Project Justification and Sustainability

2

2 Project Justification and Sustainability

2.1 Project Justification

2.1.1 Project Need

Australia is the world's largest exporter of coal and Queensland is responsible for about two thirds of exported coal (DME, 2007). Coal is the state's most important export commodity, earning Australia around $10 billion. In the financial year ending 30 June 2008, coal contributed $1.04 billion in royalties to the Queensland Government. Based on changes to royalties announced in the Queensland State Budget 2008-09, royalties from coal are projected to rise to over $3.21 billion in 2008-09. The industry is also a mainstay of rail and port services in Central Queensland.

The project's high quality hard coking coal is attractive to overseas buyers. The project forms part of a growth strategy designed to strategically service the expanding demands of India, China and other international metallurgical coal markets.

The coal industry in Queensland employs about 20,000 people directly. A further 70,000 indirect jobs are created through the industry's activities. At full production, the project will directly employ approximately 495 people, with many more employed indirectly as a result of flow-on effects.

An initial capital investment of approximately $4 billion will be required to bring the project to full production. Operational expenditure will be about $450-500 million per annum for the mine life. The operation will contribute significantly to the state in rail freight and royalties. This contribution coupled with the direct and indirect employment opportunities and associated spending, highlights the value of the project to Queensland.

2.1.2 Technical Feasibility and Commercial Viability

The project is a combination of dragline and truck-shovel fleet operation similar to the Peak Downs Mine operation south of the proposed site. The key technology associated with the project is proven and does not represent a significant mining, production or technology risk. BMA, as part of BHP Billiton, operates within a strict risk management and project decision framework. The project has been assessed as commercially viable and attractive through these processes and forms an important component of the BMA BBCGP.

2.1.3 Compatibility with Policy and Regulatory Frameworks

Section 1.6 summarises the key policy and regulatory documentation that applies to the project and outlines the response taken by BMA to address the requirements. The project is compatible and compliant with all relevant legislation and is consistent with the planning framework in place for the region.

2.1.4 Economic, Social and Environmental Costs and Benefits

The EIS provides an understanding of the existing economic, social and natural environments and assesses the changes that would likely or potentially occur with the introduction of the project. These changes are then assessed as to whether they are considered a postive or negative impact to the existing enviroments. The EIS also presents measures to minimise or mitigate any negative impacts and maximise positive impacts or opportunties.

The residual positive and negative impacts associated with the project, which remain after mitigation measures are in place, represent the project's costs and benefits. These costs and benefits range across the economic, social and environmental aspects of the project. The costs and benefits also range in their significance. There is no simple basis on which differing economic, social and environmental costs and

benefits can be compared. A subjective assessment is possible relating to the level of significance that the different impacts pose. Based on the information presented in the EIS, a high level summary of the costs and benefits is presented in Figure 2.1.

2.1.5 Regional Socio-economic Issues

Social and economic impacts are detailed in Sections 17 and 18, respectively.

Overall the project is expected to have few direct social impacts on the study area however; it is likely to contribute to the cumulative impacts of mining on the community on a local and regional level. The most significant impacts of the project would be related to accommodation supply and affordability, and the increased demand for community services.

With respect to economic impacts, the project is estimated to have significant benefits:

- Construction is expected to increase the value added to all other industries in the Mackay Region by $479 to $599 million, and to raise output by $800 million to $1 billion in Australia, on an annual basis.
- Expenditure during construction is expected to support the equivalent of approximately 7,009 to 9,285 full-time jobs in the Mackay Region and an additional 3,675 to 4,900 full-time equivalent jobs in Australia on an annual basis.
- Operation is expected to increase the value added to all other industries in the Mackay Region by $133 to $167 million and raise output by $152 to $190 million in Australia on an annual basis.
- Operation will generate an additional 804 to 1,082 jobs in the Mackay Region and an additional 744 to 992 jobs in Australia annually.
- Annual expenditure by employees in the local region is estimated at $836,160 during construction and $951,936 during operation.

BMA's mitigation strategies address specific impacts or build on existing community support activities in the local and regional communities. The implementation and management of mitigation measures is considered a shared responsibility. All proposed mitigation measures require the full support, participation and commitment of the local communities, service providers and in particular, state and local governments to ensure success.

BENEFIT	SIGNIFICANCE	COST
▪ Direct employment of 1,200 construction workers and 495 operational staff Generate up to a further 7,009 to 9,285 jobs in Mackay region and 3,675 to 4,900 jobs nationally Value add for industries in Mackay Region up to $599 million annually	**HIGH**	
▪ BMA Community Partnership Program expands with community initiatives		▪ Incremental increase in demand for housing, contributing to housing crisis ▪ Air and Noise impacts on sensitive receptors in the vicinity of the northern section of the project site ▪ Removal of existing site vegetation and disturbance of ERE ▪ Contributing to the global carbon dioxide concentrations between 0.31% and 0.44% of Queensland Energy Sector emissions
▪ Rehabilitation programs to enhance existing natural landscape and /or riparian zone. ▪ Rehabilitated stable landforms at the end of mining for grazing and natural bushland. ▪ Increased profits to shareholders of BMA	**LOW**	▪ Water quality impacts on Horse, Cherwell and Harrow Creeks ▪ Unlikely risk of Acid Mine Drainage ▪ Increasing traffic along the Peak Downs Highway

Figure 2.1 Summary of Costs and Benefits

2.2 Resource Description

The resource is located within the existing Peak Downs Mining Lease (ML 1775). The resource has been included in the long term planning for the Peak Downs operation. However market opportunities now allow for the development of a stand-alone operation (Caval Ridge Project) from this northern most extent of the Peak Downs Mining lease (Figure 1.2). Various studies have been conducted, and a current pre-feasibility study is nearing completion on the techno economic evaluation of extracting the resource.

The Peak Downs deposit with three major coal sequences and numerous plies is a complex stratigraphic resource. The deposit has additional complexity with an increasing number of seam horizons entering the stratigraphy as mining progresses down dip. The resource that has been identified for the proposed operation is 570 Mt. The life of the operation is in excess of 30 years producing up to 5.5 Mtpa of product per annum, using opencast mining methods.

The Caval Ridge resource will be mined by conventional dragline and benched truck and shovel strip mining techniques. An existing pit and dragline from Peak Downs (Heyford Pit) will be incorporated into the Caval Ridge operation and will be mined along with a new area (Horse Pit) in the northern extent of the Peak Downs ML. Waste stripping will be supplemented with truck shovel fleets. The Peak Downs coal will be conveyed overland to the new Caval Ridge CHPP for processing.

Additional information on the coal resource is provided in Section 4.3.

2.3 Resource Utilisation

The project will not impact on other coal, gas and mineral resources in the region. There are no significant resources of coal seam methane that will be lost by the development of the project.

The project will be developed to minimise resource waste and sterilisation. The seams to be mined are dependant upon the individual seam thickness and the inherent qualities for each seam.

The main area of proposed mine infrastructure is located to the west of the oxidation limit of the coal, and hence poses no risk of coal resource sterilisation.

In addition to the 5.5 Mtpa to be generated from the Caval Ridge Mine, 2.5 Mtpa will be sourced from Peak Downs mine and processed at Caval Ridge to produce a total of approximately 8 Mtpa of product coal for the export market. Opportunities to expand this tonnage level will be dependant upon the availability of market and will be further investigated once the approvals to commence mining at Caval Ridge are obtained. The proposed facilities at the mine do not preclude further expansion opportunities.

2.4 Project Alternatives

2.4.1 No Project

In the event that the project was not to proceed:

- A total of 1200 construction jobs and 495 operational job opportunities (including contractors), along with the flow-on (indirect) employment opportunities, would not be created.
- Significant export income would not be realised.
- Injection of revenue into the regional economy would not occur.
- Significant Queensland and Commonwealth Government taxes and royalties would not be generated.

- The economic opportunity of developing a coal resource which is viable and in demand would not be realised.

Should the project not proceed, the project site would still be mined, but at a slower rate as the Peak Downs Mine extends into the balance of ML 1775.

2.4.2 Alternative Locations

As the resource is located within ML 1775, it is not feasible to locate the mining operations at an alternate location. Coal seams which are the target of mining operations do extend beyond the eastern boundary of ML 1775 and into leases held by other parties. Hence they are not available for mining by BMA.

Acceleration of the development of an alternative resource outside of the BMA BBCGP is less attractive due comparatively higher development and operating cost of the mining activities, and generally lower resource quality.

2.4.3 Stand Alone Project Option

The construction of new CHPP facilities for the Caval Ridge Project are required. Whilst the adjacent BMA owned and operated Peak Downs mine is the closest operation to Caval Ridge, it does not have the capacity to process additional ROM coal from the Caval Ridge Project. Therefore new CHPP facilities for the Caval Ridge Project is the preferred processing solution.

2.4.4 Mining Methods

The relatively shallow surface depth to coal at Caval Ridge and multi seam stratigraphy of the deposit are ideal for open cut mining extraction techniques.

Underground mining was considered as a resource extraction methodology; however the seam geometry and thickness are not conducive to maximum resource recovery relative to the open cut mining method which allows the flexibility to mine the thinner and steeper dipping seams. Further the costs of underground mining make it less attractive than open cut mining. Hence the resource utilisation and geometry costs of recovery of the resource where the major drivers in selecting open cut mining.

Selection of a mining method entails consideration of a range of factors including production and quality targets, production rate and site constraints (e.g. environmental, social and community). The following concepts were considered for Caval Ridge deposit:

- Dragline applications (mining approximately 50 m to 60 m wide strips).
- Electric rope shovel and trucks (mining approximately 60 m to 120 m wide strips).
- Hydraulic excavators and trucks (mining approximately 50 m to 60 m wide strips).
- Combination dragline and electric rope shovel and trucks (mining approximately 50m to 60m wide strips).

A combination of dragline and electric rope shovel and trucks was chosen due to lower overall operational cost and the favourable conditions for the combination of stripping methodology. Where the resource is more geologically complex the use of truck and shovel fleets will provide more flexibility.

2.4.5 Extent of Mining

Two pits will be mined as part of the Caval Ridge Project, namely Horse and Heyford Pit. Mine planning activities have been undertaken to ensure minimal sterilisation of the Caval Ridge resource during mine

operation with due cognisance and allowances for infrastructure facilities. A resource does exist in between these pits commonly referred to as Cherwell Pit. However, due to its less attractive economic margins it is not part of the current Caval Ridge Project.

Horse Pit in the north is constrained by the mining lease and the requirement to divert/channel the Horse Creek, and to the south by the Peak Downs Highway. The western limitation is determined from the limit of oxidation of the coal as it sub outcrops, whilst the eastern limitation is the mining lease boundary.

Heyford pit is limited to the north by Cherwell Creek and to the south by Harrow Creek. The western limitation is determined by the existing mining operation, whilst the eastern limitation is the mining lease boundary.

2.4.6 Diversion of Water Courses

Water course diversions are required for Caval Creek and Horse Creek. The alternatives considered are provided below with further detail in Appendix I.

2.4.6.1 Caval Creek

Two options were considered for the diversion of Caval Creek. An option conveying flows to the east around the proposed infrastructure area, and the adopted option conveying flows to the west of the infrastructure and stockpile areas.

The selected option was adopted on the following basis:

- The proposed creek diversion is longer than the existing creek, hence a grade that maintains bed stability is achieved without the inclusion of a stream bed meander.
- The diversion is located within an area of intensive infrastructure with limited horizontal area in which for a stream meander to be included.
- The creek diversion is located in the very upper reaches of the catchment with a small catchment area. The estimated design discharges for this diversion reach are small and acceptable stream velocity, power and shear stress conditions can be achieved with no meander requirements.

The option of diverting the creek to the east of the infrastructure area was removed from consideration following modelling of the proposed alignment for the following reasons:

- The proposed alignment shortened the existing natural stream, such that the creek bed grade was increased.
- The required maximum cut depth to the east of the infrastructure was prohibitively large (in the order of 15 m) creating geotechnical issues with adjacent railway loop.

No diversion of Cherwell Creek or Harrow Creek is planned at this stage as part of the Caval Ridge Mine development.

2.4.7 Infrastructure

2.4.7.1 Power Supply

The Peak Downs, Goonyella Riverside and Broadmeadow Mines have Connection Agreements with Ergon Energy for the supply of 66 kV power from their points of common coupling at the Moranbah 66 kV bus. Power is delivered to these sites via three Ergon Energy owned 66 kV circuit breakers which are then connected to the Peak Downs Feeder (Utah 1), the Riverside Feeder (Riverside) and the Goonyella

Broadmeadow Feeder (Utah 2). Linking into the existing system was considered However considering current load estimates for Caval Ridge Mine and the additional loads around Peak Downs Mine are in excess of available capacity, this load cannot be supported from the present Utah 1 Feeder, nor can any additional capacity be yielded from the Moranbah substation

Therfore to meet these power needs for the Caval Ridge Mine the construction of a new substation has been considered. This new substation will not provide power directly to the Caval Ridge Mine, but it will help free up load currently delivered from the Moranbah substation to the Goonyella and Riverside feeders and this freed up load will provide a solution to the Caval Ridge Mine's power needs. The new substation will also add additional capacity to support the power needs for other expansion projects identified in the first stages of growth (such as Goonyella Riverside expansion).

2.4.7.2 Water Supply

The project will require about 3,200 ML/year of additional raw water. The site water balance indicates that an external water supply is required, as there is an overall deficit of water on site. Various external water supply options were considered, including:

- Harvesting water from nearby water courses.
- Supply from the Eungella-Bingegang pipeline.
- Groundwater on site, and in the vicinity of the site.

The harvesting options were not considered viable given the ephemeral nature of the water courses and the likely difficulty in gaining new water allocations within the region. Groundwater was not considered as a reliable water supply for the project, as there is little reliable groundwater yield on site or from bores in the vicinity of the site. Any water produced as a result of mining activities will be used in the mining operation. Hence, the supply of water from the Eungella-Bingegang pipeline was considered the most reliable water supply option.

2.4.7.3 Rail

The location of the project resulted in rail being the only alternative being considered for transporting the product coal. The project is located between the Peak Downs and Blair Athol Railway lines so there is the potential to transport coal via either of these lines and both of these options were considered.

The current Peak Downs operation utilises the balloon loop off the Peak Downs line. This balloon loop does not meet current Queensland Rail (QR) standards for coal rail load facilities and the additional product coal generated by the project cannot be loaded via the existing facility. The options of either duplicating the existing balloon loop or extending a spur from the Peak Downs line to a point closer to the project operations were considered but were discounted for several reasons including cost, unsuitable terrain and impacts on current operations.

Currently there are no rail spur lines from the Blair Athol line in the vicinity of the project. Corridors that connected the train loadout to the Blair Athol line were investigated. The final route and balloon loop selected meet QR requirements and seek to minimise the length of spur and impact on existing infrastructure.

Detail of the selected option of rails and ports is provided in Section 3.8.

2.4.7.4 Accommodation

Based on these considerations a number of different types of permanent accommodation has been planned including village accommodation, units and houses.

2.5 Ecologically Sustainable Development

2.5.1 Definition of Sustainability

BMA understands the need to ensure the project develops in a sustainable manner. While there is no universally accepted definition of sustainability the World Commission on Environment and Development (also known as the Brundtland Commission) defined sustainable development as (Brundtland, 1987):

- "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

In 1990, the Commonwealth Government suggested the following definition of Ecologically Sustainable Development (ESD):

'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased'.

Both of these definitions of sustainability address total quality of life and thus encompass the environmental, social and economic dimensions of development.

This section describes the process undertaken by BMA to embed sustainability thinking and opportunities in the project's planning and design, and outlines the project's compatibility with the objectives and principles defined in Australia's *National Strategy for Ecologically Sustainable Development*.

2.5.2 Project Sustainability Principles

As part of the project, BMA undertook an exercise to define sustainability for the project and embed sustainability thinking and opportunities at an early stage in the project planning and design, with input across the project team. Project team members involved in the exercise included BMA employees (engineering, environment and community relations), mine planning engineering consultants, infrastructure and CHPP design engineers, environmental consultants, and community and social consultants.

The outcome of this process was the identification of thirteen design challenges and opportunities. These design challenges are outlined below and fall into three broad categories:

Environment

- Establishing a greenhouse gas (GHG) reduction and mitigation plan.
- Managing water to minimise releases and maximise reuse.
- Planning for closure and considering final landforms and sustainable end land uses at the outset.
- Identifying opportunities to enhance endangered regional ecosystems.

Social and Community

- Fully engaging the community.
- Investing in the community to build business capacity.
- Engaging the indigenous community through procurement, training and employment.
- Attracting and retaining workforce for construction and operation.

- Integrating project planning at regional and local levels.

Resource use efficiency

- Influencing the supply chain towards sustainability.
- Reducing impacts on the road transport corridors (rail and road).
- Understanding the sustainable use of the coal resource (all seams).

It is important to note that these design challenges and opportunities do not represent commitments for the purpose of the EIS. They represent the outcomes of a process designed to identify guiding principles for design and management of the project. These principles are reflected in the project design and mitigation measures nominated in the EIS.

2.5.3 Ecologically Sustainable Development Principles

This section reviews the project's compatibility against the objectives and principles defined in the *National Strategy for Ecologically Sustainable Development* (1992) (the National ESD Strategy) and demonstrates that the project's planning has been undertaken with consideration to these objectives and principles.

The key ESD objectives defined in the National ESD Strategy are to:

- Enhance individual and community well-being and welfare by following a path of economic development that safeguards the welfare of future generations.
- Provide for equity within and between generations (the Intergenerational Equity Principle).
- Protect biological diversity and maintain essential ecological processes and life-support systems.

The guiding ESD principles defined in the National ESD Strategy are:

- Decision-making processes should effectively integrate both long and short term economic, environmental, social and equity considerations.
- Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (the Precautionary Principle).
- The global dimension of environmental impacts of actions and policies should be recognised and considered.
- The need to develop a strong, growing and diversified economy which can enhance the capacity for environmental protection should be recognised.
- The need to maintain and enhance international competitiveness in an environmentally sound manner should be recognised.
- Cost-effective and flexible policy instruments should be adopted, such as improved valuation, pricing and incentives mechanisms.
- Decisions and actions should provide for broad community involvement on issues which affect them.

The National ESD Strategy also identifies three specific objectives for the mining sector:

- To ensure minesites are rehabilitated to sound environmental and safety standards, and to a level at least consistent with the condition of surrounding land.

- To provide appropriate community returns for using mineral resources and achieve better environmental protection and management in the mining sector.
- To improve community consultation and information, improve performance in occupational health and safety and achieve social equity objectives.

Each of these ESD objectives and principles are addressed in turn below.

2.5.3.1 ESD Key Objectives

Individual and Community Well-being and Welfare

The project will provide significant benefits to the wider community in terms of income generation, employment and increased government revenues and reinvestment, as detailed in Section 18 of the EIS. BMA's measures to improve social well-being and welfare are outlined in Section 17 of the EIS. The BMA has an ongoing Community Partnerships Program, which is a regional program that supports initiatives and activities that promote involvement with government, training and welfare organisations and the communities. The program is divided into six key areas:

- Youth development (Smith Family Learning for Life; Central Queensland Education Mobile Van)
- BMA's economic development/business and skills training
- Community development and welfare
- Community safety, sport, well-being and recreation
- Arts, entertainment and cultural development
- Environment and sustainable development.

The Intergenerational Equity Principle

Through appropriate management strategies and monitoring of the impacts of the project on the local environment, the project will not significantly reduce, or fail to maintain, the health, diversity and productivity of the Queensland environment or affect future generations.

Disturbed land will be rehabilitated and left in a stable, non-polluting condition, as detailed in Section 4.8 of the EIS. The proposed post-mine land use for disturbed areas within the project site is a mosaic of self sustaining vegetation communities and grazing land, using appropriate native tree, shrub and grass species, and improved pasture species as appropriate.

The project will require clearing of vegetation however this will mostly comprise grassland and woodlands. The clearing of remnant vegetation will be minimised through management of the mine footprint, and will not threaten individual flora or fauna species or ecosystems. The assessment of this impact in most cases is considered negligible (Section 8). Groundwater drawdown from the mine pit excavation is not expected to impact on remnant vegetation in the vicinity of the project site, as discussed in Section 7.

Water management practices on site will ensure that water quality in Horse, Cherwell, Nine Mile and Harrow Creeks downstream of the site are not adversely affected by the construction or operational phases of the project. Measures to protect water quality are detailed in Section 6. A monitoring program will be established to show that the discharges meet relevant guidelines and standards.

Protection of Biological Diversity and Essential Ecological Processes

The terrestrial and aquatic ecology values in the vicinity of the site are described in Section 8 and Section 9, respectively. A key measure for the protection of terrestrial and aquatic ecology values is avoidance of sensitive areas in particular the Brigalow in locating the mine footprint, the MIA and the placement of the overland conveyor. These initiatives have reduced the impacts on the sensitive areas in particular the Brigalow. Threatened species and ecosystems, and downstream water quality, will be protected as outlined above.

2.5.3.2 ESD Guiding Principles

Decision-Making Based on Long and Short Term Considerations

The project forms part of a growth strategy designed to strategically service the expanding demands of India, China and other international metallurgical coal markets, which will promote economic development in those countries. The project will provide immediate and long-term benefits to the economic and social fabric of Queensland, contributing to commonwealth, state and local government revenues and the national, state and local economies.

The Precautionary Principle

BMA has undertaken an assessment of the risk of unacceptable environmental harm consistent with the Precautionary Principle, and used the findings to determine appropriate environmental control strategies, which have been detailed in the EIS and Environmental Management (EM) Plan. The project has the technical and financial support and resources to establish and maintain these environmental protection controls.

Global Environmental Impact

The project will generate greenhouse gas emissions from site operations, product transport and product use. The project's average Scope 1 and 2 site operations represent 0.06% of Australia's 2006 greenhouse gas emissions and 0.0007% of global emissions in 2004. The transport and use of the coal (Scope 3) represents 2.6% of Australia's 2006 greenhouse gas emissions and 0.03% of global greenhouse gas emissions in 2004. As outlined in Section 11, BMA proposes a range of mitigation measures for site level emissions and is taking action at a corporate level to address the wider implications of greenhouse gas emissions and climate change.

As detailed in Section 8 and Section 9, the project will not result in significant impacts to threatened species, migratory species, RAMSAR wetlands and threatened ecological communities.

Development of a Strong, Growing and Diversified Economy which can enhance the Capacity for Environmental Protection

The project will add value to the international, Australian and Queensland economies. There will be some flow-on effects to other areas of the Queensland economy as a result of the project. The Minerals Council of Australia estimates that for every job created in the mining industry, at least three additional jobs are created elsewhere in Australia. BMA will encourage the use of local suppliers and contractors during construction and operations.

Enhancing International Competitiveness in an Environmentally Sound Manner

The project will enhance Australia's international competitiveness by adopting latest technology and mining methods, while not causing significant environmental impacts.

Cost-Effective and Flexible Policy Instruments

The project is consistent with Queensland and Commonwealth Government policy.

Community Involvement in Decisions and Actions

BMA has undertaken community consultation prior to preparing the EIS, which is detailed in Section 16, and will continue the process through the project's life. The project will develop a formal complaint procedure, continue to have meetings with local councils, and continue briefings by project representatives to community groups.

2.5.3.3 Mining Sector Specific ESD Objectives

Mine Site Rehabilitation

Disturbed land will be rehabilitated and left in a stable, non-polluting condition, as detailed in Section 4.8 of the EIS. The proposed post-mine land use for disturbed areas within the project site is a mosaic of self sustaining vegetation communities and grazing land, using appropriate native tree, shrub and grass species, and improved pasture species as appropriate. This post-mine land use will be consistent with the land use of surrounding land.

Provide Appropriate Returns for Mineral Resources and Achieve Better Environmental Protection and Management in the Mining Sector

The project will produce a product that is subject to a high international demand for the foreseeable future and will provide significant revenues to Commonwealth, State and Local Government. The coal resource has been subject to detailed investigations to define the extent of the resource and the feasibility of its extraction and processing.

The project will not impact on other coal, gas and mineral resources in the region. There are no significant resources of coal seam methane that will be lost by the development of the project. BMA has undertaken a comprehensive environmental impact assessment process to identify the opportunities to improve environmental protection and management for the project. This EIS documents the detailed assessments that have been undertaken and the EM Plan outlines the proposed environmental management strategies to be implemented. The project has the technical and financial support to establish and maintain these environmental management controls.

Improve Community Consultation, Improve Occupational Health and Safety, and achieve Social Equity Objectives

BMA has undertaken extensive community consultation prior to preparing the EIS, which is detailed in Section 16 and has been incorporated into the assessment of social impacts as detailed in Section 17. BMA has undertaken a review of the risks to occupational health and safety posed by the project and proposed appropriate management measures as detailed in Section 19. The assessment of social impacts and the proposed management measures to address these are detailed in Section 17.