumulative Impact Group, and establishing relationships and regular communication between construction and operations managers and local QPS, QAS and QFRS teams.

Cumulative impacts need to be addressed through collaboration between regional councils, State government agencies, resource companies and communities. Mitigation and monitoring of cumulative impacts will therefore require the involvement and coordination of multiple stakeholders.

The owners' commitment to identifying and monitoring cumulative impacts includes:

- prior to construction and operation, evaluate potential contributions to cumulative impacts in the context of social conditions and the number of other relevant projects at the time;

- consult with the IRC and Queensland Government about their plans to accommodate increased growth in the Moranbah and Isaac regions, to identify any potential collaborations; and
- continuing participation in cumulative social impacts forums and industry initiatives.

18.19.1 Impacts of Decommissioning

The modelling scenario for development of the GRM incremental expansion and the RHM underground expansion option provides for 25 years of operation. Decommissioning activities will include the removal and recycling (where practicable) of above ground infrastructure, site rehabilitation and remediating the site to applicable regulations and standards in place at that time.

It is possible that decommissioning will cause some community discomfort regarding loss of benefits accruing from the mine to the local and regional area. The GRM incremental expansion and the RHM underground expansion option are likely to be amongst several other projects operating in the area at the time of decommissioning, so it is also possible that its cessation will have little effect on local communities.

Local social conditions are likely to be substantially changed by the time decommissioning occurs, and it will be necessary to evaluate the potential impacts of decommissioning in the context of local and social conditions and government and BMA policy at the time.

Prior to decommissioning, BMA will consult with local communities regarding potential impacts, and identify strategies which will reduce or avoid social impacts. A management plan will need to be developed three to five years prior to expected decommissioning, addressing collaboration with key stakeholders as part of closure planning.

18.20 Impact Management and Monitoring

This section outlines BMA's approach to management of social impacts and opportunities, including stakeholder engagement. It also draws together the findings of previous sections, and outlines BMA's monitoring approach for the GRM incremental expansion and RHM underground expansion option.

18.20.1 Approach

The Queensland Government's Social Impact Assessment Guidelines include a focus on adaptive management. This is a learning-based method of managing impacts, which for SIA should include:

- developing strategies based on existing detailed knowledge of social conditions;
- focussing on the achievement of positive social outcomes;
- acknowledging uncertainties, and monitoring the effectiveness of strategies in achieving the desired outcomes; and
- changing mitigation strategies if required to ensure the outcomes are achieved.

This approach relies on ensuring the assessment is based on accurate baseline data, and monitoring (through data collection and stakeholder engagement) to ensure mitigations are effective. The following sections outline stakeholder engagement and the monitoring process which will ensure an effective approach to adaptive management.

18.20.2 Stakeholder Engagement

This assessment has identified a range of stakeholders at local, regional and state level who are involved in ensuring positive social outcomes as a result of mining and resource activity in the region. They include IRC, Queensland Government agencies in respect to regional planning, local infrastructure planning and Royalties for Regions, and businesses, community organisations and service providers at local and regional levels.

The assessment has also described BMA’s existing community engagement strategies, which aim to ensure BMA is involved in community development and cumulative impact responses. A detailed stakeholder engagement strategy will be developed prior to the commencement of construction, with engagement mechanisms to include:

- consultation and communication with adjacent land holders to identify and mitigate concerns;
- regular briefings to IRC on the schedule, progress, potential impacts and mitigations for the project, and identification of partnership opportunities to maximise social opportunities;
- consultation with the Moranbah BCN to evaluate current social conditions, and monitor potential impacts; and
- engagement with Queensland Government agencies, including:
 - QPS, QAS, the QFRS, and Queensland Health, to identify any potential impacts on local services and how they should be mitigated.
 - Department of State Development and Infrastructure Planning (DSDIP), and the DETE, to identify synergies and potential partnerships that progress regional and state agendas for social and economic development.
 - Provision of a complaints and feedback mechanism, which is promoted and accessible to all local stakeholders.

Stakeholders involved in planning, delivering or monitoring social impacts and opportunities are summarised for each social factor in **Table 18-16**. Specific activities will be undertaken as part of the stakeholder engagement strategy, and as part of reviewing social conditions potential impacts, and initiatives to maximise social outcomes, in the twelve months prior to construction.

Table 18-16 Stakeholder Engagement on Mitigation and Enhancement Strategies

Social factors	Key stakeholders
Local and regional planning outcomes	<ul style="list-style-type: none"> • DSDIP • IRC
Settlement patterns	<ul style="list-style-type: none"> • Directly affected and adjacent landholders • Local community and road users • QPS and QAS
Social and cultural values	<ul style="list-style-type: none"> • Workforce • Directly affected and adjacent landholders • BCN • IRC • QPS • Traditional Owner and Indigenous stakeholders

Social factors	Key stakeholders
Demographic characteristics	<ul style="list-style-type: none"> • DSDIP • OESR • IRC
Health and well being	<ul style="list-style-type: none"> • Workforce • IRC • QPS, QAS and RFB • Qld Health – Moranbah Hospital • Community Support Services – MDSS
Employment and Economic Development	<ul style="list-style-type: none"> • EDQ • IRC • Local and regional training / capacity building organisations • Local businesses
Social infrastructure and services	<ul style="list-style-type: none"> • IRC • QPS, QAS and RFB • Qld Health – Moranbah Hospital • Community Support Services – MDSS • BCN
Housing	<ul style="list-style-type: none"> • EDQ • IRC • Industry stakeholders

A number of the project-specific mitigation strategies include consultation as a core component. Recognising the time lag between current conditions and those at the commencement of construction, and to achieve an adaptive management approach, additional engagement strategies will be employed as outlined in **Table 18–17**.

Table 18-17 Engagement Strategies

Project Phase	Engagement Strategies
12 months prior to construction commencing	<ul style="list-style-type: none"> • Liaison with the OESR and DSDIP to confirm population estimates and any social vulnerabilities (such as high youth unemployment) in the local and regional areas; • Update affected land holders so they are aware of timing, mitigation strategies and how to communicate with the owners; • Consult with IRC and the Moranbah BCN to confirm the status of conditions such as housing access and service provision, and identify other issues, which are directly relevant to the GRM incremental expansion and RHM underground expansion option; • Recalibration of the social baseline, to ensure mitigation strategies can be monitored against current conditions, and identify any further stakeholders to be involved; • Identify any new potential impacts and opportunities, and the relevant stakeholders with whom BMA will cooperate to address new impacts (this may include for example the Royalties for Region’s program); and • Consult with Indigenous businesses in the MIW region about their capacity, supply opportunities and strategies to close the gap between business capacity and the need for supplies and services.
6 months prior to construction	<ul style="list-style-type: none"> • Consult with IRC and relevant state agencies to identify existing initiatives, local priorities and regional planning outcomes to be recognised in the execution of the GRM incremental expansion and the RHM underground expansion option; • Meet with QPS, QPS, QFRS and Hospital representatives to advise of the workforce build up and accommodation village plans, and develop cooperative and

Project Phase	Engagement Strategies
	<ul style="list-style-type: none"> proportionate responses to traffic management; and Provide information through the BLBP Community Foundation and local and regional business networks, advising of contracting and supply opportunities.
1 month prior to construction	<ul style="list-style-type: none"> Provide an update to IRC, state agencies and the Moranbah BCN on the commencement of construction, traffic management and communication mechanisms.
During construction	<ul style="list-style-type: none"> Meet regularly (e.g. quarterly) with IRC and the Moranbah BCN to provide update and monitor mitigations; Provide regular updates to community members on the construction and environmental management strategies; Maintain a complaints and feedback mechanism commensurate with BMA practice; Communicate with the QPS, to a schedule agreed with the Regional Superintendent, regarding traffic management, workforce numbers and emergency response procedures; and Provide information to local and regional businesses regarding the commencement of operations, and new supply and service opportunities arising.
One month prior to completion of construction	<ul style="list-style-type: none"> Advise IRC, Moranbah BCN, DSDIP and QPS of the upcoming commissioning; Engage stakeholders in reviewing social conditions and the effectiveness of mitigation strategies; and Identify new or amended mitigation strategies to manage the social impacts and opportunities of the operation; and
During operation	<ul style="list-style-type: none"> Engagement by BMAs Community Liaison Officers, who support operational projects through a range of information, engagement and development strategies; Communication with Council and the BCN to advise of any issues or strategies relevant to social conditions and community life during operations; and Maintain complaints and feedback mechanisms throughout the life of project activities.

18.20.3 Summary of Impacts and Mitigations

Table 18–18 to Table 18–24 summarise:

- the nature of significant social impacts and opportunities, and the phase in which they would occur;
- mitigation, management and enhancement strategies for each impact and opportunity, and the timing for each strategy; and
- the desired social outcomes and social indicators for each issue, as the basis of adaptive management and monitoring.

The monitoring strategy for construction and operation is outlined in **Section 18.20.5**.



Table 18-18 Settlement Patterns and Directly Affected Properties - Impacts, Opportunities and Mitigations

Phase	Impacts and Opportunities	Social mitigation and enhancement strategies	Timing	Desired Social Outcomes	Indicators
Cons and Ops	Interruption of business and on-farm activities	Compliance with the Land Access Code and Land Act provisions, including ensuring land owners' needs and expectations are considered.	12 months prior to construction	A satisfactory agreement with land owners for land access or acquisition.	Compliance with agreements.
	Loss of social / family connectivity	Regular communication with affected land owner regarding construction plans and potential impacts, and resolution of any complaints.			Landholder satisfaction with communication, and complaints rate.
Cons and Ops	Potential to contribute to declining amenity for land owners	Regular communication with adjacent land owners regarding construction plans, potential impacts, mitigation strategies and resolution of any complaints.	During construction and first two years of ops	Community and stakeholder satisfaction with the information provided by BMA with respect to: <ul style="list-style-type: none"> • upcoming construction plans; • potential impacts, mitigation strategies; and • resolution of any complaints. 	Community satisfaction with BMA strategies, as measured through complaints rate.
		Project-specific road use and traffic management strategies to effectively manage potential disruptions.			
Cons and Ops	Potential impacts to road conditions on Goonyella Access Road and Peak Downs Highway	Regular communication with local residents and users of road and air transport regarding timing, potential changes to current conditions, mitigation strategies (e.g. traffic control), and resolution of any complaints.	12 months prior to construction	A well-informed local and regional community regarding changes to road use.	Complaints rate - project-related traffic issues.
				Demonstrable community adaptation to road use or traffic management alternatives.	



Table 18-19 Social and Cultural Values - Impacts, Opportunities and Mitigations

Phase	Impacts and Opportunities	Social mitigation and enhancement strategies	Timing	Desired Social Outcomes	Indicators
Cons	Potential for increased non-resident workers to impact community connections (knowing people in the community) and perceptions of safety	Workforce Code of Conduct and local values induction materials to manage workforce behaviour and encourage respect and integration with existing community values.	During construction	Integration of local values in workforce culture, behaviour and practice. Management of workers' interactions with community at community events.	Complaints rate with respect to impacts to community lifestyle or values.
		Engagement with QPS to monitor any changes to community safety issues and statistics.			
Ops	Provision of support for community participation for young people	Community development programs which encourage positive interactions between workers and community members. Programs which strengthen young people's resilience (e.g. leadership, mentoring and self-awareness).	During construction and first two years of ops	Young people are provided with opportunities to increase participation in training, employment and community life.	Young people's reported satisfaction with opportunities (as part of BMA's bi-annual community perceptions survey).
		Ongoing support for school programs, which encourage young people's resilience and community safety initiatives.			
Cons	Cumulative issues (such as non-resident workers from multiple projects) that need to be addressed in concert with industry in the region.(see also Table 18-3)	Stakeholder and Community Engagement Plan including complaints management, monitoring and reporting.	During construction	Community satisfaction regarding the range of BMA and other industry strategies in place to address their concerns.	Community members report no increased negative cumulative impacts on community values.
		Discussion with other industry representatives to encourage consistent high standards of behaviour for all projects' workforces.			



Table 18-20 Demographic Characteristics - Impacts, Opportunities and Mitigations

Phase	Impacts and Opportunities	Social mitigation and enhancement strategies	Timing	Desired Social Outcomes	Indicators
Cons and Ops	Opportunity for industry stakeholders to work with Council and Government staff to forecast population changes so services can be planned commensurate with growth	<p>Strategies to mitigate potential impacts on population size include:</p> <ul style="list-style-type: none"> workforce management strategies; accommodation village provision; enforcement of expected standards of behaviour; and monitoring of demands on local services. 	During construction and operations	<p>Mitigation strategies support local and regional planning priorities.</p> <p>Health service demand is addressed by BMA or through agreed arrangements with local service providers.</p>	Frequency of local and state government engagement.
Cons and Ops	Increased gender disparity, and potential intimidation of women due to larger numbers of men around the community	BMA's existing strategies to enhance gender diversity and manage workforce behaviour will be supported by initiatives the Community Development Strategy that deliver community participation and opportunities for women.	During construction and operations	No change to women's perceptions of safety in Moranbah as a result of construction or operation.	Community satisfaction with community development initiatives as measured through perceptions surveys.
Cons	Increased employment of women, including supervisors and managers, through BMA's employment diversity strategies	<p>BMA's workforce diversity strategies are addressed in Section 18.11 and 18.16.</p> <p>Strongly enforce the code of conduct, and enforce the withdrawal of accommodation rights to any worker reliably reported to have affected public safety.</p>	During construction and first two years of ops	<p>No effect on community safety perceptions or statistics as a result of workforce behaviour.</p> <p>Well-informed stakeholders regarding behavioural standards.</p> <p>Increased numbers of female and Indigenous employees.</p>	<p>Rate of participation for female employment.</p> <p>Complaints rate with respect to impacts to community lifestyle or values.</p>



Table 18-21 Community health and safety - Impacts, Opportunities and Mitigations

Phase	Impacts and Opportunities	Social mitigation and enhancement strategies	Timing	Desired Social Outcomes	Indicators
Cons and Ops	Increased demand and stress on social infrastructure such as hospital services and emergency services	Engagement with health and emergency services providers to plan for potential increased load.	12 months prior to construction	Service provider feedback regarding rate of service demand.	Agreement with local service providers implemented.
	The number of non-residents in the Moranbah areas may increase the likelihood of anti-social behaviour occurring	Reinforcement of positive behaviour and respect for local values, including withdrawal of accommodation rights for breaches.	During construction and first two years of ops	Stakeholders do not attribute a decline in existing regional community values, such as character, amenity, safety, or social capital to the project.	Complaints rate with respect to workforce behaviour.
Cons and Ops	Risk that cumulative impacts of non-resident workers from a variety of projects and operations will decrease safety in Moranbah, dependent on consistent standards of workforce management, and sufficiency of police resources.	Strategies address workforce behaviour management through targeted plans and policies described above.	During construction and first two years of ops	Negligible safety incidents or community safety complaints attributed to the project. Adequate emergency service capacity to respond to all incidents identified as potential risks by local emergency services.	Frequency of government and industry engagement regarding cumulative impact management.
	An increase in traffic or an increase in the risk of accident may require a corollary increase in the capacity of emergency services.	Ongoing relationship with QPS and emergency services to implement Emergency Response Protocols to develop targeted strategies as required for training, e.g. positive behaviour-modelling and road safety needs.			Local emergency services advise sufficient capacity to absorb project demands. Number of road or traffic related incidents.



Table 18-22 Employment and Economic Development - Impacts, Opportunities and Mitigations

Phase	Impacts and Opportunities	Social mitigation and enhancement strategies	Timing	Desired Social Outcomes	Indicators
Cons and Ops	Opportunity to increase Indigenous workforce capacity and BMA workforce diversity	Ensuring BMA's Indigenous training and recruitment strategies are applied early in workforce planning, and consistently applied in ongoing recruitment programs.	12 months prior to construction and during operations.	Increased employment uptake by Indigenous personnel over time.	BMA Indigenous employment participation rate above Indigenous representation in the region.
	Opportunity for Indigenous businesses in the region to benefit from supplying goods and services.	Ensuring staff are aware of and committed to communicating business and supply opportunities to Indigenous organisations.	During construction and first two years of ops.	Increased participation of Indigenous business in BLBP Program and supply opportunities.	BLBP contract award rate to Indigenous businesses above the rate of representation in the region's business profile.
Cons	BMA's Local Buying program and the general trade of non-resident workers are likely to provide a small stimulus to the local economy	BMA's Local Buying program in combination with the general trade of non-resident workers are likely to provide a small stimulus to the local, economy, which may result in increased local business trade, and potentially increased employment.	During construction and first two years of operations.	Locally-awarded contracts associated with the project, demonstrated through existing BMA public reporting of quarterly local buying activities for its northern Bowen Basin projects.	Number of locally-awarded BLBP contracts associated with the GRM incremental expansion and the RHM underground expansion option.



Phase	Impacts and Opportunities	Social mitigation and enhancement strategies	Timing	Desired Social Outcomes	Indicators
Cons and Ops	Equal opportunity for the employment of skilled labour from local or regional settings.	<p>Training strategy focussed on:</p> <ul style="list-style-type: none"> Capacity development of training organisations that support that mining and related service industries; Existing BMA strategies that target training and employment for training opportunities for young people, women and Indigenous people in the Isaac and MIW LGA; and Lifelong learning and skill development programs that support workforce and employment diversity. 		Employment opportunities are available to women, Indigenous people and those without prior experience in underground mining.	Rate of local and regional employment.

Table 18-23 Social Infrastructure - Impacts, Opportunities and Mitigations

Phase	Impacts and Opportunities	Social mitigation and enhancement strategies	Timing	Desired Social Outcomes	Indicators
Cons and Ops	Increased demand on ambulance, GPs, and Hospital are expected with significant consequence if not appropriately mitigated.	Accommodation Village Management Plan, which includes emergency response procedures. Consultation with Moranbah GPs and Hospital to identify appropriate service provision strategy for workforce health.	During construction and first two years of ops	Project addressing the needs of its workforce through agreements reached with local service providers, or through provision of on-site medical staff.	Service-provision agreed with local medical service providers, and monitored through regular engagement.
	Increased demand on QPS, QAS and Fire Service in response to accommodation village call outs, traffic incidents, and wide load supervision.	Engagement with local and regional police and emergency services, ahead of construction and operational commencement, to advise services of <ul style="list-style-type: none"> the anticipated workforce build up; major activities that would place demand on local services; behavioural standards; and communication protocols. 	During construction and first two years of ops	Good working relationship between the project and QPS, QAS and QFRS in Moranbah.	Red Hill accommodation village call out rates, verified in consultation with emergency service providers.
		Orientation to the Red Hill accommodation village and its emergency response procedures. Consultation with police and emergency services on the project's Emergency Response Protocol.	During construction	Minimisation of demands on services as a result of on-site behavioural and safety management procedures.	



Phase	Impacts and Opportunities	Social mitigation and enhancement strategies	Timing	Desired Social Outcomes	Indicators
Cons and Ops	Opportunity to increase workforce participation in community volunteering and support initiatives	BMA will consult with local organisations regarding the existing capacity of community and civic service, and opportunities for BMA to invest in enhancement strategies, through its Community Development Strategy, in respect to identified impacts.	During construction	Project staff participating in local volunteer programs (e.g. annual volunteer day).	Community and stakeholder satisfaction monitored through bi-annual perception survey.
	Potential increased pool of participants for local fixtures and competitions.	Provision of opportunities for scheduled sporting activities between town residents and workers during operations, to increase the size and vitality of local sporting competitions.	During operations	Participation of workers in community and sporting events.	Participation rates in workforce/community recreational fixtures and competitions.

Table 18-24 Housing - Impacts, Opportunities and Mitigations

Phase	Impacts and Opportunities	Social mitigation and enhancement strategies	Timing	Desired Social Outcomes	Indicators
Housing					
Cons and Ops	Cumulative impacts and opportunities may see increases in service staff (e.g. police) or business employees and increased housing demands, dependent on the availability of housing stocks from 2020.	Cumulative impacts need to be addressed through collaboration between regional councils, state government agencies, resource companies and communities. Mitigation and monitoring of cumulative impacts will therefore require the involvement and coordination of multiple stakeholders.	During construction and first two years of ops	Demand for housing stock in Moranbah as a result of cumulative impacts are within existing capacity.	No increase in rental housing costs and availability as a result of the project's stimulation of local businesses or other service requirements.

18.20.4 Significance Assessment

Assessment of the significance of social impacts and opportunities was undertaken using the Queensland Government's SIA Guideline criteria for likelihood (shown in **Table 18-25**) and consequence (**Table 18-26**).

Table 18-25 Likelihood Criteria

Rating	Likelihood
5	Very likely to occur or be an opportunity at either a specific stage of the project lifecycle or more broadly.
4	Likely to occur or be an opportunity at either a specific stage of the project lifecycle or more broadly.
3	Possible to occur or be an opportunity at either a specific stage of the project lifecycle or more broadly.
2	Unlikely to occur or be an opportunity at either a specific stage of the project lifecycle or more broadly.
1	Very unlikely to occur or be an opportunity at either a specific stage of the project lifecycle or more broadly.

Table 18-26 Consequence Criteria

Opportunity/Impact/Consequence				
1 - Incidental	2 - Minor	3 - Significant	4 - Major	5 - Severe
Local, small-scale, easily reversible change on social characteristics or values of the communities of interest or communities can easily adapt or cope with change. Local small-scale opportunities that the community can readily pursue and capitalise on.	Short-term recoverable changes to social characteristics and values of the communities of interest, or community has substantial capacity to adapt and cope with change. Short-term opportunities.	Medium-term recoverable changes to social characteristics and values of the communities of interest or community has some capacity to adapt and cope with change. Medium term opportunities.	Long-term recoverable changes to social characteristics and values of the communities of interest, or community has limited capacity to adapt and cope with change. Long term opportunities.	Irreversible changes to social characteristics and values of the communities of interest or community has no capacity to adapt and cope with change.

Table 18-27 summarises social impacts and opportunities considered possible, likely, or very likely as a result of construction or operation. Impacts are shaded blue, and opportunities are shaded green.

The assessment of likelihood (L) and consequence (C) in Columns 3 and 4 assumes the implementation of BMA's existing strategies at corporate and project level, as detailed in **Section 18.11**. Significance of impacts and opportunities after implementation of social mitigation and enhancement strategies identified in the EIS has also been predicted, as shown in the final two columns.

The assessment indicates that, after implementing BMA strategies, project strategies and social impact mitigations, the project is unlikely to have any significant negative impacts on social values and conditions in the Moranbah area or Isaac LGA, and presents a number for opportunities for increased labour skills and employment. Key social indicators will be monitored to ensure the assessment is

borne out (see **Section 18.20.5**), and to take any corrective actions required to address unexpected impacts.

Table 18-27 Significance Assessment

Phase	Impacts and Opportunities	Pre mitigation		Social mitigation and enhancement strategies	Post Mitigation	
		L	C		L	C
Settlement patterns and directly affected properties						
Cons & Ops	Interruption of business and on-farm employment Loss of social / family connectivity	5	3	<ul style="list-style-type: none"> Compliance with the Land Access Code and Land Act provisions, including ensuring land owners' needs are considered; Compensation agreement; and Regular communication with affected land owners. 	4	2
Cons & Ops	Potential to contribute to declining amenity for land owners	3	2	<ul style="list-style-type: none"> Regular communication with adjacent land owners regarding construction plans, potential impacts, mitigation strategies and resolution of any complaints; and Project-specific road use and traffic management strategies to effectively manage potential disruptions. 	2	1
Cons & Ops	Potential impacts to road conditions on Goonyella Access Road and Peak Downs Highway	3	3	<ul style="list-style-type: none"> Regular communication with local residents and users of road and air transport regarding timing, potential changes to current conditions, mitigation strategies (e.g. traffic control), and resolution of any complaints. 	3	1
Social and cultural values						
Cons	Potential for increased non-resident workers to impact community perceptions of safety	3	2	<ul style="list-style-type: none"> Workforce Code of Conduct and local values induction materials to manage workforce behaviour and encourage respect and integration with existing community values; and Engagement with QPS to monitor any changes to community safety issues . 	2	1
Ops	Provision of support for community participation for young people	4	3	<ul style="list-style-type: none"> Community development programs that encourage positive interactions between workers and community members; and Programs that strengthen young people's resilience (e.g. leadership, mentoring and self-awareness). 	4	3

Phase	Impacts and Opportunities	Pre mitigation		Social mitigation and enhancement strategies	Post Mitigation	
		L	C		L	C
Cons	Cumulative issues that need to be addressed in concert with industry in the region	3	3	<ul style="list-style-type: none"> Stakeholder and Community Engagement Plan including complaints management; and Discussion with other industry representatives to encourage consistent high standards of behaviour for all projects' workforces. 	2	2
Demographic characteristics						
Cons & Ops	Opportunity for industry to work with council and government staff to forecast population changes so services can be planned commensurate with growth	3	3	<p>Strategies to mitigate potential impacts on population size include:</p> <ul style="list-style-type: none"> Workforce management strategies; Accommodation village provision; enforcement of expected standards of behaviour; and monitoring of demands on local services. 	2	2
Cons & Ops	Increased gender disparity	4	3	<ul style="list-style-type: none"> BMA's existing strategies to enhance gender diversity and manage workforce behaviour; and Strongly enforce the code of conduct, and enforce the withdrawal of accommodation rights to any worker reliably reported to have affected public safety. 	2	2
Ops	Increased employment of women, including supervisors and managers through BMA's employment diversity strategies	5	3	<ul style="list-style-type: none"> BMA's workforce diversity strategies are addressed in Section 18.11. 	5	3
Community health and safety						
Cons & Ops	Increased demand and stress on social infrastructure such as hospital services and emergency services	4	3	<ul style="list-style-type: none"> Engagement with health and emergency services providers to plan for potential increased load. 	2	2
Cons & Ops	Enhanced opportunities for employment and income at regional and state level	4	3	<ul style="list-style-type: none"> Recruitment strategy; and BMA Local Buying program. 	4	3
Cons	Increase in non-residents in the areas may increase the likelihood of anti-social behaviour occurring	4	3	<ul style="list-style-type: none"> Reinforcement of positive behaviour and respect for local values, including withdrawal of accommodation rights for breaches. 	3	2
Cons & Ops	Risk that cumulative impacts from a variety of projects and operations will decrease safety in Moranbah	4	4	<ul style="list-style-type: none"> Strategies address workforce behaviour management through targeted plans and policies described above. 	2	2

Phase	Impacts and Opportunities	Pre mitigation		Social mitigation and enhancement strategies	Post Mitigation	
		L	C		L	C
	Increase in traffic may require a corollary increase in the capacity of emergency services.	4	3	<ul style="list-style-type: none"> Ongoing relationship with Queensland Police and emergency services to: <ul style="list-style-type: none"> – implement Emergency Response Protocols; and – develop targeted strategies as required for training, e.g. positive behaviour-modelling and road safety needs. 	3	2
Employment and Economic Development						
Cons & Ops	Opportunity to increase Indigenous workforce capacity and BMA workforce diversity	4	3	<ul style="list-style-type: none"> Ensuring BMA's Indigenous training and recruitment strategies are applied early in workforce planning, and consistently applied in ongoing recruitment programs. 	4	3
Cons & Ops	Opportunity for Indigenous businesses in the region to benefit from supplying goods and services.	4	3	<ul style="list-style-type: none"> Ensuring staff are aware of and committed to communicating business and supply opportunities to Indigenous organisations. 	4	3
Cons & Ops	BMA's Local Buying program and the general trade of non-resident workers are likely to provide a small stimulus to the local economy	3	2	<ul style="list-style-type: none"> BMA's Local Buying program in combination with the general trade of non-resident workers are likely to provide a small stimulus to the local, economy, which may result in increased local business trade, and potentially increased employment. 	3	2
Cons & Ops	Opportunity for the employment of skilled labour from the region and Queensland.	4	4	<ul style="list-style-type: none"> Training strategy focussed on: <ul style="list-style-type: none"> – capacity development of training organisations; – existing BMA strategies that target training and employment for young people, women and Indigenous people in the Isaac and MIW LGA; and – lifelong learning and skill development programs that support workforce and employment diversity. 	5	5
Social infrastructure						
Cons & Ops	Increased demand on ambulance, GPs, and Hospital are expected with significant consequence if not appropriately mitigated.	4	3	<ul style="list-style-type: none"> Accommodation Village Management Plan, which includes emergency response procedures; Consultation with Moranbah GPs and Hospital to identify appropriate service provision strategy for workforce health. 	3	2

Phase	Impacts and Opportunities	Pre mitigation		Social mitigation and enhancement strategies	Post Mitigation	
		L	C		L	C
Cons & Ops	Increased demand on Police, QAS and Fire Service in response to accommodation village call outs, traffic incidents, and wide load supervision.	4	3	<ul style="list-style-type: none"> Engagement with local and regional police and emergency services, ahead of construction and operational commencement, as detailed in assessment. 	3	2
Cons & Ops	Opportunity to increase workforce participation in community volunteering and support initiatives	3	2	<ul style="list-style-type: none"> BMA will consult with local organisations regarding the existing capacity of community and civic service, and opportunities for BMA to invest in enhancement strategies, through its Community Development Strategy, in respect to identified impacts. 	4	3
	Potential increased pool of participants for local fixtures and competitions.	3	2	<ul style="list-style-type: none"> Provision of opportunities for scheduled sporting activities between town residents and workers during operations, to increase the size and vitality of local sporting competitions. 	4	2
Housing						
Cons & Ops	Cumulative impacts and opportunities may see increases in service staff and increased housing demands, dependent on the availability of housing stocks from 2020.	4	3	<ul style="list-style-type: none"> Cumulative impacts need to be addressed through collaboration between regional councils, state government agencies, resource companies and communities. Mitigation and monitoring of cumulative impacts will therefore require the involvement and coordination of multiple stakeholders. 	3	2

18.20.5 Monitoring Framework

Section 18.9 identifies the status of baseline indicators in the study area, and **Sections 18.12 to 18-19** includes desired outcomes for each of the areas where significant social impacts and opportunities are anticipated. Desired outcomes generally include:

- no negative impact on social indicators (such as access to housing, social and health infrastructure capacity, and community safety);
- increased opportunities, e.g. employment diversity and business participation;
- community satisfaction with mitigation and enhancement strategies; or
- informed stakeholders, who can participate in monitoring and managing impacts.

This section outlines how social indicators will be monitored to inform review of the desired outcomes, i.e. have mitigations been successful in avoiding a decline in social indicators, and contributed to positive changes.

18.20.6 Review Prior to Construction

BMA will review the social baseline and impact assessment 12 months prior to construction to ensure the assessment of impacts is accurate and in context with prevailing conditions, and refine the social mitigation strategies proposed. Actions to be undertaken include:

- identification of emerging stakeholder or community concerns in relation to the project;
- assessing the capacity of local social infrastructure and services and identify implications for on-site service provision or collaborative strategies with local service providers;
- reviewing skills availability for construction and operation, and developing appropriate training and recruitment strategies;
- engagement with IRC and DSDIP in relation to Royalties for Regions and RARTP priority areas and opportunities for appropriate strategic investment;
- developing an evidence base of housing availability and affordability trends; and
- reviewing the status of key social indicators outlined in **Table 18-28**.

BMA will provide a copy of the review of social conditions and impacts to DSDIP, and consult with the Department on any changes required to mitigation measures.

18.20.7 Data Monitoring and Reporting

The indicators in **Table 18-28** have been selected as representative of the project's potential impacts and opportunities and their desired social outcomes, to form the basis of the monitoring framework. These indicators will be monitored during the construction period and the first two years of operation.

BMA will provide a report on monitoring results to the Coordinator-General at the completion of construction of the GRM incremental expansion and RHM underground expansion option, describing:

- the status of social conditions outlined in **Table 18-28**;
- actions and adaptable management strategies to avoid, manage or mitigate project-related impacts on social conditions and indicators;
- actions to enhance local employment, training and community and economic development opportunities;
- actions to avoid, manage or mitigate project-related impacts on local community services, social infrastructure and community safety and wellbeing; and
- actions to inform the community about project impacts and show that community concerns about project impacts have been taken into account when reaching decisions.

Table 18-28 Monitoring Desired Outcomes and Social Indicators

Area	Desired Outcome	Indicator	Current status (2013)	Source	Freq.
Community values	No negative impacts on community life	Community satisfaction with BMA management of project impacts on community life	Dissatisfaction with cumulative impacts of mining and cyclical changes	Complaints and feedback data BMA Community Perception Survey Data (most recent)	Twice yearly during construction only
Housing	No negative impact on rental housing cost or availability	No increase in the cost of rental housing in Moranbah attributable to the project	Rental costs decreased by 50-75% in Moranbah during 2012/13, but average costs are higher than Mackay	RTA registered bonds and rental costs RP, REIQ or equivalent data on rental costs	Twice yearly during construction, and annually for the first 2 years of operation
Social infrastructure	No negative impact of non-resident workers on access to social and health	Number of general practitioners in Moranbah relative to the Full Time Equivalent population being serviced	Good social infrastructure with enhancements planned GP: ERP currently adequate	Feedback from stakeholder engagement	Twice yearly during construction, and annually for the first 2 years of operation
Social characteristics	A good place for families	Comparison to Mackay and Queensland average family composition profile	Percentage of couple with children families +/- Qld average	Census data	At the end of construction, based on relevant census data
Community safety	No increase in offence rates as a result of the project	Number of offences against the person in Moranbah, compared to Mackay and Queensland averages	Rates of offences in Moranbah compare favourably with trend data and, for some offence categories, with regional averages	Queensland Police Service data	Annually for construction, and annually for the first 2 years of operation
Economic Diversity	Opportunity for local businesses to supply the project, and diversity in the project's workforce	Number of local businesses supplying construction and operations Percentage of employees who are Indigenous or women	BMA Local Buying Program actively and effectively involves local businesses in supply opportunities	BMA Local Buying Program data – number and value of supply contracts	As per QRC Code for Local Buying

18.20.8 Stakeholder Engagement during Monitoring

BMA undertakes engagement in its communities through:

- employment of full time Communities staff across the Bowen Basin;
- strategic engagement to address current issues, e.g. the current partnership with Government and industry stakeholders in addressing the availability of general practitioners in Moranbah;
- meeting every two months with IRC to review current and upcoming issues, and joint responses; and
- regular meetings with the Moranbah BCN, representing Council, community organisations, businesses and Government agencies.

Each of these engagement mechanisms is an opportunity to see feedback on impacts, opportunities and mitigations; however, a structured process of engagement in monitoring will also be undertaken with the Moranbah BCN and IRC on an annual basis, to seek input to monitoring and reporting of local conditions and impacts.

18.20.9 Complaints Resolution

As noted in the International Council on Mining and Metals good practice guideline for complaints management (International Council on Mining and Metals, 2009), any large-scale project, even if managed to the highest standards, may cause local concerns. BMA believes that effective complaints management is integral to building communication, respect and trust between its operations and local communities. It also assists in detecting and addressing local concerns at an early stage. The process followed by BMA is as follows:

1. A verbal response on the facts identified and progress with the investigation will be provided to the complainant within 48 business hours (unless the complainant agrees otherwise), and a detailed written response will be provided within ten business days of the receipt of the complaint.
2. Wherever possible, BMA will seek resolution to concerns through dialogue and joint problem solving with affected stakeholders. All personnel including contractors will be made aware of the existence and importance of the complaints mechanism in their on-boarding program, and how to direct a complaint.
3. BMA will utilise its established internal complaints register to record and report on all complaints that may be received during the construction and operation of the project. The complaints register will be updated and maintained by BMA's Community Relations team.
4. The results of the complaints monitoring will be reported on a quarterly basis to the Moranbah BCN and the IRC. BMA will also verify community perceptions and overall community safety, lifestyle and cohesion through a broad community perception survey, undertaken every two years.