

SARAJI EAST MINING LEASE PROJECT

Environmental Impact Statement

Chapter 1 Introduction

BHP

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Saraji East Mining Lease Project

1 Introduction

This Environmental Impact Statement (EIS) has been prepared in accordance with the *Environmental Protection Act 1994* (EP Act) for the Saraji East Mining Lease Project (the Project). The EIS has been prepared specifically in response to the Terms of Reference (ToR) dated May 2017, issued by the former Department of Environment and Heritage Protection (DEHP) (now the Department of Environment and Science (DES)).

This EIS addresses matters relevant to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and Referral 2016/7791 made under the EPBC Act for the Project, pursuant to the Bilateral Agreement between the Commonwealth and the State of Queensland.

An assessment was undertaken to consider and address the potential direct and indirect environmental, social, and economic impacts associated with the construction and operation of the Project. This assessment is documented in the EIS and provides information about the existing environment, the likely impacts and their significance, and mitigation measures to be applied to avoid or reduce the identified adverse effects to an acceptable level. This is required to:

- support an application for an Environmental Authority (EA) for the operation of the Project under the requirements of the EP Act
- support mining lease applications under the *Mineral Resources Act 1989* (MR Act)
- satisfy the Bilateral Agreement between the Commonwealth and the State of Queensland in relation to Matters of National Environmental Significance (MNES) under the EPBC Act.

The EIS has been developed to provide information for stakeholders, including the Commonwealth Department of Agriculture, Water and the Environment (DAWE) and DES, a number of other State referral agencies and other affected or interested bodies and parties.

1.1 Project proponent

BM Alliance Coal Operations Pty Ltd (BMA) (ABN: 67 096 412 752) acts on behalf of the Central Queensland Coal Associates (CQCA) Joint Venture, namely BHP Coal Pty Ltd, BHP Queensland Coal Investments Pty Ltd, Umal Consolidated Pty Ltd, QCT Resources Pty Limited, QCT Mining Pty Ltd, QCT Investment Pty Ltd, and Mitsubishi Development Pty Ltd under a management agreement. The CQCA is an unincorporated joint venture between BHP (50%) and Mitsubishi Corporation (50%). The postal address for BMA is: GPO Box 1398, Brisbane QLD 4000.

BMA is Australia's largest exporter of metallurgical coal. It has seven Central Queensland operational coal mines: Blackwater, Broadmeadow, Goonyella Riverside, Peak Downs, Saraji, Caval Ridge and Daunia. It also manages the Hay Point Coal Terminal near Mackay in Queensland. Norwich Mine is currently under BMA's care and maintenance.

BMA supplies high quality coking coal, pulverised coal injection coals and thermal coals to domestic and international customers.

BMA's operations provide significant benefits to surrounding local communities, the broader Central Queensland region and the Queensland economy as a whole. It is the largest employer in the Central Queensland region with approximately 12,000 full time equivalent employees and contractors. BMA plays a key role in the economic development of Central Queensland and is committed to the communities in which it operates.

In the 2016 financial year, the total royalties and taxes paid to the Queensland Government by BMA and BHP Billiton Mitsui Coal (BMC) was \$381 million (BHP Billiton, 2016). BMA is committed to regularly reviewing environmental performance and publicly reporting on progress.

BMA has a strong commitment to continual improvement of environmental performance. BMA has environmental procedures and plans in place to avoid breaches and where required incorporate corrective actions. Where breaches have occurred, BMA has followed the relevant regulatory notification requirements and has responded immediately to apply the appropriate corrective actions to rectify the relevant breaches and to avoid environmental harm.

BMA strives to achieve the efficient use of resources, including reducing and preventing pollution, and enhancing biodiversity protection by assessing ecological values and land use in its activities. BMA's stewardship approach is designed to ensure that the lifecycle health, safety, environment and community impacts associated with resources, materials, processes and products related to BMA are minimised and managed.

1.2 Project description

BMA proposes to develop the Saraji East Mining Lease Project (the Project), a greenfield single-seam underground mine development on Mining Lease Application (MLA) 70383 commencing from within Mining Lease (ML) 1775.

The Project proposal also consists of a new Coal Handling and Preparation Plant (CHPP) and associated Mine Infrastructure Area (MIA), and a new rail spur and balloon loop; both of which are proposed to be located on the site of the existing Saraji Mine. The Project is expected to produce up to eight million tonnes per annum (Mtpa) of metallurgical (coking and pulverised coal injection) product coal for the export market over an assumed 20-year production schedule (Financial Year (FY) 2023 – FY 2042).

The Project is located within the Isaac Regional Council (IRC) Local Government Area (LGA) approximately 30 kilometres (km) north of Dysart and approximately 167 km southwest of Mackay in Queensland. The Project is located adjacent to the existing Saraji Mine.

The relevant mining tenures are exploration permit for coal (EPC) 837 and EPC 2103, MLAs 70459, 70383 and granted MLs 1775, 70142 and 1782.

The key components of the Project are outlined below:

- a greenfield underground coal mine to be developed on MLA 70383 commencing from within the Saraji Mine ML 1775
- mining up to 11 Mtpa of run-of-mine (ROM) coal to produce up to a maximum of eight Mtpa of product coal (excluding ramp up/ramp down, the Project anticipates the production of an annual average of 6.2 Mtpa product coal)
- production of 110 Million tonnes (Mt) of product coal over the 20-year production schedule of the Project
- dewatered tailings and reject disposal within spoil at the existing Saraji Mine
- pre- and post-drainage of incidental mine gas from the coal seams to enable underground coal mine development
- construction of a new MIA within the previously disturbed areas of the Saraji Mine on ML 1775
- construction of a new transport and infrastructure corridor on MLA 70383 and MLA 70459
- construction of a new CHPP, conveyor, ROM infrastructure, product coal stockpile areas and supporting infrastructure on ML 70142
- water management system
- a water pipeline will be constructed connecting the Project's surface infrastructure located on ML 70142 to the process water dam located on MLA 70383

- construction of a new rail spur and balloon loop, and signalling system on the mainline
- relocation of the existing Eungella Water Pipeline Company (EWPC) Southern Extension Water Pipeline owned and operated by SunWater to the eastern boundary of the MLA 70383
- relocation of the existing 132 kilovolt (kV) Powerlink power line to the eastern boundary of MLA 70383
- relocation of the existing 66 kV powerlines
- construction of a new co-aligned 66 kV powerline
- a construction accommodation village to support the construction stage.

The following revisions to the Project Description have been made since the issue of the ToR dated May 2017:

- Initially, BMA had included an operational accommodation village within the scope of the Project at the commencement of the EIS. The operational accommodation village was proposed to be located south of the proposed construction accommodation village on the eastern boundary of MLA 0783. However following consideration of feedback from the Office of the Coordinator-General (OCG) and IRC during the development of the Project and Social Impact Assessment (SIA), it became evident to BMA that the proposed operational village did not align with stakeholder expectations. As a result, BMA has investigated alternative off-site accommodation options and opted to remove the operational accommodation village from the Project. Instead, workers will be accommodated at Coppabella, Dysart or Moranbah in existing BMA accommodation villages or other accommodation in town.
- Additionally, an alternate mine plan was considered the preferred option for this Project as it provides the most effective use of the coal resource and would best meet the objectives of the Project outlined in Section 1.4. Differences between the maximised and optimised mine plan are further discussed in Chapter 2 Project Alternatives and Justification.

1.3 Project terminology

The Project refers to Saraji East Mining Lease Project as detailed in **Chapter 3 Project Description**.

The Project Site consists of EPC 837, EPC 2103, MLA 70383, MLA 70459, ML 1775, ML 70142 and ML 782. An overhead 66 kilovolt (kV) powerline is proposed to extend off-lease and connect to the Dysart Substation, south of the Project Site. To the extent that the powerline extends beyond the lease boundaries, subsequent negotiation with relevant authorities and legislative approvals will be required. This scope does not form part of this EIS. The Project Site encompasses approximately 11,427 ha of land.

Mining and the infrastructure required to support the Project is not proposed within the full extent of the Project Site with direct impacts constrained to a smaller area of some 3,425 ha within MLA 70383, MLA 70459, ML 70142 and ML 1775. This area is referred to as the Project Footprint.

Further guidance to relevant terminology is provided in the **Abbreviations and Glossary** section.

1.4 Project objectives

The key objectives of this Project are to:

- utilise BMA owned land on the adjacent existing Saraji Mine MLs to minimise the environmental impacts from additional infrastructure and to provide Project efficiencies
- operate a profitable Project to provide high-quality hard coking coal, semi hard coking coal and pulverised coal injection coal to the export market
- design, construct and operate a Project that:
 - minimises adverse impacts on the surrounding biophysical and social environments

- complies with all relevant statutory obligations and continues to employ processes which enhance sound environmental management.

1.5 The EIS Process

1.5.1 Regulatory requirements

The regulatory requirements for an EIS are provided in chapter 3 of the EP Act, and include the following key steps:

- The proponent lodges a draft terms of reference (ToR) for the EIS
- The draft ToR is publicly notified, and the public can make submissions of the draft ToR
- Following responses to submissions on the draft ToR, a final ToR is issued
- The proponent prepares and lodges an EIS, addressing the requirements of the ToR
- DES determine whether the EIS can proceed
- The EIS is publicly notified, and the public can make submissions on the EIS
- The proponent responds to submissions on the EIS
- DES assess the adequacy of responses to submissions
- DES issue the EIS Assessment Report, which concludes the EIS process.

The proponent lodged a draft ToR on 9 December 2016. The draft ToR, together with the initial advice statement (IAS) for the Project, was publicly notified between 20 February 2017 and 31 March 2017. Notices were published in the Mackay Daily Mercury and The Australian on 18 February 2017. Affected and interested persons were notified of the availability of the draft ToR. Twenty-eight (28) submissions were received on the draft ToR, to which the proponent responded. The final ToR was issued in May 2017.

1.5.2 EIS preparation methodology

The general method for undertaking and preparing an EIS is to:

- determine the basis of the assessment and the required scope
- conduct individual assessments of each relevant aspect of the environment, measuring and predicting the likely scale of impacts of the Project on each aspect including the intensity, duration, cumulative effects, irreversibility and risk of environmental harm
- determine and propose appropriate mitigation measures to minimise likely adverse impacts on the environment for each aspect
- determine the significance of environmental effects and prioritise mitigation and rehabilitation (where applicable)
- produce a summary of commitments that incorporates the proposed mitigation measures.

Environmental impact assessment (and subsequent documentation in the EIS) has been undertaken in accordance with the ToR for the Project (refer to **Appendix A-1 Terms of Reference Cross Check**). In developing the EIS the Project team has considered relevant guidelines including the DES publication '*The environmental impact statement process for resource projects under the Environmental Protection Act 1994*' (DES, 2019). Where required, additional work has been undertaken to supplement the assessments required by the ToR and to ensure that the impact assessment is complete from the perspective of the Project team.

1.5.3 Objectives of the EIS

Section 40 of the EP Act states that the purpose of an EIS, and the EIS process, is to:

- assess the potential adverse and beneficial environmental, economic and social impacts of the Project
- assess management, monitoring, planning and other measures proposed to minimise any adverse environmental impacts of the Project
- meet the assessment requirements under the EPBC Act and Bilateral Agreement between the State of Queensland and the Commonwealth.

More specifically, the EIS:

- describes the Project and the values of the area for which it is proposed
- assesses the potential impact (positive or otherwise) of the Project and measures to avoid, minimise, mitigate and compensate for these effects
- includes a summary of commitments that documents and plans for the implementation of management measures
- addresses matters identified under Schedule 1 of the Environmental Protection Regulation 2019
- provides DES with the information required to decide whether to grant an EA under the EP Act.

This approach provides interested parties with a basis to understand and assess the potential impacts of the Project. This will include the general public and the following Federal and State government bodies:

- DAWE
- DES
- Department of Natural Resources, Mines and Energy (DNRME).

1.5.4 Structure of the EIS

The EIS is comprised of the following volumes:

- Volume 1 – Chapters
- Volume 2 – Technical Appendices.

Volume 1 (Chapters) describes the outcomes of the environmental impact assessment. Relevant environmental values are taken from the technical appendices and captured in this volume. The chapters are organised as follows:

- Chapter 1 introduces the Project proponent and provides an overview of the Project description. It also provides an outline of the environmental impact assessment process and discusses the approach to gain regulatory approval. This chapter also outlines the public consultation process, relevant legislation and policy requirements
- Chapter 2 provides the justification for, and alternatives, to the Project
- Chapter 3 provides information regarding the Project Site and a more detailed description of the Project. More specifically, it describes major construction and operational activities that are proposed

Chapters 4 to 22 report the findings on each of the topics that were identified for consideration in the ToR. These topics are covered in the following sections:

- Chapter 4 Land Use and Tenure

- Chapter 5 Land Resources
- Chapter 6 Terrestrial Ecology
- Chapter 7 Aquatic Ecology
- Chapter 8 Surface Water Resources
- Chapter 9 Groundwater
- Chapter 10 Geochemistry and Mineral Waste
- Chapter 11 Air Quality and Greenhouse Gas
- Chapter 12 Noise and Vibration
- Chapter 13 Scenic Amenity and Lighting
- Chapter 14 Transport
- Chapter 15 Waste Management
- Chapter 16 Cultural Heritage
- Chapter 17 Social
- Chapter 18 Economics
- Chapter 19 Stakeholders
- Chapter 20 Hazards, Health and Safety
- Chapter 21 Matters of National Environmental Significance
- Chapter 22 Cumulative Impacts
- Chapter 23 References.

In general, the following format has been adopted for the presentation of information for each chapter:

- an introduction to the technical assessment
- a summary of relevant legislation and policy
- the methodology that has been used to carry out the assessment
- description of environmental values, and an evaluation of their importance or sensitivity
- identification of the Project's potential impacts
- a description of the mitigation measures to be incorporated into the development
- identification of the predicted residual impacts generated during the construction, operation and decommissioning phases (allowing for the agreed mitigation) and an assessment of the nature and magnitude of these impacts
- an evaluation of the significance of the predicted residual impacts
- the findings of assessments within the summary and conclusions.

Volume 2 (Technical Appendices) contains technical information relating to a number of environmental and social topics. Information includes technical reports, methodologies, baseline data information and data analysis.

A list of the technical appendices in the EIS is provided below:

- Appendix A – 1 Terms of Reference Cross Check
- Appendix A – 2 Approvals Framework
- Appendix B – 1 Land Resources and Soils Technical Report
- Appendix B – 2 Subsidence Modelling
- Appendix C – 1 Terrestrial Ecology Technical Report
- Appendix C – 2 Offset Strategy
- Appendix C – 3 Central Queensland Threatened Species Habitat Descriptions
- Appendix D – 1 Aquatic Ecology Technical Report
- Appendix E – 1 Surface Water Quality Technical Report
- Appendix E – 2 Mine Water Balance Technical Report
- Appendix E – 3 Hydrology, Hydraulics and Geomorphology Technical Report
- Appendix F – 1 Groundwater Technical Report
- Appendix G – 1 Geochemistry Technical Report
- Appendix H – 1 Air Quality Technical Report
- Appendix I – 1 Noise and Vibration Technical Report
- Appendix J – 1 Traffic and Transport Impact Assessment
- Appendix K – 1 Rehabilitation Management Plan
- Appendix K – 2 Subsidence Management Plan
- Appendix L – 1 Social Impact Assessment
- Appendix M – 1 Economics Technical Report
- Appendix N – 1 Public Consultation Report
- Appendix O – 1 Summary of Commitments.

1.6 Public consultation process

1.6.1 Draft EIS preparation period

A community consultation program has been carried out by the EIS project team. **Chapter 19 Stakeholders** provides an overview of the consultation occurred during preparation of the EIS.

Community consultation has broadly been carried out according to the three tiers below:

- Communication with affected and interested parties about the Project and the EIS process.
- Public consultation on the draft TOR, advising of the Project's purpose, location and requirements. This part of the consultation was specifically aimed at identifying stakeholder concerns related to the Project and ensuring, where relevant, these were addressed in the draft EIS.
- Social baseline study aimed at capturing the most important community values, which included community engagement workshops and interviews with key stakeholders.

Community consultation is an ongoing process that aims to provide opportunities to educate and involve the community throughout the life of the Project. Information on the specific methodologies and the level of community consultation carried out to date is provided in the public consultation report attached as **Appendix N-1 Public Consultation Report** and summarised in **Chapter 19 Stakeholders**.

The interests and concerns of the local community and interest groups are discussed in **Chapter 17 Social**.

1.6.2 Draft EIS public submissions

Following submission of the draft EIS, DES will decide if the EIS can proceed to public notice. Within 20 days of receiving a notice to proceed from DES, BMA will:

- Give written notice of the Project to each affected and interested person for the Project
- Publish a notice of the EIS in a national and a regional newspaper
- Make a copy of the submitted EIS available on the proponent's website.

The EIS notice will state:

- A description of the Project and the operational land
- Where electronic versions of the submitted EIS may be obtained
- That anyone can make a submission to the chief executive of DES about the submitted EIS
- The period (the submission period) during which submission may be made (30 business days)
- How to make a properly made submission

A submission is properly made if it:

- Is written (hard or electronic form)
- Is signed by or for each person (signatory) who made the submission
- States the name and address of each signatory
- Is made to the chief executive of DES
- Is received on or before the last day of the submission period.

The public are welcome and encouraged to make submissions on this draft EIS during the public notification period.

In accordance with Section 55 of the EP Act, submissions should be addressed to:

The Chief Executive
Department of Environment and Science
Attention: The EIS Coordinator (Saraji East Mining Lease Project)
GPO Box 2454, Brisbane QLD 4000
Or by email to eis@des.qld.gov.au.

The EIS can be viewed online at:

<https://www.bhp.com/sustainability/environment/regulatory-information/>

Electronic copies can be obtained by downloading documents from the Project website. Any enquiries about the EIS documents can be made by emailing metcoalinfo@bhpbilliton.com or by phoning BMA on 1800 078 797.

Following the close of the public notification period, DES will provide copies of the submissions to BMA, who must consider the submissions, provide DES with a response to each of the submissions and any

amendments of the submitted EIS because of the submissions. Both the submissions and BMA's response will be taken into account as part of DES' assessment of the Project.

BMA will provide DES with a response to any submissions received on the EIS and, if it considers necessary, amend the EIS as required. DES will then decide if the response to submissions is adequate and whether the EIS can proceed. DES then prepares an EIS Assessment Report, which once finalised, completes the EIS process. The EIS Assessment Report:

- Assesses the adequacy of the EIS in addressing the ToR requirements
- Assesses the adequacy of any environmental management plans
- Makes recommendations about the suitability of the Project
- Recommends conditions of approval for the project.

Following issue of the EIS Assessment Report, the EA enters the 'decision stage' (Chapter 5, part 5 of the EP Act). Notice of decision to approve the EA subject to conditions provided in a draft EA, will be provided to submitters to the EIS, who then have 20 business days to provide any objections. The EA is granted once all objections have been resolved.

1.7 Key approvals and legislative requirements

This section outlines the key Commonwealth, State and local legislative requirements that are applicable to the Project's construction and operational phases. The Project is expected to comply with applicable Commonwealth and State legislation and guidelines. A register of approvals required for the Project is provided in **Appendix A-2 Approvals Framework**. The register describes supporting information associated with each approval including:

- legislation triggers
- administering authorities
- assessment timeframes
- application information requirements
- Project-specific requirements.

A flowchart indicating the key approvals and opportunities for public comment associated with the Project approvals process is provided as Figure 1-1.

During detailed design, BMA will re-visit the approvals framework (**Appendix A-2 Approvals Framework**) to identify any outstanding approval requirements for the Project and undertake consultation with relevant government bodies.

The key legislation relevant to the Project is summarised in Table 1.1.

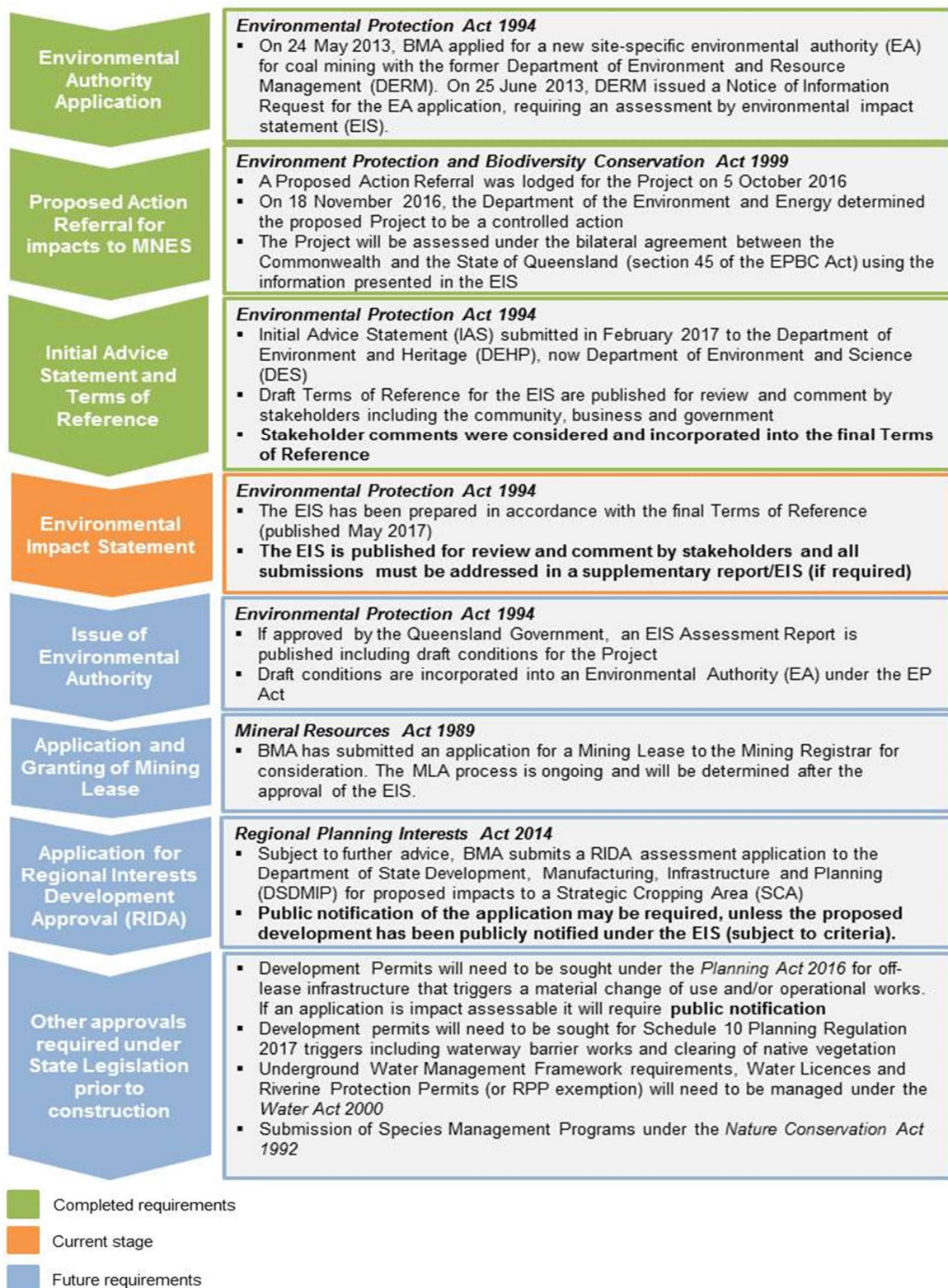


Figure 1-1 Flowchart of key approvals and opportunities for public comment

Table 1.1 Key legislation relevant to the Project

Legislation	Relevant authority	Overview	Relevance to Project
Commonwealth legislative requirements			
<i>Environment Protection and Biodiversity Conservation Act 1999</i>	DAWE	The EPBC Act is the Australian Government's central piece of environmental legislation. It provides a legal framework to protect and manage matters such as nationally and internationally important flora, fauna, ecological communities and heritage places defined by the EPBC Act as MNES, including world heritage properties, national heritage places, wetlands of international importance (RAMSAR), listed threatened species and ecological communities, migratory species, Commonwealth marine areas, the Great Barrier Reef Marine Park, nuclear actions and a water resource, in relation to coal seam gas development and large coal mining development. The legislation provides requirements for the protection of the environment, conservation of biodiversity, streamlined environmental assessment and approval processes (where MNES are involved), protection of world and natural heritage, and promotion of ecologically sustainable development.	<p>A Proposed Action Referral was lodged for the Project on 5 October 2016. The Project was deemed to be a Controlled Action (reference 2016/7791). As such, the Project requires assessment and approval under the EPBC Act before it can proceed.</p> <p>The relevant controlling provisions for the Project are:</p> <ul style="list-style-type: none"> • listed threatened species and communities (sections 18 and 18A) • a water resource, in relation to coal seam gas development and large coal mining development (section 24D and 24E). <p>The Project will be assessed under the bilateral agreement between the Commonwealth and the State of Queensland (section 45 of the EPBC Act) using the information presented in this EIS prepared in accordance with Chapter 3, Part 1 of the EP Act.</p> <p>Given that the Project is being assessed, and potentially approved, in accordance with the EIS process (as an accredited authorisation process), no additional assessment of the action will be required under the EPBC Act. In considering approval for the Project, the Commonwealth Minister for the Environment and Energy will rely on the assessment contained within the EIS.</p> <p>The assessment of the Project under the EPBC Act is further discussed in Section 1.9.</p> <p>It should be noted that the existing open cut mine on ML 1775 has prior authorisation.</p>

Legislation	Relevant authority	Overview	Relevance to Project
<i>Native Title Act 1993</i>	National Native Title Tribunal	Under the <i>Native Title Act 1993</i> (NT Act), the Federal Court of Australia is responsible for the management and determination of all applications relating to native title in Australia. The NT Act sets out the role of the Court in native title matters and establishes a framework for the protection and recognition of native title. The NT Act also outlines procedures which determine where native title exists, how future activity impacting upon native title may be undertaken and to provide compensation where native title is impaired or extinguished.	A search of the National Native Title Tribunal (NNTT) online Native Title Vision mapping (search completed on 27 March 2018) did not identify any claims or determinations over the Project Site. BMA considers that the mining lease application area is over land tenure that is not subject to native title as indicated in the ML 70383 application.
<i>National Greenhouse and Energy Reporting Act 2007</i>	Clean Energy Regulator	The <i>National Greenhouse and Energy Reporting Act 2007</i> (NGER Act) is a framework for the reporting and dissemination of information about greenhouse gas (GHG) emissions, energy consumption and energy production.	Assessment and reporting requirements under the NGER Act will be met through the existing mechanisms developed by BMA. GHG emissions associated with the Project are addressed in Chapter 11 Air Quality and Greenhouse Gas .
Queensland legislation			
<i>Aboriginal Cultural Heritage Act 2003</i>	Department of Aboriginal and Torres Strait Islander Partnerships (DATSIP)	Part 3 of the <i>Aboriginal Cultural Heritage Act 2003</i> (ACH Act) contains provisions for identifying and protecting significant Aboriginal cultural heritage from development, including: undertaking a duty of care towards Aboriginal cultural heritage; establishment of an Aboriginal cultural heritage database; and establishment of a register of Aboriginal cultural heritage. The legislation requires that, when carrying out activities, the Proponent takes all reasonable and practicable measures to ensure that the activity does not harm Aboriginal cultural heritage. This is known as the 'cultural heritage duty of care'. A Duty of Care Guideline, in support of the ACH Act, was gazetted in April 2004, and outlines reasonable and practicable measures for ensuring activities are managed to avoid or minimise harm to Aboriginal cultural heritage. In addition, where an EIS is required for a project, the ACH Act also requires that a	The Project requires an approved CHMP under Section 87 of the ACH Act as it is subject to an EIS process prior to the grant of the MLs, or alternatively, before the commencement of operations under the MLs. There are currently four CHMPs that apply to the Project Site. CLH012020 applies to the whole of the Project Footprint, overlapping CLH000351, CLH000520, and CLH012021. It is necessary for Project works to comply with the requirements of each CHMP whilst they remain active on the DATSIP register. Refer to Chapter 16 Cultural Heritage for further information.

Legislation	Relevant authority	Overview	Relevance to Project
		cultural heritage management plan (CHMP) be developed and approved under the ACH Act.	
<i>Coal Mining Safety and Health Act 1999</i>	DNRME	The <i>Coal Mining Safety and Health Act 1999</i> (CMSH Act) and subordinate Coal Mining Safety and Health Regulation 2003 deal with the protection and health and safety of all persons involved in the operation, design, and construction of coal mines.	The Project's construction and operation will be governed by the CMSH Act. Further information regarding the proposed safety measures to be undertaken as part of the Project is outlined in Chapter 20 Hazards, Health and Safety .
<i>Biosecurity Act 2014</i>	Department of Agriculture and Fisheries (DAF)	The <i>Biosecurity Act 2014</i> provides biosecurity measures to safeguard the Queensland economy, agricultural and tourism industries, and way of life from pests (e.g. wild dogs and weeds), diseases (e.g. foot-and-mouth disease) and contaminants (e.g. lead on grazing land). Under the <i>Biosecurity Act 2014</i> , individuals and organisations have a 'general biosecurity obligation' to take all reasonable and practical steps to minimise biosecurity risks.	Field assessments have been undertaken within the Project Site to identify weed species. Additional species and areas will be managed through a Weed and Pest Management Plan for the Project. Further information is provided in Chapter 6 Terrestrial Ecology .
<i>Mineral Resources Act 1989</i>	DNRME	The MR Act provides for the assessment, development and utilisation of mineral resources. The MR Act establishes a framework to facilitate mining-related activities through the leasing of prospecting, exploration, mineral development and mining tenure.	BMA currently holds two MLAs over the Project Site. These are MLA 70383 and MLA 70459. The Project proposes two new MLs that will be governed under the MR Act. BMA has submitted an application for a ML to the Mining Registrar within DNRME for consideration and approval following the granting of the Project EA by DES. The final stages of the ML application and granting process will occur after the approval of this EIS.
<i>Electricity Act 1994</i>	Powerlink	The <i>Electricity Act 1994</i> is the main legislation governing Queensland's electricity industry.	The Project will involve the connection of a new 66kV powerline, in which a portion extends off-lease. As BMA does not own the land extending south (off-lease), approval to operate the powerline under the <i>Electricity Act 1994</i> will need to be sought. Notice to electricity entities

Legislation	Relevant authority	Overview	Relevance to Project
			will be required where interference with existing infrastructure is proposed.
<i>Environmental Protection Act 1994</i>	DES	The EP Act is Queensland's primary piece of environmental legislation. The EP Act establishes an assessment regime for the consideration and approval of environmentally relevant activities (ERA) and establishes a process for obtaining an EA for mining activities. The EP Act is supported by the <i>Environmental Protection Regulation 2019</i> which nominates environmental objectives and performance outcomes under Schedule 8.	<p>An EA for a resource activity will be required to authorise the proposed mining activities within the lease area. The EA will authorise ERAs (ancillary activities) over the lease area. The existing Saraji Mine operates in accordance with EA Permit No. EPML00862313.</p> <p>On 24 May 2013, BMA applied for a new site-specific EA for coal mining with the former Department of Environment and Resource Management (DERM) (now DES) for the Project. On 25 June 2013, DERM issued a Notice of Information Request for the EA application, requiring an assessment by EIS. The preparation of this EIS seeks to fulfil this assessment requirement in support of BMA's objective to secure all necessary approvals for the Project.</p> <p>BMA will be seeking an EA for the ERA 13 (mining black coal), with ancillary activities being ERA 8 (chemical storage), ERA 31 (mineral processing), ERA 63 (sewage treatment).</p> <p>Certain activities located off the ML area (off-lease) which involve a prescribed ERA will also require an EA. A separate application is required for these off-tenure activities; however, once granted, the approvals can be amalgamated into a single EA along with the mining activities.</p> <p>The EIS has assessed environmental impacts relevant to off-lease infrastructure including a 66kV powerline extension to Dysart Substation and relocation and re-connection of the existing Eungella Water Pipeline</p>

Legislation	Relevant authority	Overview	Relevance to Project
			<p>Company (EWPC) Southern Extension Water Pipeline. However, the off-lease components of the Project do not form part of the MLA and subsequent mining tenement applications.</p> <p>The EIS has been prepared with consideration of the environmental objectives and performance outcomes stated in Schedule 8 of the EP Regulation.</p> <p>Refer to Appendix A-2 Approvals Framework for further discussion on the ERA's to be sought for the Project. Further information on the relevance of waste related ERA's is provided in in Chapter 15 Waste Management.</p>
<i>Environmental Offsets Act 2014</i>	DES	<p>The <i>Environmental Offsets Act 2014</i>, Environmental Offsets Regulation 2014 and the Queensland Government Environmental Offsets Policy provide a streamlined framework for environmental offset requirements.</p> <p>An environmental offset may be required as a condition of approval where, following consideration of avoidance and mitigation measures, the activity is likely to result in a significant residual impact on prescribed environmental matters.</p>	<p>The terrestrial ecology assessment for the Project (refer to Chapter 6 Terrestrial Ecology) confirmed that it is possible that the Project will have a significant impact on three fauna species: koala (<i>Phascolarctos cinereus</i>), squatter pigeon (<i>Geophaps scripta scripta</i>) and ornamental snake (<i>Denisonia maculata</i>) and one threatened ecological community (TEC) brigalow (<i>Acacia harpophylla</i>).BMA proposes to provide land based offsets through a staged offset strategy. This strategy will be finalised at issue of the EA for the Project, and will be based on determination of actual clearing areas as mining and associated management and subsidence progresses (refer to Chapter 6 Terrestrial Ecology and Appendix C-2 Offsets Strategy).</p> <p>It should be noted that the existing open cut mine on ML 1775 has been previously authorised.</p>
<i>Mineral and Energy Resources</i>	DES	The recently passed <i>Mineral and Energy Resources (Financial Provisioning) Act 2018</i> amends the <i>Environmental Protection Act 1994</i> (EP Act), replacing the Plan of Operations and	The Project will comply with the <i>Mineral and Energy Resources (Financial Provisioning) Act 2018</i> .

Legislation	Relevant authority	Overview	Relevance to Project
<i>(Financial Provisioning) Bill 2018</i>		Financial Assurance (FA) with Estimated Rehabilitation Cost (ERC) and Progressive Rehabilitation and Closure Plan (PRCP). The requirement will be integrated into the existing EA process for new mines, however for existing mines, there are transitional arrangements in place.	
<i>Native Title (Queensland) Act 1993</i>	DNRME	The <i>Native Title (Queensland) Act 1993</i> has been developed in response to the Commonwealth <i>Native Title Act 1993</i> to ensure that the Queensland Act is compliant with standards set in the Commonwealth Act for future dealings affecting native titles.	BMA considers that the mining lease application area is over land tenure that is not subject to native title as indicated in the ML 70383 application.
<i>Fisheries Act 1994</i>	DAF	Any structure or works which limit fish movement along a mapped waterway constitutes a waterway barrier work for the purposes of the <i>Fisheries Act 1994</i> .	Activities within the bounds of the ML are exempt from the requirements of a waterway barrier works permit, however any waterway barrier works located off-lease will be required to either adhere to the accepted development requirements or a development permit will be obtained. Off-lease works proposed for the Project include the construction of a 66kV overhead powerline, in which the design is expected to meet the accepted development requirements.
<i>Nature Conservation Act 1992</i>	DES	The <i>Nature Conservation Act 1992</i> (NC Act) provides for the conservation of nature, specifically Queensland's biodiversity. In support of the purpose and the provisions of the NC Act, the Nature Conservation (Wildlife) Regulation 2006 lists all flora and fauna species considered to be 'extinct in the wild', 'endangered', 'vulnerable', 'rare', 'near threatened' and 'least concern' wildlife. In Queensland, all plants that are native to Australia are protected plants under the NC Act.	A limited number of species prescribed under the NC Act are indicated to occur with the Project Footprint. Authority to take these species will be required prior to disturbance. Protected plants clearing permit The Project Site is not located within a high risk area as per the NC Act flora survey trigger map. When works are proposed in an area other than a high risk area, a clearing permit is only required where a person is, or becomes, aware that Endangered, Vulnerable or Near Threatened (EVNT) plant species are present.

Legislation	Relevant authority	Overview	Relevance to Project
			<p>Ecological surveys completed for the Project in 2016 and 2017 identified one EVNT flora species (<i>Dichanthium setosum</i> (bluegrass)) on the Project Site. A permit will be required for clearing this plant and for clearing areas within 100 m of the plant.</p> <p>Species Management Program The removal or tampering of a breeding place is allowed if it is part of a Species Management Program for the same species or if a 'damage mitigation permit' for the animal is obtained and the permit authorises the removal or tampering.</p> <p>Ecological surveys completed by AECOM in 2016 and 2017 identified animal breeding places that may be impacted by the Project. Notable species that have been identified include the koala (<i>Phascolarctos cinereus</i>), squatter pigeon (<i>Geophaps scripta scripta</i>) and ornamental snake (<i>Denisonia maculata</i>).</p> <p>BMA will need to prepare and seek approval of High Risk Species Management Program to manage impacts to breeding habitat of these species.</p> <p>The Species Management Program requirement does not apply to clearing koala habitat or disturbance to flying-fox roosts.</p> <p>Approval to take native wildlife (removal of wildlife) A person must not take a protected animal unless the person is an authorised person or the taking is authorised under the NC Act. Based on ecological assessments undertaken to date, protected animals are likely to be encountered in the establishment of the Project. Suitably qualified spotter catchers will be present during vegetation</p>

Legislation	Relevant authority	Overview	Relevance to Project
			clearing activities to minimise risk of injury to native fauna. All spotter catchers will hold appropriate permits under the NC Act.
<i>Planning Act 2016</i>	Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP)	The <i>Planning Act 2016</i> seeks to achieve effective ecological sustainability through the managing the process by which development takes place, including ensuring the process is accountable, effective and efficient and delivers sustainable outcomes. Additionally, the <i>Planning Act 2016</i> aims to manage the effects of development on the environment, including managing the use of the premises, and the continued coordination and integration of planning at local, regional and State level.	Mining the subject of an EA (pursuant to the EP Act) is not assessable development under the <i>Planning Act 2016</i> . An EIS under the EP Act cannot be used for making a decision under the <i>Planning Act 2016</i> , other than a decision in relation to a mining activity (s.37 (2), EP Act). Activities within the bounds of the ML are largely exempt from the requirements of the <i>Planning Act 2016</i> through the provisions within the MR Act. Activities off-lease, such as roads, powerlines and pipelines are not exempt development and will require assessment against applicable local and State government legislation, policies and guidelines.
<i>Queensland Heritage Act 1992</i>	Department of Environment and Science	The <i>Queensland Heritage Act 1992</i> provides for the conservation of Queensland's cultural heritage. Within the <i>Queensland Heritage Act 1992</i> , the Queensland Heritage Register has been established which details State heritage places. In the event that the Project Site coincides with a Registered (Protected) Place, the following must be sought: Approval to develop on a registered place; or exemption certificate to carry out development on a registered place.	No heritage places were identified within the Project Site or Footprint during assessment. However, if an archaeological artefact that is an important source of information about an aspect of Queensland's history is uncovered, BMA must contact DES for direction. Chapter 16 Cultural Heritage discusses potential impacts to cultural heritage.
<i>Radiation Safety Act 1999</i>	Queensland Health	The <i>Radiation Safety Act 1999</i> provides the control generally of sources of ionising radiation and harmful non-ionising radiation, and for other purposes.	The Project includes the construction of a coal handling and preparation plant (CHPP). Due to the components making up some of the CHPP, a radiation use/radiation possession licence is likely to be required.
<i>Regional Planning</i>	DSDMIP	The <i>Regional Planning Interests Act 2014</i> (RPI Act) and Regional Planning Interests Regulation 2014 (RPI Regulation)	The Project's proposed 66 kV powerline overlays the mapped Strategic Cropping Area (SCA) and will therefore require a RIDA. The Project's transport and infrastructure

Legislation	Relevant authority	Overview	Relevance to Project
<i>Interests Act 2014</i>		<p>seek to manage impacts for resource activities in areas of regional interest through the protection of:</p> <ul style="list-style-type: none"> • living areas in regional communities • high-quality agricultural areas from dislocation • strategic cropping land • regionally important environmental areas. <p>A Regional Interests Development Approval (RIDA) may be required when a resource activity is proposed in an area of regional interest.</p>	corridor will occur within a lot mapped within the SCA, but the infrastructure corridor itself does not directly encroach on the SCA. A pre-approval application meeting was held with DSDMIP and DNRME in late 2018. BMA will comply with the requirements of the <i>RPI Act</i> and the application process is in progress.
<i>Transport Infrastructure Act 1994</i>	Department of Transport and Main Roads (DTMR)	The <i>Transport Infrastructure Act 1994</i> (TI Act) is the primary legislation relating to transport in Queensland. The overall objective of the TI Act is to encourage effective integrated planning and efficient management of transport infrastructure.	<p>Road corridor and traffic control permits DTMR Road Corridor Permits (RCPs) and Traffic Control Permits (TCPs) will be required under the TI Act for any construction work or altered access requirements associated with the Project. An RCP and TCP will be required for works within the Peak Downs Highway road corridor. These will be finalised for the final construction traffic route and construction footprint.</p> <p>Wayleave agreement The relocated water supply pipeline, existing 66 kV powerline and new 66 kV powerline may require agreements with Aurizon and/or Queensland Rail for crossing existing rail easements and establishing a new rail spur. A Wayleave is an agreement that governs the installation, ownership and maintenance of third party services and infrastructure (e.g. electrical cables, rail spur, telecommunications or pipelines) that cross over or under land controlled by rail operators or owners.</p>
<i>Vegetation Management Act 1999</i>	DNRME	The <i>Vegetation Management Act 1999</i> (VM Act) (in conjunction with the <i>Planning Act 2016</i> regulates the conservation and management of vegetation communities and clearing of	The Project requires native vegetation to be cleared in some areas. Although mining is exempt development, the VM Act provides useful guidelines on management.

Legislation	Relevant authority	Overview	Relevance to Project
		vegetation. It provides protection for regional ecosystems (REs) classified as endangered', 'of concern', or 'not of concern' under the VM Act. Mining is exempt development for the purposes of the <i>Planning Act 2016</i> . Aspects of mining developments relating to the clearing of REs and high-value regrowth vegetation are assessed through the EIS process under the EP Act.	Chapter 6 Terrestrial Ecology provides information on the existing vegetation and the management of vegetation issues.
<i>Waste Reduction and Recycling Act 2011</i>	DES	The primary objective of the <i>Waste Reduction and Recycling Act 2011</i> and the subordinate Waste Reduction and Recycling Regulation 2011 is to create new legislation in respect to waste management and resource recovery in Queensland. The main objectives of the Act in relation to waste management are to: promote waste avoidance and reduction; reduce the overall impact of waste generation; promote resource recovery and efficiency actions; promote the sustainable use of natural resources; encourage the use of recovered resources; and ensure a shared responsibility between government, business and industry and the community.	Waste generated by the Project will be managed in accordance with the Act and BMA's operational policies and procedures. Further detail is provided in Chapter 15 Waste Management .
<i>Water Act 2000</i>	DNRME	The <i>Water Act 2000</i> (Water Act) provides a system for the planning, protection, allocation and use of Queensland's surface waters and groundwater. Under section 808 of the Water Act, a person must not take, supply or interfere with water unless authorised. Taking or interfering with the flow of water in a watercourse requires a water licence or permit. A decision on whether to grant a licence or permit must be taken in accordance with the objectives for sustainable water management in the relevant Water Resource Plan, where one exists.	Both surface water and groundwater will be potentially impacted by the Project. A number of dams, levees and stream diversions are also required for the Project. Underground Water Management Framework BMA, as a resource operator, has the right to take associated water under the MR Act as a necessary activity in the process of extracting the resource. BMA has an obligation to comply with the underground water management framework under the Water Act including the preparation of an Underground Water Impact Report (UWIR). BMA will seek an EA with a condition permitting the impacts to groundwater, which will include the preparation

Legislation	Relevant authority	Overview	Relevance to Project
			<p>of an Underground Water Impact Report (UWIR) and associated consultation.</p> <p>Water licence for taking or interfering with surface water or overland flow water</p> <p>A water licence for interfering with surface waters and/or overland flow may still be required for the Project.</p> <p>BMA is seeking authorisation to take water and otherwise interfere with the flow of water arising from Project-related subsidence of Boomerang, Hughes, Phillips, One Mile and Spring Creeks via the EIS process and the resulting EA that has been applied for. The mitigation of impacts will be delivered in accordance with the proposed subsidence management plan to be conditioned in the EA.</p> <p>This is in accordance with the framework provided by the <i>Water Act 2000</i>:</p> <ul style="list-style-type: none"> • Section 97 (1) (a) of the Water Act provides that a person may take overland flow water that is not more than the volume necessary to satisfy the requirements of an environmental authority. • Section 97 (2) provides that a person may interfere with the flow of water by impoundment if the interference is not more than is necessary to satisfy the requirements of an environmental authority. • Section 97 (3) provides that subsections (1) and (2) apply only if (a) the impacts of the take or interference were assessed as part of a grant of an environmental authority or development permit; and (b) the environmental authority or development permit was

Legislation	Relevant authority	Overview	Relevance to Project
			<p>granted with a condition about the take or interference with water.</p> <p>Appendix B-1 Land Resources and Soils Technical Report sets out the estimated extent of interference and Appendix K-2 Subsidence Management Plan provides mitigations related to subsidence. BMA will consult with DNRME to ensure any residual information requirements are addressed.</p> <p>Riverine Protection Permit A Riverine Protection Permit is required for destroying vegetation, excavating or placing fill within a watercourse, lake or spring. A Riverine Protection Permit may be required for Project activities located both on and off-lease such as relocation of the water supply pipeline and electricity supply infrastructure (where traversing watercourses and compliance with exemption requirements cannot be met). The Riverine Protection Permit exemption requirements can be used by:</p> <ul style="list-style-type: none">• an owner of land adjoining a watercourse, lake or spring• the holder of an environmental authority (for a resource activity) under the EP Act or a mineral development licence or mining lease under the MR Act.

1.8 Regional and local plans

Mackay, Isaac and Whitsunday Regional Plan

The *Mackay, Isaac and Whitsunday Regional Plan* was published in February 2012. The region includes three LGAs and adjacent Queensland waters:

- Mackay Regional Council
- Isaac Regional Council
- Whitsunday Regional Council.

The regional plan aims to:

- address regional economic, social and environmental issues
- identify strategic infrastructure and service needs and priorities
- support economic prosperity and employment opportunities
- support consolidated growth within established regional centres and townships
- align efforts across agencies and all levels of government.

This plan is given effect under the *Planning Act 2016*.

Isaac 2035, Council's Community Strategic Plan

The *Isaac 2035, Council's Community Strategic Plan* was adopted by Council on 28 April 2015.

The plan comprises a region-wide strategy setting out regional outcomes and goals, and 13 place community plans listing the priorities for each community within the Central Highlands region.

Using a two-level approach, each community has an individual plan which sets out the future vision of each community. The plan provides strategic planning direction for Council, the community, State and Federal governments, business and industry in the Central Highlands region.

This Plan provides a long term 'road map' setting out the aspirations of the Central Highlands communities and the steps they will take to achieve their vision. Further discussion and evaluation of the Project in the context of the relevant community priorities is provided in **Chapter 17 Social**.

Local Planning Schemes

The Project is located within the local government boundary of the Isaac Regional Council. Isaac Regional Council was formed in 2008 from the Belyando, Nebo and Broadsound Shire Councils. This means there are three different planning schemes across Isaac's LGA:

- Belyando Planning Scheme 2009
- Nebo Planning Scheme 2008
- Broadsound Planning Scheme 2005.

The new planning scheme will provide one local planning framework for the region. The Proposed Isaac Regional Planning Scheme (State Interest Review, version 3) was released in April 2019. The new Isaac Regional Planning Scheme is expected to be in force in mid to late 2019.

1.9 Accredited process for controlled actions under Commonwealth legislation

The Project has been declared a controlled action under the EPBC Act. The controlling provisions for the Project are:

- listed threatened species and communities (sections 18 and 18A)
- a water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E).

The State's EIS process has been accredited under a Bilateral Agreement for the purposes of the Commonwealth's assessment of the Project under Part 8 of the EPBC Act.

The EIS assesses the relevant impacts on matters covered by the controlling provisions and ensures that sufficient information about the Project and its relevant impacts are provided. This subsequently allows the Commonwealth Minister for the Environment to make an informed decision whether to approve the Project under the EPBC Act. The matters to be addressed in this EIS are set out in Schedule 4 of the Commonwealth's Environment Protection and Biodiversity Conservation Regulations 2000 which mirrors requirements established under Part 2 of the Environmental Protection Regulation 2019.

The required evaluation of the Project's potential impacts on MNES is provided in **Chapter 21 Matters of National Environmental Significance**.