Central Queensland Coal Project

Chapter 1 – Introduction

Environmental Impact Statement

CDM Smith

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Central Queensland Coal Project

Chapter 1 - Introduction

24 October 2017

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1 Introduction

Central Queensland Coal Proprietary Limited (Central Queensland Coal) and Fairway Coal Proprietary Limited (Fairway Coal) (the joint Proponents), both wholly owned subsidiaries of Mineralogy Proprietary Limited (Pty Ltd) propose to develop the Central Queensland Coal Project (the Project). As Central Queensland Coal is the senior proponent, Central Queensland Coal is referred to throughout this Environmental Impact Statement (EIS). The Project comprises the Central Queensland mine where coal mining and processing activities will occur along with a train loadout facility (TLF).

The Project will involve mining a maximum combined tonnage of 10 million tonnes per annum (Mtpa) of semi-soft coking coal (SSCC) and high grade thermal coal (HGTC). The Project consists of three open cut operations. The run-of-mine (ROM) coal will ramp up to approximately 2 Mtpa during Stage 1 (Year 1-4), where coal will be crushed, screened and washed to SSCC grade with an estimate 80% yield. Stage 2 of the Project (Year 4-20) will include further processing of the additional 6 Mtpa ROM coal within another coal handling and preparation plant (CHPP) to SSCC and a HGTC plant with an estimated 95% yield. At full production, two CHPPs, one servicing Open Cut 1 and the other servicing Open Cut 2 and 4, will be in operation.

Production of the Project is expected to commence in 2018 and extend for approximately 20 years until the depletion of the current reserve. It is intended that all aspects of the Project will be authorised by a mining lease (ML80187 and ML700022) and a site specific environmental authority (EA).

The Project is located in the Styx Basin, approximately 130 kilometres (km) northwest of Rockhampton in Central Queensland (Figure 1-1). Access to the Project will be via the Bruce Highway. The Project will employ a peak workforce of approximately 200 people during construction and between 250 to 500 during operation, with the workforce reducing to approximately 50 during decommissioning. Central Queensland Coal will manage the Project construction and ongoing operations with the assistance of contractors.

1.1 Purpose of the Environmental Impact Statement

This EIS addresses the requirements of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the Queensland *Environmental Protection Act 1994* (EP Act) and in particular the final Terms of Reference (ToR) for the Project EIS that was issued by the Department of Environment and Heritage Protection (EHP) on 4 August 2017.

This EIS will also be used to support the grant of the Project's EA once the site-specific EA application and mining lease applications (MLA) are lodged. As such, the scope of information considered by the EIS includes the requirements of section 125 of the EP Act as well as EHP's technical guidelines for EA applications in addition to that required by the final ToR. As per section 125 of the EP Act, the EIS:

- Describes the environmental values (EVs) likely to be affected by the Project and each relevant activity;
- Details the emissions and releases likely to be generated by each relevant activity;
- Describes the risk and likely magnitude of impacts on the EVs;

- Details the management practices proposed to be implemented to prevent or minimise adverse impacts; and
- Details how the land will be rehabilitated after the Project ceases.

1.2 The Proponent

The Project will be developed and operated by Fairway Coal and Central Queensland Coal. Both companies are private companies and subsidiaries of Waratah Coal Pty Ltd (Waratah Coal), a fully owned subsidiary of Mineralogy Pty Ltd. Mineralogy Pty Ltd and its associated entities have over 25 years' experience developing, funding and managing a range of major resource projects.

Waratah Coal is an Australian coal exploration and coal development company. Waratah Coal holds extensive mining concessions within the rich mineral basins of Laura, Bowen, Galilee, Surat, Moreton, Maryborough, Nymboida and the Northern Territory, in addition to the Styx Basin. Waratah Coal has been operating for over 10 years and has formed major international alliances in China and domestically during this time. From 2005 to 2009, Waratah Coal was dual-listed on the Toronto Stock Exchange and Australian Stock Exchange. In 2009, Waratah Coal was privatised and incorporated into Mineralogy Pty Ltd. Waratah Coal is committed to the economic development of regional growth in Queensland through the growth of mineral wealth while operating with an excellent record in the area. Waratah Coal aims to be a valued member of the local community and to openly engage and build trust and respect in Queensland over time.

Fairway Coal owns mineral development licence (MDL) 468 which will form the Project. Both Fairway Coal and Central Queensland Coal are registered as suitable operators with EHP (#701901 and #686364, respectively), meaning the company is registered as being suitable to carry out industrial activities requiring an EA.

Further information regarding the overarching company, Waratah Coal, can be obtained from the following website: http://waratahcoal.com/

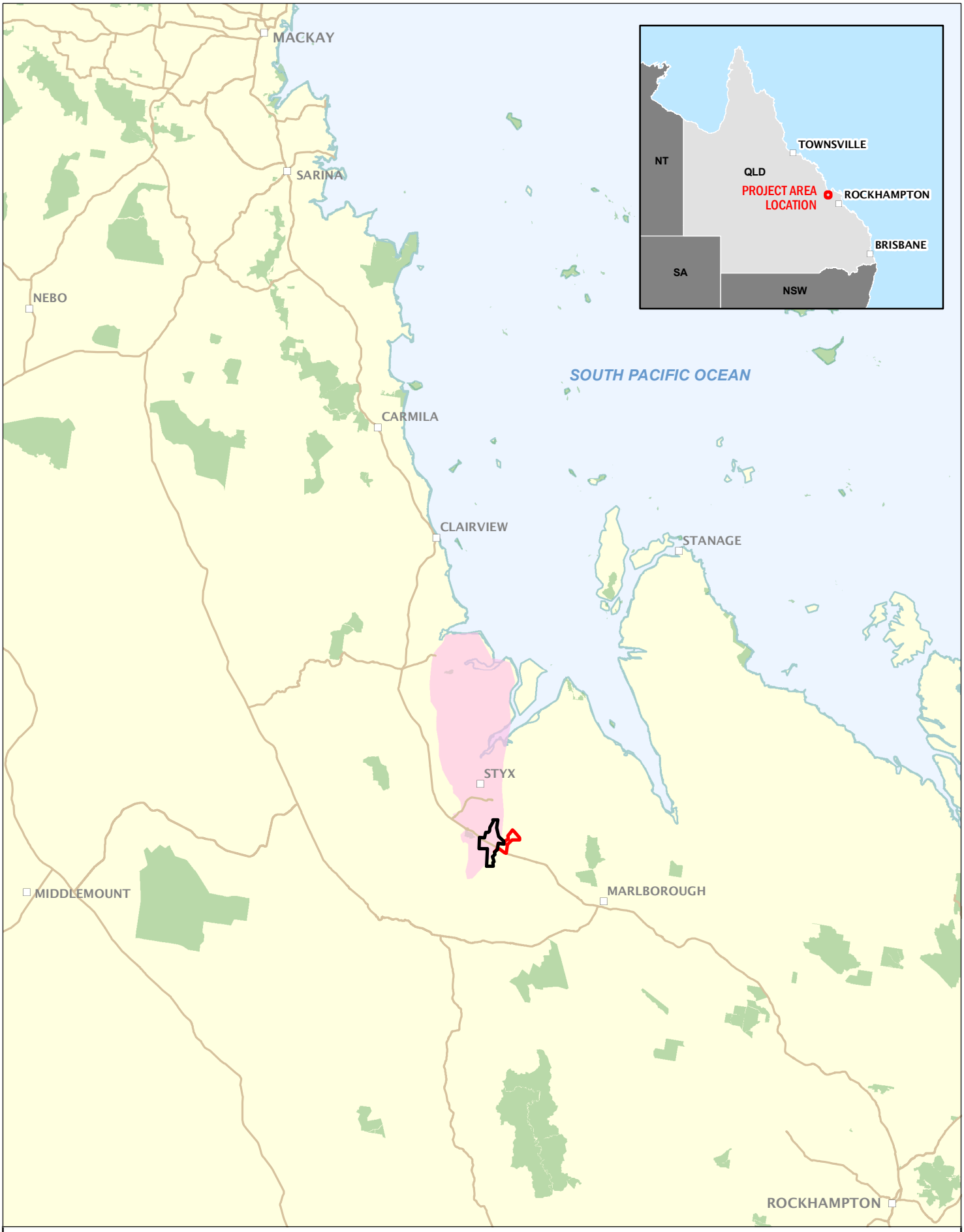

Figure 1-1
Project location

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Drawn: Gayle B.

DATA SOURCE
QLD Spatial Catalogue (QSpatial), 2017
Geoscience Australia, 2017

CDM Smith

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1.3 Project Summary

This section provides a brief description of the elements of the Project and the major associated infrastructure requirements. A detailed description of the Project is provided in Chapter 3 – Description of the Project. Approval is sought for the construction, operation and decommissioning of the Project including mining, transport and TLF activities.

1.3.1 Key Features within the Central Queensland Mine Area

This section summarises the key features of the Project representing approximately 2,700 hectares (ha) (see Figure 1-2). The following features are assessed as part of this EIS for which Central Queensland Coal is seeking approval:

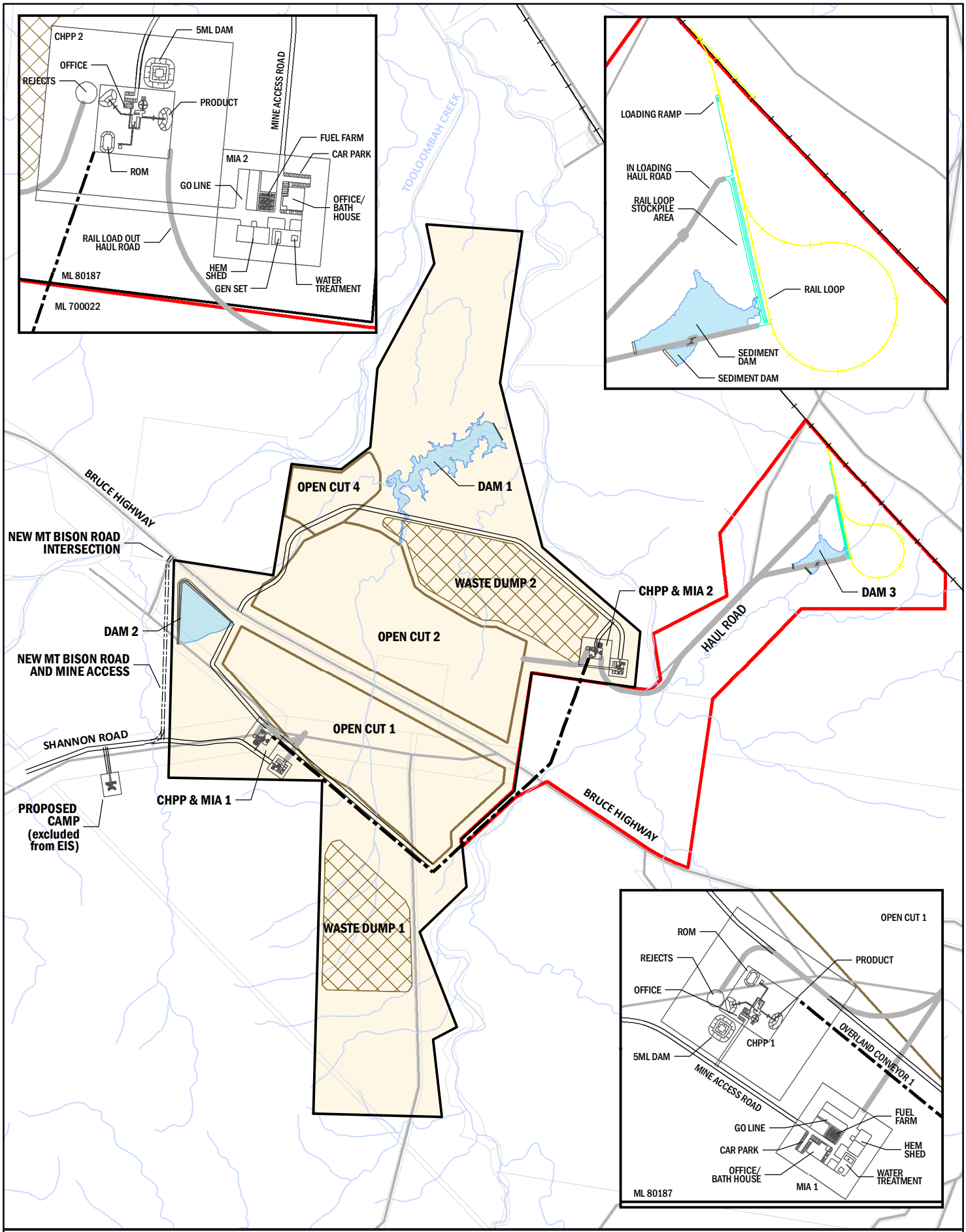
- Three open cut pits (Open Cut 1, Open Cut 2 and Open Cut 4);
- Two CHPP and product coal stockpiles;
- Two ROM coal stockpile areas and ROM dump stations (comprising dump hopper, product conveyor, crushers and surge bin);
- ROM coal haul roads and waste rock haul roads and conveyor;
- Two out of pit mineral waste dumps;
- Internal water distribution pipelines and management facilities, including raw water supply, storage and a water treatment plant to treat water to potable quality;
- Mine affected water dams, sediment affected water dams and clean water dams;
- Light and heavy vehicle internal roads;
- Main gate and security building;
- Internal energy distribution network; and
- Explosives storage facility.

1.3.2 Key Features within the Haul Road Corridor

- An approximate 4.5 km long haul road from the product stockpiles to the TLF;
- Access roads;
- Cross-drainage structures; and
- Fencing.

1.3.3 Key Features within the Train Loadout Facility

- Product coal stockpile;
- Rail line approximately 3.6 km in length connecting to the North Coast Rail Line;
- Power, water and telecommunication services;
- Hard stand area to receive haul trucks from the transport corridor;
- Environmental dam; and
- Access roads.



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Legend

- ML 80187
- ML 700022
- Open-cut Mine Pit
- Dam Catchment
- Waste Dump Area
- Overland Conveyor
- Haul roads
- Rail Loadout Facility
- Rail Loop
- Proposed mine infrastructure
- Watercourse
- North Coast Rail Line
- Main road
- Cadastral boundary

Figure 1-2
Project area layout

DATA SOURCE
QLD Open Source Data, 2017
Esri Basemaps

CDM Smith

1.4 Project Development

1.4.1 Project Milestones

The Project schedule anticipates approval of the MLs and EA, and commencement of construction in 2018. Indicative key Project milestones are shown in Table 1-1.

Table 1-1 Key development milestones

Milestones	Anticipated completion dates
EHP EIS approval	Q1 – 2018
DotEE EIS approval	Q1 - 2018
EA/ML approval	Q2 - 2018
Start construction	Q2 – 2018
First coal exports	Q2 – 2018

Note: Current as of July 2017

1.5 Interrelated Projects

There are no interrelated operational projects within the vicinity of the Project. As such, cumulative impacts have not been assessed in this EIS.

Central Queensland Coal is considering the establishment of an accommodation camp on the Mamelon property as overflow accommodation for construction and operational workers. Should Central Queensland Coal proceed with this option, approval for the camp will be sought outside of this EIS process.

Central Queensland Coal is currently working with the Department of Transport and Main Roads and the Livingstone Shire Council in regard to realigning the Mt Bison Road. The realignment will include the closure and establishment of a new intersection with the Bruce Highway and a small section of road to connect to the existing Mt Bison Road. Any approvals required for the realignment will be sought outside of this EIS process.

1.5.1 Project Formulation

There are three types of tenures and one property forming the Project. The tenure types which cover the Project include EPC1029, MDL468, ML80187 and ML700022.

EPC1029 was granted on 20 April 2006, expiring 19 April 2021. Currently there remains 71 sub blocks with a combined area of 225 km^2 owned by Fairway Coal (100%). EPC1029 carries with it EA EPSX00763213, allowing for coal exploration and development activities. A renewal application for EPC 1029 was submitted to the DNRM and renewed on the 22/11/2016.

MDL468 was granted on 22 January 2014, the expiry date being 31 January 2019. MDL468 covers an area of 135 km^2 owned by Central Queensland Coal (99%) and Fairway Coal (1%). The EA covering activities on MDL468 is MIC204611013, allowing for exploration activities.

ML80187 was lodged with Department of Natural Resources and Mines (DNRM) on 15 June 2012. MLA80187 covers an area of 2,267 ha. ML700022 was lodged with DNRM on 23 May 2017. ML700022 covers an area of 745.28 ha. Both ML's are owned by Central Queensland Coal (99%) and Fairway Coal (1%).

The boundaries' for EPC1029, MDL468, ML80187 and ML700022 are shown at Figure 1-3.

'Mamelon' property described as real property Lot 9 on CP MC496, Lot 10 on CP MC493, Lot 11 on CP MC23 and leasehold interest RL 35/3001 over Lot 1 on CP RL3001, is currently owned by QNI Metals Pty Ltd. The total area of Mamelon is 60.5 km^2.

Central Queensland Coal and Fairway Coal have undertaken an extensive exploration drilling program in EPC1029 from late 2010, focusing on the Mamelon property area in 2011 and 2014, and extending the exploration area to the north of the Mamelon property in 2012. A total of 137 holes have been drilled including 68 chip holes and 69 fully cored HQ sized holes. All holes were geophysically logged and surveyed in line with industry standards.

In addition to the exploration drilling, six large diameter cores have been completed on two sites for coal washability and handleability tests. Drill hole spacing varies across the deposit, but generally ranges between 100 m and 1,000 m. All coal core has been sampled and analysed for proximate analysis, specific energy, total sulphur and relative density. A number of bore holes have had further ash analysis and analysis for ash fusion temperatures. Float sink coal quality analysis has also been undertaken on all coal samples at three densities, F1.40, F1.50 and F1.60 on recent drilling (post 2010) and at F1.50 on drilling pre 2010. Crucible Swelling Number (CSN) analysis was also performed on each density cut point to further investigate the coking properties of the coal found in the Project area.

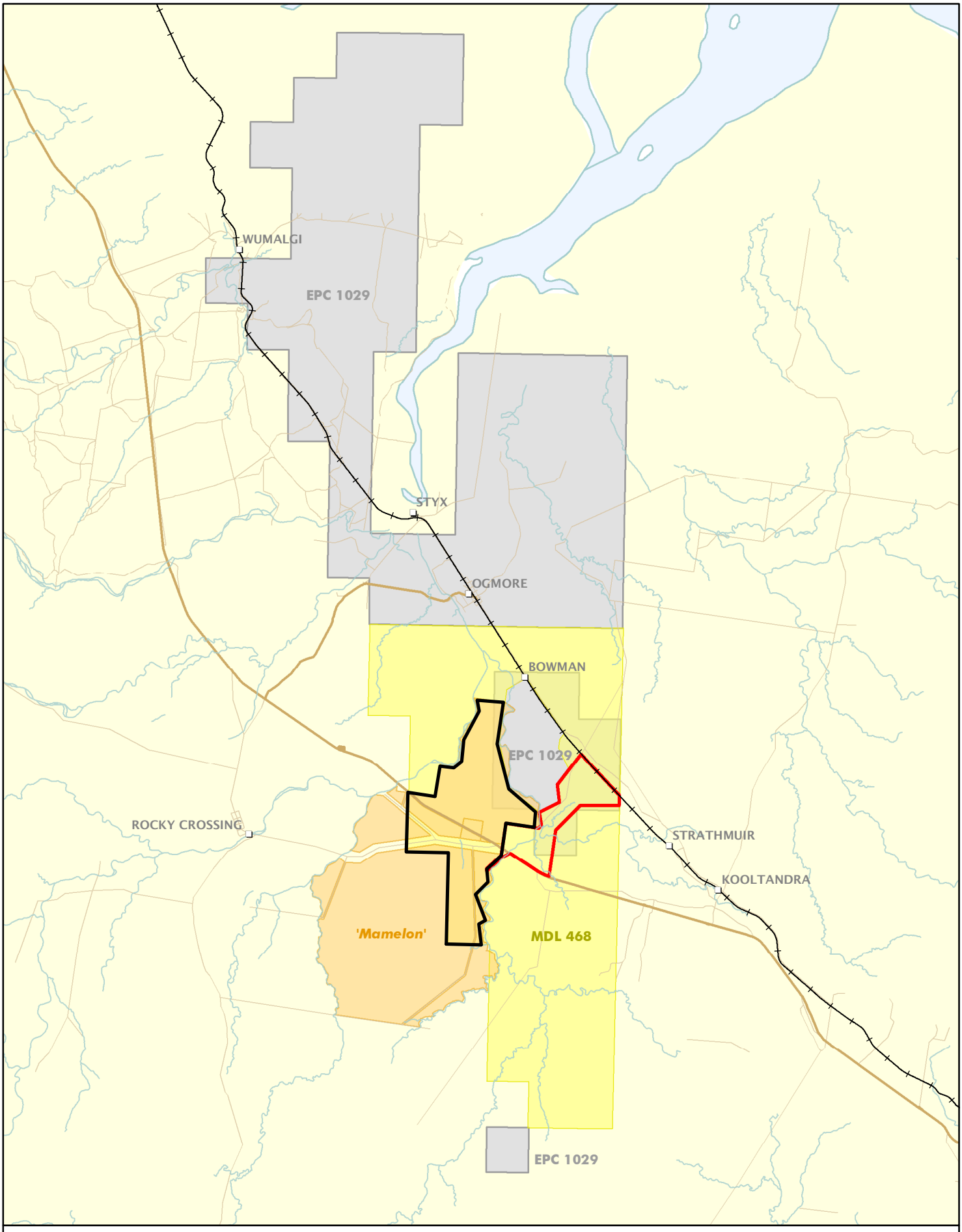
Historical data from the Geological Survey of Queensland, 1955 (27 drill holes), Earth Resources Australia, 1981 (7 drill holes) and New Hope Collieries, 1994 (9 drill holes) are available for the Project area. Data from these drill programs were included in initial modelling to aid the understanding of the deposit and plan exploration drilling.

Central Queensland Coal have created a geological and raw coal quality model for the Project area using the MapInfo 'Discover' and Ventyx 'Minescape' software packages. Exploration drill hole data, raw coal quality and washed coal quality data were correlated and audited by Central Queensland Coal and Xenith. The model was finalised in February 2015.

A total of 137 drill holes have been used to develop the structural model (Central Queensland Coal and Fairway Coal holes). The holes are a mixture of cored holes and chip holes, all with geophysical logs. A total of 69 drill holes have coal quality data available and were used as a JORC Points of Observation (PoBs) where seams were cored and had suitable raw coal quality and geophysical data. Figure 1-4 shows the location of the drill holes used in the geological model.

The coal sequence comprises eight main coal seams which occur over a total interval of approximately 120 m. The coal seams attain a maximum cumulative coal thickness of approximately 15 m in the centre of the Project area where all seams are present, and local seam thickening is evident.

The assessments estimated a total of 203.2 Mt of coal resource which was economically viable for development of the Project. This estimation comprises 34.3 Mt indicated and 169 Mt inferred resources.



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Legend

- ML 80187
- ML 700022
- Mamelon Property
- Mineral Development Licence (MDL)
- Exploration Permit for Coal (EPC)
- North Coast Rail Line
- Main road
- Road
- Watercourse

Figure 1-3
EPC 1029, MDL 468, ML 80187 and Mamelon Property

DATA SOURCE
QLD Spatial Catalogue (QSpatial), 2017
Geofabric 2.1, Bureau of Meterorology (BoM), 2017

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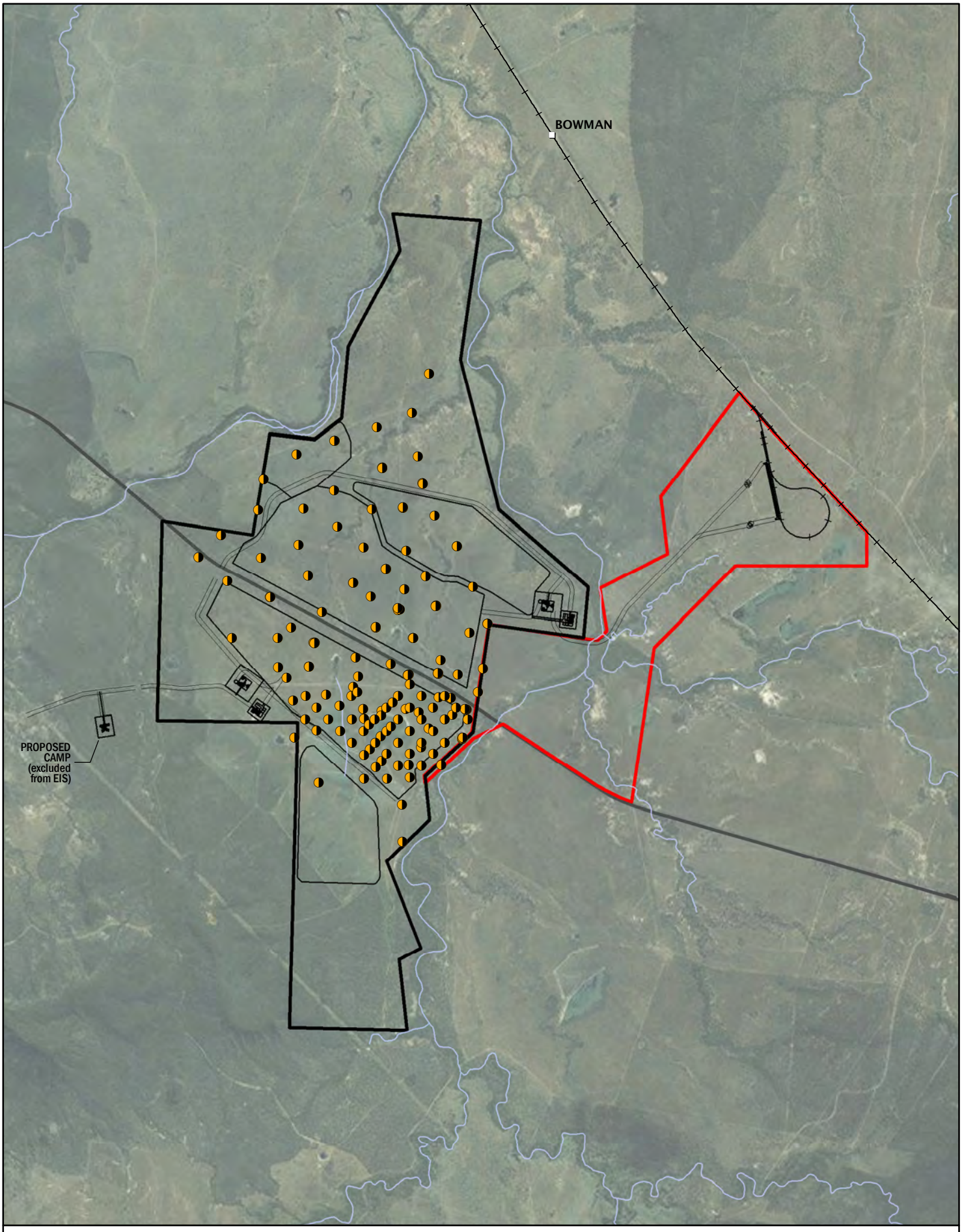

Figure 1-4
Location of exploration drillholes

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Legend

- Exploration drillholes
- ML 80187
- ML 700022
- Proposed mine infrastructure
- North Coast Rail Line
- Main road
- Watercourse

Scale @ A4 1:60,000
Date: 24/07/17
Drawn: Gayle B.

DATA SOURCE
QLD Spatial Catalogue (QSpatial), 2017
Esri Basemaps, 2017

CDM Smith

BRUGGEMANNGD B:\BES150160 Styx Coal\GIS\DATA\MXD\FINAL\03 EIS Preparation\BES150160.03-021 R1 exploration drillholes.mxd 7/24/2017

1.6 The EIS Process

This EIS is being undertaken under the statutory process set out within Chapter 3 of the EP Act. Figure 1-5 illustrates the EIS process and the EA and ML approval processes, with each step of the EIS processes described in more detail in Section 1.6.1.

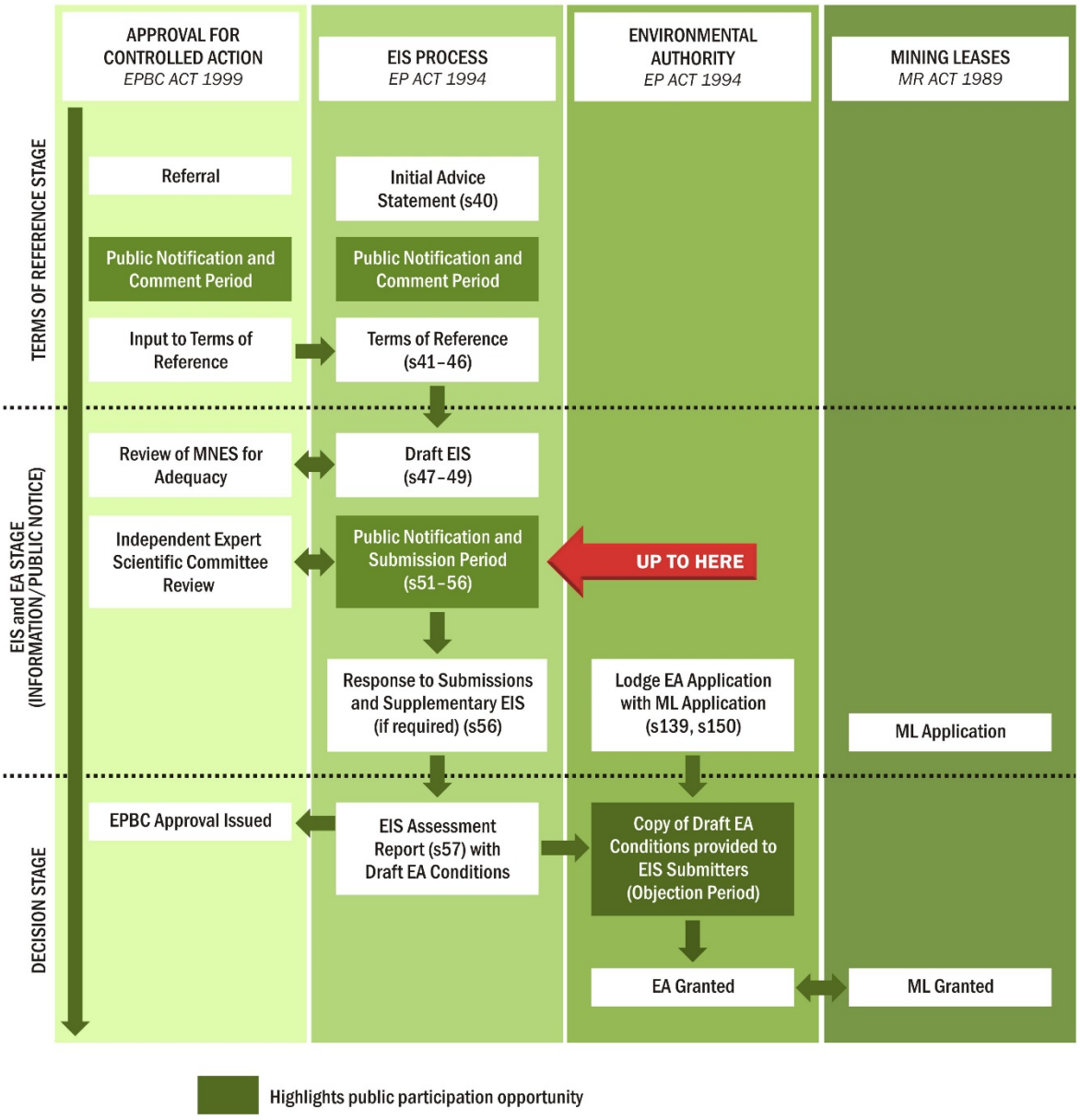

Figure 1-5 EIS and approvals process

1.6.1 Methodology of the EIS

The EIS process under the EP Act has a number of stages and decision milestones. The main steps involved in obtaining approval for the Project (including the EIS preparation and approval process) are outlined below.

Step 1 – Preliminary Planning

A number of investigations were undertaken as part of the preliminary planning phase. These assessments included exploration of resource and initial mine planning, assessments of EVs including flora and fauna, assessments of surface and subsurface water features and investigations into locations of surrounding sensitive receptors. This assisted to identify environmentally sensitive areas (ESA), develop targeted EIS field studies, select appropriate locations for mining infrastructure and establish the occurrence of the targeted resource.

Step 2 – Community and Government Consultation

Throughout the EIS process, community and State Government consultation has been ongoing and will continue throughout the duration of the Project. The Social Impact Assessment (SIA) utilised results of research conducted previously in the Livingstone Shire area and the broader region, along with submissions received from the draft ToR and results of various consultation processes conducted by government agencies and other proponents. Further discussion on the activities and outcomes of community consultation and how the information from consultation was considered in the EIS process are provided in Section 1.7.

Step 3 – Initial Advice Statement and Terms of Reference

On 16 December 2016, Central Queensland Coal submitted to EHP an application to undertake a voluntary EIS under the EP Act which was subsequently approved on 27 January 2017. Further information on statutory requirements and legislative processes are discussed in Section 1.9. The draft ToR for the EIS was prepared under the EP Act and placed on public exhibition, together with the Initial Advice Statement (IAS). The final ToR for the Project was issued by EHP on 4 August 2017 and this EIS has been prepared in accordance with the final ToR. To simplify assessment against the Project's final ToR, a cross-referencing checklist of each aspect has been included in this EIS (see final ToR cross-reference tables at the end of each chapter).

Step 4 – EIS Preparation

This EIS was prepared to address the final ToR and relevant technical guidelines for an EA application. Preparation of the EIS followed the completion of baseline technical assessments, consideration of engineering, planning, operational requirements (which determined the ultimate level of potential impacts) and measures required to mitigate those impacts. Baseline site surveys of soils, surface water, groundwater, ecology, cultural heritage and noise were completed during the development of the EIS. Impact assessments were undertaken by a multi-disciplinary team of qualified technical specialists from a range of organisations as outlined in Table 1-2.

Table 1-2 EIS technical sub- consultants

Discipline	Contributor	Discipline	Contributor
Groundwater	CDM Smith	**Social impact**	CDM Smith
Surface water	CDM Smith	**Air quality and greenhouse gas**	VIPAC Engineers
Soil and land suitability	CDM Smith	**Noise and vibration**	VIPAC Engineers
Ecology	Terrestria and CDM Smith	**Indigenous cultural heritage**	BWR
Transportation	GTA Consultants	**European cultural heritage**	BWR
Flood impact and mine water management	CDM Smith	**Stygofauna**	ALS
Economics	Economics Associates		

Step 5 – Submission and Release of the EIS

Upon submission of the EIS, EHP have a 20 business day review period to determine whether the EIS can proceed to public submission. Once approved for public release, the general public and government agencies have a minimum of 30 business days to provide comment.

Step 6 – Proponent Response

EIS submissions will be collated and forwarded by EHP to Central Queensland Coal for consideration. Central Queensland Coal will analyse the issues and level of concerns and provide EHP with appropriate responses to the submissions. Depending on issues raised during the submission process, Central Queensland Coal may be required to prepare a supplementary EIS report addressing the comments.

Step 7 – Assessment under the EP Act

Following Central Queensland Coal's response, EHP will assess the EIS and produce an EIS assessment report. This report will outline the adequacy of the EIS in assessing the final ToR, determine if impacts have been appropriately mitigated or avoided and recommend if the Project should proceed subject to any conditions. The EIS process is complete once the assessment report is provided to Central Queensland Coal.

This report, as well as documentation for the above steps will be available on the EHP website: https://www.ehp.qld.gov.au/management/impact-assessment/eis-processes/styx-coal-project.html

Step 8 – Decision of Environmental Authority

Central Queensland Coal intends to apply for a site-specific EA to authorise the Project. The EA application will be evaluated by EHP once the EIS process is completed in Step 7 above. Based on the information provided in the EIS, EHP will prepare a draft EA for the Project. Copies of the draft EA will be provided by EHP to any person that made a submission on the EIS during Step 5 above. The submitters must then decide whether the final EIS and the draft EA resolve their concerns. If no submitters elect to object to the draft EA then EHP will grant the EA at the same time the MLA applications are granted. If, however, submitters elect to object to the draft EA, those objections will be heard in the Land Court. It is noted that an Environmental Management (EM) Plan is no longer a requirement of an EA following the amendments to the EP Act as a result of the *Environmental Protection (Greentape Reduction) and Other Legislation Amendment Act 2012*. Notwithstanding, the EIS still presents the information required to inform a decision about the Project's EA application

despite no EM Plan being included. Draft EA conditions proposed by Central Queensland Coal are included in Chapter 23 – Draft EA Conditions as a starting point for the negotiation of the Project's approval conditions.

1.6.2 Accredited Process for Controlled Actions

The Project was identified as having the potential to impact on Matters of National Environmental Significance (MNES) and was referred to the Commonwealth Department of the Environment and Energy (DotEE). The Project was deemed to be a controlled action requiring approval under the EPBC Act (EPBC ref 2016/7851).

In accordance with DotEE's guidelines for the preparation of the draft EIS for the Project, a stand-alone chapter has been prepared and assessed as part of approval under the EPBC Act. The assessment bilateral process allows for the assessment of impacts on MNES to be undertaken as part of the State EIS process, with input from the DotEE throughout (Figure 1-5). DotEE will issue a separate approval for the Project which outlines the required conditions to mitigate any impacts to MNES following completion of Step 7 above.

1.6.3 Purpose and Objective of the EIS

The purposes of the EIS is to:

- Assess the potential and beneficial environmental, economic and social impacts of the Project;
- Assess the management, monitoring, planning and other measures proposed to minimise any adverse environmental impacts of the Project;
- Consider feasible alternative ways to carry out the Project;
- Prepare or propose an Environmental Management Plan for the Project;
- Provide EHP with sufficient information to decide the Project's EA application;
- Meet the Project's assessment requirements under the EPBC Act;
- Provide information for interested and affected persons to understand the Project and the existing environment as well as the likely impacts, alternatives and the mitigation measures adopted to manage the impacts; and
- Give information to other Commonwealth and State authorities to help them make informed decisions about the Project.

The EIS scope covers the life of the Project from construction and operation through to decommissioning. The EIS details realistic, deliverable, cost effective and technically achievable strategies aimed at reducing potential environmental, community and economic impacts to acceptable levels. The level of assessment undertaken for each EV outlined in the corresponding EIS chapters reflects the degree of environmental risk and the level of significance of the associated impact.

1.6.4 Risk Assessment Methodology

To quantify the potential for an impact to cause harm, a risk analysis was undertaken using the AS/NZS ISO31000 criteria. The New South Wales Department of Planning; Hazardous Industry Planning Advisory Paper 6 – Hazard Analysis (January 2011) was also referenced during the risk assessment.

The risk assessment seeks to define the risk of any adverse outcome and considers the elements within the hazard analysis including the identified hazards, consequence and the likelihood. This risk assessment rates these consequence and likelihood findings and applies a risk matrix to prescribe a risk. The risk assessment process was undertaken on both unmitigated risks and residual (mitigated) risks. Mitigated risks are those with controls to minimise the likelihood and consequence of a hazardous incident and might include:

- Alternative technology or processes;
- Alternative locations;
- Reduction in onsite storage of dangerous goods;
- Modification of process and storage conditions;
- Early detection, control and clean-up of any releases;
- Containment and collections systems;
- Improvements in plant operability; and
- Operational and organisational safeguards (including training).

The risk assessment criteria in AS/NZS ISO31000 establishes a method for identifying risk profiles through combining a likelihood rating of a hazard or impact occurring with a consequences rating of a hazard or impact occurring. The risk profiles used for this assessment have been detailed in Table 1-3. Furthermore, a description of the ratings used for likelihood and consequence has been provided in Sections 1.6.4.1 and 1.6.4.2, respectively.

Definitions applicable to the risk assessment process as described in this chapter are outlined in Table 1-3.

Table 1-3 Definitions for assessment of hazard and risk

Term	Definition
Hazard	Something with the potential to cause harm. This can include hazardous substances, plant and equipment, work processes or other aspects of the surrounding environment.
Likelihood	The chance or probability of an event resulting in an impact occurring.
Consequence	How much harm the impact could have, how many people it could affect and the duration of the harm.
Unmitigated Risk	The likelihood that a harmful consequence might result when exposed to the hazard without implementation of the proposed mitigation measures.
Residual Risk	The likelihood that a harmful consequence might result when exposed to the hazard with the effective implementation of the proposed mitigation measures.
“Major Accident Event (MAE)”	Sudden occurrence (including a major emission, loss of containment, fire, explosion or release of energy) leading to serious danger or harm to persons, property, both the built or natural environment, whether immediately or delayed.

1.6.4.1 Likelihood Assessment

A qualitative assessment of the possible event frequency was undertaken to assess the likelihood of an impact occurring, and rated based on the ratings included in Table 1-4.

Table 1-4 Ratings for likelihood of occurrence

Probability Rating	Probability	Description
1	Almost certain	Will almost certainly occur. Has a 95% or greater chance of occurring within a 12 month period.
2	Likely	Probably will occur. Has a 70% to 95% chance of occurring within a 12 month period.
3	Possible	May possibly occur. Has a 30% to 70% chance of occurring within a 12 month period.
4	Unlikely	Could possibly occur. Has a 5% to 30% chance of occurring within a 12 month period.
5	Rare	Only likely to occur in exceptional circumstances. Has a 5% or less chance of occurring within a 12 month period.

1.6.4.2 Consequence Assessment

The potential level of consequence of an impact was rated in accordance with the definitions shown in Table 1-5. Each outcome has been individually assessed where a hazardous incident may have multiple impacts.

Table 1-5 Consequence ratings

Score	Maximum potential consequence (realistic)					
	Description	Environment	Reputation	Financial	Existing operations interruption	Legal
1	Catastrophic	Significant, extensive detrimental long term impact.	Negative international publicity. Very serious litigation. Reputation severely tarnished. Share price may be affected.	Losses to the Project > AUD $10M	Plant shutdown.	Significant prosecution and fines. Very serious litigation including class action.
2	Major	Wide spread long to medium term damage to valued area.	Significant negative attention, national publicity. Major breach of regulation. Reputation tarnished.	Losses to the Project > AUD $5M	Temporary plant shutdown.	Major breach of regulation. Major litigation.
3	Moderate	Localised medium term damage to an area of local value.	Attention from media, negative regional publicity. Serious breach of regulations with fine.	Losses to the Project > AUD $1M	Delays resulting in reduced throughput due to changes to existing practices.	Serious breach of regulation with prosecution or moderate fine possible.
4	Minor	Localised short to medium term damage to an area of minor local significance.	Negative publicity and attention from local media. Moderate breach of regulations.	Losses to the Project > AUD $0.5M	Sustained minor change to existing practices.	Minor legal issues, moderate non-compliances and breaches of regulations.
5	Insignificant	Limited damage to a localised area. No lasting effects.	Local public concern/ complaints. Minor technical non-compliance.	Losses to the Project > AUD $0.2M	Temporary minimal change to existing practices.	Minor non-compliances and breaches of regulations.

1.6.4.3 Risk Matrix

The risk matrix adopted for the assessment is included in Table 1-6. The colour shading refers to the qualitative bands of risk level. The risk assessment tables are structured to show the results of the unmitigated risk profile and residual risk profile. The table presents the results in the following order:

- The hazard that may impact on health and safety;
- The impact that could arise from the hazardous event;
- The consequence (C), likelihood (L) and risk (R) that may impact on health and safety;
- The strategy or strategies established to address the risk; and
- The consequence (C), likelihood (L) and risk (R) that may impact on health and safety after mitigations measures are implemented.

For the purposes of this risk assessment, risk levels are defined as follows:

- Extreme – Works must not proceed until suitable mitigation measures have been adopted to minimise the risk;
- High – Works should not proceed without consideration of alternative options or additional controls to minimise the risk. A documented action plan is required;
- Medium – Acceptable with formal review. A documented action plan is required; and
- Low – Acceptable with review.

Table 1-6 Risk assessment matrix

Likelihood	Consequence				
	Catastrophic 1	Major 2	Moderate 3	Minor 4	Insignificant 5
Almost Certain 1	Extreme	Extreme	Extreme	High	Medium
Likely 2	Extreme	Extreme	High	Medium	Medium
Possible 3	Extreme	High	High	Medium	Low
Unlikely 4	High	High	Medium	Low	Low
Rare 5	Medium	Medium	Low	Low	Low

1.6.5 EIS Structure

The EIS consists of two volumes:

- Volume 1 - EIS chapters; and
- Volume 2 - EIS appendices.

A summary of the contents of each volume is shown in Table 1-7 and Table 1-8. The following structure of the EIS has been developed to meet the scope objectives of the final ToR, EHP technical guidelines and to address section 125 of the EP Act.

Table 1-7 Volume 1 chapter content

Chapter	Chapter title	Chapter	Chapter title
i	Glossary and Abbreviations	**Chapter 12**	Air Quality
ii	Executive Summary	**Chapter 13**	Noise and Vibration
Chapter 1	Introduction	**Chapter 14**	Terrestrial Ecology
Chapter 2	Project Need and Alternatives	**Chapter 15**	Aquatic Ecology
Chapter 3	Description of the Project	**Chapter 16**	MNES
Chapter 4	Climate	**Chapter 17**	Biosecurity
Chapter 5	Land	**Chapter 18**	Cultural Heritage
Chapter 6	Traffic and Transport	**Chapter 19**	Social and Economic
Chapter 7	Waste Management	**Chapter 20**	Health and Safety
Chapter 8	Waste Rock and Rejects	**Chapter 21**	Hazard and Risk
Chapter 9	Surface Water	**Chapter 22**	Key Commitments
Chapter 10	Groundwater	**Chapter 23**	Draft EA Conditions
Chapter 11	Rehabilitation and Decommissioning	**Chapter 24**	References

Table 1-8 Volume 2 specialist technical reports and laboratory results appended to this EIS

Appendix	Appendix title	Appendix	Appendix title
A1	Approvals	**A9b**	Terrestrial Flora Reports
A2	Standard Criteria	**A9c**	Ecological Desktop Search Results
A3	Soil Survey Results	**A9d**	Ecological Field Survey Results
A4a	Road Impact Assessment	**A9e**	Aquatic Ecology Results
A4b	Geotechnical Assessment	**A9f**	Stygofauna Results
A5a	Surface Water and Groundwater Quality Results	**A9g**	Results of Landscape Fragmentation and Connectivity
A5b	Historical Surface Water Quality Results	**A10a**	Economic Technical Report
A6	Groundwater Technical Report	**A10b**	Queensland Regional Profiles – Rockhampton and Livingstone LGA
A7	Air Quality and GHG Technical Report	**A11**	Final ToR for EIS
A8	Noise and Vibration Technical Report	**A12a**	Draft Construction EMP Structure
A9a	Terrestrial Fauna Reports	**A12b**	Draft Operational EMP Structure

1.6.6 EIS Submissions

Government agencies and the public are invited to make submissions to EHP during the EIS public exhibition period. All comments and submissions must be made in writing and addressed to EHP. All submissions, comments and enquiries regarding this EIS should be addressed to:

The Chief Executive

Department of Environment and Heritage Protection

Attention: The EIS Coordinator – Central Queensland Coal Project

GPO Box 2454

Level 9, 400 George Street,

Brisbane QLD 4001

1.7 Public Consultation Process

This section of the EIS provides a summary of the consultation undertaken to date as part of the EIS process and also describes the future consultation activities planned to take place as part of the Project.

1.7.1 Terms of Reference Consultation

The draft ToR was publicly advertised for comment by EHP from 10 April 2017 to close of business 8 June 2017. The extension of the public comment period was proposed by the proponent as the Project area was under the damaging influences of Cyclone Debbie during the public review period. A total of 23 responses on the draft ToR were received by EHP for consideration in finalising the ToR. Responses were received from the following government agencies, regional bodies and the community during the public submission period:

- Queensland Treasury – Hazardous Industries and Chemicals Branch (three comments);
- Powerlink (requests a copy of the EIS no comment on ToR);
- Department of Community, Child Safety and Disability Services (one comment);
- Livingstone Shire Council (requests a copy of the EIS no comment on ToR);
- Department of National Park, Child Safety and Disability Services (requests a copy of the EIS no comment on ToR);
- Rockhampton Regional Council (six comments);
- Ergon Energy (requests a copy of the EIS no comment on ToR);
- Department of Infrastructure, Local Government and Planning (one comment);
- Queensland Ambulance Service (11 comments);
- Commonwealth Department of the Environment and Energy (28 comments);
- Queensland Police Service (five comments);
- Department of Transport and Main Roads (three comments);

- Fitzroy Basin Association (five comments);
- Department of Tourism, Major Events, Small Business and the Commonwealth Games (no comment on ToR);
- Martin Molesworth (four comments);
- Department of Aboriginal and Torres Strait Island Partnerships (two comments);
- Department of State Development (eight comments);
- Department of Natural Resources and Mines (17 comments);
- Department of Housing and Public Works (no comment on ToR);
- Capricorn Conservation Council (19 comments);
- Queensland Health (11 comments);
- Queensland Fire and Emergency Services (no comment on ToR); and
- Department of Agriculture and Fisheries (14 comments).

Seven respondents (29 per cent) had no comment to make on the draft ToR. Of those respondents who commented on the draft ToR, the most common issues raised included:

- Downstream greenhouse gas (GHG) emissions;
- Impacts to the Great Barrier Reef Marine Park;
- Offset package to compensate for significant residual impacts;
- Ongoing communications and liaison with stakeholders and the community;
- Aboriginal and Torres Strait Islander specific plans and strategies;
- Surface water and groundwater impacts;
- Groundwater dependent ecosystems and stygofauna impacts;
- Transport impacts;
- Local industry participation;
- Emergency and health services capacity;
- Impacts to arable land;
- Fish passage and connectivity for aquatic fauna;
- Impacts to the aquatic environment; and
- Potential for flooding.

The final ToR was issued on 4 August 2017 and encompassed the relevant and applicable issues raised during the consultation.

1.7.2 Ongoing Consultation during EIS Development

Consultation was undertaken in 2015 with representatives from government agencies, service providers and businesses from the local community to inform the scope and assessment of the Project during the preparation of the EIS. Consultation and discussions with landowners in the vicinity of the Project area commenced in 2012. A number of meetings and discussions have been held with landholders regarding exploration activities. However, consultation regarding the impacts of the Project's development will begin formally with the publication of the draft EIS.

Discussions with the Traditional Owners occurred during 2017 and a separate Cultural Heritage Management Plan (CHMP) is under development with the Barada Kabalbara Yetimarala People. The CHMP will address the management of cultural heritage on land within the two MLs.

Consultation was undertaken with meetings and communications with representatives from the following agencies and organisations:

- Livingstone Shire Council;
- Rockhampton Regional Council;
- Department of Environment and Heritage Protection;
- Department of Natural Resources and Mines;
- Department of State Development;
- Department of Infrastructure, Local Government and Planning;
- Department of Transport and Main Roads;
- Department of National Parks, Sport and Racing;
- Department of Agriculture and Fisheries;
- Department of Energy and Water Supply;
- Department of the Environment and Energy;
- Federal Member for Capricornia;
- State Member for Mirani;
- Aurizon;
- Queensland Rail;
- Pacific National;
- Ergon Energy;
- Powerlink;
- Telstra;
- Darumbal People;
- Barada Kabalbara Yetimarala People;

- Scorpion Energy Pty Ltd – EPC 2128;
- Waratah Coal Pty Ltd – EPC 2268; and
- Arrow Energy Pty Ltd – Authority to Prospect (ATP) 700.

The purpose of the consultation was to update and brief agencies and stakeholders on the status of the Project, along with identifying and discussing potential impacts and management options.

1.7.3 Consultation Beyond EIS Stage

Following the Project's EIS approval, engagement with Project stakeholders and the community will continue for the life of the Project and be delivered through a Stakeholder and Community Engagement Plan. The Plan will be designed to maximise community and stakeholder input into the Project's development and delivery (including mine decommissioning) through capacity building and two-way communication mechanisms which will be in place for the life of the Project. It also outlines the communication tools which will be used and the purpose of these tools. The Plan will remain a dynamic document and will be updated as required throughout the Project's duration.

The Plan will be guided by IAP2's Public Participation Spectrum, as shown in Figure 1-6, which will be used to help define the role of Project stakeholders in any participation process.

INCREASING IMPACT ON THE DECISION

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective informatio to assist them in understanding the problem, alternatives, opportunities and/ or solutions.	To obtain public feedback on analysis, alternatives and/ or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspiration, and provide feedback on how public input influenced the decision. We will seek your feedback on drafts and proposals.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will work together with you to formulate solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

Source: IAP2 2014

Figure 1-6 IAP2 public participation spectrum

1.7.4 Affected Persons and Interested Persons

In addition to the individuals, groups and businesses mentioned above, there are a wider range of interested and affected persons that may be impacted by, or have interest in, the Project. The identified stakeholders are represented in Figure 1-7 and directly affected landowners and tenement holders are outlined in Chapter 3 – Description of the Project .

For the purpose of managing the level of engagement with stakeholders in accordance with IAP2's Public Participation Spectrum presented above, stakeholders have been grouped as follows:

- Level 1: Landholders, registered Native Title Claimants or body corporates, underlying tenure holders and local government;
- Level 2: Key stakeholders and local community of Ogmore and surrounds; and
- Level 3: General public, community and special interest groups, wider regional and state-wide Project communication.

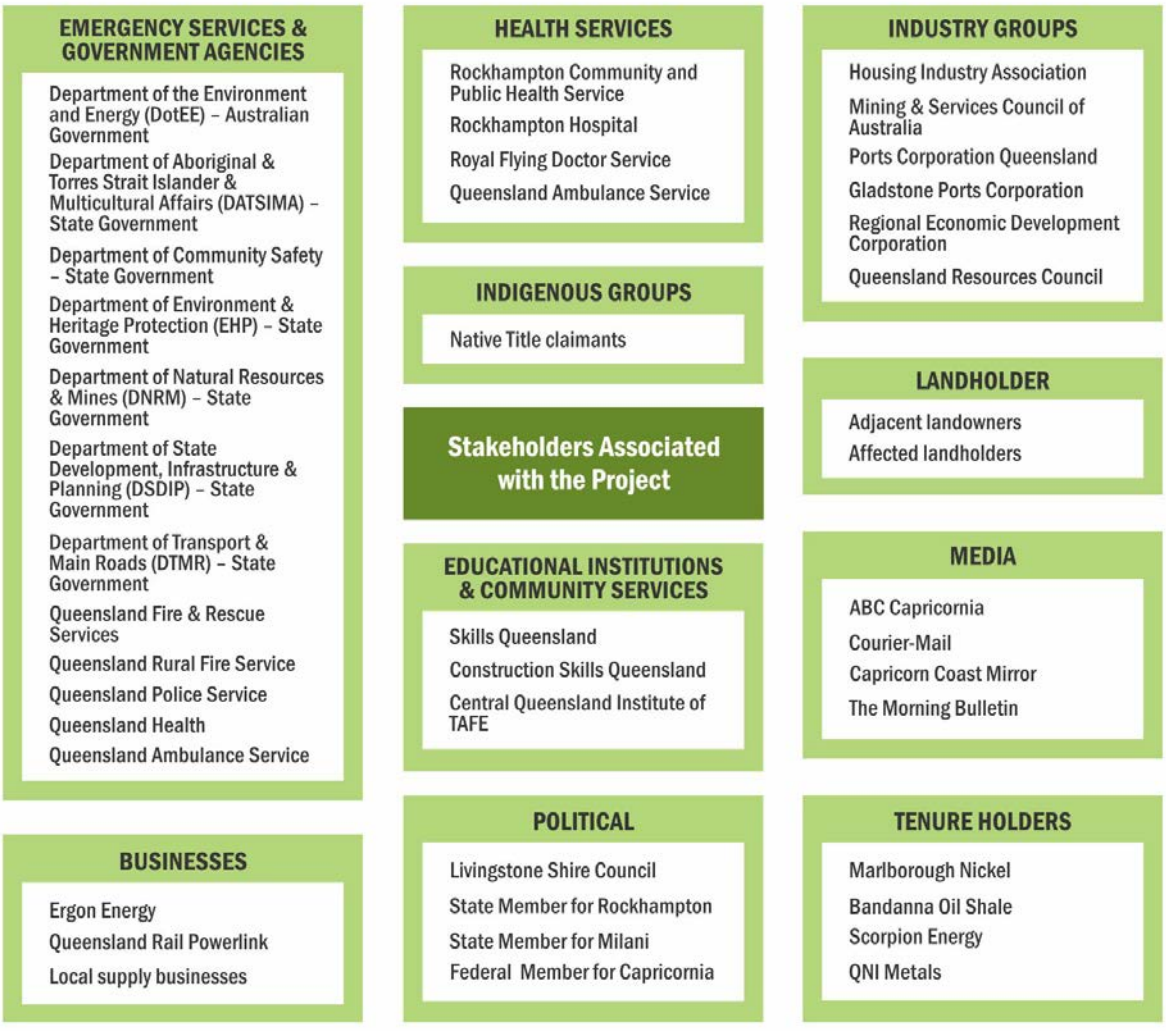

Figure 1-7 Project stakeholders

The level of engagement anticipated for the stakeholder groupings are shown at Figure 1-8. For Level 3 stakeholders the level of participation for this Project is anticipated to be Inform and Consult, for Level 2 stakeholders Inform, Consult and Involve, and for Level 1 stakeholders, Collaboration is anticipated. The stakeholders' ability to influence decisions depends on the decision type and what aspects of the Project are negotiable and what aspects are non-negotiable. The process is intended to be flexible and open to including all stakeholders to the maximum extent possible.

Where practicable, communication and engagement activities will be prioritised in the following order:

- Key stakeholders and directly affected landholders;
- Local Marlborough communities, neighbouring landholders, and other stakeholders; and
- General public and wider regional community.

Level 1 Stakeholders **Level 2 Stakeholders** **Level 3 Stakeholders**	**Level 1 Stakeholders** **Level 2 Stakeholders**	**Level 1 Stakeholders**
Inform → Consult	Involve	Collaborate → Empower
Government and industry groups on regulatory issues associated with the Project. Community and special interest groups on the Project's need, purpose, history, scope, benefits, progress, events, consultation process and engagement opportunities. The local and regional community on Project progress, impacts and opportunities.	The communities of Ogmore, Marlborough, and surrounding area in managing and mitigating impacts and opportunities, and contributing to the achievement of desired Community Plan outcomes.	With directly affected landholders, Native Title claimants, tenement holders, and targeted agricultural sector stakeholders. With directly affected landholders managing and mitigating impacts and opportunities from the Project.

Figure 1-8 Levels of engagement

Key upcoming Project consultation activities include:

- Meetings with directly affected and neighbouring land owners to discuss the Project and the management of its impacts;
- Meetings with affected Native Title Claimants;
- Discussions with resource companies owning tenements that overlap the Project's ML application areas;
- Ongoing group meetings with representatives of the local community throughout 2017;
- Development of Project fact sheets for upload to the Project website as needs are identified;
- Ongoing consultation with the Livingstone Shire Council (LSC) and Department of Transport and Main Roads (DTMR) regarding affected roads and road reserves;

- Meetings to progress social impact management action plans including Department of State Development, LSC, Queensland Ambulance Service, Queensland Fire and Emergency Service (QFES) and Skills Queensland;
- Maintaining the Project website;
- Development of a Local Content Strategy and engagement with local businesses at one or more events to determine whether their capabilities can be drawn upon; and
- Planning for the implementation of a community advisory group or similar where interested members of the local community can meet and discuss the Project regularly.

1.8 Social Impacts

Chapter 19 – Social and Economic of the EIS provides a summary of the SIA and describes the potential social and community impacts associated with the Project. The key social and community aspects of the existing LRC region are described, and the potential impacts associated with Project related mining activities on these communities discussed.

1.9 Project Approvals

An application was made by Central Queensland Coal to EHP on 16 December 2016, under section 71 of the EP Act, for the preparation of a voluntary EIS. The application was approved on 27 January 2017 and EHP's decision notice accepting the application to prepare a voluntary EIS was signed and forwarded to Central Queensland Coal. The final ToR for the EIS was issued to Central Queensland Coal on 4 August 2017 for the preparation of the EIS.

On 3 February 2017, DotEE deemed the Project to be a controlled action under the EPBC Act. The EIS will be carried out under the assessment bilateral agreement between the Commonwealth and the State of Queensland, which allows DotEE, to rely on the State EIS process for the assessment of Project impacts on MNES.

Central Queensland Coal currently holds ML80187 which contains the mine pits, MIA and various ancillary infrastructure. A second ML (700022) has also been lodged to the DNRM under the MR Act, for the transport corridor ML area and for an additional area to accommodate the product coal conveyor under the Bruce Highway and future mine expansion.

The purpose of this section is to summarise the key regulatory framework for the Project under Commonwealth, State and local government legislation and policies. State, regional and local planning instruments, applicable guidelines, local planning schemes and local laws have been reviewed. A full list of likely approvals required for the Project has been included in Appendix A1. The list specifies approval requirements, the administering authorities and other pertinent details.

The Project staging from feasibility through to post closure monitoring, and timings of management plans for the various stages of the Project are outlined in Figure 1-9.

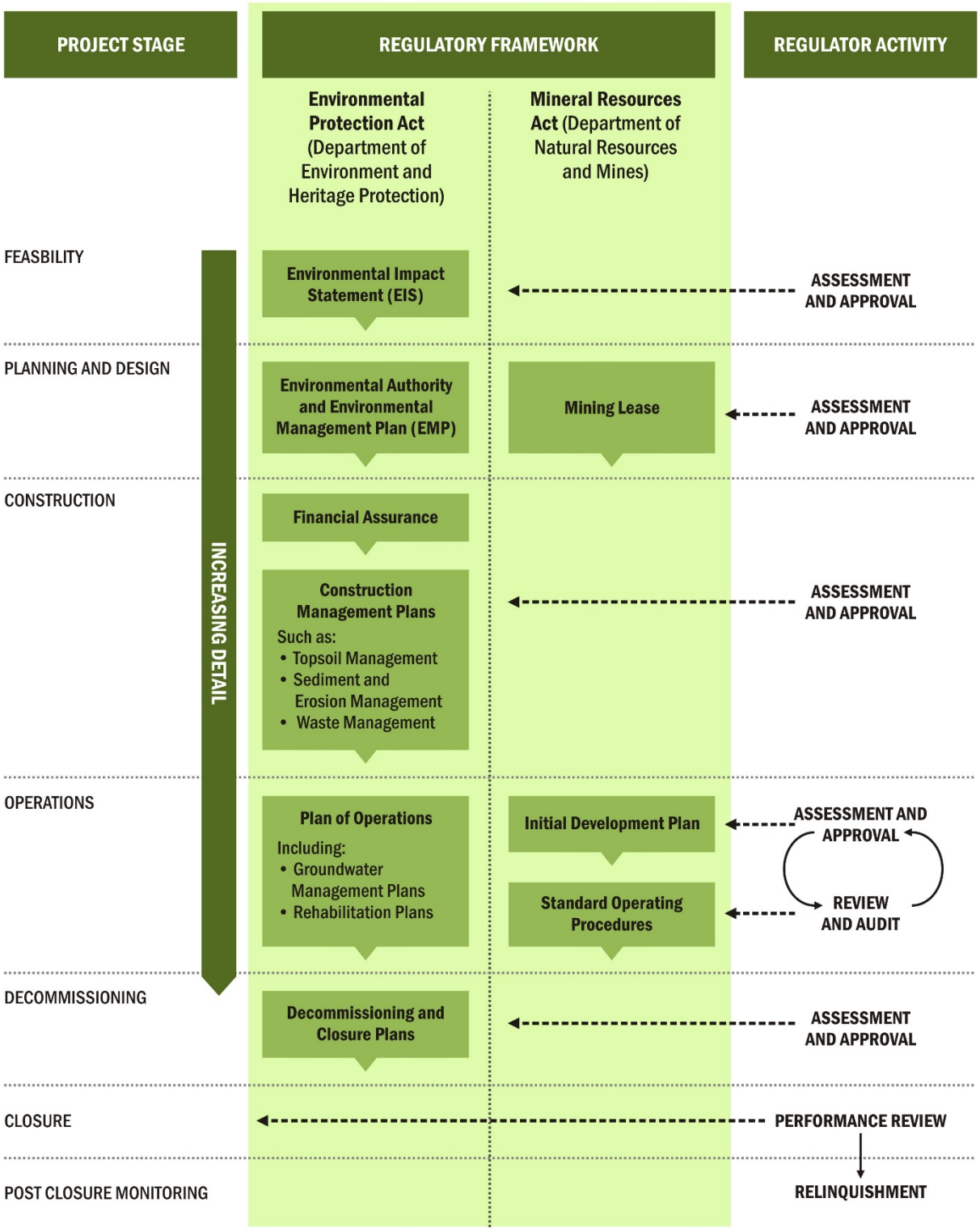

Figure 1-9 Project stages and management plans

1.10 Relevant Legislation, Policies and Standards

This section outlines and describes the key Commonwealth and State legislation, policies and standards applicable to the approval of the Project that will need to be considered by EHP in its assessment. Based on the findings presented in this EIS, the Project conforms to national, state and regional applicable legislation and guidelines. It also provides sufficient information for the purpose of decision making and condition setting under the EPBC Act and EP Act. A full list of likely approvals required for the Project has been included in Appendix A1. The list specifies approval requirements, the administering authorities and other pertinent details.

1.10.1 Commonwealth Legislation

- *Environment Protection and Biodiversity Conservation Act 1999*;
- *Native Title Act 1993*;
- *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*; and
- *National Greenhouse Energy Reporting Act 2007*.

1.10.1.1 Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act provides a legal framework to protect and manage MNES including nationally and internationally important flora, fauna, ecological communities, heritage places and water resources. The EPBC Act implements obligations under international conventions and treaties, such as protection of migratory species (Migratory Bird Agreements and Bonn Convention 1979) and World Heritage Area values (World Heritage Convention 1972). The EPBC Act is administered by DotEE.

The EPBC Act establishes a process for assessment and approval of proposed actions that have, or are likely to have, a significant impact on MNES. Proponents refer projects to DotEE initially for determination on whether a project is a controlled action or not a controlled action. If the referral is deemed to be a controlled action, then it is likely to have a significant impact on MNES and must be undertaken in accordance with prior approval from the Minister.

The Project was referred to DotEE, on 22 December 2016 (EPBC 2016/7851). A decision on the referral was released on 3 February 2017 for listed threatened species and communities, migratory species and water resources deeming the proposed action a controlled action if undertaken in a particular manner, and requiring assessment by an EIS. Thus, the controlling provisions for the Project are:

- Sections 12 and 15A (world heritage values of a declared World Heritage property);
- Sections 15B and 15C (the heritage values of a National Heritage place);
- Sections 18 and 18A (Listed threatened species and communities);
- Sections 20 and 20A (Listed migratory species);
- Sections 24B and 24C (Great Barrier Reef Marine Park); and
- Sections 24D and 24E (a water resource, in relation to coal seam gas development and large coal mining development).

For this Project, the EIS process is accredited under the assessment bilateral agreement between the Commonwealth and Queensland Governments. Hence, this EIS addresses the impacts to MNES in Chapter 16 – MNES as a standalone separate chapter within the EIS which fully addresses the matters relevant to the controlling provisions of the EPBC Act.

The EPBC Act also establishes the Australian Heritage List, which includes natural, Indigenous and historic places that are of outstanding heritage value to the nation. The Act also establishes the Commonwealth Heritage List, which comprises natural, Indigenous and historic places on Commonwealth lands and waters or under Australian Government control, and identified by the Minister for the Environment (the Minister) as having Commonwealth Heritage values. There are no listed areas within the LSC area.

The EPBC Act Environmental Offset Policy provides upfront guidance on the role of offsets in environmental impact assessments, and how the department considers the suitability of a proposed offset. Offsets are defined as measures that compensate for the residual impacts of an action on the environment, after avoidance and mitigation measures are taken. This policy aims to improve environmental outcomes through the consistent application of best practice offset principles and encourage advanced planning of offsets. Offsets have been considered during the assessment phase of this environmental impact assessment. The suitability of a proposed offset is considered as part of the decision to approve or not approve a proposed action under the EPBC Act. The assessment of offset requirements has been provided in Chapter 14 – Terrestrial Ecology and Chapter 16 – MNES.

1.10.1.2 Native Title Act 1993

The *Native Title Act 1993* (NT Act) recognises the land rights and interests of Indigenous peoples where they have historically resided and regulates the conduct of 'future acts', including development. The legislation provides for the determination of Native Title claims, the treatment of 'future acts' that may impact on Native Title rights and the requirement for consultation and/or notification to relevant claimants where 'future acts' are involved. The provisions of the NT Act are administered by the National Native Title Tribunal.

The National Native Title Tribunal is established under the NT Act to work with people to understand Native Title and reach outcomes that recognise everyone's rights and interests in land and waters. The Barada Kabalbara Yetimarala People have a current Native Title claim over the area where the mine pits, TLF and ancillary infrastructure are proposed (Tribunal Number: QC2013/004). The MLs are on freehold land on which Native Title has been extinguished.

1.10.1.3 Aboriginal and Torres Strait Islander Heritage Protection Act 1984

The purpose of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (ATSIHP Act) is to preserve and protect from injury or desecration, areas and objects in Australia and in Australian waters that are of particular significance to Aborigines in accordance with Aboriginal tradition. The ATSIHP Act enables Traditional Owners to make an application to DotEE to declare certain areas or objects as protected. The ATSIHP Act also includes provisions to manage the discovery and appropriate management of Aboriginal remains.

1.10.1.4 National Greenhouse Energy Reporting Act 2007

The *National Greenhouse and Energy Reporting Act 2007* (NGER Act) provides a single national reporting framework for the reporting and dissemination of information related to Greenhouse Gas (GHG) emissions, GHG projects, energy consumption and energy production of corporations. The NGER Act imposes various registration, reporting and record-keeping requirements.

The NGER Act provides the framework for mandatory reporting of GHG emissions and production and consumption of energy when threshold values are exceeded by a corporation or single facility. Threshold values relevant to the Project are provided in Table 1-9. If these threshold values are exceeded Central Queensland Coal as the controlling corporation (as defined under the NGER Act) will apply to the Greenhouse and Energy Data Officer to register on the National Greenhouse and Energy Register. If these values are exceeded, Central Queensland Coal must provide annual reports to the data officer on its GHG emissions, energy production and consumption.

The Technical Guidelines for the Estimation of Greenhouse Gas Emissions by Facilities in Australia (DotEE 2016) will be used to estimate emission quantities relevant to coal mining activities. GHGs are assessed in Chapter 12 – Air Quality of this EIS and based on that assessment, the NGER Act is expected to apply to the Project.

Table 1-9 Threshold values of greenhouse gas emissions and production

	Threshold values		
	Emission of GHG	**Energy production**	**Energy consumption**
Controlling corporations	50 kilotonnes per year of carbon dioxide equivalence (CO_2-e)	200 terajoules per year	200 terajoules per year
Single facility	25 kilotonnes per year of CO_2-e	100 terajoules per year	100 terajoules per year

1.10.2 Key Queensland Legislation

Queensland legislation of relevance to the Project includes:

- *Mineral Resources Act 1989*;
- *Mineral and Energy Resources (Common Provisions) Act 2014;*
- *Environmental Protection Act 1994*;
- *Regional Interests Planning Act 2014*;
- *Environmental Offsets Act 2014*;
- *Water Act 2000*;
- *Coal Mining Safety and Health Act 1999*;
- *Work Health and Safety Act 2011*; and
- *Mineral and Energy Resources (Common Provisions) Act 2014*.

1.10.2.1 Mineral Resources Act 1989

The *Mineral Resources Act 1989* (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. The MR Act is administered through DNRM.

Central Queensland Coal is the holder of ML80187 and ML700022. This EIS supports these MLAs for the Project's MLs under Part 7 of the MR Act.

A ML provides entitlements to:

- Enter and be on the ML for mining purposes or transportation through land to access the mining area;
- Use any sand, gravel and rock within lease area for mining activities;
- Prospecting, exploring or mining;
- Processing a mineral won or extracted by the mining;
- An activity that is directly associated with, or facilitates or supports, the mining or processing of the mineral; and
- Rehabilitating or remediating environmental harm because of a mining activity.

The MR Act also sets royalty payments, rents, landholder compensation and notification requirements which Central Queensland Coal must comply.

Section 4A of the MR Act precludes the application of the *Planning Act 2016* (Planning Act) to activities undertaken for purposes of the mining tenure, except for provisions in relation to the *Queensland Heritage Act 1992*. It also makes building work controlled under the *Building Act 1975* self-assessable development within the lease.

Pursuant to the *Mineral Resources Regulation 2003*, various restricted areas have been declared across parts of Queensland that limit exploration and mining activities. It is noted there are restricted areas within the proposed ML boundaries such as bores and dams. Consents to surface rights over these restricted land areas will be required as a prerequisite to grant of the MLs.

1.10.2.2 Mineral and Energy Resources (Common Provisions) Act 2014

This Act governs land access, limits circumstances to objections on environmental approvals, amends the overlapping tenements regime for coal and CSG and the MLA process. On-tenure land access remains similar; however, there are additional land access frameworks in place for access to off tenure lands.

1.10.2.3 Environmental Protection Act 1994

The EP Act provides the key legislative framework for environmental management and protection in Queensland. The objective of the EP Act is to: 'Protect Queensland's environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains ecological processes on which life depends' (s 3). Under the EP Act, Central Queensland Coal must comply with the general environmental duty not to undertake an: 'Activity that causes, or is likely to cause, environmental harm unless…all reasonable and practicable measures to prevent or minimise the harm are taken' (s 319).

The process for obtaining an EA for mining activities is established in Chapter 5 of the EP Act. According to the Act, the Project requires a site–specific application for ineligible ERAs (s 124), that is for which eligibility criteria are not in effect. The EA imposes environmental management conditions based on EHP's Model Mining Conditions on mining activities undertaken on the ML that Central Queensland Coal must comply with. This EIS demonstrates that the model mining conditions are acceptable or identifies areas where suitable alternatives to model conditions are appropriate for the Project and existing background EVs. EHP is the regulatory authority that has responsibility for administration of EAs, oversight of compliance and retaining financial assurance bonds to ensure the area is suitably rehabilitated.

Under changes from *Environmental Protection (Greentape Reduction) and Other Legislation Amendment Act 2012* which commenced on the 31 March 2013, this EIS will satisfy the Information and Notification stages for EAs and the EA conditions will largely comprise the model mining conditions. Upon lodgement of the EA application the application will only require the decision stage to be completed, thus reducing the duplication of information submission and public notification which previously existed.

Environmentally Relevant Activities

Pursuant to the EP Act, activities that will, or have the potential to, release contaminants into the environment and which may cause environmental harm are defined as environmentally relevant activities (ERAs). In accordance with the *Environmental Protection Regulation 2008* (EP Regulation) (Schedule 6, Item 5), the development will be a site-specific EA mining project for the mining of black coal. The activities associated with the Project will require a number of ERAs (as prescribed in Schedule 2, EP Regulation). The EA is an integrated authority that allows for the carrying out of multiple ERAs that are part of a project, as such all ERAs must be listed and described in the EIS for inclusion in the EA. The EA is expected to provide approval conditions for each of the required ERAs.

The Project has the potential to involve four ERAs applicable to the construction and operational stages as listed in Table 1-10.

Table 1-10 Environmentally relevant activities for the Project

ERA number	Relevant activity	Location and activity summary
ERA 13	Mining Black Coal.	Central Queensland Coal Area – ML 80187 and MLA 700022.
ERA 8 (1)(a)	Chemical Storage – more than 500 m3 of chemicals of class C1 or C2 combustible liquids under AS 1940 or dangerous goods class 3; or (EP Regulation – Sch 2, Part 2).	Central Queensland Coal Area – MLA 80187.
ERA 31 (2b)	Mineral Processing – processing in a year >1,000,000 tonnes or more of mineral products (EP Regulation – Sch 2, Part 7).	Central Queensland Coal Area – MLA 80187.

Notifiable Activities

Land contamination and activities that have been identified as likely to cause land contamination are listed as notifiable activities in Schedule 3 of the EP Act. Any person undertaking these notifiable activities must notify EHP and the land is recorded on the Environmental Management Register (EMR). Potentially notifiable activities associated with the Project are listed in Table 1-11.

Table 1-11 Anticipated notifiable activities for the Project

Item number (Schedule 3 EP Act)	Description of activity
1	Abrasive blasting—carrying out abrasive blast cleaning (other than cleaning carried out in fully enclosed booths) or disposing of abrasive blasting material.
23	Metal treatment or coating - treating or coating metal including, for example, anodising, galvanising, pickling, electroplating, heat treatment using cyanide compounds and spray painting using more than 5L of paint per week.
24	Mine wastes – (a) Storing hazardous mine or exploration wastes, including, for example, tailings dams, overburden or waste rock dumps containing hazardous contaminants; and (b) Mining or processing, minerals in a way that exposes faces, or releases groundwater, containing hazardous contaminants.
29	Petroleum product or oil storage in above ground tanks.
37	Waste storage, treatment or disposal – storing, treating, reprocessing or disposing regulated waste including operating a sewage treatment facility with on-site disposal facilities.

Note: Under Section 371 of the EP Act, the owner or occupier of land must notify EHP within 20 business days of becoming aware of the notifiable activity having occurred or going to occur on the subject land.

Regulated and Hazardous Waste Dam

The final EA approved for the Project will include conditions that require Central Queensland Coal to have the consequence category of structures which are dams or levees constructed as part of the Project (EHP 2014a). The hazard assessment will determine whether a structure is a 'regulated structure' for the purpose of the EA. Assessments are carried out by a 'suitably qualified and experienced person' in accordance with the *Manual for assessing consequence categories and hydraulic performance of structures* (the Manual) (EHP 2016a).

Structures may be assessed using the Manual as being in one of three consequence categories: low, significant or high. This consequence category is based on its potential impact to humans, livestock, the environment or general economic loss in the event the structure overflows or fails. Dams are automatically classified as high or significant hazard dams if the dam wall exceeds a height of 10 metres (m) or the quality of the stored water exceeds EHP's contaminant concentration criteria and minimum volume requirements. Where categorised as a significant or high consequence, the structure is referred to as a regulated structure.

Regulated dams must be able to withstand seasonal rainfall events without releasing contaminants from the dam in an unauthorised manner. A minimum available storage, called a design storage allowance, is required to be estimated for regulated dams in accordance with the Manual, in order to accommodate seasonal rainfall to a specified annual probability. Onsite water management must allow for and provide the design storage allowance volume in each regulated dam, going into each new wet season (that is, on 1 November each year). Regulated dams are also assigned mandatory reporting levels, which if volume reaches this level, notification must be provided to EHP. Regulated structures will require certified design plans to be submitted to the administering authority demonstrating compliance with the Manual requirements. Such structures will be subject to annual inspection and reporting by a suitably qualified and experienced person. Regulated dams also require details to be entered in a register of regulated dams kept by the holder of the authority and an electronic copy provided annually to the administering authority (EHP 2014a).

As this Project includes a number of structures (water storage dam, environmental dams and possible levees) which are likely to be assessed as regulated, the applicable model conditions for

regulated structures should be applied to the EA. The locations and functional significance of all dams required for the Project are outlined in Chapter 9 – Surface Water.

If a regulated dam also meets the definition of a 'referable dams' pursuant to the *Water Supply (Safety and Reliability) Act 2008*, duplication of failure impact assessment is not required as there is an exemption from the referable dams (Chapter 4) in the Act for 'hazardous waste dams' and definition of the term 'hazardous waste dams' largely overlaps with 'regulated dams' under the Manual.

Existing Agricultural ERA

The EP Act regulates agriculture to protect the Great Barrier Reef, the provisions predominantly relate to chemical usage and water quality leaving the property. This is part of the ongoing response aimed at reversing the decline in water quality in the Great Barrier Reef World Heritage Area that has occurred as a result of land management practices in adjacent catchments over the past 150 years. The Project area is located outside of the Wet Tropics, Burdekin Dry Tropics and Mackay Whitsundays catchments and as such is not required to hold an Agricultural ERA.

1.10.2.4 Subordinate Legislation

The EP Act has a range of subordinate legislation which assists in achieving the objective. The EP Act is supported by the following subordinate environmental protection policies (EPPs):

- *Environmental Protection (Air) Policy 2008* (EPP (Air));
- *Environmental Protection (Noise) Policy 2008* (EPP (Noise)); and
- *Environmental Protection (Water) Policy 2009* (EPP (Water)).

Where relevant impacts could occur for this Project, impact assessments have been undertaken having due regard to the EVs specified in each EPP.

Environmental Protection (Air) Policy 2008

The objective of the EPP (Air) is to achieve the object of the EP Act in relation to Queensland's air environment. To achieve this objective, the EPP (Air) provides a framework for:

- Identifying EVs to be enhanced or protected;
- Specifying air quality indicators and goals to protect or enhance the EVs; and
- Providing processes which manage the air environment and involve the community in achieving air quality goals that best protect Queensland's air environment.

Air quality values of the Project area, potential impacts from the Project and management of those impacts are discussed in Chapter 12 – Air Quality. As set out in Chapter 12, the Project has applied the air quality objectives outlined with the EPP (Air) to the Project activities.

Environmental Protection (Noise) Policy 2008

The objective of the EPP (Noise) is to achieve the object of the EP Act in relation to Queensland's acoustic environment. The EPP (Noise) provides a framework for:

- Identifying the EVs to be enhanced or protected;
- Stating acoustic quality objectives for enhancing or protecting the EVs; and

- Providing a framework for making consistent, equitable and informed decisions about the acoustic environment.

The acoustic values of the Project area, potential impacts from the Project and management of those impacts are discussed in Chapter 13 – Noise and Vibration and the acoustic noise objectives for health and wellbeing have been applied to the Project.

Environmental Protection (Water) Policy 2009

The EPP (Water) establishes a process for identifying EVs to be protected and states standards for water quality in support of those values. The EPP (Water) provides a framework for:

- Identifying EVs and management goals for Queensland waters;
- Stating water quality guidelines and objectives to protect or enhance the EVs;
- Providing a framework for making consistent, equitable and informed decisions about Queensland waters; and
- Monitoring and reporting on the condition of Queensland waters.

Potential impacts on surface water and groundwater and the management measures are addressed in Chapter 9 – Surface Water and Chapter 10 – Groundwater. The identified EVs and water quality objectives (WQOs) have been applied to the Project's activities.

1.10.2.5 Regional Planning Interests Act 2014

The *Regional Planning Interests Act 2014* (RPI Act) replaced the *Strategic Cropping Land Act 2011* on the 13 June 2014. The RPI Act seeks to manage the impacts from resource activities, and other regulated activities through protecting:

- Living areas in regional communities;
- High-quality agricultural areas from dislocations;
- Strategic cropping land (SCL); and
- Regionally important EVs.

Under the RPI Act, an approval is required when a resource activity or regulated activity is proposed in an area of regional interest. Areas of regional interest are identified as:

- Priority living areas (PLAs);
- Priority agricultural areas (PAAs);
- Strategic cropping areas (SCAs); and
- Strategic environmental areas (SEAs).

No areas of regional interests are found within the Project's disturbance area. No approval under the RPI Act is therefore, required for the Project.

1.10.2.6 Environmental Offsets Act 2014

The *Environmental Offsets Act 2014* (EO Act), *Environmental Offsets Regulation 2014* and the *Queensland Government Environmental Offsets Policy* provide a streamlined framework for environmental offset requirements. Offsets are required where there is an unavoidable impact on significant EVs. In addition, an environmental offset can only be required if impacts from a prescribed activity constitute a significant residual impact as identified through the following guidelines:

- The State guideline that provides guidance on what constitutes a significant residual impact for Matters of State Environmental Significance (MSES);
- The Commonwealth Significant Impact Guidelines for what constitutes a significant residual impact on MNES; and
- Any relevant local government significant impact guideline for Matters of Local Environmental Significance (MLES).

The *Queensland Environmental Offsets Policy* provides a decision support tool to enable administering agencies to assess offset proposals in accordance with the EO Act. An environmental offset may be required as a condition of approval where the activity is likely to result in a significant residual impact on prescribed environmental matters. The *Significant Residual Impact Guideline* issued in December 2014 is used for consideration of all potential offset requirements for MSES, for applications made under the EP Act. It is used to determine if a residual impact from a prescribed activity is significant. Offsets may be delivered through a variety of manners including financial settlement offsets, proponent driven offsets and a combination of these approaches.

To avoid duplication with offsets required under the EPBC Act, the policy provides that the administering agency must consider other relevant offset conditions for the same or substantially the same prescribed impact. If duplicating conditions are imposed it allows Central Queensland Coal to remove the duplication.

1.10.2.7 Water Act 2000

The *Water Act 2000* (Water Act) provides a structured 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. The Water Act was amended in 2016 to require all mining activities to be assessed and approved for the take of incidental water extracted during operations. This EIS will be used to inform an application for a Water Licence on completion of the EIS.

The take from overland flow is regulated by subordinate legislation by the relevant Water Resource Plan. There is no current right to water provided under the MR Act for water taken or diverted during the course of a mining activity (s 235(3)).

Water Supply

The Project area lies wholly within the Styx Catchment (Queensland river basin 127), a small catchment forming part of the Fitzroy River Natural Resource Management region, which discharges into the Coral Sea adjacent to Rosewood Island (in the vicinity of the Project). No water resource plan is in force over the catchment. As such, no permit is required by the Project to interfere with overland flow.

The Project is not located within a declared sub-artesian area or a groundwater management area.

Water for the construction and operation of the Project will be sourced from an external supply and trucked to the site. Once operational, water will be sourced from a number of options (see Chapter 9 – Surface Water and Chapter 10 – Groundwater).

Interfering with a Watercourse

A number of watercourses intersect the Project area and are subject to the provisions of the Water Act if interfered with. Placing fill or excavating in a watercourse, as required for works associated with construction of haul roads, bridges and culverts require a Riverine Protection Permit (RPP). A general exemption for this permit has been granted for resource holders where the works are authorised by an EA and comply with the guidelines for RPP exemption requirements' WSS/2013/726, Version 1.02.

No diversions are proposed as a result of the Project. Minor waterway diversions or realignments may be required around the open pit areas and are described in Chapter 9 – Surface Water. Watercourse diversions undertaken as part of a mining resource activity are now assessed as part of the issuing of an EA by EHP. The guideline for *Works That Interfere With Water In A Watercourse – Watercourse Diversions* (DNRM 2014) outlines the considerations which must be satisfied in the assessment of the EA. As such no additional approvals under the Water Act are required for watercourse diversions or realignments.

1.10.2.8 Coal Mining Safety and Health Act 1999

The object of the *Coal Mining Safety and Health Act 1999* (CMSH Act) is to protect the health and safety of people at, or who may be impacted by, a coal mine and to monitor and ensure that the risk of injury or illness is at an acceptable level. Central Queensland Coal is required to comply with the obligations and approvals of the CMSH Act and *Coal Mining Safety and Health Regulation 2001* (CMSH Regulation) for the Project. In particular, the Project will require approval and documentation including:

- Notification to regional inspector of mine operation commencement (ss 49-50, CMSH Act);
- Documentation of management structure (ss 51 and 55 CMSH Act);
- Documentation meeting the requirements for underground mines (ss 60-61, CMSH Act and Chapter 4, CMSH Regulation);
- Safety Health and Management System (s 62, CMSH Act);
- Principle hazard management plan and standard operating procedures (ss 63-64, CMSH Act);
- Records and reporting (ss 65-69 CMSH Act); and
- Hazardous substance register and standard operating procedure (ss 55-56, CMSH Regulation).

Chapter 20 – Health and Safety outlines Central Queensland Coal's health and safety obligations and commitments for the Project incorporating the requirements detailed in the CMSH Act, CMSH Regulation and the *Mineral Resources Regulation 2003*.

1.10.2.9 Work Health and Safety Act 2011

The purpose of the *Work Health and Safety Act 2011* (WH&S Act) is to provide a regulatory framework for workplace health and safety that is consistent with national policy. Under Schedule 1, Part 2, the WH&S Act does not apply to operational coal mines regulated under the CMSH Act.

For construction activities and any operations or activities outside of the Project area, the full provisions of the WH&S Act apply.

1.10.2.10 Mineral and Energy Resource (Common Provisions) Act 2014

The *Mineral and Energy Resources (Common Provisions) Act 2014* (MERCP Act) and the *Mineral and Energy Resources (Common Provisions) Regulation 2016* (MERCP Regulation) commenced on the 27 September 2016. The MERCP brings together provisions relating to dealings, caveats and associated arrangements, private and public land access and the maintenance of the resource authority register. The MERCP Act includes the introduction of opt-out agreements which states that landholders cannot be forced to enter into an opt out agreement by resource companies, with opt-out agreement forms now available.

The MERCP Act includes a framework for the management of overlapping coal and coal seam gas resource authorities, which regulates both the resource authority and safety and health requirements.

1.10.3 Other Queensland Legislation

- *Aboriginal Cultural Heritage Act 2003*;
- *Planning Act 2016*;
- *Nature Conservation Act 1992*;
- *Vegetation Management Act 1999*;
- *Transport Infrastructure Act 1994*;
- *Land Act 1994*;
- *Biosecurity Act 2016*;
- *Fisheries Act 1994*; and
- *Forestry Act 1959*.

1.10.3.1 Aboriginal Cultural Heritage Act 2003

The *Aboriginal Cultural Heritage Act 2003* (ACH Act) contains provisions for identifying significant Aboriginal cultural heritage and protecting it from development, including:

- The requirement to comply with a duty of care towards Aboriginal cultural heritage;
- The requirement to notify the existence and location of Aboriginal human remains;
- The establishment of an Aboriginal Cultural Heritage Database which was searched as part of Chapter 18 – Cultural Heritage; and
- The establishment of a Register of Aboriginal Cultural Heritage which was searched as part of Chapter 18 – Cultural Heritage.

The ACH Act requires that, when carrying out an activity, all reasonable and practicable measures are taken to ensure that the activity does not harm Aboriginal cultural heritage. This is referred to as the cultural heritage duty of care.

Central Queensland Coal is in the process of negotiating CHMPs with the Barada Kabalbara Yetimarala People which will govern management of Aboriginal cultural heritage associated with the Project.

1.10.3.2 Planning Act 2016

The *Planning Act 2016* (Planning Act) establishes a new planning system for the state and replaces the *Sustainable Planning Act 2009* (SP Act). The Act provides a planning framework and development assessment system for Queensland. Activities within the ML are largely exempt from the requirements of the Planning Act through the exemption within the MR Act outlined above. The *Planning Regulation 2017* (Planning Regulation) commenced on 3 July 2017. Similar to the *Sustainable Planning Regulation 2009,* the Planning Regulation gives effect to a suite of supporting instruments such as the *State Planning Policy 2017* (SPP). The Planning Regulation, under Schedule 10, Part 5, Division 2, item 8 excludes development for a Material Change of Use (MCU) for an ERA for a mining activity from assessable development.

The SPP is a statutory instrument prepared under the Planning Act that relates to matters of Queensland interest. The SPP applies to a range of circumstances under the Planning Act, including for development assessment and when proposed new planning schemes are made or amended. The SPP is applicable to assessable development within Queensland. The provisions of the SPP may also be considered under the standard criteria of the EP Act which includes matters of State interest, as such the EIS considers the relevance of the SPP to the Project.

The relevant State interests to the Project which are managed under the SPP are:

- Biodiversity - MSES - Regulated vegetation and MSES - Regulated vegetation (intersecting a watercourse); and
- Water Quality - Climatic regions - stormwater management design objectives.

1.10.3.3 Nature Conservation Act 1992

In broad terms, the objective of the *Nature Conservation Act 1992* (NC Act) is the conservation of nature (plants and animals) within Queensland. Specifically, the NC Act seeks to gather relevant information, identify critical habitat areas, manage protected areas, protect wildlife and promote ecologically sustainable development. The NC Act has 10 subordinate regulatory instruments in the form of regulations, conservation plans and notices. Of relevance to the Project is the *Nature Conservation (Wildlife) Regulation 2006* which categorises flora and fauna species as extinct in the wild, endangered, vulnerable, near threatened or of least concern. Also listed is international wildlife and prohibited wildlife.

The NC Act will play an important role in approvals for the Project by providing legislative guidance in respect to the conservation and protection of flora and fauna deemed to be of State significance. Under the NC Act, permits for the movement of protected animals and the clearing of protected plants are required and a Species Management Program must be approved when interfering with native fauna habitat and breeding places. Baseline surveys have not identified any protected plants or critical breeding places of protected species (see Chapter 14 – Terrestrial Ecology).

1.10.3.4 Vegetation Management Act 1999

The *Vegetation Management Act 1999* (VM Act) regulates the conservation and management of vegetation communities and provides protection for regional ecosystems (RE) classified as 'endangered', 'of concern' or 'least concern' under the VM Act. The clearing of native vegetation for the Project will be exempt from the provisions of the VM Act under Schedule 21 Part 1, item 1 [(6)

a resource activity as defined under the EP Act, section 107] of the Planning Regulation where clearing occurs within the Project's mining lease areas for a mining activity.

1.10.3.5 Transport Infrastructure Act 1994

The *Transport Infrastructure Act 1994* (TI Act) encourages effective integrated planning and efficient transport infrastructure management for the planning and management of road, rail and air infrastructure. Approvals under this Act will be required for any upgrades to State Controlled Roads (SCR) and SCR intersections. The subsidiary regulations include the *Transport Infrastructure (Rail) Regulation 2006* and *Transport Infrastructure (Ports) Regulation 2005* which prescribe requirements when using rail and port infrastructure.

1.10.3.6 Land Act 1994

The *Land Act 1994* (Land Act) provides a framework for the allocation of State land as leasehold, freehold or other tenure and its subsequent management. Under the Land Act, permits to occupy are required for the occupation of a reserve, road or unallocated State land. Where electricity, water, or other infrastructure is to be developed on unallocated State land, reserves or roads, a Permit to Occupy will be required. A permit to occupy entitles the holder to non-exclusive possession of the land. In addition, development on any leasehold or other state land requires the consent from DNRM as the landholder.

Section 98 of the Land Act provides that an application can be made to DNRM to permanently or temporarily close a road. During the mine construction and operation, the existing road easement traversing the mine site will be required to be temporarily or permanently closed or realigned. It is noted that this reserve is not currently used as a road. If an application to temporarily close a road is approved, a road licence will be issued to the applicant that grants exclusive occupation of the road.

Upgrades will be required at the turn off to the access roads from the Bruce Highway and detailed information about the nature of these works is available in Chapter 6 – Traffic and Transport. After consultation with LSC, DNRM and DTMR, Central Queensland Coal will obtain the required approvals prior to the works being carried out.

1.10.3.7 Biosecurity Act 2014

The objectives of the *Biosecurity Act 2014* (Biosecurity Act) are to provide biosecurity measures against pests, disease and contaminants. The Biosecurity Act has replaced the many separate pieces of legislation that were used to manage biosecurity, including the superseded *Land Protection (Pest and Stock Route Management) Act 2002*. The Biosecurity Act is used to manage risks associated with emerging, endemic and exotic pests and diseases that can impact on industry, the built environment, animals, biodiversity, the natural environment, tourism and infrastructure services. Pest species will be managed under the Act.

1.10.3.8 Fisheries Act 1994

The main purpose of the *Fisheries Act 1994* (Fisheries Act) is to provide for the use, conservation and enhancement of the fish resources and habitats as a way to apply and promote the principles of Ecologically Sustainable Development (ESD). It regulates the taking and possession of specific fish, removal of marine vegetation, the control of development in areas of fish habitat and listed noxious fish species. An approval is not required for waterway barrier works within waterways as mining activities are exempt from the Fisheries Act.

All waters of the state are protected against degradation by direct or indirect impact under s125 of the EP Act. If litter, soil, a noxious substance, refuse or other polluting matter is on land, in waters

or in a fish habitat and the polluting adversely affects fisheries resources or habitat then penalties apply.

1.10.3.9 Forestry Act 1959

The *Forestry Act 1959* (Forestry Act) provides for, among other things, the sale and disposal of quarry material and commercially valuable timber on certain State lands. Forest products and quarry materials on all State land and on some freehold lands where these products and materials are reserved to the State are the property of the State. State-owned forest products and quarry material under the Forestry Act are administered by the Department of Agriculture and Fisheries. The Project and associated infrastructure are located on freehold land with no forest products or quarry materials reserved to the State and as such no authorities are required under the Forestry Act. Consequently, there is no requirement to consult with the Department of Agriculture and Fisheries regarding the clearing of timber. The MR Act provides the right to quarry material to holders of a ML. No quarrying is proposed to occur outside any ML as part of the Project.

1.10.4 Considered Legislation and Guidelines

The Project may be subject to other infrastructure and associated mining activity approvals. Table 1-12 provides an overview of additional Commonwealth and State legislation that may be applicable to the Project.

Table 1-12 Other relevant legislation

Legislation	Administering authority	Project relevance
Petroleum and Gas (Production and Safety) Act 2004 and *Petroleum Act 1923*	DNRM	There are no overlapping petroleum lease or exploration tenements within the mine area. So no agreements under this Act are required.
Building Act 1975	Local Government, Building certifier	Not relevant as all works will be on MLs. Buildings will still meet relevant codes.
Queensland Heritage Act 1992	EHP	The Act provides for the conservation and protection of post European settlement cultural heritage. A search of the Queensland Heritage Register did not identify any Registered (Protected) Places within the Project footprint. Notification in accordance with the requirements of Part 9 of the Act will occur if artefacts potentially protected under the Act are located unexpectedly.
Transport Infrastructure Act 1994	DTMR	The Act provides for the planning and management of transport infrastructure for all modes of transport including (but not limited to) air, sea, road, rail, bus ways and light rail. Any interference with state controlled roads requires a Traffic Control Permit, including a Police Traffic Control Permit.
Transport Operations (Road Use Management – Mass Dimensions and Loading) Regulation 2005	DTMR	The Regulation defines limits of the mass, dimensions and loading of transportation on Queensland's road network. Central Queensland Coal will obtain the required approvals when transporting large, indivisible loads using over dimensional vehicles. Queensland Police Permits are required under the *Transport Infrastructure Act 1994*.

Legislation	Administering authority	Project relevance
Fire and Rescue Service Act 1990	QFRS	The Act requires Project operators to establish effective relationships with the administering authority for the prevention of and response to fires and certain other incidents. Chapter 20 – Health and Safety outlines the safety obligations and commitments for the Project.
Explosives Act 1999	DNRM	The Act sets standards, duty of care requirements and penalties associated with the possession of explosives and explosive activities. Central Queensland Coal will obtain required approvals for storing and using explosives. A safety management system in compliance with section 42 of the *Explosives Regulation 2003* will be developed prior to explosive handling.
Waste Reduction and Recycling Act 2011	EHP	The Act provides a nationally consistent framework that minimises the production and impacts of waste and promotes the recovery, reuse and recycling of waste.
Electrical Safety Act 2002 Electrical Safety Regulation 2003	Electrical Safety Office	This Act ensures safe utilisation, instalment and use of electricity so as not to endanger persons, property or the environment.
Strong and Sustainable Resource Communities Act 2017	Department of State Development	This Act ensures residents of communities near large resource projects benefit from the construction and operation of the projects.
Electrical Safety Code of Practice 2010—Working Near Overhead and Underground Electric Lines	Electrical Safety Office (under the *Electrical Safety Act 2002)*	This code is a practical guide to managing risk when working near overhead and underground electric lines. This code applies to anyone who has an electrical safety duty as outlined in the code.

1.10.5 Queensland Plan

In 2014 the Queensland Government established the *ResourcesQ 30-year vision and action plan* to the deliver the objectives of the Queensland Plan pertaining to the resources sector. The intention is that by 2044 Queensland will be recognised as a preferred resource destination, with an enviable investment track record and competitive operating environment.

A number of initiatives are being implemented to deliver the *ResourcesQ* vision by the Queensland Government, including a number of strategic plans to support the development of coal, particularly in central Queensland. The government's commitments to the development of coal are overseen by the Coal Infrastructure Taskforce. The taskforce is responsible for delivering the *CoalPlan 2030* and the *Coal Infrastructure Program of Actions*.

The *CoalPlan 2030* provides a strategic framework for coal infrastructure development throughout the state. The plan provides a linked network of rail systems to four export port facilities on the east coast. There are five rail systems that provide infrastructure for delivery of coal export: Newlands, Goonyella, Blackwater, Moura and Western systems. The Project is consistent with the objectives of the *CoalPlan 2030* through its reliance on key existing coal export infrastructure i.e. the North Coast Rail Line and existing port capacity at either Mackay or Gladstone. Since 2008, the *Coal Infrastructure Program of Actions* has committed more than $19.3 billion to coal related infrastructure, including transport systems, water and energy supplies, skills and social infrastructure. It is anticipated that the Project will also contribute to a variety of plans outlined in the *Coal Infrastructure Program of Actions* including, but not limited to, skills development and contribution to social infrastructure (see Chapter 19 – Social and Economic for further details).

The Queensland Government has undertaken strategic planning activities to support the growth and development in areas of mining communities and coal export facilities. These legislative and non-statutory frameworks include:

- Governing for Growth Economic Strategy and Action Plan;
- Royalties for the Regions; and
- Queensland Ports Strategy.

1.10.6 Regional Planning

There are no relevant regional plans.

1.10.7 Local Plans

1.10.7.1 Livingstone Shire Draft Planning Scheme 2016

The Project is located within the LSC local government area. LSC has released the Livingstone Planning Scheme 2016 to replace the existing 2005 planning scheme. The draft Scheme:

- Identifies assessable and self-assessable development; and
- Identifies outcomes to be achieved in the local government area as the context for assessing development.

Certain types of development including mining activities under the MR Act are not subject to the provisions of the SP Act and are therefore exempt from assessment against this scheme.

1.10.8 Standards, Codes and Guidelines

The Project will comply with all relevant standards, codes and guidelines available to monitor and control construction and operations on site, including Australian Standards, industry codes of best practice and EHP Guidelines.

1.10.8.1 Standards

Standards are published documents setting out specifications and procedures designed to ensure products, services and systems are safe, reliable and consistently perform the way they were intended to. Relevant standards applicable to the Project include:

- ISO 14001 – Environmental Management Systems;
- ISO 31000 – Risk Management;
- Australian Standards AS 1940 – 2004 – The Storage and Handling of Flammable and Combustible Liquids;
- AS/NZ 1547: On-site Domestic Wastewater Management;
- AS 2187.0:1998 Explosives – Storage, Transport and Use; and
- AS 3187.2:2006 Explosives – Storage and Use.

1.10.8.2 Guidelines

Guidelines are sets of best practices that are supported by consensus. Central Queensland Coal will attempt to follow guidelines, though they will be best treated with common sense, and occasional exceptions may apply. The following guidelines are applicable to the Project:

- Model Mining Conditions - ESR2016/1936 (EHP 2016b);
- Site specific EA application requirements for activities with impacts to air -ESR/2015/1840;
- Site specific EA application requirements for activities with impacts to land - ESR/2015/1839;
- Site specific EA application requirements for activities with noise impacts - ESR/2015/1838;
- Site specific EA application requirements for activities with impacts to water - ESR/2015/1837;
- Site specific EA application requirements for activities with waste impacts - ESR/2015/1836;
- Stormwater Guideline for ERAs (EHP 2014b);
- EHP Manual for assessing consequence categories and hydraulic performance of structures (EHP 2016a);
- EHP Guideline – Structures which re dams or levees constructed as part of ERAs (EHP 2016);
- Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure And Ground Vibration (ANZECC 1990);
- Riverine protection permit exemption requirements WSS/2013/726, Version 1.02 (DNRM 2016);
- DNRM Guideline - Works that interfere with water in a watercourse – watercourse diversion (DNRM 2014);
- EHP Guideline - Financial assurance under the EP Act (EHP 2016c); and
- EHP Guideline – Resource Activities - Rehabilitation requirements for mining projects (EHP 2014c).

1.10.8.3 Codes

A code of practice is generally a collection of rules or procedures about a particular topic or activity. Codes have different roles and functions under Queensland legislation. These codes can be grouped into different types: industry codes, nature conservation codes of practice and codes of environmental compliance.

A number of National Mine Safety Codes of Practice are currently being developed by Safe Work Australia, these are currently in consultation stage and include:

- Managing naturally occurring radioactive materials;
- Strata control in underground mines;
- Roads and other vehicle operating areas;
- Inundation and in rush hazard management;
- Emergency response; and
- Mine closure.

1.11 Commitments

Each technical chapter outlines the relevant Central Queensland Coal commitments and these commitments are consolidated in Chapter 22 – Key Commitments.

1.12 ToR Cross-reference Table

Table 1-13 ToR cross-reference

Terms of Reference	Section of the EIS
5. Introduction	
Clearly explain the function of the EIS, why it has been prepared and what it sets out to achieve. Include an overview of the structure of the document.	Sections 1.1, 1.6.3 and 1.9
5.1 Project proponent	
Provide information about the proponent(s) and their business, including: ▪ the proponent's full name, street and postal address, and Australian Business Number, including details of any joint venture partners; ▪ the nature and extent of the proponent's business activities; ▪ proponent's environmental record, including a list of any breach of relevant environmental laws during the previous 10 years; and ▪ the proponent's environmental, health, safety and community policies.	Section 1.2
5.2 The Environment impact statement process	
Outline the steps of the environmental impact statement process, note which steps have been completed, and provide an estimated completion date for each remaining step. Highlight the steps in which the public will have the opportunity for input. The information in this section is required to ensure readers are informed of the process and are aware of their opportunities for input and participation.	Section 1.6
Inform the reader how and when properly made public submissions on the EIS can be made, and outline how the submissions are taken into account in the decision-making process.	Section 1.6.6
5.3 Project approvals process	
Describe the approvals that are required to enable the project to be constructed and operated, and note the legislation under which the approvals are assessed and issued. Explain how the EIS fits into the assessment and approval processes for the environmental authority, leases, licences and permits required by the proponent before construction and operations can start.	Section 1.10
Describe the approvals process under the EPBC Act if this project is to be assessed under the bilateral agreement between the Queensland and the Australian Governments.	Section 1.10
6. Consultation process	
Provide information on the development and implementation of a consultation plan for the people and organisations identified as affected or interested persons, or stakeholders for the project.	Section 1.7 and Chapter 19 – Social and Economic
Describe issues of potential concern to any and all stakeholders at various stages of the project from project planning to commencement, project operations and decommissioning.	Section 1.7 and Chapter 19 – Social and Economic

Terms of Reference	Section of the EIS
The description should at least include the following matters: ▪ the objectives of the consultation process; ▪ timing of consultation; ▪ the number and interests of the people and organisations involved in the consultation (particularly the affected and interested persons defined in sections 38 and 41 of the EP Act); ▪ methods of consultation and communication; ▪ reporting and feedback methods of the consultation process; ▪ an assessment explaining how the consultation objectives have been met; and ▪ an analysis of the issues raised and their completed or planned resolution, including any alterations to the proposed project as a result of the received feedback.	Section 1.7 and Chapter 19 – Social and Economic Note: Community consultation around the findings of the EIS will be undertaken once released to the public. An analysis of the issues raised and any completed or planned resolution, including any alterations to the proposed project as a result of the received feedback will be reported as part of the Supplementary EIS phase.