PROJECT CHINA STONE

Guide to the Terms of Reference 30

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30 GUIDE TO THE TERMS OF REFERENCE

A copy of the Terms of Reference is included in Section 29 – Terms of Reference. The table below cross references specific items of the Terms of Reference to the relevant section of the draft EIS.

Table 30-1 Guide to the Terms of Reference

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
1 Executive summary The executive summary should convey the most important and preferred aspects and options relating to the project in a concise and readable form. It should use plain English, avoid jargon, be written as a stand-alone document and be structured to follow the EIS. It should be easy to reproduce and distribute on request to those who may not wish to read or purchase the whole EIS. The executive summary should include:	Executive Summary
■ Project title	Executive Summary (Subsection 1)
■ Proponent's name and contact details	Executive Summary (Subsection 1) Section 1 – Introduction (Subsection 1.4)
■ A discussion of any relevant projects previously undertaken by the proponent, if applicable, and the proponent's commitment to effective environmental management	Executive Summary (Subsection 1) Section 24 - Environmental Management (Subsection 24.1)
■ A concise statement of the aims and objectives of the project	Section 1 – Introduction (Subsection 1.5.2)
■ The legal framework for the project, decision-making authorities and advisory agencies	Executive Summary (Subsection 2)
■ An outline of the background and need for the project, including the consequences of not proceeding with the project	Executive Summary (Subsection 1)
■ An outline of the alternative options considered and reasons for selecting the proposed development option	Executive Summary (Subsection 4)
■ A brief description of the project (pre-construction, construction, operational activities and decommissioning) and the existing environment, using visual aids where appropriate	Executive Summary (Subsection 4)
■ An outline of the principal environmental impacts predicted and the proposed environmental management strategies, commitments and rehabilitation strategies to minimise the significance of these impacts	Executive Summary (Subsection 5 to 24)
■ A discussion of the cumulative impacts in relation to social, economic and environmental factors of associated infrastructure projects proposed within the region	Executive Summary (Subsection 23)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Detailed maps of the proposed project location and any other critical figures	Executive Summary (Figures 1 to 11)
2 Glossary of terms Provide a glossary of technical terms, acronyms, abbreviations and references.	Section 25 – References Section 26 – Glossary Section 27 – Abbreviations
3 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.	Section 1 – Introduction (Subsections 1.6.1 to 1.6.3)
3.1 Project proponent Describe the proponent's experience, including: ■ The nature and extent of business activities, including details of any joint venture partners	Section 1 – Introduction (Subsection 1.4)
■ Experience and qualifications	Section 1 – Introduction (Subsection 1.4)
■ Environmental record, including a list of any breach of relevant environmental laws (Queensland, Commonwealth of Australia, or International) during the previous ten years	Section 24 – Environmental Management (Subsection 24.3.1)
■ The proponent's environmental, health, safety and community policies	Section 22 – Hazard and Risk (Subsection 22.3.2) Section 24 – Environmental Management (Subsection 24.3.1 and Attachment 24-1)
3.2 Project description Briefly describe the key elements of the project with illustrations or maps.	Section 1 – Introduction (Subsection 1.2 and Figures 1-1 and 1-2) Section 4 – Project Description (Subsection 4.2 and Figures 4-1 and 4-2)
Summarise any major associated infrastructure requirements.	Section 4 – Project Description (Subsections 4.8 to 4.13)
Provide detailed project descriptions in Section 4.	Section 4 – Project Description
3.3 Project rationale Describe the specific objectives and justification for the project, including its strategic, economic, environmental and social implications, technical feasibility and commercial drivers.	Section 1 – Introduction (Subsection 1.5) Section 4 – Project Description (Subsection 4.16) Section 18 – Socio-Economic Impact Assessment (Subsection 18.7)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Discuss the status of the project in a regional, state and national context.	Section 1 – Introduction (Subsection 1.3) Section 4 – Project Description (Subsection 4.15) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 2)
Explain the project's compatibility with relevant policy, planning and regulatory frameworks.	Section 2 – Regulatory Framework
3.4 Relationship to other projects Describe how the project relates to other major projects (of which the proponent should reasonably be aware) that have been, are being undertaken or that have been proposed or approved in the area potentially affected by the project. Include details of dependencies on and projected timing of other major projects identified.	Section 4 – Project Description (Subsection 4.4) Section 5 – Land Use (Subsection 5.3.1) Section 23 – Cumulative Impacts
As a result of this assessment, there may be opportunities to co-locate existing or proposed infrastructure, enabling efficiency gains and mitigating environmental and property impacts. Where co-location may be likely, outline opportunities to coordinate or enhance impact mitigation strategies. Discuss the opportunities in sufficient detail to enable the reader to understand the reasons for preferring certain options or courses of action and rejecting others.	Due to the remoteness of the site, there are limited opportunities to co-locate proposed infrastructure for the project. However, the project will require off-lease infrastructure including port capacity, rail connection to port, mine site access road connection and raw water supply. These will be subject to separate environmental impact assessments and approvals. The current preferred option and status of each off-lease infrastructure component are discussed in Section 4 – Project Description (Subsection 4.13). Where appropriate, the proponent will work with relevant agencies and other proponents such as Adani Mining Pty Ltd to explore opportunities to co-locate off-lease infrastructure.
3.5 Project alternatives Describe feasible alternatives including conceptual, technological and locality alternatives to the proposed project and the consequences of not proceeding with the project (including any impacts that would be avoided).	Section 4 – Project Description (Subsection 4.16)
Detail the criteria used to determine the alternatives and provide sufficient detail to convey why certain options or courses of action are preferred and why others are rejected (including the 'no action' option).	Section 4 – Project Description (Subsection 4.16)
Discuss the interdependencies of project components, particularly in regard to how any infrastructure requirements relate to the viability of the project.	Section 4 – Project Description (Subsections 4.13 and 4.16)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
This information is required to assess why the scope of the project is as it is and to ensure that the environmentally sustainable design principles and sustainable development aspects were considered and incorporated during the project's scoping phase.	Noted.
A comparative description of the relevant impacts of each alternative on the matters of state and national environmental significance must be provided, including alternate locations for project infrastructure. Sufficient detail must be provided to make clear why any alternative is preferred to another.	Section 4 – Project Description (Subsection 4.16)
3.6 The environmental impact assessment process **3.6.1 Methodology of the EIS** Provide an outline of the environmental impact assessment process, including the role of the EIS in the Coordinator-General's decision making process.	Section 1 – Introduction (Subsections 1.3 and 1.6.1) Section 2 – Regulatory Framework (Subsection 2.2 and Figure 2-1)
Include information on relevant stages of EIS development, statutory and public consultation requirements and any interdependencies that exist between approvals sought. The information in this section is required to ensure:	Section 2 – Regulatory Framework (Subsections 2.2 and 2.3 and Figure 2-1) Section 3 – Consultation
■ Relevant legislation is addressed	Section 2 – Regulatory Framework
■ Readers are informed of the process to be followed	Section 2 – Regulatory Framework (Subsection 2.2 and Figure 2-1)
■ Stakeholders are aware of any opportunities for input and participation	Section 1 – Introduction (Subsection 1.6.5) Section 2 – Regulatory Framework (Subsection 2.2 and Figure 2-1) Section 3 – Consultation
3.6.2 Objectives of the EIS Provide a statement of the objectives of the environmental impact assessment process. The structure of the EIS can then be outlined and used to explain how the EIS will meet its objectives. The purpose of the EIS is to:	Section 1 – Introduction (Subsection 1.6)
■ Provide public information on the need for the project, alternatives to it, assess options and make informed decisions for its implementation	Section 1 – Introduction (Subsection 1.6.2)
■ Present the likely effects of the project on the natural, social and economic environment	Section 1 – Introduction (Subsection 1.6.2)
■ Demonstrate how environmental impacts can be avoided, managed or mitigated and the offsets for any residual impacts	Section 1 – Introduction (Subsection 1.6.2)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Provide information to formulate the project's environmental management plan (EMP)	The Greentape Reduction Act removes the requirement for an EM plan. However, the project's environmental management measures that are detailed throughout the EIS have been summarised in Section 24 – Environmental Management. The proponent's statement of objectives in the EIS process relating to environmental management are discussed in Section 1 – Introduction (Subsections 1.6.1 and 1.6.2)
3.6.3 Submissions Inform the reader how and when properly made public submissions on the EIS will be addressed and taken into account in the decision-making process. Indicate points in subsequent approval processes for the project (for example, 'material change of use' (MCU) applications under the *Sustainable Planning Act 2009* (SPA)) where submitters may have appeal rights.	Section 1 – Introduction (Subsection 1.6.5) Section 2 – Regulatory Framework (Subsection 2.2.1 and Figure 2-1)
3.7 Public consultation process **3.7.1 Overview** The public consultation process should provide opportunities for community involvement and education. It may include interviews with individuals, public communication activities, interest group meetings, printed material and other mechanisms to encourage and facilitate active public consultation. The public consultation processes (community engagement) for all parts of the EIS should be integrated. Consultation with advisory agencies should be the principal forum for identifying legislation, regulations, policies and guidelines relevant to the project and EIS process.	Section 3 – Consultation Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.6)
3.7.2 Consultation plan Develop and implement a comprehensive and inclusive consultation plan with the stakeholder groups identified in section 3.2 of *Preparing an EIS: Guideline for proponents*. The consultation plan should identify broad issues of concern to local and regional community and interest groups and address issues from project planning through commencement, project operations and decommissioning. The consultation plan should identify:	Section 3 – Consultation Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.6)
■ The stakeholders to be targeted	Section 3 – Consultation (Subsection 3.4)
■ The topics to be consulted on with stakeholders	Section 3 – Consultation (Subsection 3.5)
■ The types of consultation and communication activities to be undertaken	Section 3 – Consultation (Subsection 3.5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Timing of activities	Section 3 – Consultation (Subsections 3.5 and 3.6)
■ How consultation activities will be integrated with other EIS activities and the project development process	Section 3 – Consultation (Subsection 3.3)
■ Consultation responsibilities	Section 3 – Consultation (Subsections 3.1 and 3.2)
■ Communication protocols	Section 3 – Consultation (Subsection 3.5)
■ Reporting and feedback arrangements	Section 3 – Consultation (Subsection 3.6)
■ How results of consultation will be considered by the proponent and integrated into the EIS process	Section 3 – Consultation (Subsection 3.3)
3.7.3 Public consultation report Include, as an appendix, a public consultation report detailing how the public consultation plan was implemented, and the results. It must include:	Section 3 – Consultation (Subsections 3.5, 3.6 and 3.7)
■ A list of stakeholders identified, including the Australian and Queensland governments, local government agencies, and/or the affected parties (as defined by the *Environmental Protection Act 1994* (EP Act)	Section 3 – Consultation (Subsection 3.4)
■ Criteria for identifying stakeholders and methods used to communicate with them	Section 3 – Consultation (Subsections 3.4.1 and 3.5)
■ Details of the activities conducted to date and the future consultation strategies and programs, including those during the operational phase of the project (also outlined and included in the EMP)	The Greentape Reduction Act removes the requirement for an EM plan. However, consultation conducted to date as well as future consultation are outlined in Section 3 – Consultation (Subsections 3.5, 3.6 and 3.8). Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.6 and Table 26)
■ A matrix displaying the topics consulted against the list of stakeholders to show stakeholders with multiple issues of concern	Section 3 – Consultation (Subsection 3.7 and Tables 3.2 to 3.4)
■ A summary of the issues raised by individual stakeholders and/or multiple groups of stakeholders and the means by which the issues have been addressed	Section 3 – Consultation (Subsection 3.7 and Tables 3.2 to 3.4)
■ Details of how consultation involvement and outcomes were integrated into the EIS process	Section 3 – Consultation (Subsections 3.5, 3.6 and 3.7)
■ Details of how consultation outcomes will be integrated into future site activities (including opportunities for engagement and provision for feedback and action if necessary)	Section 3 – Consultation (Subsection 3.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.6)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
3.8 Project approvals **3.8.1 Legislation and approvals** List and describe Australian, state and local legislation, approvals and plans relevant to the planning, approval, construction and operation of the project. Indicate any legislation or approval considered to be binding on key government agencies, following consultation with agency, and how the resultant impact is to be considered. (Note: It is the responsibility of the proponent (or its consultants) to address the requirements of new or amended legislation, policies, plans or guidelines that come into effect after these TOR have been finalised, regardless of whether or not the legislation or policies are covered in these TOR.)	Section 2 – Regulatory Framework (Subsections 2.2, 2.3 and 2.4)
Commonwealth legislation Relevant Commonwealth legislation may include, but is not limited to: ■ *Aboriginal and Torres Strait Islander Heritage Protection Act 1994*	Section 2 – Regulatory Framework (Attachment 2-1)
■ EPBC Act	Section 2 – Regulatory Framework (Subsection 2.2.2) Section 11 – Matters of National Environmental Significance (Subsection 11.2)
■ *Great Barrier Reef Marine Park Act 1975*	Section 2 – Regulatory Framework (Attachment 2-1)
■ *Native Title Act 1993*	Section 2 – Regulatory Framework (Attachment 2-1) Section 5 – Land Use (Subsection 5.4.5)
Queensland legislation Relevant Queensland legislation may include, but is not limited to: ■ *Aboriginal Cultural Heritage Act 2003* (ACH Act)	Section 2 – Regulatory Framework (Attachment 2-1) Section 20 – Cultural Heritage (Subsection 20.2.1)
■ *Environmental Offsets Act 2014 and Regulation*	Section 2 – Regulatory Framework (Subsection 2.3) Section 9 – Terrestrial Ecology (Subsection 9.3.5) Section 10 – Aquatic Ecology (Subsection 10.3.5)
■ EP Act and Regulation	Section 2 – Regulatory Framework (Subsection 2.2.5)
■ *Fire and Emergency Services Act 1990*	Section 2 – Regulatory Framework (Attachment 2-1)
■ *Fisheries Act 1994* (Fisheries Act)	Section 2 – Regulatory Framework (Attachment 2-1)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ *Food Act 2006*	Section 2 – Regulatory Framework (Attachment 2-1)
■ *Forestry Act 1959*	Section 2 – Regulatory Framework (Attachment 2-1)
■ *Greenhouse Gas Storage Act 2009*	Not applicable, as the project does not include the capture and storage of greenhouse gases.
■ *Land Act 1994*	Section 2 – Regulatory Framework (Attachment 2-1)
■ *Land Protection (Pest and Stock Route Management) Act 2002*	Section 2 – Regulatory Framework (Attachment 2-1) Section 9 – Terrestrial Ecology (Subsection 9.3.3)
■ *Mineral Resources Act 1989*	Section 2 – Regulatory Framework (Subsection 2.2.4)
■ *Nature Conservation Act 1992* (NC Act)	Section 2 – Regulatory Framework (Subsection 2.3) Section 9 – Terrestrial Ecology (Subsection 9.3.2) Section 10 – Aquatic Ecology (Subsection 10.3.1)
■ *Queensland Heritage Act 1992*	Section 2 – Regulatory Framework (Attachment 2-1) Section 20 – Cultural Heritage (Subsection 20.3)
■ *Queensland Industry Participation Policy Act 2011*	Not applicable, as this Act was repealed and replaced by the Queensland Charter for Local Content. The Charter is not applicable to the project as it only applies to government agencies, government owned corporations and rail government entities. The project is not a Queensland Government project.
■ *Regional Planning Interests Act 2014*	Section 2 – Regulatory Framework (Attachment 2-1) (Section 5 – Land Use (Subsection 5.2.2)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ SPA	Section 2 – Regulatory Framework (Attachment 2-1) Section 10 – Aquatic Ecology (Subsection 10.3.3)
■ SDPWO Act	Section 2 – Regulatory Framework (Subsection 2.2)
■ *Transport Infrastructure Act 1994* (TI Act)	Section 2 – Regulatory Framework (Attachment 2-1)
■ *Transport Operations (Road Use Management) Act 1995* (TORUM Act)	Section 2 – Regulatory Framework (Subsection 2.3)
■ *Transport Planning and Coordination Act 1994*	Not applicable, as this Act applies to planning for public passenger transport. The project will not significantly affect the safety or efficiency of the existing public transport services as discussed in Section 19 - Traffic and Transport (Subsection 19.2.9).
■ *Vegetation Management Act 1999* (VM Act)	Section 2 – Regulatory Framework (Attachment 2-1) Section 9 – Terrestrial Ecology (Subsection 9.3.1)
■ *Waste Reduction and Recycling Act 2011*	Section 2 – Regulatory Framework (Attachment 2-1) Section 21 – Non-Mining Waste Management (Subsection 21.2.2)
■ *Water Act 2000* (Water Act)	Section 2 – Regulatory Framework (Subsection 2.3) Section 10 – Aquatic Ecology (Subsection 10.3.2) Section 12 – Groundwater Section 13 – Surface Water
■ *Water Supply (Safety and Reliability) Act 2008* (WSSR Act)	Section 2 – Regulatory Framework (Attachment 2-1)
■ *Work Health and Safety Act 2011* and Regulations	Section 2 – Regulatory Framework (Attachment 2-1)
Queensland approvals Key Queensland approvals required, and to be considered in the EIS process, include: **Construction** ■ Development permit for operational work that is the clearing of native vegetation—VM Act	Section 2 – Regulatory Framework (Attachment 2-1) Section 9 – Terrestrial Ecology (Subsection 9.3.1)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Approval to take native wildlife—NC Act	Section 2 – Regulatory Framework (Subsection 2.3) Section 9 – Terrestrial Ecology (Subsection 9.3.2)
■ Approval to take protected plants—NC Act	Section 2 – Regulatory Framework (Subsection 2.3) Section 9 – Terrestrial Ecology (Subsection 9.3.2)
■ Approval to close a road temporarily or permanently—TORUM Act	Section 2 – Regulatory Framework (Subsection 2.3) Section 19 – Traffic and Transport
■ Approval and licence for camp kitchen	Not applicable.
■ Allocation notice for quarry material—Water Act	Section 2 – Regulatory Framework (Subsection 2.3)
■ Approval to take or interfere with the flow of surface or groundwater—Water Act	Section 2 – Regulatory Framework (Subsection 2.3) Section 12 – Groundwater (Subsection 12.4) Section 13 – Surface Water (Subsection 13.6)
■ Riverine protection permit for excavating or placing of fill, or removing vegetation within a watercourse—Water Act	Section 2 – Regulatory Framework (Subsection 2.3)
■ An environmental authority for a Level 1 Mining Project including all Schedule 2 and Schedule 6 environmentally relevant activities (ERAs) (EP Regulation) proposed to be undertaken as part of the mining activity	Section 2 – Regulatory Framework (Subsection 2.2)
■ Development approval for a MCU of a premises for an ERA	Not applicable, as the project is not seeking approval for any ERA outside the MLA boundaries and therefore doesn't required an MCU approval.
■ Road impact assessment (including transport impact assessment) and road-use management plan for development on land not contiguous to a state-controlled road—TI Act.	Section 2 – Regulatory Framework (Attachment 2-1) Section 19 – Traffic and Transport
Identify the relevant approval agency for each of the approvals required.	Section 2 – Regulatory Framework (Subsections 2.2, 2.3 and 2.4 and Attachment 2-1)
Operation ■ Environmental protection policies (EPPs subordinate to the EP Act) including but not limited to: – noise	Section 2 – Regulatory Framework (Subsection 2.2) Section 16 – Noise and Vibration

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
– air	Section 2 – Regulatory Framework (Subsection 2.2) Section 15 – Air Quality
– water	Section 2 – Regulatory Framework (Subsection 2.2) Section 13 – Surface Water
– waste management	Section 2 – Regulatory Framework (Subsection 2.2) Section 21 – Non-Mining Waste Management
Identify the relevant approval agency for each of the approvals required.	Section 2 – Regulatory Framework (Subsections 2.2, 2.3 and 2.4 and Attachment 2-1)
3.8.2 Relevant plans Outline the project's consistency with the existing national, state, regional and local planning framework that applies to the project location. Refer to all relevant statutory and non-statutory plans, planning policies, guidelines, strategies and agreements. The key plans and policies are listed under the relevant sections of this TOR. These include but are not limited to the following: ■ State Planning Policy (Department of State Development, Infrastructure and Planning 2014)	Section 2 – Regulatory Framework Section 5 – Land Use (Subsection 5.2.1)
■ *Queensland Environmental Offsets Policy* (Department of Environment and Heritage Protection 2014)	Section 2 – Regulatory Framework (Subsection 2.3) Section 9 – Terrestrial Ecology (Subsection 9.3.5)
■ *Queensland Vegetation Management State Code* (Department of Environment and Heritage Protection 2013)	Section 2 – Regulatory Framework (Attachment 2-1)
■ *Queensland Coal Plan 2030* (Department of Infrastructure and Planning 2010)	Not relevant, as this is a Queensland Government positioning statement for potential coal buyers and is therefore not relevant to the project's environmental assessment.
■ *Charter for Local Content* (Department of State Development, Infrastructure and Planning 2014)	Not applicable, as the project is not being developed by the Queensland Government to which this Charter applies.
■ *Mackay, Isaac and Whitsunday Regional Plan* (Department of Local Government and Planning 2012)	Section 2 – Regulatory Framework (Attachment 2-1)
■ *Water Resource (Burdekin Basin) Plan 2007*	Section 2 – Regulatory Framework (Subsection 2.3) Section 12 – Groundwater (Subsection 12.6)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ *Water Resource (Great Artesian Basin (GAB)) Plan 2006*	Section 12 – Groundwater (Subsection 12.6)
■ *Water Resource (Cooper Creek) Plan 2011*	Section 12 – Groundwater (Subsection 12.6)
■ *Water Regulation 2002* (see Schedule 11 for the GAB DSA)	Appendix I – *Groundwater Report* (Subsection 2.2.1)
■ *Regional Pest Management Strategy – Isaac, Mackay, Whitsunday – 2011–2014* (Mackay Regional Pest Management Group 2011)	Section 24 – Environmental Management (Subsection 24.4.3)
■ *Planning Scheme for Belyando Shire 2008*	Section 5 – Land Use (Subsection 5.2.3)
■ *Planning Scheme for Dalrymple Shire Council 200*6	Section 5 – Land Use (Subsection 5.2.3)
■ *Planning Scheme for Charters Towers City Council (Version 2) 2011*	Not applicable. As shown in Section 5 – Land Use (Figure 5-2), the project is not located in the Charters Towers LGA and therefore this planning scheme does not apply.
3.8.3. Environmentally relevant activities Briefly describe each ERA as defined under the EP Act and associated activities that are to be carried out in connection with the project, whether within or outside the mining tenure. Present a detailed description of each ERA in Section 5, Environmental values and management of impacts. Provide details of the impact on land, water, air, noise and any other identified environmental values, as well as a detailed description of the waste generated from each ERA and its quantity, characteristics, handling, storage, management and intended treatment and disposal.	Section 2 – Regulatory Framework (Subsection 2.2) The environmental values and management of impacts for ERAs underpin the EIS. They have provided the framework upon which each of the relevant sections and technical appendices of this EIS are based. As a result, these generic requirements have been addressed in all relevant sections and technical appendices of the EIS.
In addition to an EMP for mining and associated ERAs to be located within the mining tenure, provide a site-based management plan for proposed ERAs located outside the mining tenure or ERAs not associated with the mining activity as defined in the EP Act.	Not applicable. There are no ERAs proposed to be located outside the mining tenure and there are no ERAs proposed that are not associated with the mining activity, as defined in the EP Act.
The EIS must provide adequate information on potential impacts and the proposed mitigation, management and offset of impacts of the mining activity and associated ERAs for the purposes of assessment and the development of conditions of approval under the EP Act. The level of detail to be provided in the EIS should be confirmed with the Department of Environment and Heritage Protection (DEHP).	These requirements underpin the EIS. They have provided the framework upon which each of the relevant sections and technical appendices of this EIS are based. As a result, these generic requirements have been addressed in all relevant sections and technical appendices of the EIS.

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
4 Project description Describe the project through its lifetime of pre-construction, construction, operation and potentially decommissioning. The project description also allows further assessment of which approvals may be required and how they may be managed through the life of the project.	Section 2 – Regulatory Framework Section 4 – Project Description Section 8 - Rehabilitation (Subsection 8.2.5
4.1 Overview of the project Provide an overview of the project to put it into context. Include: ■ A rationale explaining the selection of the preferred operating scenario, including details such as cost, environmental impacts, and the operational efficiencies of each option	Section 4 – Project Description Appendix N – *Socio-Economic Impact Assessment Report* (Appendix A)
■ A description of the key components of the project including the use of text and design plans where applicable	Section 4 – Project Description
■ A summary of any environmental design features of the project	Section 4 – Project Description
■ The expected cost, timing, and overall duration of the project, including details of and justification for, any staging of the development	Section 4 – Project Description Appendix N – *Socio-Economic Impact Assessment Report* (Appendix A)
4.2 Location Describe, using maps, including digital format, at suitable scales, the regional and local context of the project and all associated infrastructure.	Section 1 – Introduction (Figures 1-1 and 1-2) Section 4 – Project Description (Subsection 4.3 and Figures 4-1 and 4-2)
Provide real property descriptions of the project's location. Maps should show the precise location of the project area, in particular the:	Section 4 – Project Description (Subsection 4.3) Section 5 – Land Use (Subsection 5.4.3 and Figure 5-4)
■ Location and boundaries of current or proposed land tenures that the project area is or will be subject to, and details of the ownership of that land	Section 4 – Project Description (Figures 4-6 to 4-8) Section 5 – Land Use (Figure 5-4)
■ Location, boundaries, and area and size of the project footprint, including easement widths and access requirements	Section 4 – Project Description (Figure 4-2)
■ Location and size of any proposed buffers surrounding the project area (for construction and operation)	The project site is remotely located with the nearest sensitive receptor located more than 7 km from the project site boundary. There are no significant impacts identified that would warrant the need to establish buffers.
■ Location of infrastructure relevant to the project, including but not limited to, the state-controlled road network, local roads, stock routes, railways, marine and airport infrastructure	Section 4 – Project Description (Figure 4-3) Section 5 – Land Use (Figure 5-3) Section 19 – Traffic and Transport (Figure 19-1)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Location of natural features such as waterways (for example, rivers, streams, creeks, other water bodies and wetlands), shorelines, and significant or assessable vegetation	Section 4 – Project Description (Figure 4-3) Section 9 – Terrestrial Ecology (Figure 9-5) Section 10 – Aquatic ecology (Figure 10-1) Section 13 – Surface Water (Figure 13-2)
■ Location of any proposed site offices and accommodation sites	Section 4 – Project Description (Figures 4-23 and 4-29)
4.3 Construction phase Provide a detailed staging plan and approximate timeframes for the project's construction activities.	Section 4 – Project Description (Subsection 4.14 and Figures 4-12 to 4-16)
Provide an estimate of the number and roles of persons to be employed during the construction phase of the project.	Section 4 – Project Description (Subsection 4.15.1)
Provide the following information on the pre-construction, construction and commissioning of the project, including detailed plans, drawings and maps.	Noted.
4.3.1 Pre- construction Describe all pre-construction activities, including nature, scale and timing of: ■ Land acquisitions required, be it in full or as easements or leases	Section 4 – Project Description (Subsection 4.3.3) Section 5 – Land Use (Subsection 5.4)
■ Vegetation clearing	Section 9 – Terrestrial Ecology (Subsection 9.6.2) Appendix F – *Terrestrial Ecology* (Subsection 5.2)
■ Site access	Section 4 – Project Description (Subsection 4.13.3)
■ Earthworks	Section 4 – Project Description (Subsection 4.14.2)
■ Interference with watercourses and floodplain areas, including wetlands	Section 10 – Aquatic Ecology (Subsections 10.6.2 and 10.6.3) Section 13 – Surface Water (Subsections 13.6.3 and 13.6.4)
■ Site establishment requirements for construction facilities, including access measures, movement of materials and equipment, and expected size, source and control of the construction workforce accommodation, services (water, sewerage, communication, energy, medical, waste disposal, recreation) and safety requirements	Section 4 – Project Description (Subsections 4.6 to 4.9, 4.11 and 4.14)
■ Temporary works	Section 4 – Project Description (Subsections 4.6 to 4.10)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Upgrade, relocation, realignment, deviation of or restricted access to roads and other infrastructure	Section 5 – Land Use (Subsection 5.4) Section 19 – Traffic and Transport (Subsection 19.2)
■ Equipment to be used	Section 4 – Project Description (Subsections 4.6 to 4.9)
4.3.2 Program of works Describe all the construction elements of the project, including: ■ An indicative construction timetable, including start up dates and hours of construction, and details of the timing and duration of major works programs involving a substantial increase in workforce and the movement of materials that may impact traffic movement on major arterial roads	Section 4 – Project Description (Subsections 4.14 and 4.15)
■ Major work programs for the construction phase, including an outline of construction methodologies	Section 4 – Project Description (Subsection 4.14.2)
■ Construction equipment to be used	Section 4 – Project Description (Subsection 4.14.2)
■ Construction inputs, handling and storage including an outline of potential locations for source of construction materials	Section 4 – Project Description (Subsection 4.14.2) The source of construction materials will be confirmed during detailed construction planning. Assumptions have been made, where necessary, in the EIS in relation to likely sources of materials, e.g. Section 19 – Traffic and Transport.
■ Major hazardous materials to be transported, stored and/or used on-site, including environmental toxicity data and biodegradability	Section 22 – Hazard and Risk (Subsection 22.6.5)
■ Clean-up and restoration of areas used during construction, including camp site(s) and storage areas	The project will be designed to use the same area/facilities during construction as the operations phase, wherever possible. Any areas disturbed during construction will be subject to the same rehabilitation measures discussed in Section 8 – Rehabilitation.
4.3.3 Commissioning Describe the commissioning process including expected commissioning dates of the components of the project and the associated environmental impacts.	Section 4 – Project Description (Subsection 4.14.1)
4.4 Operational phase Provide full details of the operation for all elements of the project, including: ■ A description of the project site, including concept and layout plans of buildings, structures, plant and equipment to be employed, roads, rail and helicopter/aircraft landing sites	Section 4 – Project Description (Subsections 4.6 to 4.9 and Figures 4-23 to 4-26)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Nature, timing and description of all key operational activities	Section 4 – Project Description (Subsection 4.14.1)
■ The capacity of the project equipment and operations	Section 4 – Project Description (Subsections 4.6 to 4.9)
■ Estimated numbers and roles of persons to be employed during the operational phase of the project	Section 4 – Project Description (Subsection 4.15) Section 18 – Socio-Economic Impact Assessment (Subsection 18.6.3 and Table 18-2)
Provide details of any night-time surface work that may be undertaken. Specifically include: ■ The reasons why night-time work may be undertaken (for example, to avoid peak traffic periods, or to undertake work in a rail corridor) ■ The likely duration of work (if known) ■ The proposed hours of the work ■ The nature of the work to be undertaken ■ The likely impact on residents and the associated mitigation measures to be undertaken by the proponent ■ The methods that will be used to communicate with affected residents	Section 4 – Project Description (Subsection 4.14)
4.4.1 Tenements and tenures Describe and illustrate any existing mining tenements, petroleum (including coal seam gas), geothermal and greenhouse gas tenures and licences overlying and adjacent to the project site, and any proposed applications required for this project.	Section 4 – Project Description (Subsection 4.4 and Figures 4-6 to 4-8)
Describe in detail any issues related to the overlap of tenements and tenures for different resources or purposes, including the sequential exploitation of the resources or uses to which the tenements and tenures may be put.	Section 4 – Project Description (Subsection 4.4)
4.4.2 Resource base and mine life Summarise the results of studies and surveys undertaken to identify the mineral and natural resources required to implement the proposal. Describe the required location, volume, tonnage and quality of natural resources (such as land, water, timber and energy). Provide specific details of the following: ■ The proposed mine life and an outline of the coal/mineral resource base, including the total thickness of seams or extent of the ore body	Section 4 – Project Description (Subsection 4.5)
■ The planned recovery of resources	Section 4 – Project Description (Subsection 4.5.5)
■ Locations of any resources that would be sterilised by the planned activities	Section 4 – Project Description (Subsection 4.5.5)
■ The quantity of coal/mineral to be mined annually, including any proposed ramping of production or staging of development	Section 4 – Project Description (Subsections 4.2 and 4.5.4)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
4.4.3 Mining methods and equipment Provide specific details of the following: ■ The mining type and methods to be used, including the major equipment to be used in the various components of the operation	Section 4 – Project Description (Subsections 4.6 to 4.9 and 4.14)
■ The use of different techniques in areas of different topographic or geo-technical character	Section 4 – Project Description (Subsections 4.6 to 4.9)
■ Chemicals to be used, including hydraulic fluids used and released in underground operations	Section 22 – Hazard and Risk (Table 22-3)
4.4.4 Mine sequencing Provide specific details of the following: ■ The proposed sequence and timing of mining of each seam/ore body within the mining lease	Section 4 – Project Description (Subsection 4.14 and Figures 4-12 to 4-16 and 4-20 to 4-22)
■ The physical extent of excavations, location of stockpiles of overburden and/or coal/mineral reject to be handled during the project's operation or left after mining ceases, including the rate of throughput of stockpiles of product, reject and overburden	Section 4 – Project Description (Subsections 4.6 to 4.9 and Figures 4-2 and 4-23)
■ Typical cross sections of the mine workings showing voids, surface profiles and geological strata	Section 4 – Project Description (Figures 4-9, 4-10, 4-17 and 4-19) Section 12 – Groundwater (Figures 12-2, 12-4 and 12-8)
■ The proposed progressive backfilling of excavations	Section 4 – Project Description (Subsection 4.6.1 and Figures 4-12 to 4-16)
■ The area disturbed at each major stage of the project	Section 4 – Project Description (Subsection 4.14 and Figures 4-12 to 4-16 and 4-18 to 4-22)
4.5 Associated infrastructure Detail, with the aid of concept and layout plans, requirements for new infrastructure or upgrading/relocating existing infrastructure to service the project. Consider infrastructure such as transportation (road/rail/air/ship), water supply and storage, energy supply, telecommunications (including broadband services and allocation of bandwidth for government services), stormwater, waste disposal and sewerage.	Section 4 – Project Description (Subsections 4.8 to 4-13 and Figures 4 -23 to 4-26 and 4-28 to 4.29) Section 13 – Surface Water (Subsections 13.4 and 13.5.3 and Figures 13-4 to 13-7) Section 19 – Traffic and Transport (Subsection 19.2 to 19.5 and Figure 19-1)
Describe: ■ All infrastructure required to be constructed, upgraded, relocated or decommissioned for the construction and/or operation of the project, such as resource extraction areas, access roads, power supply, connection to sewerage or water supply	Section 4 – Project Description (Subsections 4.8 to 4.13) Section 13 – Surface Water (Subsections 13.4 and 13.5.3) Section 19 – Traffic and Transport (Subsections 19.2 to 19.5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ The design and construction standards to be met (for example, waterway crossings should be designed to meet the requirements of the fisheries act and self-assessable codes for minor or temporary water barrier works)	A detailed description of design and construction standards (including requirements under the Fisheries Act) and their impacts are presented under the relevant EIS sections.
■ Alternative approaches or the opportunity to obtain materials from alternative sources	Section 4 – Project Description (Subsection 4.16.1) The source of construction materials will be confirmed during detailed construction planning. Assumptions have been made, where necessary, in the EIS, in relation to the likely sources of materials, e.g. Section 19 – Traffic and Transport.
Identify if the associated infrastructure is being designed, built, upgraded or relocated by the proponent or a third party. If a third party, state who and if an environmental assessment has or will be done as part of the separate approval process.	Section 4 – Project Description (Subsection 4.13) describes off-lease infrastructure that may be required and the third party that would be involved in the construction of this infrastructure.
4.5.1 Design of water resources infrastructure Provide information on proposed water usage and storage by the project, including the quality and quantity of all water supplied to, or captured at, the site.	Section 13 – Surface Water Appendix K – *Water Management System Modelling Report*
In particular, describe the proposed and optional sources of water supply such as mine dewatering, capture of overland flow, taking from a watercourse, bores, coal seam gas water and associated pipelines, and any surface storages such as dams and weirs, municipal water supply pipelines.	Section 4 – Project Description (Subsection 4.13.4) Section 13 – Surface Water (Subsection 13.5.5)
Discuss likely temporal changes in specific water quality parameters in mine-affected water storages under different scenarios (extended dry periods, holding times and recycling scenarios) at different project stages.	Section 13 – Surface Water (Subsection 13.3) Appendix K – *Water Management System Modelling Report* (Subsection 4.6)
Estimate the average, maximum and minimum monthly rates of supply from each source for each phase of the project's life. Any proposed water conservation and management measures should be described.	Section 13 – Surface Water (Subsection 13.5) Appendix K – *Water Management System Modelling Report* (Subsection 5)
Describe any approvals and water allocations the project may need under the Water Act for water supply and storage.	Section 2 – Regulatory Framework (Subsection 2.3) Section 13 – Surface Water Appendix I – *Groundwater Report* (Subsection 2.2.1)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Estimate potable water demand for the project, including the temporary demands during the construction period.	Section 13 – Surface Water (Subsection 13.5.2) Appendix K – *Water Management System Modelling Report* (Subsection 2.2)
Provide details of any existing potable water supply, including town water, which would meet the requirements. If water storage and treatment is proposed on-site for use by the site workforce, describe the method of treatment and storage.	Section 4 – Project Description (Subsection 4.8.5)
Describe any waste streams from water treatment, and assess the potential impacts of disposal in the appropriate sections of the EIS.	Section 21 – Non-Mining Waste Management (Subsection 21.2.5) Section 22 – Hazard and Risk (Subsection 22.6.1)
4.5.2 Water distribution infrastructure Describe the process and criteria used to select the preferred design and preferred construction techniques, including: ■ The method of extracting and/or releasing water from a storage ■ Any treatment methods proposed ■ If distribution is by pipe: – provision for route refinement and right of way – pipeline design parameters, including capacity and design life – above-ground facilities—physical dimensions and construction materials for surface facilities along the pipeline route, including information on pipeline markers – the location and/or frequency of (if applicable) cathodic protection points, off take valves, pump stations, balance tanks, control valves (isolation points), pigging facilities and any other project facilities and linkages to existing water supply infrastructure along the pipeline route – design measures to prevent inter-basin transfer of aquatic flora and fauna.	Section 13 – Surface Water (Subsection 13.4) Section 4 – Project Description (Subsection 4.13.4)
4.5.3 Stormwater drainage Provide a description of the proposed stormwater drainage system and the proposed disposal arrangements, including any off-site services.	Section 13 – Surface Water (Subsection 13.4)
Illustrate the description with figures with contours at suitable intervals (one-metre contours in areas of low relief) showing drainage pathways, including the separate pathways for the natural and mine affected surface run-off respectively, any stream diversions, and the locations and discharge points of sediment detention basins, and any other stormwater quality improvement devices. In particular, address how stormwater would be kept separate from mine-affected water.	Section 13 – Surface Water (Subsections 13.3 and 13.4 and Figures 13-4 to 13-7)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
4.6 Decommissioning and rehabilitation This section should present general strategies and methods for decommissioning of the project and rehabilitation of the project site, including: ■ A preferred rehabilitation strategy including measures aimed at minimising the amount of land disturbed at any one time and minimise the residual loss of land with ecological or productive value	Section 8 – Rehabilitation
■ The final topography of any excavations, waste areas and dam sites, including maps at a suitable scale	Section 7 – Tailings and Power Station Waste Storage Facilities (Subsection 7.4.5) Section 8 – Rehabilitation (Subsection 8.2 and Figure 8-5)
■ Options and proposed methods for disposing of wastes from the demolition of project infrastructure, with sufficient detail to allow the feasibility and suitability of the method to be considered	Section 7 – Tailings and Power Station Waste Storage Facilities (Subsection 7.4) Section 8 – Rehabilitation (Subsection 8.2)
■ Future land tenure arrangements following decommissioning	Section 24 – Environmental Management (Subsection 24.4.2)
■ A strategy to ensure current and future surface and groundwater quality is maintained at levels that are acceptable for potentially affected users	Section 8 – Rehabilitation (Subsection 8.2) Section 12 – Groundwater (Subsection 12.5) Section 13 – Surface Water (Subsection 13.6.6)
■ A strategy to rehabilitate affected watercourses, including removal of any redundant waterway barriers	Section 8 – Rehabilitation (Subsection 8.2) Section 13 – Surface Water Subsection 13.6.6)
■ Completion criteria for the project site in accordance with the DEHP guideline *Rehabilitation Requirements for Mining Resource Activities* (Department of Environment and Heritage Protection 2014)	Section 8 – Rehabilitation (Subsection 8.2) Section 24 – Environmental Management (Subsection 24.4.2)
■ Proposed rehabilitation objectives for the site linked to specific completion criteria, including rehabilitation indicators that will be measured to establish when rehabilitation is complete	Section 8 – Rehabilitation (Subsection 8.2) Section 24 – Environmental Management (Attachment 24-3)
Describe the options, strategic approaches and methods for progressive and final rehabilitation of the environment disturbed by the project. Include measures to identify success, thresholds for intervention (including intervention measures) and timeframes for which activities will be undertaken.	Section 8 – Rehabilitation (Subsection 8.2) Section 24 – Environmental Management (Subsection 24.4.2)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Evaluate the compliance of the strategies and methods for progressive and final rehabilitation of disturbed areas with the objectives of the *Code of environmental compliance for exploration and mineral development projects* (Department of Environment and Heritage Protection 2013) and guideline *Rehabilitation Requirements for Mining Resource Activities 2014*. In particular, the strategies and methods are to have the following objectives:	Section 7 – Tailings and Power Station Waste Storage Facilities (Subsection 7.4.5) Section 8 – Rehabilitation (Subsections 8.2 and 8.4)
■ Mining and rehabilitation should aim to create a landform with the same or similar land use capabilities and/or suitability it had prior to the disturbance, unless other beneficial land uses are pre-determined and agreed	Section 8 – Rehabilitation (Subsections 8.2 and 8.4)
■ Mine wastes and disturbed land should be rehabilitated so that it is self-sustaining or to a condition where the maintenance requirements are consistent with an agreed post-mining land use	Section 7 – Tailings and Power Station Waste Storage Facilities (Subsection 7.4.5) Section 8 – Rehabilitation (Subsections 8.2 and 8.4)
■ Surface and ground waters that leave the lease should not be degraded compared to their condition prior to the commencement of mining operations. Current and future water quality should be maintained at levels that are acceptable for users downstream of the site	Section 8 – Rehabilitation (Subsections 8.2 and 8.4) Section 12 – Groundwater (Subsection 12.4) Section 13 – Surface Water (Subsection 13.6)
■ Describe the means of decommissioning the project by removing or reusing plant, equipment, structures, buildings, concrete footings and foundations, hardstand areas, storage tanks and wharfage. Describe the proposed methods for stabilising the affected sites. Discuss options and methods for the disposal of wastes from the demolition of plant and buildings in sufficient detail for their feasibility and suitability to be assessed	Section 8 – Rehabilitation (Subsections 8.2 and 8.4)
■ Describe any proposals to divert creeks during operations and, if applicable, the reinstatement of the creeks after operations have ceased. Rehabilitation would involve the re-establishment of vegetation communities along watercourses similar to the pre-cleared regional ecosystems in those areas.	Appendix B – *Draft Subsidence Management Plan* (Subsection 5.2.2)
■ Where dams are to be constructed, describe proposals for the management of these structures after the completion of the project. Describe the final drainage and seepage control systems and long-term monitoring plans	Section 8 – Rehabilitation (Subsection 8.2) Section 13 – Surface Water (Subsections 13.5.6 and 13.6.6)
■ Describe and illustrate where final voids and uncompacted overburden and workings at the end of mining would lie in relation to flood levels up to and including the probable maximum flood level based on the Bureau of Meteorology's 'probable maximum precipitation' forecast for the locality	Section 8 – Rehabilitation (Subsections 8.2.1 and 8.2.5) Section 13 – Surface Water (Subsections 13.4.1 and 13.6.6) Appendix J – *Open Cut Mine Drainage Report*

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Describe topsoil management including addressing minimising topsoil storage times (to reduce fertility degradation) and the transportation, storage and replacement of topsoil to disturbed areas	Section 8 – Rehabilitation (Subsection 8.5)
Discuss the preferred rehabilitation strategy in the appropriate subsections of Section 5 with particular regard to final landform stability, vegetation cover, rehabilitation of plants and the long-term quality of water in any final voids. Include appropriate post-mining surface and groundwater quality and quantity monitoring regimes. Address implications for the long-term safety, stability and environmental risk of the site, particularly with regard to the on-site disposal of waste and the site's inclusion on the Environmental Management Register (EMR) or the Contaminated Land Register (CLR).	These requirements underpin the post-mining aspects of the EIS. As a result, these generic requirements have been addressed in all relevant sections of the EIS.
Refer to infrastructure that is not intended to be decommissioned. In this situation describe the entity to which the infrastructure is intended to be transferred, and the proposed environmental management regimes.	Section 8 – Rehabilitation (Subsection 8.2.5)
5 Environmental values and management of impacts Detail the environmental protection and mitigation measures incorporated in the planning, construction, rehabilitation, commissioning, operations and decommissioning of all facets of the project. Measures should prevent, or if not possible, minimise environmental harm and maximise environmental benefits of the project. Identify and describe preferred measures in more detail than other alternatives. The objectives of the following subsections are to: ■ Describe the existing environmental values of the area that may be affected by the project. Environmental values are defined in section 9 of the EP act, environmental protection policies and other documents such as the *Australian Water Quality Guidelines for Fresh And Marine Waters Quality* (Australian and New Zealand Environment and Conservation Council (ANZECC) & Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) 2000), and include MNES under the EPBC Act. Environmental values may also be derived following recognised procedures, such as described in the ANZECC & ARMCANZ 2000 guidelines and relevant policies and plans. Environmental values should be described referring to background information and studies, which should be included as appendices to the EIS (include references to all definitions of environmental values) ■ Describe the potential adverse and beneficial impacts of the project on the identified environmental values and the measures taken to avoid, minimise and/or mitigate those impacts ■ Describe any cumulative impacts on environmental values caused by the project, either in isolation or in combination with other known existing or planned projects ■ Present objectives, standards and measurable indicators that protect the identified environmental values	These requirements underpin the EIS. They have provided the framework upon which each of the relevant sections and technical appendices of this EIS are based. As a result, these generic requirements have been addressed in all relevant sections of the EIS. Section 23 – Cumulative Impacts

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Examine viable alternative strategies for managing impacts (present and compare these alternatives in view of the stated objectives and standards to be achieved) ■ Discuss the available techniques to control and manage impacts in relation to the nominated objectives	These requirements underpin the EIS. They have provided the framework upon which each of the relevant sections and technical appendices of this EIS are based. As a result, these generic requirements have been addressed in all relevant sections of the EIS. Section 4 – Project Description (Subsection 4.16.1) discusses the project's alternatives considered as part of the EIS. The measures proposed to manage the project's predicted impacts are discussed in each relevant section of the EIS and are considered to be project commitments. There are no alternative strategies for managing impacts as the measures proposed are considered sufficient to manage the identified impacts.
Where negative impacts of the project cannot be avoided or adequately minimised or mitigated, present proposals to offset impacts in accordance with the *Queensland Environmental Offsets Policy* (Department of Environment and Heritage Protection 2014) and the EPBC Act *Environmental Offsets Policy* (Department of Sustainability, Environment, Water, Population and Communities, 2012).	Section 9 – Terrestrial Ecology (Subsection 9.8) Section 10 – Aquatic Ecology (Subsection 10.8) Section 11 – Matters of National Environmental Significance (Subsection 11.9) Appendix F – *Terrestrial Ecology Report* (Subsection 7) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 6) Appendix H – *Biodiversity Offset Strategy*
The mitigation measures and monitoring programs, identified in this section of the EIS, should be used to develop the EMP(s) for the project. For more information, refer to Section 11.	The Greentape Reduction Act removes the requirement for an EM plan. However, key management commitments that are detailed throughout the EIS have been summarised in Section 24 – Environmental Management.

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
5.1 Climate, natural hazards and climate change Describe the climatic conditions that may affect management of the project. This includes a description of the vulnerability of the project area to seasonal conditions, extremes of climate (for example, cyclones) and natural or induced hazards (including bushfire and floods). Provide a risk assessment (as part of the requirements of Subsection 8.1 of this TOR) and management plan detailing these potential climatic threats to the construction, and operation of the project. Include the following:	Section 14 – Climate
■ A risk assessment of changing climate patterns that may affect the viability and environmental management of the project	Section 14 – Climate (Subsection 14.8)
■ The preferred and alternative adaptation strategies to be implemented	Section 14 – Climate (Subsection 14.8)
■ Commitments to working cooperatively, where practicable, with government, other industry and other sectors to address adaptation to climate change	Section 14 – Climate (Subsection 14.8)
Address the most recent information on potential impacts of climatic factors in the appropriate sections of the EIS.	Section 14 – Climate (Subsection 14.8)
5.1.1 Flood management Due to the location of the site, a comprehensive flood study should be included in the EIS that includes: ■ Quantification of flood impacts on properties surrounding and external to the project site from redirection or concentration of flows	Section 13 – Surface Water (Subsection 13.6) Appendix J – *Open Cut Mine Drainage Report* (Subsections 8 and 9)
■ Identification of likely increased flood levels, increased flow velocities or increased time of flood inundation as a result of the development	Section 13 – Surface Water (Subsection 13.6) Appendix J – *Open Cut Mine Drainage Report* (Subsections 8.4.2 and 9)
■ Identification of likely increased flood levels, increased flow velocities or increased time of flood inundation as a result of the modelled changes to climate conditions, including the frequency of severe weather events	Section 13 – Surface Water (Subsection 13.6)
■ The flood study should address any requirements of local or regional planning schemes for flood affected areas. The study report should include details of all calculations along with descriptions of base data, any potential for loss of flood plain storage, and triangulated surface meshes produced in terrain modelling software. Reference must be made to any studies undertaken by the local council in relation to flooding.	Section 2 – Regulatory Framework (Attachment 2-1) Section 13 – Surface Water (Subsection 13.6) Appendix J – *Open Cut Mine Drainage Report*
5.2 Land Detail the existing land environment values for all areas associated with the project. Describe the potential for the construction and operation of the project to change existing and potential land uses of the project sites and adjacent areas.	Section 5 – Land Use (Subsections 5.3.1, 5.4 and 5.6) Section 8 – Rehabilitation (Subsections 8.3 and 8.4)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
5.2.1 Land use and tenure **Description of environmental situation** Identify, with the aid of maps including digital format: ■ Land tenure, including reserves, tenure of special interest (such as protected areas and forest reserves), existing and proposed gas infrastructure, water pipelines, powerlines and transport corridors, including local roads, state-controlled roads, stock routes and rail corridors	Section 4 – Project Description (Subsections 4.3.3 and 4.4 and Figures 4-3 and 4-6 to 4-8) Section 5 – Land Use (Subsection 5.4.3 and Figure 5-3) Section 19 – Traffic and Transport (Figure 19-1)
■ Existing land uses and facilities surrounding the project	Section 5 – Land Use (Subsections 5.3 and 5.4 and Figure 5-2)
■ Distance of the project from residential and recreational areas	Section 5 – Land Use (Subsection 5.3 and Figure 5-3)
■ Declared water storage catchments	Section 13 – Surface Water (Subsection 13.5)
■ Location of the project in relation to environmentally sensitive areas	Section 5 – Land Use (Subsection 5.5)
Potential impacts and mitigation measures Describe the potential changes to existing and potential land uses due to the construction and operation of the project. In particular, describe the following: ■ Impacts on project site and adjacent land uses and human activities and strategies for mitigation, such as those required by:	Section 5 – Land Use (Subsection 5.6)
– State Planning Policy (Department of State Development, Infrastructure and Planning 2014)	Section 5 – Land Use (Subsection 5.2.1)
– Local government planning schemes	Section 5 – Land Use (Subsection 5.2.3)
■ Possible effect on town planning objectives and controls, including local government zoning and strategic plans	Section 5 – Land Use (Subsections 5.2.3 and 5.4.2)
■ Constraints to potential developments and possibilities of rezoning adjacent to the development area	Considering the remoteness of the site, it is considered unlikely land adjacent to the project site would need to be rezoned in the future for uses that would be constrained by the project.
■ Management of the immediate environs of the project including construction buffer zones	No specific management of the immediate environs is proposed or required due to the remote nature of the site and the lack of significant land use impacts, described in Section 5 – Land Use (Subsection 5.6).
■ Proposed land use changes in any areas of high conservation value and information on how easement widths and vegetation clearance in sensitive environmental areas will be minimised	Section 5 – Land Use (Subsection 5.5) Section 9 – Terrestrial Ecology (Subsection 9.7.1)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Potential issues involved in proximity and/or co-location of other current or proposed infrastructure services	Section 4 – Project Description (Subsection 4.13.5) Section 5 – Land Use (Subsection 5.2.1)
■ Any land units requiring specific management measures	Section 5 – Land Use (Subsection 5.6)
Where there are to be disruptions to the stock route network by any components of the project: ■ Describe realignment/replacement of corridors of similar width and suitable country type to allow for the uninterrupted flow of travelling stock to ensure the connectivity and usability of the network (note: current usage classifications of stock routes have no bearing need for their replacement/realignment)	Section 5 – Land Use (Subsection 5.4.4)
■ Provide solutions to moving stock across infrastructure such as rail lines, haul roads and other mining operations in a timely and safe manner	Section 5 – Land Use (Subsection 5.4.4)
■ Describe provision of necessary watering facilities and other infrastructure, particularly where existing infrastructure is to be made redundant	Section 5 – Land Use (Subsection 5.4.4)
■ Outline safe options for diverting stock	Section 5 – Land Use (Subsection 5.4.4)
■ Identify and assess direct, indirect and cumulative impacts of the project with respect to stock routes. Cumulative impacts include local and regional impacts accumulating over time and impacts exacerbated by intensity or scale or frequency or duration of impacts, either in isolation or by combination with other known existing or planned impacts, both at project sites and areas remote from these	Section 5 – Land Use (Subsection 5.4.4)
■ Consult with the Department of Natural Resources and Mines (DNRM) senior lands officer (stock routes) and local government stock route officers	Section 5 – Land Use (Subsection 5.4.4)
5.2.2 Scenic amenity and lighting **Description of environmental values** Detail the scenic and landscape values of the area, focusing on the visual absorption capacity of the site, including any relevant World Heritage and National Heritage values of the area.	Section 17 – Visual Amenity (Subsection 17.3)
At a level of detail appropriate to the scale of the project, describe the relevant geomorphology, supported by illustrative mapping highlighting any significant features associated with environmental values.	Section 17 – Visual Amenity (Subsection 17.3.1 and Figure 17-1)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Potential impacts and mitigation measures Describe the potential beneficial and adverse impacts of the project on landscape character and visual qualities of the site and the surrounding area. Address the local and broader visual impacts of the project buildings and other structures during all stages of the project as it relates to the surrounding landscape. This should include views from: ■ Places of residence, work and recreation ■ Road, cycle and walkways ■ The air ■ Other known vantage points day and night	Section 17 – Visual Amenity (Subsection 17.3.5)
Use sketches, diagrams, computer imaging/simulation and photos where possible to portray the near views and far views of the completed structures and their surroundings from visually sensitive locations.	Section 17 – Visual Amenity (Figures 17-2 to 17-4)
Detail the measures to be undertaken to mitigate or avoid identified adverse impacts.	Section 17 – Visual Amenity (Subsection 17.4)
Lighting Provide an assessment of all potential impacts of lighting of the project, during all stages, with particular reference to objectives to be achieved and management methods and strategies to be implemented to mitigate or avoid:	Section 17 – Visual Amenity (Subsections 17.3.5 and 17.4)
■ The visual impact at night	Section 17 – Visual Amenity (Subsection 17.3.5)
■ Night operations/maintenance and effects of lighting on residents and terrestrial fauna	Section 17 – Visual Amenity (Subsection 17.3.5) Appendix F – *Terrestrial Ecology Report* (Subsection 5.5.3)
■ The potential impact of lighting from increased vehicular traffic on and off-site on residents and fauna	Appendix F – *Terrestrial Ecology Report* (Subsection 5.5.3)
■ Changed habitat conditions for nocturnal fauna and associated impacts	Appendix F – *Terrestrial Ecology Report* (Subsection 5.5.3)
5.2.3 Topography, geology and soils **Description of environmental values** **Topography** Provide maps locating the project in state, regional and local contexts. The topography should be detailed with contours at suitable increments, shown with respect to Australian Height Datum. Include significant features of the landscape and topography, and accompanying comments on the maps.	Section 4 – Project Description (Figure 4-5) Section 5 – Land Use
Geology Provide a description, map and a series of cross-sections of the geology of the project area relevant to the project components.	Section 4 – Project Description (Subsection 4.5 and Figures 4-9 to 4-11) Section 12 – Groundwater (Figure 12-8)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Describe the geological properties that may influence ground stability, occupational health and safety, or the quality of stormwater leaving any area disturbed by the project.	Section 4 – Project Description (Subsection 4.5) Section 12 – Groundwater (Subsection 12.4) Section 22 – Hazard and Risk (Subsection 22.6) Appendix E – *Soils and Land Suitability Report*
In locations where the age and type of geology is such that significant fossil specimens may be uncovered during construction/operations, address the potential for significant finds.	Section 4 – Project Description (Subsection 4.5.3)
Mineral resources Summarise the results of studies and surveys undertaken to identify and delineate the mineral resources within the project area (including any areas underlying related infrastructure).	Section 4 – Project Description (Subsections 4.5.2 and 4.5.3)
Describe in detail, as indicated in the dot points below, the location, tonnage and quality of the mineral resources within the project area. Where possible, present this information on a 'seam-by-seam' basis and include the modifying factors and assumptions made in arriving at the estimates. The mineral resources should be estimated and reported, as appropriate, in accordance with:	Section 4 – Project Description (Subsection 4.5.4)
■ *The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code) (Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists & Minerals Council of Australia 2012)	Section 4 – Project Description (Subsection 4.5.4)
■ The principles outlined in the *Australian Guidelines for the Estimating and Classification of Coal Resources* (Coalfields Geology Council of New South Wales & Queensland Resources Council 2014)	Section 4 – Project Description (Subsection 4.5.4)
In addition, provide maps (at appropriate scales) showing the general location of the project area, and in particular the: ■ Location and aerial extent of the mineral resources to be developed or mined	Section 4 – Project Description (Figures 4-2 and 4-20 to 4-22)
■ Location and boundaries of mining tenures, granted or proposed, to which the project area is, or will be subject	Section 4 – Project Description (Figures 4-6 to 4-8)
■ Location of the proposed mine excavation(s)	Section 4 – Project Description (Figure 4-2)
■ Location and boundaries of any project sites	Section 4 – Project Description (Figure 4-2)
■ Location and boundaries of any other features that will result from the proposed mining including waste/spoil dumps, water storage facilities and other infrastructure	Section 4 – Project Description (Figures 4-23 to 4-26 and 4-28 to 4-29)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Location of any proposed buffers, surrounding the working areas	The project site is remotely located, with the nearest sensitive receptor located more than 7 km from the project site boundary. There are no significant impacts identified that would warrant the need to establish buffers.
■ Any part of the resource not intended to be mined and any part of the resource that may be sterilised by the proposed mining operations or infrastructure	Section 4 – Project Description (Subsection 4.7)
Soils A soil survey of the project area should be conducted at 1:100,000 scale, following the standards in Table 1 of *Land Suitability Assessment Techniques* in the *Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland* (Department of Minerals and Energy 1995).	Section 8 – Rehabilitation (Subsection 8.3.1) Appendix E – *Soils and Land Suitability Report* (Subsection 3)
Soil profiles should be described according to the *Australian soil and land survey field handbook* (National Committee on Soil and Terrain 2009), grouped according to their parent material and position in the landscape, and classified according to the Australian soil classification (Isbell 2002). Where possible, soils should be correlated to those described in soil survey maps and reports for the similar landscape in the region. Particular reference to the physical and chemical properties of the materials that will influence erosion potential, storm water run-off quality, rehabilitation and agricultural productivity of the land should be included. Representative soils must be sampled down the profile for laboratory analysis as outlined in *Land Suitability Assessment Techniques*.	Section 8 – Rehabilitation (Subsections 8.3.1 and 8.3.2) Appendix E – *Soils and Land Suitability Report* (Subsections 2.1, 3.1.1, 3.2 and 4.1)
An assessment of the depth and quality of useable topsoil and subsoil to be stripped and stockpiled for rehabilitation should be undertaken and documented.	Section 8 – Rehabilitation (Subsections 8.5.1 and 8.5.2) Appendix E – *Soils and Land Suitability Report* (Subsection 4.1 and 4.2.1)
Land suitability Assess the suitability of the soils mapped in the project area for rainfed broadacre cropping and beef cattle grazing according to the limitations and land suitability classification system in Attachment 2 of *Land Suitability Assessment Techniques in the Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland* (Department of Minerals and Energy 1995).	Section 8 – Rehabilitation (Subsections 8.3.1, 8.3.3 and 8.4.1) Appendix E – *Soils and Land Suitability Report* (Subsection 5.1)
Provide land suitability maps of the mapped soil units and an Agricultural Land Class map according to the *Planning Guideline: The Identification of Good Quality Agricultural Land* (Department of Primary Industries and Department of Housing, Local Government and Planning 1993).	Section 8 – Rehabilitation (Subsections 8.3.3 and 8.4.1 and Figures 8-8 to 8-10) Appendix E – *Soils and Land Suitability Report* (Subsection 5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Discuss the good quality agricultural land status and comment on and justify any variation with the good quality agricultural land mapping shown in the *Planning Scheme for Belyando Shire 2008*	Section 5 – Land Use (Subsection 5.3.2) Appendix E – *Soils and Land Suitability Report* (Subsections 5 and 5.2).
Identify any areas of land within the project study area identified as 'strategic cropping area' (SCA) as identified by the strategic cropping land (SCL) trigger maps (available from www.dnrm.qld.gov.au/land).	Appendix E – *Soils and Land Suitability Report* (Subsections 2.1 and 5).
Potential impacts and mitigation measures Provide details of any potential impacts to the topography or geomorphology associated with the project and proposed mitigation measures, including:	Section 6 – Subsidence (Subsections 6.3.1) Section 8 – Rehabilitation (Subsection 8.2.2) Appendix A – *Subsidence Report*
■ A discussion of the project in the context of major topographic features and any measures taken to avoid or minimise impact to such, if required	Section 6 – Subsidence (Subsections 6.3.1) Section 8 - Rehabilitation (Subsection 8.2.2) Appendix A – *Subsidence Report*
■ The objectives to be used for the project in any re-contouring or consolidation, rehabilitation, landscaping, and fencing	Section 8 – Rehabilitation (Subsection 8.2) Section 24 – Environmental Management (Attachment 24-3)
Identify the possible soil erosion rate for all permanent and temporary landforms and describe the techniques used to manage the impact. Identify all soil types and outline the erosion potential (both wind and water). Include an assessment of likely erosion effects, especially those resulting from removing vegetation, and constructing retaining walls both on-site and off site for all disturbed areas.	Section 8 – Rehabilitation (Subsections 8.3.2, 8.5.1 to 8.5.3) Appendix E – *Soils and Land Suitability Report*
Identify erosion management techniques to be used. Provide details of an erosion monitoring program (including rehabilitation measures for erosion problems identified during construction), and detail acceptable mitigation strategies. Summarise methods proposed to prevent or control erosion with regard to: ■ The Guideline: *EPA Best Practice Urban Stormwater Management—Erosion and Sediment Control* (Environmental Protection Agency 2008a) ■ Preventing soil loss in order to maintain land capability/suitability ■ Preventing degradation of local waterways	Section 8 – Rehabilitation (Subsection 8.5.3) Appendix E – *Soils and Land Suitability Report* (Subsection 4.2.3)
Consider the physical, geo-mechanical and chemical properties of waste rock in both fresh and weathered forms when determining their suitability for constructing stable slopes and developing measures to avoid acid generation from waste rock dumps and backfilling operations.	Section 7 – Tailings and Power Station Waste Storage Facilities (Subsection 7.3) Section 8 – Rehabilitation (Subsections 8.2.1 and 8.5.2) Appendix D – *Geochemistry Report*

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Provide a detailed description of tailings disposal facilities stability, capping and rehabilitation, including hydraulic performance of the tailings disposal facilities during operation and post-decommissioning.	Section 7 – Tailings and Power Station Waste Storage Facilities (Subsection 7.4) Appendix C – *Mine Waste Storage Facilities Conceptual Design Report*
Identify any areas within the project footprint likely to temporarily or permanently impact SCA. Where areas of identified SCA are likely to be permanently alienated by the project, address the requirements of the RPI Act as they apply to the components of the project, in consultation with the DNRM.	Appendix E – *Soils and Land Suitability Report* (Subsections 2.1 and 5).
Resource utilisation Analyse the effectiveness of the mining proposal in achieving the optimum utilisation of the coal/mineral resources within the project area and consider its impacts on other resources. Demonstrate that the mining proposal will 'best develop' the mineral resources within the project area, minimise resource wastage and avoid any unnecessary sterilisation of these or any other of the state's coal, mineral, and petroleum (including gas and coal seam methane) resources that may be impacted upon or sterilised by the mining activities or related infrastructure.	Section 4 – Project Description (Subsection 4.5.4)
Subsidence Provide comprehensive surface subsidence predictions, taking into account factors such as topographic variations and geological complexities, with a full description of the methodology and an assessment of the reliability of the predictions. Show the results of the predictions on maps with one-metre contour increments and a scale appropriate for assessing surface subsidence impacts.	Section 6 – Subsidence (Subsection 6.2 and Figures 6-2 to 6-5) Appendix A – *Subsidence Report*
Propose mitigation measures to deal with any significant impacts that would result from subsidence.	Section 6 – Subsidence (Subsection 6.4)
Provide a detailed subsidence management plan in accordance with the draft guideline *Watercourse Subsidence – Central Queensland Mining Industry* (latest version) (Department of Environment and Resource Management 2011c) for remediation and monitoring of subsidence cracking and ponding. The subsidence management plan should seek to limit the impact of subsidence on remnant vegetation and other habitats, including impacts on fish movement within watercourses. Include in the plan a timeline for predicted subsidence, location, potential subsidence impacts in particular any impacts to any noted environmental values which may be impacted and any mitigation measures including triggers for managing surface cracking, and rehabilitation methods to a nominated post-mining land use.	Appendix B – *Draft Subsidence Management Plan*
This section should include, but is not limited to: ■ A description of the long-wall mining and the physical process of subsidence	Appendix B – *Draft Subsidence Management Plan* (Subsections 3.1 and 4) Appendix A - *Subsidence Report* (Subsection 3.2)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ An overview of the historical underground mining techniques used for coal mining in Australia (including width of long-wall panels used in Australia over time), and the level of subsidence that occur from different methods	Appendix B – *Draft Subsidence Management Plan* (Subsection 4)
■ A description of the known or likely subsidence effects on surface and groundwater hydrology	Appendix B – *Draft Subsidence Management Plan* (Subsections 4, 5.1.2 and 5.2.2)
■ A description of subsidence effects on terrestrial ecosystems (including which vegetation communities and flora species are most likely to be affected by changes to surface hydrology)	Appendix B – *Draft Subsidence Management Plan* (Subsection 5.3.2)
■ A summary of the impact of subsidence effects on freshwater effects on freshwater ecosystems from existing long-wall mining in Central Queensland, and other parts of Australia with similar underlying geology that have been undermined	Appendix B – *Draft Subsidence Management Plan* (Subsections 5.1.2, 5.2 and 5.4.2)
■ A description of the known impacts of subsidence on groundwater	Appendix B – *Draft Subsidence Management Plan* (Subsection 5.1.2)
■ A description of any known incidents where subsidence effects have (or been implicated to have) caused damage to the environment in Queensland	Appendix B – *Draft Subsidence Management Plan*
■ Geological features, such as faults, that may affect the level of subsidence or subsidence effects, must be described and mapped	Appendix A – *Subsidence Report* (Figure 3) Appendix B – *Draft Subsidence Management Plan* (Subsections 4 and 5.1 and Figures 11 and 12)
■ A description and analysis of the likely level of subsidence from the proposed action, including maps showing expected subsidence level contours	Appendix B – *Draft Subsidence Management Plan* (Subsection 4 and Figures 6, 7 and 9)
■ A description of potential impacts to aquatic and terrestrial ecosystems from subsidence affects as a result of the proposed mine	Appendix B – *Draft Subsidence Management Plan* (Subsections 5.1.2, 5.3.2 and 5.4.2)
The plan should also indicate timeframes under which these actions would be implemented. The plan must include maps that show the expected subsidence level contours and a clear description of the types and amounts of habitats associated with areas of high likely impacts, medium level and low level impacts.	Appendix B – *Draft Subsidence Management Plan* (Subsections 4 and 5, Figures 6, 7 and 18 and Table 3)
Assess the potential impacts of subsidence on the sediment load within watercourses. Identify any existing Quarry Material Allocation Notice (QMAN) holders in, or downstream of, subsidence areas; and if there are any QMAN holders, assess whether there would be potential impacts on their resource or entitlement. Provide mitigation measures for any impacts on any QMAN holders.	Appendix B – *Draft Subsidence Management Plan* (Subsection 5.2.2)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Land disturbance Develop a strategy that will minimise the amount of land disturbed at any one time. Describe the strategic approach to progressive rehabilitation of landforms and final decommissioning. Describe the methods to be used for the proposal, including backfilling, covering, re-contouring, topsoil handling and revegetation.	Section 8 – Rehabilitation
Refer to the description in Section 4.6 (Decommissioning and rehabilitation) of the location of final voids and uncompacted overburden and workings at the end of mining in relation to flood levels from nearby watercourses up to and including the 'probable maximum flood level', based on the Bureau of Meteorology's 'probable maximum precipitation' forecast for the locality.	Section 8 – Rehabilitation (Subsections 8.2.1 and 8.2.5) Section 13 – Surface Water (Subsections 13.4.1 and 13.6.6) Appendix J – *Open Cut Mine Drainage Report*
Demonstrate that proposed protection from flooding is sustainable for the foreseeable future.	Section 13 – Surface Water (Subsections 13.3 and 13.4.1) Appendix J – *Open Cut Mine Drainage Report* (Subsections 4.2 and 7 to 10)
Management and maintenance arrangements should be supported by appropriate erosion and stability monitoring to substantiate long-term rehabilitation sustainability.	Section 13 – Surface Water (Subsections 13.4 and 13.5) Appendix B – *Draft Subsidence Management Plan* (Subsection 5.2) Appendix J – *Open Cut Mine Drainage Report* (Subsections 9.6 and 10)
Where waterways are proposed to be diverted, describe the impact on land use due to hydrology changes, both upstream and downstream.	The project catchment and drainage setting is described in Section 13 – Surface Water (Subsection 13.2). The proposed project drainage arrangements are described in Section 13 - Surface Water (Subsections 13.3 and 13.4) and Appendix J – *Open Cut Mine Drainage Report.*
Also, detail the final drainage and seepage control systems and any long-term monitoring plans.	Section 7 – Tailings and Power Station Waste Storage Facilities (Subsection 7.3.5) Section 13 – Surface Water (Subsections 13.3, 13.4 and 13.5) Appendix B – *Draft Subsidence Management Plan* (Subsection 5.2)
Where dams, roads, levee banks, waterway diversions and other infrastructure are to remain upon project decommissioning, provide proposals to manage and maintain these structures. Management and maintenance arrangements should be supported by appropriate erosion and stability monitoring to substantiate long-term rehabilitation sustainability.	Section 8 – Rehabilitation (Subsection 8.2.5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Assess the mitigation measures for land disturbance to be used on decommissioning the site, providing sufficient detail to decide their feasibility. In particular, address the long-term stability of final voids and spoil dumps, safety of access to the site after surrender of the lease, and the residual risks that will be transferred to the subsequent landholder.	Section 8 – Rehabilitation
Describe the strategy that will be used to manage topsoil, considering transport, storage and replacement of topsoil to disturbed areas. Also outline how soil from good quality agricultural land will be best used. Address the minimisation of topsoil storage times (to reduce fertility degradation). Describe erosion and sediment control measures, particularly in relation to managing sodic and saline overburden material.	Section 8 – Rehabilitation (Subsection 8.5)
If geological conditions are conducive, the proponent should consider the possibility that significant fossil specimens (such as of dinosaurs or their tracks) may be uncovered during construction/operations and propose strategies for protecting the specimens and alerting the Queensland Museum to the find.	Section 4 – Project Description (Subsection 4.5.4)
5.2.4 Land contamination **Description of environmental values** Include: ■ Mapping of any areas listed on the EMR or CLR under the EP Act	Section 21 – Non-Mining Waste Management (Subsection 21.3.3)
■ Identification of any potentially contaminated sites not on the registers whether or not remediation is required	Section 21 – Non-Mining Waste Management (Subsection 21.3.3)
■ A description of the nature and extent of contamination at each site.	Not applicable.
■ Assess the possible degradation or contamination of land that could result from any aspects of the project. The assessment should not be limited to activities that would result in the land being entered on the EMR or the CLR. Rather, it should include any activity that could have a detrimental impact on land	Section 21 – Non-Mining Waste Management (Subsection 21.3.4)
Matters to be considered include: ■ The long-term use for dust-suppression of water with sufficient dissolved salts to affect soil condition	Section 21 – Non-Mining Waste (Subsection 21.3.5)
■ Contamination events on farmland and agriculture in the region	Section 13 – Surface Water (Subsections 13.3, 13.4 and 13.5)
■ De-watering and disposal to land of any waste water	Section 13 – Surface Water (Subsections 13.3, 13.4 and 13.5)
■ Waste rock disposal	Section 8 – Rehabilitation (Subsection 8.2.1)
■ Tailings disposal	Section 7 – Tailings and Power Station Waste Storage Facilities (Subsection 7.4)
■ Fly-ash disposal	Section 7 – Tailings and Power Station Waste Storage Facilities (Subsection 7.4)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Disturbance of acid sulfate soils	Not applicable.
■ Spills at chemical and fuel storage areas	Section 21 – Non-Mining Waste Management (Subsection 21.3.5)
Potential impacts and mitigation measures Discuss the management of any contaminated land and potential for contamination from construction, commissioning, operation and decommissioning, in accordance with the *Contaminated land assessment guideline* (Department of Environment and Heritage Protection 2014), *Guideline: Managing Contaminated Land under the Sustainable Planning Act 2009* (Department of Environment and Heritage Protection 2014) and the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (National Environment Protection Council 1999) or as amended.	Section 21 – Non-Mining Waste Management (Subsections 21.3.3 and 21.3.5)
Describe strategies and methods to be used to prevent and manage any land contamination resulting from the project, including the management of any acid generation or management of chemicals and fuels to prevent spills or leaks.	Section 21 – Non-Mining Waste Management (Subsection 21.3.5)
Propose measures that would prevent or remediate any degradation or contamination of land due to the proposed activities. Propose any measures required for the management and possible remediation of any existing contamination on the site.	Section 21 – Non-Mining Waste Management (Subsection 21.3.5)
Assess any activities or proposed contamination that would result in the land being newly entered on the EMR or the CLR. Also assess the consequences, particularly for the subsequent landholder, of any intention to leave the site on either register when mining ceases. Prepare a site management plan for any land remaining on the EMR or the CLR, and describe when, how and by whom it would be implemented.	Section 21 – Non-Mining Waste Management (Subsections 21.3.4 and 21.3.5) Section 24 – Environmental Management (Subsections 24.4.2 and 24.4.4)
5.3 Nature conservation Detail the existing nature conservation values that may be affected by the proposal. Describe the environmental values in terms of: ■ Integrity of ecological processes, including habitat of endangered, vulnerable and near-threatened (EVNT) and special least-concern species	Section 9 – Terrestrial Ecology (Subsections 9.5 and 9.6) Section 10 – Aquatic Ecology (Subsections 10.5 and 10.6) Appendix F – *Terrestrial Ecology Report* (Subsections 4.2 – 4.6) Appendix G – *Aquatic Ecology and Stygofauna Report*
■ Migratory, critically endangered, endangered, and vulnerable species and ecological communities as defined under the EPBC Act	Section 11 – Matters of National Environmental Significance (Subsections 11.6 and 11.7) Appendix F – *Terrestrial Ecology Report* (Subsection 4.6.7) Appendix G – *Aquatic Ecology and Stygofauna Report*
■ Conservation of resources	Section 5 – Land Use (Subsection 5.3.2 and Figure 5-2)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Biological diversity, including habitat of EVNT and special least-concern species	Section 9 – Terrestrial Ecology (Subsections 9.3 to 9.5) Section 10 – Aquatic Ecology (Subsections 10.3 to 10.5) Appendix F – *Terrestrial Ecology Report* (Subsections 2 to 4) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 2 to 4)
■ Integrity of landscapes and places including wilderness and similar natural places	Section 9 – Terrestrial Ecology (Subsections 9.3 to 9.5) Section 10 – Aquatic Ecology (Subsections 10.3 to 10.5) Appendix F – *Terrestrial Ecology Report* (Subsections 2 to 4) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 2 to 4)
■ Aquatic and terrestrial ecosystems	Section 9 – Terrestrial Ecology (Subsections 9.3 to 9.5) Section 10 – Aquatic Ecology (Subsections 10.3 to 10.5) Appendix F – *Terrestrial Ecology Report* (Subsections 2 to 4) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 2 to 4)
Survey effort should be sufficient to identify, or adequately extrapolate, the floral and faunal values over the range of seasons, particularly during and following a wet season. Survey effort must also comply with all relevant Commonwealth and Queensland State Government survey guidelines for species and ecological communities which may be impacted by the proposed actions. Where surveys do not meet the minimum standards established by these guidelines justification must be provided to demonstrate the suitability of the surveys. Where results are extrapolated a detailed description of the methodology, including relevant details regarding field verification utilised, must be provided. The survey should account for the ephemeral nature of watercourses traversing the proposal area, and seasonal variation in fauna populations especially migratory species and transient users of the project area.	Section 9 – Terrestrial Ecology (Subsections 9.3 and 9.4) Section 10 – Aquatic Ecology (Subsections 10.3 and 10.4) Section 11 – Matters of National Environmental Significance (Subsections 11.3 to 11.5) Appendix F – *Terrestrial Ecology Report* (Subsections 2 and 3) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 2 and 3)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Existing information on plant and animal species may be used to supplement new survey work, provided that the information and data remains current and has been derived from previous surveys at the site that are consistent with current best practice methodologies. Methodologies used for flora and fauna surveys should be detailed in the appendices to the report.	Section 9 – Terrestrial Ecology (Subsection 9.4) Section 10 – Aquatic Ecology (Subsection 10.4) Section 11 – Matters of National Environmental Significance (Subsection 11.5) Appendix F – *Terrestrial Ecology Report* (Subsection 3 and Appendix D) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 3)
Wherever possible, seek the involvement of the local Indigenous community in conducting field observations and survey activities, to identify the traditional and contemporary Indigenous uses of species.	There are no local Indigenous communities located near the project site, however, extensive consultation will be undertaken with Indigenous stakeholders as part of the development of the Cultural Heritage Management Plan. Appendix N – *Socio-economic Impact Assessment Report* (Subsection 5.1)
Outline the proposed strategies to avoid, or minimise and mitigate, impacts on the identified values within the project's footprint.	Section 9 – Terrestrial Ecology (Subsection 9.7) Section 10 – Aquatic Ecology (Subsection 10.7) Section 11 – Matters of National Environmental Significance (Subsection 11.8) Appendix F – *Terrestrial Ecology Report* (Subsection 6) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 5)
Identify key flora and fauna indicators for ongoing monitoring.	Section 9 – Terrestrial Ecology (Subsection 9.7) Appendix F – *Terrestrial Ecology Report* (Subsection 6) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 5)
5.3.1 Sensitive environmental areas **Description of environmental values** On a map of suitable scale, identify areas that are environmentally sensitive within the study area in proximity to the project. This should include areas classified as having national, state, regional or local biodiversity significance, or flagged as important for their integrated biodiversity values. Refer to Queensland legislation and policies on threatened species and ecological communities.	Section 9 – Terrestrial Ecology (Figures 9-5, 9-6, 9-10 to 9-14) Section 10 – Aquatic Ecology (Figures 10-2 to 10-5) Appendix F – *Terrestrial Ecology Report* (Figures 7 to 31) Appendix G – *Aquatic Ecology and Stygofauna Report* (Figures 8 to 12)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Areas regarded as sensitive with respect to flora and fauna have one or more of the following features, and should be identified and mapped: ■ Important habitat of species listed under the NC Act	Section 9 – Terrestrial Ecology (Subsections 9.3.2 and 9.6.8 and Figures 9-10 to 9-14) Appendix F – *Terrestrial Ecology Report* (Subsections 2.3 and 4.6.8 and Figures 15 to 24)
■ Regional ecosystems (REs) listed as 'endangered' or 'of concern' under state legislation	Section 9 – Terrestrial Ecology (Subsection 9.5.2 and Figure 9-5) Appendix F – *Terrestrial Ecology Report* (Subsection 4.3 and Figure 13)
■ Ecological communities listed as critically endangered or endangered under the EPBC Act	No ecological communities listed as critically endangered or endangered under the EPBC Act are present within the project site as discussed in Appendix F – *Terrestrial Ecology Report* (Subsection 4.3.2).
■ Good representative examples of remnant REs or REs that are described as having 'medium' or 'low' representation in the protected area estate as defined in the Regional Ecosystem Description Database (REDD) available at www.qld.gov.au/environment	Appendix F – *Terrestrial Ecology Report* (Subsection 4.3)
■ Sites containing near-threatened or bio-regionally significant species or essential, viable habitat for near-threatened or bio-regionally significant species	All habitats of ecological significance that could potentially support such species within the project site were surveyed and are described in Appendix F – *Terrestrial Ecology Report.*
■ Areas or features identified as State significant biodiversity values, pursuant to the *Queensland Environmental Offset Policy* (Department of Environment and Heritage Protection 2014) and the EPBC Act *Environmental Offsets Policy* (Department of Sustainability, Environment, Water, Population and Communities 2012)	Section 9 – Terrestrial Ecology (Subsection 9.8) Section 10 – Aquatic Ecology (Subsection 10.8) Section 11 – Matters of National Environmental Significance (Subsection 11.9) Appendix F – *Terrestrial Ecology Report* (Section 7) Appendix G – *Aquatic Ecology and Stygofauna Report* (Section 6) Appendix H – *Biodiversity Offset Strategy*
■ Sites containing common species that represent a distributional limit and are of scientific value or that contain feeding, breeding, resting areas for populations of echidna, koala, platypus and other species of special cultural significance	Section 9 – Terrestrial Ecology (Subsections 9.5.4 and 9.6.8) Appendix F – *Terrestrial Ecology Report* (Subsections 4.6.9 and 5.3.7) Noted the platypus is not present in the project site.

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Sites of high biodiversity that are of a suitable size or with connectivity to corridors and protected areas to ensure survival in the longer term; such land may contain: – natural vegetation in good condition or other habitat in good condition (for example, wetlands) – degraded vegetation or other habitat that still support high levels of biodiversity or act as an important corridor for maintaining high levels of biodiversity in the area	Section 9 – Terrestrial Ecology (Subsections 9.5.1 and 9.6.2) Appendix F – *Terrestrial Ecology Report* (Subsections 4.2 and 5.2.6ii)
■ A site containing other special ecological values (for example, high habitat diversity and areas of high endemism)	Appendix F – *Terrestrial Ecology Report* (Subsections 4.2 and 5.2)
■ Ecosystems that provide important ecological functions such as: – wetlands of national, state and regional significance – riparian vegetation – important buffer to a protected area or important habitat corridor between areas	Section 9 – Terrestrial Ecology (Subsections 9.5.1 and 9.6.6) Section 10 – Aquatic Ecology (Subsections 10.5.1 and 10.6.3) Appendix F – *Terrestrial Ecology Report* (Subsections 4.2.1 and 5.2.3) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 4.2.2 and 5.2.3)
■ Declared fish habitat areas and sites containing protected marine plants under the Fisheries Act	No declared fish habitat areas are present in the project site. The project site does not contain protected marine plants under the Fisheries Act. Section 10 – Aquatic Ecology (Subsections 10.3.3, 10.5.3 and 10.6.2) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 2.4, 5.1.3 and 6)
■ Sites of palaeontologic significance such as fossil sites	Section 4 – Project Description (Subsection 4.5.3)
■ Sites of geomorphological significance	Section 4 – Project Description (Subsection 4.5.3)
■ Protected areas that have been proclaimed under the NC Act and Marine Parks Act, or are under consideration for proclamation	Section 9 – Terrestrial Ecology (Subsection 9.3.2)
■ Declared areas of major interest or critical habitat declared under the NC Act	The project site is not an area of major interest and does not contain any critical habitat under the NC Act. Appendix F – *Terrestrial Ecology Report* (Subsections 4.5.2 and 4.6.8)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Declared areas of high nature conservation value or areas vulnerable to land degradation under the VM Act	The project site is not a declared area of high nature conservation value or an area that is vulnerable to land degradation under the VM Act. Appendix F – *Terrestrial Ecology Report* (Subsection 2.2)
■ Remnant vegetation listed under the VM Act or the EPBC Act as containing critically endangered, endangered and of concern regional ecosystems or ecological communities where clearing or other direct and indirect project related impacts are likely to result in land degradation and a loss of ecosystem function and biodiversity	Section 9 – Terrestrial Ecology (Subsections 9.5.2 and 9.6.2) Section 11 – Matters of National Environmental Significance (Subsections 11.6.2 and 11.7.6) Appendix F – *Terrestrial Ecology Report* (Subsections 4.3, 5.2.2 and 5.2.3)
Areas of special sensitivity include the marine environment and wetlands, wildlife breeding or roosting areas, any significant habitat or relevant bird flight paths for migratory species, bat roosting and breeding caves including existing structures such as adits and shafts, and habitat of threatened plants, animals and communities.	Section 9 – Terrestrial Ecology (Subsection 9.6) Section 10 – Aquatic Ecology (Subsection 10.6) Appendix F – *Terrestrial Ecology Report* (Section 4) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 4)
Potential impacts and mitigation measures Discuss the impact of the project on species, ecological communities and habitat of local, regional, state or national significance in sensitive environmental areas as identified above. Include human impacts and the control of any domestic animals introduced to the area.	Section 9 – Terrestrial Ecology (Subsections 9.6 and 9.7) Section 10 – Aquatic Ecology (Subsection 10.6 and 10.7) Appendix F – *Terrestrial Ecology Report* (Subsections 5 and 6) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 5)
Demonstrate how the project would comply with the following hierarchy: ■ Avoiding or minimising impact on sensitive environmental areas and other values subject to relevant offsets polices	Section 9 – Terrestrial Ecology (Subsections 9.6.2 and 9.7) Section 10 – Aquatic Ecology (Subsections 10.6 and 10.7) Section 11 – Matters of National Environmental Significance (Subsection 11.7) Appendix F – *Terrestrial Ecology Report* (Subsections 5.2 and 6) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Mitigating impacts through rehabilitation and restoration including, where relevant, a discussion of any relevant previous experience or trials of the proposed rehabilitation	Section 8 – Rehabilitation Section 9 – Terrestrial Ecology (Subsections 9.6 and 9.7) Section 10 – Aquatic Ecology (Subsections 10.6 and 10.7) Section 11 – Matters of National Environmental Significance (Subsections 11.7 and 11.8) Appendix F – *Terrestrial Ecology Report* (Subsection 6.2) Appendix G – *Aquatic Ecology and Stygofauna Report* (Section 5)
■ Replacing or offsetting the loss of conservation values, where impacts cannot be avoided or mitigated	Section 9 – Terrestrial Ecology (Subsection 9.8) Section 10 – Aquatic Ecology (Subsection 10.8) Section 11 – Matters of National Environmental Significance (Subsection 11.9) Appendix F – *Terrestrial Ecology Report* (Subsection 7) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 6) Appendix H – *Biodiversity Offset Strategy*
Explain why the measures above may not apply in areas where loss would occur.	Section 9 – Terrestrial Ecology (Subsections 9.6 and 9.7) Section 10 – Aquatic Ecology (Subsections 10.6 and 10.7) Appendix F – *Terrestrial Ecology Report* (Subsections 5 and 6) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 5)
Discuss the boundaries of the areas impacted by the project within or adjacent to an ecological community, including details of footprint width. If the project area will impact upon an endangered ecological community, include reasons for the preferred alignment and the viability of alternatives.	Section 9 – Terrestrial Ecology (Subsection 9.6.2) Section 10 – Aquatic Ecology (Subsection 10.6.2) Appendix F – *Terrestrial Ecology Report* (Section 5.2) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 5.1)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Describe strategies for protecting Ramsar wetlands and discuss any obligations imposed by state or Commonwealth legislation or policies, or international treaty obligations (that is, China–Australia Migratory Bird Agreement, Japan–Australia Migratory Bird Agreement, Republic of Korea–Australia Migratory Bird Agreement).	Appendix F – *Terrestrial Ecology Report* (Section 2.8) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 2.5 and 4.1.4)
Provide details about the approvals that will be required under the NC Act and the VM Act for development made assessable under SPA. The EMP for the project should address the performance requirements of the relevant policies and regional vegetation management codes (refer to www.qld.gov.au/environment/land/vegetation/management).	The Greentape Reduction Act removes the requirement for an EM plan. However, approvals that will be required under the NC Act and the VM Act have been summarised in Section 2 – Regulatory Framework (Subsections 2.3 and Attachment 2-1), Section 9 – Terrestrial Ecology (Subsections 9.3.1 and 9.3.2) and Section 10 – Aquatic Ecology (Subsection 9.3.1).
Where relevant, this section should discuss environmental offset requirements in accordance with the *Queensland Environmental Offsets Policy* (Department of Environment and Heritage Protection 2014), Galilee Basin Offset Strategy (Department of Environment and Heritage Protection 2013) and the EPBC Act *Environmental Offsets Policy* (Department of Sustainability, Environment, Water, Population and Communities 2012). Take into account the applicable specific-issue offset policies, as follows:	Section 9 – Terrestrial Ecology (Subsection 9.8) Section 10 – Aquatic Ecology (Subsection 10.8) Section 11 – Matters of National Environmental Significance (Subsections 11.9 and 11.10) Appendix F – *Terrestrial Ecology Report* (Subsection 7) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 6) Appendix H – *Biodiversity Offset Strategy*
The following information relating to offset requirements should be provided, preferably as part of an offset strategy: ■ A description of the values required to be offset and the estimated extent of impact on each value (supported by mapping)	Section 9 – Terrestrial Ecology (Subsection 9.8 and Figures 9-10 to 9-14) Section 10 – Aquatic Ecology (Subsection 10.8) Section 11 – Matters of National Environmental Significance (Subsection 11.9) Appendix F – *Terrestrial Ecology Report* (Section 7) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 6) Appendix H – *Biodiversity Offset Strategy*
■ If land-based offsets are proposed for terrestrial ecosystems, an assessment of ecological equivalence for each	Appendix H – *Biodiversity Offset Strategy*.

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Clearing/impact area (in accordance with the relevant guideline)	Section 9 – Terrestrial Ecology (Subsection 9.8) Section 10 – Aquatic Ecology (Subsection 10.6.2) Section 11 – Matters of National Environmental Significance (Subsection 11.9) Appendix F – *Terrestrial Ecology Report* (Subsection 7) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 5.1) Appendix H – *Biodiversity Offset Strategy*
■ The proposed timing of provision of offsets relative to issue of the environmental authority including clear definition of any staged approach to the provision of offsets	Appendix H – *Biodiversity Offset Strategy*.
■ Other information specifically required by the relevant offset policy	Appendix H – *Biodiversity Offset Strategy*
5.3.2 Terrestrial flora **Description of environmental values** Provide vegetation mapping for all relevant project sites, and for adjacent areas to illustrate interconnectivity. Mapping should also illustrate any larger scale interconnections between areas of remnant or regrowth vegetation where the project site includes a corridor connecting those other areas. Discuss any variances between site mapping and mapping produced by the Queensland Herbarium.	Section 9 – Terrestrial Ecology (Subsection 9.5.2 and Figures 9-5 and 9-8) Appendix F – *Terrestrial Ecology Report* (Subsections 4.1.2 and 4.3 and Figures 7, 11, 12 and 26)
Describe the terrestrial vegetation communities within the affected areas at an appropriate scale (maximum 1:10 000), with mapping produced from aerial photographs and ground-truthing, showing the following: ■ Location and extent of vegetation types using the regional ecosystem type descriptions in accordance with the REDD	Section 9 – Terrestrial Ecology (Subsection 9.5.2 and Figures 9-5 and 9-8) Appendix F – *Terrestrial Ecology Report* (Subsections 4.1.2 and 4.3 and Figures 7, 11, 12 and 26)
■ Location of vegetation types and ecological communities of state and national conservation significance based on RE types and occurrence of species listed as protected plants under the *Nature Conservation (Wildlife) Regulation 2006* (Qld) and subsequent amendments, as well as areas subject to the VM Act	Section 9 – Terrestrial Ecology (Subsection 9.5.2 and Figures 9-5 and 9-8) Appendix F – *Terrestrial Ecology Report* (Subsections 4.1.2 and 4.3 and Figures 7, 11, 12 and 26)
■ The current extent (bioregional and catchment) of protected vegetation types of conservation significance within the protected area estate (national parks, conservation parks, resource reserves, nature refuges and conservation reserves under the NC Act)	Section 5 – Land Use (Subsection 5.3.2 and Figure 5-2)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Any plant communities of cultural, commercial or recreational significance	Section 9 – Terrestrial Ecology (Subsection 9.5.2 and Figures 9-5 and 9-8) Appendix F – *Terrestrial Ecology Report* (Subsections 4.1.2 and 4.3 and Figures 7, 11, 12 and 26).
■ Location and presence of any state or nationally protected flora species and /or potential habitat for these species within the project area	Section 9 – Terrestrial Ecology (Subsection 9.5.3) Section 11 – Matters of National Environmental Significance (Subsection 11.6.3) Appendix F – *Terrestrial Ecology Report* (Subsection 4.5 and Appendix H).
■ The location of any horticultural crops in the vicinity of the project area	No horticultural crops are located within the project site or in the vicinity of the project site.
■ Location and abundance of any known exotic or weed species including a description of the prevalence of introduced/exotic pasture grasses within the project site. (Biosecurity Queensland Annual Pest Distribution Survey (APDS) data and predictive pest maps should be used to supplement the proponent's survey and mapping)	Section 9 – Terrestrial Ecology (Subsections 9.5.3 and 9.7.3) Appendix F – *Terrestrial Ecology Report* (Subsection 4.5).
Highlight sensitive or important vegetation types, including any riparian vegetation, and their value as habitat for fauna and conservation of specific rare floral and faunal assemblages or community types. The description should contain a review of published information regarding the assessment of the significance of the vegetation to conservation, recreation, scientific, educational and historical interests.	Section 9 – Terrestrial Ecology (Subsections 9.5.1, 9.5.2 and 9.6.6) Appendix F – *Terrestrial Ecology Report* (Subsections 4.2, 4.3 and 5.2.3)
For each significant natural vegetation community likely to be impacted by the project, vegetation surveys should be undertaken at an appropriate number of sites, at least once in the wet season (between March and May) and once in the dry season (between July and September), and satisfying the following:	Section 9 Terrestrial Ecology (Subsections 9.4.2 and 9.4.3) Appendix F – *Terrestrial Ecology Report* (Section 3.2.5)
■ The relevant regional vegetation management codes	Section 2 – Regulatory Framework (Attachment 2-1)
■ Site data should be recorded in a form compatible with the Queensland Herbarium CORVEG database and HERBRECS	Site data has been recorded in a form compatible with CORVEG database and HERBRECS.
■ The minimum site size should be 10 × 50 metres	Appendix F – *Terrestrial Ecology Report* (Subsection 3.2.5).
■ A complete list of species present at each site should be recorded	Appendix F – *Terrestrial Ecology Report* (Appendix J).

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ The surveys to include species structure, assemblage, diversity and abundance	Vegetation surveys undertaken within the project site are described in Section 9 – Terrestrial Ecology (Subsection 9.4.3) and Appendix F – *Terrestrial Ecology Report* (Subsection 3.2.5). Species structure, assemblage, diversity and abundance are outlined in Appendix F – *Terrestrial Ecology Report* (Appendix I).
■ The relative abundance of plant species present to be recorded	Appendix F – *Terrestrial Ecology Report* (Appendix J).
■ Any plant species of conservation, cultural, commercial or recreational significance to be identified	Section 9 – Terrestrial Ecology (Subsection 9.5.3) Appendix F – *Terrestrial Ecology Report* (Subsection 4.5 and Appendix H).
■ Specimens of species listed as protected plants under the Nature Conservation (Wildlife) Regulation, other than common species, are to be submitted to the Queensland Herbarium for identification	Plant species that could not be identified were collected and pressed and identified at the Queensland Herbarium as outlined in Appendix F – *Terrestrial Ecology Report* (Subsection 3).
■ The methodology in *Biocondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland: Assessment Manual (version 2.1)* (Eyre et al. 2011) and *Ecological Equivalence Methodology Guidelines (version 1)* (Department of Environment and Resource Management 2011d) for sites possibly requiring offset considerations under the *Queensland Environmental Offset Policy* (Department of Environment and Heritage Protection 2014)	Appendix H – *Biodiversity Offset Strategy* (Subsection 8.1)
Potential impacts and mitigation measures Describe the potential environmental impacts to the ecological values of the area arising from the construction, operation and decommissioning of the project including clearing, salvaging or removing vegetation. Discuss the indirect effects on remaining vegetation. Consider short- and long-term effects and comment on whether the impacts are reversible or irreversible.	Section 9 – Terrestrial Ecology (Subsection 9.6) Section 11 – Matters of National Environmental Significance (Subsection 11.7) Appendix F – *Terrestrial Ecology Report* (Subsection 5)
For all components of the project, discuss: ■ The potential impacts that clearing vegetation will have on listed species and ecological communities in the extent of the proposed vegetation clearing	Section 9 – Terrestrial Ecology (Subsection 9.6.2) Appendix F – *Terrestrial Ecology Report* (Subsection 5.2)
■ Any management actions to minimise vegetation disturbance and clearance	Section 9 – Terrestrial Ecology (Subsection 9.7) Appendix F – *Terrestrial Ecology Report* (Subsection 6.2)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ The ability of identified vegetation to withstand any increased pressure resulting from the project, and any measures proposed to mitigate potential impacts	Section 9 – Terrestrial Ecology (Subsections 9.6.2 and 9.7.1) Appendix F – *Terrestrial Ecology Report* (Subsections 5.2 and 6.2)
■ The methods to ensure rapid and environmentally appropriate rehabilitation of disturbed areas following construction, including the species chosen for revegetation, which should be consistent with the surrounding associations	Section 8 – Rehabilitation (Subsection 8.2)
■ Any post-construction monitoring programs	Section 9 – Terrestrial Ecology (Subsection 9.7) Section 11 – Matters of National Environmental Significance (Subsection 11.8) Appendix F – *Terrestrial Ecology Report* (Subsection 6)
■ The potential environmental harm on flora due to any alterations to the local surface and groundwater environment, with specific reference to impacts on riparian vegetation or other sensitive vegetation communities	The potential environmental harm on flora due to any alterations to the local surface and groundwater environment as a result of the project is described in Section 9 – Terrestrial Ecology (Subsection 9.6) and Appendix F – *Terrestrial Ecology Report* (Subsection 5). Impacts on riparian vegetation as a result of the project are described in Section 9 – Terrestrial Ecology (Subsection 9.6.6) and Appendix F – *Terrestrial Ecology Report* (Subsection 5.2.3).
■ A description of any foreseen impacts which increase the susceptibility of ecological communities and species to the impacts of climate change	Appendix F – *Terrestrial Ecology Report* (Subsection 5.7).
Outline how these mitigation measures and monitoring will be implemented in the EMP for the project.	The Greentape Reduction Act removes the requirement for an EM plan. However, Section 9 – Terrestrial Ecology (Subsection 9.7), Section 11 – Matters of National Environmental Significance (Subsection 11.8), Section 24 – Environmental Management (Subsection 24.4.3) and Appendix F – *Terrestrial Ecology Report* (Subsection 6) outline mitigation measures and monitoring will be implemented for the project.

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Discuss weed management strategies for containing existing weed species (for example, Parthenium and other declared plants) and ensuring no new declared plants are introduced to the area through project activities. Refer to the local government authority's pest management policies and plans and any strategies and plans recommended for the project area by Biosecurity Queensland.	A Feral Animal and Weed Management Plan will be developed for the project and will outline weed management strategies for containing existing weed species and ensuring no new declared plants are introduced to the area through project activities, as discussed in Section 9 – Terrestrial Ecology (Subsection 9.7.3) and Appendix F – *Terrestrial Ecology Report* (Subsection 6.3.2).
Discuss the strategies in accordance with provisions of the *Land Protection (Pest and Stock Route Management) Act 2002* in the main body of the EIS and in the pest management plan within the EMP for the project.	The Greentape Reduction Act removes the requirement for an EM plan. However, key management commitments that are detailed throughout the EIS have been summarised in Section 24 – Environmental Management. These include commitments in relation to pest management. The LP Act is described in Section 9 – Terrestrial ecology (Subsection 9.3.3).
5.3.3 Terrestrial fauna **Description of environmental values** Describe the terrestrial and riparian fauna occurring in the areas affected by the proposal, noting the broad distribution patterns in relation to vegetation, topography and substrate. The description of the fauna present or likely to be present in the study area should include:	Section 9 – Terrestrial Ecology (Subsections 9.5.1 and 9.5.4) Appendix F – *Terrestrial Ecology Report* (Subsections 4.2 and 4.6)
■ Species diversity (that is, a species list) and abundance of animals of recognised significance	Appendix F – *Terrestrial Ecology Report* (Appendix K)
■ Any species that are poorly known but suspected of being rare or threatened	Section 9 – Terrestrial Ecology (Subsection 9.5.4) Appendix F – *Terrestrial Ecology Report* (Subsection 4.6).

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Habitat requirements and sensitivity to changes, including movement corridors and barriers to movement	Habitat available within the project site for fauna species is described in Section 9 – Terrestrial Ecology (Subsection 9.5.1) and Appendix F – *Terrestrial Ecology Report* (Subsection 4.2). Habitat requirements for fauna species is provided in Section 9 – Terrestrial Ecology (Subsection 9.5.4) and Appendix F – *Terrestrial Ecology Report* (Subsection 4.6). Movement corridors and barriers to movement are described in Section 9 – Terrestrial Ecology (Subsection 9.6.2) and Appendix F – *Terrestrial Ecology Report* (Subsection 5.2.6ii).
■ The existence of feral or introduced animals including those of economic or conservation significance	Section 9 – Terrestrial Ecology (Subsection 9.5.4) Appendix F – *Terrestrial Ecology Report* (Subsection 4.6.5)
■ Existence (actual or likely) of any species and communities of conservation significance in the study area, including discussion of range, habitat, breeding, recruitment feeding and movement requirements, and current level of protection (for example, any requirements of protected area management plans or threatened species recovery plans)	Appendix F – *Terrestrial Ecology Report* (Subsections 4.6.6 to 4.6.9 and Appendix H)
■ Habitat requirements and sensitivity to changes, including movement corridors and barriers to movement	Habitat available within the project site for fauna species is described in Section 9 – Terrestrial Ecology (Subsection 9.5.1) and Appendix F – *Terrestrial Ecology Report* (Subsection 4.2). Habitat requirements for fauna species is provided in Section 9 – Terrestrial Ecology (Subsection 9.5.4) and Appendix F – *Terrestrial Ecology Report* (Subsection 4.6). Movement corridors and barriers to movement are described in Section 9 – Terrestrial Ecology (Subsection 9.6.2) and Appendix F – *Terrestrial Ecology Report* (Subsection 5.2.6ii).
■ An estimate of commonness or rarity for the listed or otherwise significant species	Section 9 – Terrestrial Ecology (Subsection 9.5.4) Appendix F – *Terrestrial Ecology Report* (Subsections 4.6.6 to 4.6.9 and Appendix H)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Use of the area by migratory fauna	Section 11 – Matters of National Environmental Significance (Subsection 11.6.4) Appendix F – *Terrestrial Ecology Report* (Subsection 4.6.7 and Appendix H)
■ Records in a form compatible with the Wildlife Online database	Site data has been recorded in a form compatible with the Wildlife Online database, as shown in Appendix F – *Terrestrial Ecology Report* (Appendix K).
For each significant natural vegetation community, ecosystem, or habitat likely to be impacted by the project, fauna surveys should be undertaken at an appropriate number of sites consistent with habitat variation and size, and with existing knowledge of species potentially occurring in the project area and the survey effort required to confirm presence or absence of such species. Fauna surveys should be conducted during periods of the year consistent with seasonal variation in fauna presence or level of activity including the wet season (between March and May) and dry season (between July and September).	Section 9 – Terrestrial Ecology (Subsections 9.4.2 and 9.4.4) Appendix F – *Terrestrial Ecology Report* (Subsections 3.2.6 and 3.2.7).
Present fauna data in columns titled: Number, collector, Start date, End date, Location, Latitude, Longitude, Zone, Easting, Northing, Datum, Precision (m), Altitude (m), Vegetation code, Slope, Aspect, Scientific name, Common name, Count, count type, Age code, Sex code, Breeding code, Identification method, Collector code, Specimen registration, Specimen location, Collection notes, vetting code. DEHP has supporting documents available which explain the above fields and codes.	Fauna data was collected for each of the fields of data referred to in the TOR where possible and can be supplied in that format on request. Fauna data is summarised in Appendix F – *Terrestrial Ecology Report* (Appendix K).
Identify any species listed by the NC Act and EPBC Act which are potentially occurring in the project area. Identify any species listed by the 'Back on Track' species prioritisation methodology (refer to: www.ehp.qld.gov.au/wildlife/prioritisation-framework/index.html).	Appendix F – *Terrestrial Ecology Report* (Subsections 4.6.6 to 4.6.9 and Appendix H)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Indicate how well any affected communities are represented and protected elsewhere in the bio-region where the project occurs. Specify the methodology used for fauna surveys and compliance with Queensland and Commonwealth survey guidelines. If methods do not comply provide justification of how surveys are suitable and representative. Provide relevant site data to DEHP in a format compatible with the Wildlife Online database for listed threatened species (refer to: www. qld.gov.au/environment/plants-animals/species-list/	Affected fauna communities are described in Section 9 – Terrestrial Ecology (Subsection 9.5.4) and Appendix F – *Terrestrial Ecology Report* (Subsection 4.6 and Appendix H). The methodology used for fauna surveys and compliance with Queensland and Commonwealth survey guidelines is outlined in Section 9 – Terrestrial Ecology (Subsection 9.4.4), Section 11 – Matters of National Environmental Significance (Subsection 11.5.4), Appendix F – *Terrestrial Ecology Report* (Subsection 3.2.6 and Appendix F).
Potential impacts and mitigation measures Consider potential impacts on terrestrial fauna, relevant wildlife habitat and other fauna conservation values, including: ■ Impacts due to loss of range/habitat, food supply, nest sites, breeding/recruiting potential or movement corridors or as a result of hydrological change	Appendix F – *Terrestrial Ecology Report* (Subsections 5.2 to 5.4)
■ Impacts on native species, particularly species of conservation significance	Section 9 – Terrestrial Ecology (Subsection 9.6) Appendix F – *Terrestrial Ecology Report* (Subsections 5.2 to 5.4)
■ Cumulative effects of direct and indirect impacts	Section 23 – Cumulative Impacts (Subsection 23.5) Appendix F – *Terrestrial Ecology Report* (Subsections 5.5 and 5.8)
■ Threatening processes leading to progressive loss	Appendix F - Terrestrial Ecology Report (Appendix L)
■ A description of any foreseen impacts that increase the susceptibility of ecological communities and species to the impacts of climate change	Appendix F – *Terrestrial Ecology Report* (Subsection 5.7).
■ Indirect impacts through the decrease in vegetation quality in surrounding areas as a result of the project activities	Appendix F – *Terrestrial Ecology Report* (Subsection 5.2.6ii)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Address any actions of the project or likely impacts that require an authority under the NC Act. Provide the following information on mitigation strategies: ■ Measures to avoid and mitigate the identified impacts. Any provision for buffer zones and movement corridors, nature reserves or special provisions for migratory animals should be discussed and coordinated with the outputs of the flora assessment	The NC Act is described in Section 2 – Regulatory Framework (Subsection 2.3), Section 9 – Terrestrial Ecology (Subsection 9.3.2) and Appendix F – *Terrestrial Ecology Report* (Subsection 2.3). Measures to avoid and mitigate the identified impacts are described in Section 9 – Terrestrial Ecology (Subsection 9.7) and Appendix F – *Terrestrial Ecology Report* (Subsection 6.2).
■ Details of the methodologies that would be used to avoid injuring livestock and native fauna as a result of the project's construction and operational works, and if accidental injuries should occur, the methodologies to assess and handle injuries	Section 9 – Terrestrial Ecology (Subsection 9.7.2) Appendix F – *Terrestrial Ecology Report* (Subsection 6.2.2)
■ Strategies for complying with the objectives and management practices of relevant recovery plans	Appendix F – *Terrestrial Ecology Report*
■ Measures to rehabilitate disturbed areas, which incorporate provision of nest hollows and ground litter, where appropriate	Section 9 – Terrestrial Ecology (Subsection 9.7.2) Appendix F – *Terrestrial Ecology Report* (Subsections 6.2.4 and 6.2.5)
Outline how these measures will be implemented in the EMP for the project.	Section 9 Terrestrial Ecology (Subsection 9.7) Section 24 – Environmental Management (Subsection 24.4.3) Appendix F – *Terrestrial Ecology Report* (Section 6)
Discuss feral animal management strategies and practices. Develop strategies to ensure that the project does not contribute to increased encroachment of a feral animal species. Refer to the local government authority's pest management policies and plans and any strategies and plans recommended for the project area by Biosecurity Queensland. Discuss the strategies in accordance with the provisions of the *Land Protection (Pest and Stock Route Management) Act 2002* in the main body of the EIS and in the pest management plan within the EMP for the project.	Section 9 – Terrestrial Ecology (Subsections 9.3.3 and 9.7.2) Section 24 – Environmental Management (Subsection 24.4.3) Appendix F – *Terrestrial Ecology Report* (Subsection 6.3.2)
5.3.4 Aquatic biology and ecology **Description of environmental values** Describe the aquatic flora and fauna present, or likely to be present, in the areas affected by the project. Include:	Section 10 – Aquatic Ecology (Subsection 10.5) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 4)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Fish species, mammals, reptiles, amphibians, crustaceans and aquatic invertebrates occurring in the waterways within the affected area and any associated wetlands (as defined under section 5 of the Fisheries Act)	Section 9 – Terrestrial Ecology (Subsection 9.5.4) Section 10 – Aquatic Ecology (Subsections 10.5.2 and 10.5.3) Appendix F – *Terrestrial Ecology Report* (Subsection 4.6) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 4.3 to 4.5)
■ Any rare or threatened aquatic and marine species	Section 10 – Aquatic Ecology (Subsection 10.5.3) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 4.1.1 and 4.3 to 4.5)
■ Exotic and pest marine organisms	No exotic and pest marine organisms were recorded within the project site as outlined in Section 10 – Aquatic Ecology (Subsection 10.5.3) and Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 4.3 to 4.5).
■ A description of the habitat requirements and the sensitivity of aquatic species to changes in flow regime, water levels and water quality in the project areas	Section 10 – Aquatic Ecology (Subsection 10.5) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 4)
■ Aquatic plants, including native, exotic and weed species	Section 10 – Aquatic Ecology (Subsections 10.5.2 and 10.5.3) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 4.3)
■ Aquatic matrices including benthic substrate	Section 10 – Aquatic Ecology (Subsection 10.5) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 4.3)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Habitat downstream of the project or potentially impacted due to currents in associated lacustrine and marine environments	The project site is located 374 km upstream of the coastline at an elevation of 275 to 505 m AHD. The project site is 255 km upstream of the Burdekin Falls Dam and associated lake. Section 13 – Surface Water (Subsection 13.6) and Appendix J – *Open Cut Mine Drainage Report* describe the predicted extents of the project impacts on downstream surface waters, and confirm that these extents are localised to the vicinity of the project site. The project is therefore extremely unlikely to impact currents in downstream lacustrine or marine environments.
■ Stream type, including extent of tidal influence and common levels such as highest astronomical tide and mean high water springs	The project site is located 374 km upstream of the coastline at an elevation of 275 to 505 m AHD. The project site is also 255 km upstream of the Burdekin Falls Dam which has a 37 m high dam wall that would act to prevent any upstream tidal influence. The project is therefore beyond the limits of tidal influence. Section 13 – Surface Water (Subsection 13.2) and Appendix J – *Open Cut Mine Drainage Report* (Subsection 2) describe the catchment and drainage setting.
■ Any other state significant biodiversity values identified in the *Queensland Biodiversity Offset Policy (version 1)* (Department of Environment and Resource Management 2011a) that are not described elsewhere	Section 10 – Aquatic Ecology (Subsections 10.5 and 10.8) Appendix H – *Biodiversity Offset Strategy*
Describe the wetlands identified by the *Queensland Wetland Mapping (version 3)* (Department of Environment and Heritage Protection 2012a), with particular attention given to wetlands identified as being of high ecological significance, and detail their values and importance for aquatic flora and fauna species and hydrological functioning of the wetlands using appropriate methodologies.	Section 10 – Aquatic Ecology (Subsections 10.5.1 and 10.6.3) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 4.2.2)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Conduct a desktop assessment of the potential for stygofauna to occur within the zone of influence of the project, and a pilot study in accordance with the *Guidance for the Assessment of Environmental Factors No. 54a* (Western Australia Environmental Protection Agency 2007), or any more recent publication that supersedes that guideline. If the desktop assessment and pilot study identify potentially significant stygofauna values, provide a description to order or family taxonomic rank of the presence and nature of any stygofauna occurring in groundwater likely to be affected by the project. Sampling and survey methods should follow best practice, such as that published by the *Guidance for the Assessment of Environmental Factors No. 54* (Western Australia Environmental Protection Agency 2003) and No. 54a (2007), *Environmental Assessment Guideline 12 Consideration of subterranean fauna in environmental impact assessment in Western Australia* (Western Australian Environmental Protection Authority 2013) or any more recent publication that supersedes that guideline.	Section 12 – Groundwater (Subsection 12.4.10) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 3.4.2 and 4.8 and Appendix E)
Potential impacts and mitigation measures Discuss the potential impacts of the project on the aquatic species and ecosystems and describe proposed mitigation actions, including: ■ Proposed location, type and design of waterway barrier works (temporary and permanent) that would impact on aquatic resources, particularly fish movement, with an appropriately scaled map	No waterway barrier works are proposed as a component of the project as discussed in Section 10 – Aquatic Ecology (Subsection 10.6.2) and Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 5.1.3). These sections separately discuss potential impacts on fish passage.
■ Proposed stream diversions, causeway construction and crossing facilities, stockpiled material and other impediments that would restrict free movement of aquatic fauna	No stream diversions, causeway construction and crossing facilities, stockpiled material and other impediments are proposed as a component of the project as discussed in Section 10 – Aquatic Ecology (Subsection 10.6.1) and Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 5).
■ Alternatives to waterway crossings where possible	No waterway crossings are proposed as a component of the project as discussed in Section 10 – Aquatic Ecology (Subsection 10.6) and Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 5).
■ Measures to avoid fish spawning periods, such as seasonal construction of waterway crossings and measures to facilitate fish movements through water crossings	Section 10 – Aquatic Ecology (Subsection 10.7.2) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 5.1.4)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Offsets proposed for unavoidable, permanent loss of fisheries habitat	Section 10 – Aquatic Ecology (Subsection 10.8) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 6) Appendix H – *Biodiversity Offset Strategy*
■ Methods to minimise the potential for introducing or spreading weed species or plant disease	Section 10 – Aquatic Ecology (Subsection 10.7.3) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 5.4)
■ Monitoring aquatic biology health, productivity and biodiversity in areas subject to direct discharge	Section 10 – Aquatic Ecology (Subsection 10.6.4) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 5.3)
■ Potential impacts from climate change and the project's potential to increase the susceptibility of aquatic ecological communities and species	Due to the limited aquatic habitat within the project site (i.e. highly ephemeral drainage lines, seasonal wetlands and artificial farm dams) and lack of threatened aquatic flora and fauna species recorded or predicted to occur within the project site, is not expected that the reduction of habitat as a result of the project would significantly exacerbate the effects of climate change in the locality.
Address any actions of the project or likely impacts that require an authority under the relevant legislation, including the NC Act and/or the Fisheries Act. Outline how these methods, measures and monitoring will be implemented in the overall EMP for the project.	The Greentape Reduction Act removes the requirement for an EM plan. Approvals are discussed in Section 2 – Regulatory Framework, Section 9 – Terrestrial Ecology (Subsection 9.3), Section 10 – Aquatic Ecology (Subsection 10.3), Appendix F – *Terrestrial Ecology Report* (Subsection 2) and Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 2).

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
5.4 Water resources **5.4.1 Description of environmental values** Describe the existing environmental values of water that may be affected by the project. Environmental values should be defined according to: ■ The EP Act ■ *Environmental Protection (Water) Policy 2009* (EPP (Water)) ■ *State Planning Policy – state interest guideline Water quality* (Department of State Development, Infrastructure and Planning 2014) ■ The *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZECC & ARMCANZ 2000) ■ The *Queensland Water Quality Guidelines* (Department of Environment and Heritage Protection 2013) ■ Groundwater-dependent ecosystems as referred to in Australian groundwater-dependent ecosystem toolbox part 1: assessment framework, Waterlines report (Richardson et al. 2011)	Section 9 – Terrestrial Ecology (Subsection 9.5.5) Section 10 – Aquatic Ecology (Subsection 10.5.1) Section 12 – Groundwater (Subsection 12.3) Section 13 – Surface Water (Subsection 13.2) Appendix F – *Terrestrial Ecology Report* (Subsection 4.4) Appendix I – *Groundwater Report* (Subsection 2.2)
Make reference to *Wetland Maps* and any available Aquatic Conservation Assessments produced by the Queensland Government or any bioregional assessments produced by the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC), which assess the potential risks to water resources in the area as a result of the direct and indirect impacts of coal seam gas development or large coal mining development. The definition of waters in the EPP (Water) includes the bed and banks of waters, so this section should address benthic sediments as well as the water column.	Section 10 – Aquatic Ecology (Subsection 10.3.4) Section 11 – Matters of National Environmental Significance (Subsection 11.3) Appendix F – *Terrestrial Ecology Report* (Subsections 2.9 and 4.1) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 2.6 and 4.1) No bioregional assessment are available for the project site.
Surface water quantity Describe and illustrate the existing surface drainage patterns, overland flows, and palustrine and lacustrine wetlands. The description must include suitably scaled maps of catchments, watercourses, drainage pathways, wetlands, or sources of water supply (such as farm dams) potentially affected by the project, whether on or off the project site.	Section 10 – Aquatic Ecology (Subsections 10.6.2 and 10.6.3 and Figures 10-2, 10-4 and 10-5) Section 13 – Surface Water (Subsection 13.2 and Figures 13-1 to 13-3) Appendix J – *Open Cut Mine Drainage Report* (Subsections 2 and 6)
Describe, with supporting photographs, the geomorphic condition of any watercourses likely to be affected by disturbance or stream diversion. The results of this description would form the basis for the planning and subsequent monitoring of rehabilitation of the watercourses during or after the operation of the project.	Section 13 – Surface Water (Subsection 13.2.2 and 13.6.3) Appendix J – *Open Cut Mine Drainage Report* (Subsections 2 and 6)
Describe the hydrology of watercourses and overland flow in the project area and any downstream locations potentially affected by the project.	Section 13 – Surface Water (Subsection 13.2) Appendix J – *Open Cut Mine Drainage Report* (Subsections 2, 5 and 6)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Provide details of the likelihood of flooding (using information on the history of flooding) including extent, levels and frequency of floods in and around the project site.	Section 13 – Surface Water (Subsection 13.6) Appendix J – *Open Cut Mine Drainage Report* (Subsections 6 and 8 and Appendix A)
Flood studies must include a range of annual exceedence probabilities for potentially affected waterways, based on observed data if available or use appropriate modelling techniques and conservative assumptions if there are no suitable observations. The flood modelling assessment must include local flooding due to short duration events from contributing catchments on-site, as well as larger scale regional flooding including waterways downstream.	Section 13 – Surface Water (Subsection 13.6) Appendix J – *Open Cut Mine Drainage Report* (Subsections 4, 5 and 6)
Describe present and potential users and uses of water in areas potentially affected by the project, including municipal, agricultural, industrial and recreational uses of water.	Section 12 – Groundwater (Subsection 12.3) Section 13 – Surface Water (Subsection 13.2.3) Appendix I – *Groundwater Report* (Subsection 6.4)
Describe the quality of surface waters in the area potentially affected by the project with an outline of the significance of these waters to the river catchment system in which they occur. The description should be based on a monitoring program, with sampling stations located upstream at background reference sites (sites that are currently not impacted and are likely not to be impacted by this or similar activities) and downstream of the project.	Section 13 – Surface Water (Subsection 13.2.4)
Identify and reference existing data obtained from other monitoring programs. Monitoring should include sites closest to the proposed release points and at downstream locations that would be below any mixing zone. Sites should include permanent and semi-permanent water holes, known aquatic habitat, weirs or reservoirs.	Section 10 – Aquatic Ecology (Subsection 10.5 and Figure 10-1) Section 13 – Surface Water (Subsection 13.2.4)
Available complementary stream-flow data should be obtained from historical records from the current stream gauging station network to assist interpretation. Where data exist, describe the flow regime for the receiving environment using plots of flow (cumecs) versus flow duration (per cent) to identify the flow duration of event high-flow, base-flow and no-flow periods to characterise the receiving environment.	Section 13 – Surface Water (Subsection 13.2) Appendix J – *Open Cut Mine Drainage Report* (Subsections 5)
Describe seasonal variations in water quality and variations with flow. Estimate the event flow trigger for environmentally significant analytes in each receiving waterway based on this observed variation (plot flow against environmentally significant analytes). The event flow trigger is the flow at which environmentally significant analytes increase and begin to exceed the applicable high flow water quality objective. The event flow trigger can also be any flow above this point. This data should be used to determine the appropriate conditions for the release of mine-affected water into the receiving environment.	Section 13 – Surface Water (Subsection 13.2.4)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Measure a range of physical, chemical and biological parameters relevant to the potential environmental harm on any affected creek or wetland system. This would include, but not necessarily be limited to, water quality indicators likely to be affected by the project such as electrical conductivity, total and dissolved metals, turbidity, suspended sediments and pH. Biological indicators should include macro-invertebrate surveys undertaken at appropriate locations according to best practice methods.	Section 10 – Aquatic Ecology (Subsection 10.5) Section 13 – Surface Water (Subsection 13.2.4) Appendix G – *Aquatic Ecology Report* (Subsections 3.2.6, 3.2.8, 4.4 and 4.8 and Appendices C and D)
All sampling should be performed in accordance with the *Monitoring and Sampling Manual 2009 Version 2* (Department of Environment and Heritage Protection 2013) or the most current edition.	Noted.
All water quality data should be presented in a suitable format for assessment against relevant water quality objectives or guideline trigger values as described in Schedule 1 of the EPP (Water), the *Queensland Water Quality Guidelines* (Department of Environment and Resource Management 2009) and the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZECC & ARMCANZ 2000).	Section 13 – Surface Water (Subsections13.2.3 and 13.2.4 and Table 13-1)
Physico-chemical stressors and toxicants should at least be presented as 50th percentiles for comparison with guideline values, together with data ranges and the limit of reporting. 20th and/or 80th percentile (or 75th percentile for salinity) data may be required where water quality data is used to derive locally-relevant (sub-regional) water quality guidelines. Provide relevant metadata that would facilitate an assessment of the quality of this data set, including number of samples, timing and frequency of sampling and any quality assurance and quality control undertaken (for example, replicates, blanks and calibration).	Section 13 – Surface Water (Subsection 13.2.4) Appendix G – *Aquatic Ecology Report* (Subsection 4.6)
Clearly and consistently distinguish between this monitoring program for the baseline condition assessment from any monitoring programs required for future compliance assessment or as a component of the receiving environment monitoring program (described in Section 5.4.2). Provide detailed mapping to illustrate the locations of each sampling site within these monitoring programs with respect to release points and gauging stations.	Section 13 – Surface Water (Subsections 13.2.4 and 13.5.6 and Figures 13-1 and 13-2) Section 24 – Environmental Management (Subsection 24.4.3)
Groundwater If the project is likely to use or affect local sources of groundwater, describe groundwater resources in the area in terms of: ■ Geology and stratigraphy	Section 4 – Project Description (Subsection 4.5.3) Section 12 – Groundwater (Subsection 12.3) Appendix I – *Groundwater Report* (Subsections 4 and 7)
■ Aquifer type—such as confined, unconfined	Section 12 – Groundwater (Subsection 12.3) Appendix I – *Groundwater Report* (Subsections 4 and 7)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Depth to and thickness of the aquifers	Section 12 – Groundwater (Subsection 12.3) Appendix I – *Groundwater Report* (Subsections 4 and 7 and Figures 21 to 24)
■ Depth to water level and seasonal changes in levels	Section 12 – Groundwater (Subsection 12.3) Appendix I – *Groundwater Report* (Subsections 6 and 7 and Appendix A)
■ Groundwater flow directions (defined from water level contours)	Section 12 – Groundwater (Subsection 12.3) Appendix I – *Groundwater Report* (Subsections 6 and 7)
■ Groundwater quality	Section 12 – Groundwater (Subsection 12.3) Appendix I – *Groundwater Report* (Subsections 6 and 7 and Appendix A)
■ Interaction with surface water	Section 12 – Groundwater (Subsections 12.3, 12.4.5 and 12.4.6) Appendix I – *Groundwater Report* (Subsections 7 and 8.5)
■ Interaction with saline water	Section 12 – Groundwater (Subsections 12.3 and 12.4) Appendix I – *Groundwater Report* (Subsections 7 and 8)
■ Possible sources of recharge	Section 12 – Groundwater (Subsections 12.3 and 12.4) Appendix I – *Groundwater Report* (Subsections 7 and 8)
■ Potential exposure to pollution	Section 12 – Groundwater (Subsections 12.3 and 12.4.8) Appendix I – *Groundwater Report (*Subsections 7 and 8.7)
■ Current access to groundwater resources in the form of bores, springs and ponds (including quantitative yield of water and locations of access)	Section 12 – Groundwater (Subsections 12.3 and 12.4) Appendix I – *Groundwater Report (*Subsections 7 and 8)
■ Current estimated level of take from each aquifer and analysis of the current aquifer water level conditions (that is, under stress, or not under stress)	Section 12 – Groundwater (Subsections 12.3 and 12.4) Appendix I – *Groundwater Report* (Subsection 8.5.1)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
The groundwater assessment should also be consistent with relevant guidelines for the assessment of acid sulfate soils, including spatial and temporal monitoring, to accurately characterise baseline groundwater characteristics.	Noted.
Review the quality, quantity and significance of groundwater in the project area, together with groundwater use in neighbouring areas.	Section 12 – Groundwater (Subsections 12.3 and 12.4) Appendix I – *Groundwater Report* (Subsections 6.4, 7 and 8)
Refer to relevant legislation or water resource plans for the region.	Section 12 – Groundwater (Subsection 12.4) Appendix I – *Groundwater Report (*Subsections 2.2)
The review should also provide an assessment of the potential take of water from the aquifer and how current users and the aquifer itself and any connected aquifers will be affected by the take of water.	Section 12 – Groundwater (Subsection 12.4) Appendix I – *Groundwater Report* (Subsections 8.5 to 8.7 and Figures 40 and 41)
The review should include a survey of existing groundwater supply facilities (bores, wells, or excavations) to the extent of any environmental harm. The information to be gathered for analysis is to include: ■ Location ■ Pumping parameters ■ Draw down and recharge at normal pumping rates ■ Seasonal variations (if records exist) of groundwater levels	Section 12 – Groundwater (Subsection 12.3) Appendix I – *Groundwater Report* (Subsections 5.3 and 6.4, Figure 11 and Appendix A)
Develop a network of observation points that would satisfactorily monitor groundwater resources both before and after commencement of operations. Describe the role and purpose of the monitoring program and provide justification for existing and proposed monitoring points.	Section 12 – Groundwater (Subsection 12.5) Appendix I – *Groundwater Report* (Subsection 5 and Appendix A)
The data obtained from the groundwater survey should be sufficient to enable specification of the major ionic species present in the groundwater, pH, electrical conductivity and total dissolved solids.	Section 12 – Groundwater (Subsection 12.3) Appendix I – *Groundwater Report* (Subsection 6 and Appendix A)
5.4.2 Potential impacts and mitigation measures Assess the project's potential impacts on water resource environmental values identified in the previous section.	Section 12 – Groundwater (Subsection 12.4) Appendix I – *Groundwater Report* (Subsection 8)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Assess how the proposed project will change both the site and regional water balances. The water balance analysis could include (but not necessarily be limited to) the following information: ■ Usage of the surface water and identified aquifer(s) ■ An assessment of regional water assets ■ Critical dependencies of the identified aquifer(s) and extent of hydrological interconnectivity ■ An understanding of the structural and dynamic ground and surface water systems (including recharge and discharge) ■ An assessment of the quality of information and data for the identified systems	Section 12 – Groundwater (Subsection 12.4) Section 13 – Surface Water (Subsections 13.2 and 13.5) Appendix I – *Groundwater Report* (Subsection 8) Appendix K – *Water Management System Modelling Report* (Subsections 5 and 7)
Detail project elements which will induce changes to the pre-mining surface water/groundwater hydrology, for example, areas of long-wall mining and subsidence, rehabilitated areas, remaining spoil heaps, operational and post-mining voids/lakes, etc.	Section 12 – Groundwater (Subsection 12.4) Appendix I – *Groundwater Report* (Subsection 8 and Appendix B)
Map the areas of proposed long-wall mining in relation to streams and environmental assets and quantify total area of expected subsidence.	Section 6 – Subsidence (Subsection 6.3 and Figure 6-5) Section 10 – Aquatic Ecology (Subsection 10.6.3 and Figure 10-2) Section 13 – Surface Water (Figure 13-8)
Assess and quantify impacts of subsidence and stratigraphic cracking from long-wall mining on groundwater recharge, run-off and streamflow, and potential problems induced by physicochemical changes such as groundwater and streamflow contamination, generation of acid drainage and the potential for induced salinity.	Section 12 – Groundwater (Subsection 12.4) Appendix I – *Groundwater Report* (Subsection 8 and Appendix B)
Quantify the post mine impacts of underground mining with associated subsidence and stratigraphic cracking on catchment run-off and quantify the sediment loss from rehabilitated areas including spoil heaps on stream hydrology and biota	Section 8 – Rehabilitation (Subsections 8.2.1 and 8.2.2) Section 12 – Groundwater (Subsection 12.4) Appendix I – *Groundwater Report* (Subsection 8 and Appendix B)
Map the proposed areas of post-mining voids/lakes and define approximate lake dimensions.	Section 13 – Surface Water (Figure 13-7)
Quantify evaporative losses (and define the methodology for doing so) from voids/lakes and the impact that this will have on the local and regional hydrology.	Section 13 – Surface Water (Subsections 13.5.4 and 13.6.6) Appendix K – *Water Management System Modelling Report* (Subsections 4 and 7)
Identify the aquifer(s) depleted by evaporative losses, expected salinity build-up in the lakes and the potential migration of the resultant saline plume into the regional groundwater flow regime.	Section 12 – Groundwater (Subsection 12.4) Appendix I – *Groundwater Report* (Subsection 8 and Appendix B)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Identify and map post-mine rehabilitated areas and asses the ongoing impact these will have on the regional surface water and groundwater hydrology.	Section 12 – Groundwater (Subsection 12.4) Section 13 – Surface Water (Subsection 13.6 and Figure 13-7) Appendix I – *Groundwater Report* (Subsection 8)
For all phases of the project (including construction, operation and remediation phases): ■ Assess the project's potential impacts on water resource environmental values identified in the previous section	Section 12 – Groundwater (Subsection 12.4) Section 13 – Surface Water (Subsection 13.6) Appendix I – *Groundwater Report* (Subsection 8) Appendix J – *Open Cut Mine Drainage Report* (Subsections 8 to 10)
■ Define and describe the objectives and practical measures for protecting or enhancing water resource environmental values	Section 12 – Groundwater (Subsections 12.4 and 12.5) Section 13 – Surface Water (Subsections 13.5 and 13.6) Section 24 – Environmental Management (Subsections 24.4.4 and 24.4.5) Appendix B – *Draft Subsidence Management Plan* (Subsections 5.1, 5.2 and 5.4) Appendix I – *Groundwater Report* (Subsections 8 and 9) Appendix J – *Open Cut Mine Drainage Report* (Subsections 8 to 10)
■ Describe how nominated quantitative standards and indicators may be achieved, and how the achievement of objectives will be monitored, audited and managed	Section 12 – Groundwater (Subsections 12.4 and 12.5) Section 13 – Surface Water (Subsections 13.5 and 13.6) Section 24 – Environmental Management (Subsections 24.4.4 and 24.4.5) Appendix B – *Draft Subsidence Management Plan* (Subsections 5.1, 5.2 and 5.4) Appendix I – *Groundwater Report* (Subsections 8 and 9) Appendix J – *Open Cut Mine Drainage Report* (Subsections 8 to 10)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Quantify the impacts of mining on the local and regional hydrology	Section 12 – Groundwater (Subsection 12.4.11) Section 13 – Surface Water (Subsections 13.5 and 13.6) Appendix I – *Groundwater Report* (Subsection 8) Appendix J – *Open Cut Mine Drainage Report* (Subsections 8 to 10)
■ Assess the potential cumulative impacts of this project with the known developments in the Galilee Basin region, including potential impacts on: – surface and groundwater quality – surface and groundwater hydrology.	Section 12 – Groundwater (Subsection 12.4.11) Section 13 – Surface Water (Subsections 13.5 and 13.6) Appendix I – *Groundwater Report* (Subsection 8.6)
Assess the potential cumulative impacts of this project with the existing or planned known developments in the Galilee Basin region. Cumulative impacts to water resource quantity must be assessed in accordance with the practices and procedures set out in the Water Accounting Framework for the Minerals Industry (Minerals Council of Australia 2014)—refer to: www.minerals.org.au/focus/sustainable_development/water_accounting	Section 12 – Groundwater (Subsection 12.4) Section 13 – Surface Water (Subsections 13.5 and 13.6) Appendix I – *Groundwater Report* (Subsection 8.6)
Describe and illustrate with maps, plans and cross-sections any proposal to divert creeks or undertake other in-stream works. Assess the potential impacts of in-stream works on hydrology and water quality, and propose measures for avoiding or mitigating the impacts and stabilising and rehabilitating any works.	Section 13 – Surface Water (Subsection 13.4) Appendix J – *Open Cut Mine Drainage Report*
Assess the hydrological impacts of the project on surface water and water courses including for consistency with the outcomes and objectives of the *Water Resource (Burdekin Basin) Plan 2007* and *Water Resource (Cooper Creek) Plan 2011*. The assessment will have particular regard to stream diversions, scouring and erosion, and changes to flooding levels and frequency of flooding, both upstream and downstream of the project. If flooding levels will be affected, modelling of afflux should be provided and illustrated with maps.	Section 2 – Regulatory Framework (Table 2-2 and Attachment 2-1) Section 13 – Surface Water (Subsection 13.6 and Figures 13-10 and 13-11) Appendix J – *Open Cut Mine Drainage Report*
Describe and illustrate how an operating pit would be protected from flooding, and address the flood protection level of any final void without the need to maintain levees.	Section 13 – Surface Water (Subsections 13.3 and 13.4 and Figures 13-4 to 13-6) Appendix J – *Open Cut Mine Drainage Report*
Describe the options for supplying water to the project, and assess the consequential impacts in relation to any water resource plan and resource operations plan that may apply.	Section 2 – Regulatory Framework (Table 2-2) Section 4 – Project Description (Subsection 4.13.4) Section 13 – Surface Water (Subsection 13.5.5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Water allocation and water sources, including impacts on existing water entitlements, including water harvesting, should be established in consultation with the relevant department.	Noted.
Where a licence or permit would be required under the Water Act to take water or interfere with the flow of water, provide sufficient information and assessment for the administering authority to consider the suitability of approving any necessary works under the Water Act.	Section 2 – Regulatory Framework (Table 2-2) Section 13 – Surface Water (Subsection 13.5.5)
Similarly, provide sufficient assessment to consider any approval for waterway barrier works under the Fisheries Act.	Section 2 – Regulatory Framework (Attachment 2-1) Section 10 – Aquatic Ecology (Subsection 10.3.3)
Discuss the need or otherwise for licensing of any dams under the Water Act and referable dams under the WSSR Act.	Section 2 – Regulatory Framework (Attachment 2-1) Section 13 – Surface Water (Subsections 13.4.1 and 13.5.3)
Detail the proposed capacities of water storages and indicate whether they would capture clean water (including overland flow) or would hold mine affected water to comply with an environmental authority.	Section 13 – Surface Water (Subsections 13.3 to 13.5)
Describe any approvals and water allocations the project may need under the Water Act for water supply, stream diversions and storage. Requirements relating to the Referable Dam provisions of the WSSR Act, and those associated with attaining approval under the *Sustainable Planning Regulation 2009* need to be considered.	Section 2 – Regulatory Framework (Table 2-2 and Attachment 2-1)
Describe in detail the proposed water management controls, addressing surface and ground water quality and quantity, drainage patterns (including the separation of natural and mine affected run-off) and sediment movements and quantity. Detail the water management infrastructure including, but not necessarily limited to, water storages, sedimentation dams, water treatment plants, levees, drains, diversions, containment channels, bunding, monitoring points, release points and any interconnections between these and the receiving environment using flow diagrams.	Section 4 – Project Description (Subsection 4.8) Section 13 – Surface Water (Subsections 13.3 to 13.5)
Model the proposed water retention and diversion measures for specific rain events.	Section 13 – Surface Water (Subsection 13.5) Appendix K – *Water Management System Modelling Report*
Describe and illustrate any proposed diversions of watercourses, including any staging and whether the diversions are proposed to be temporary or permanent. Base the design of any diversions on the geomorphic condition of the original watercourses and demonstrate consideration of, and accordance with, best practice guidelines and reports, such as those produced by DEHP and the Australian Coal Association Research Program for mines in the Bowen Basin.	The project catchment and drainage setting is described in Section 13 – Surface Water (Subsection 13.2). The proposed project drainage arrangements are described in Section 13 – Surface Water (Subsections 13.3 and 13.4) and Appendix J – *Open Cut Mine Drainage Report*.

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Describe and illustrate: the locations, catchments, footprints, cross-sections and method of construction of any dams on the site, their flood immunity, the quality of water or waste water they would contain, and indicate their hazard category.	Section 13 – Surface Water (Subsections 13.3 to 13.5 and 13.6.5)
Provide the design storage allowances for sediment dams and process or waste water dams, and demonstrate that the design has been produced by a suitably qualified and experienced engineer using current best practice. Propose measures to manage sediment dams and process or waste water dams and their discharge, and to decommission and rehabilitate the dams when their use ends.	Section 8 – Rehabilitation (Subsection 8.5.3) Section 13 – Surface Water (Subsections 13.3 to 13.5 and 13.6.5) Appendix K – *Water Management System Modelling Report*
Assess the potential impacts on local and downstream water quality and environmental values due to any controlled and uncontrolled release of mine affected water from the site.	Section 13 – Surface Water (Subsections 13.5 and 13.6.5)
Describe the proposed quality, quantities and locations of waste water discharges.	Section 13 – Surface Water (Subsections 13.3 to 13.5 and 13.6.5) Appendix K – *Water Management System Modelling Report*
Include tables with the latitude and longitude (GDA94) for all release points, sampling sites and gauging stations relevant to monitoring programs. Use stream flow data, receiving environment monitoring data (background water quality condition assessment), and proposed release limits and rates to estimate in-stream dilution and water quality at different points downstream of the proposed release.	Section 13 – Surface Water (Subsections 13.3 to 13.5 and 13.6.5)
If sensitive receptors such as, drinking water storages or aquatic ecosystems of high ecological value are located downstream, these should be identified and the assessment should extend at least to that point downstream. Consider periods of low-flow, medium-flow and high-flow in this assessment. Compare the predicted contaminant levels to the water quality objectives and provide an assessment of the assimilative capacity of the receiving waters.	Section 13 – Surface Water (Subsections 13.3 to 13.5 and 13.6.5)
Assess the acute and chronic potential impacts of the release of mine affected waters (or other discharges) including the cumulative impacts to water quality and environmental values of the receiving environment due to discharges from other projects or industry.	Section 13 – Surface Water (Subsections 13.5 and 13.6.5)
Describe any proposed no-release water systems, assess the management and fate of contaminants in the systems, the risk of environmental harm due to a temporal decline in water quality, and propose mitigation measures for any potential impacts	Section 12 – Groundwater (Subsection 12.4) Appendix I – *Groundwater Report* (Subsection 8 and Appendix B)
Describe and assess proposed measures to manage any leachate or seepage from tailings and fly-ash storages, either during operations or following decommissioning of the mine and its rehabilitation. Describe monitoring programs that would assess the effectiveness of management strategies for protecting water quality during the construction, operation and decommissioning of the project.	Section 7 – Tailings and Power Station Waste Storage Facilities (Subsection 7.3.5) Section 13 – Surface Water (Subsections 13.3.3, 13.4 and 13.5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Conduct a risk assessment, based on conservative water quality estimates and hydrology, for uncontrolled emissions to water due to system or catastrophic failure, assess the potential impacts of such emissions on human health and natural ecosystems, and provide detailed measures to avoid or minimise impacts.	Section 13 – Surface Water (Subsections 13.3, 13.5 and 13.6)
Assess the potential impacts on local groundwater resources and quality, and define the extent of the area where groundwater resources are likely to be affected by the proposed operations. Assess the potential impacts of the operations on groundwater draw-down, depletion or recharge, and propose management options to monitor and mitigate these effects.	Section 12 – Groundwater (Subsections 12.4 and 12.5) Appendix I – *Groundwater Report* (Subsections 8 and 9 and Appendix B)
Describe the response of the groundwater resource to the progression and finally cessation of the proposal, including the impacts of groundwater inflow to any residual void.	Section 12 – Groundwater (Subsection 12.4) Section 13 – Surface Water (Subsection 13.6) Appendix I – *Groundwater Report* (Subsection 8.4 and Appendix B)
Assess the impact of the project on the local groundwater regime caused by the altered porosity and permeability of any land disturbance (for example, subsidence).	Section 12 – Groundwater (Subsection 12.4) Appendix I – *Groundwater Report* (Subsections 8.2 and 8.3 and Appendix B)
Assess and describe any potential for the project to impact on groundwater-dependent ecosystems, including their flora and fauna. Describe avoidance and mitigation measures.	Section 9 – Terrestrial Ecology (Subsection 9.5.5) Appendix F – *Terrestrial Ecology Report* (Subsection 4.4)
Propose measures to avoid, mitigate and remediate any impacts on groundwater resources or quality.	Section 12 – Groundwater (Subsection 12.5) Appendix I – *Groundwater Report* (Subsection 9)
5.5 Forestry products and quarry materials If any timber resources or quarry material are to be taken, disturbed or used for purposes other than mining within the boundaries of the mining lease, or outside of the mining lease area (MLA) as part of the project, provide information on the following:	Section 5 – Land Use (Subsection 5.6)
■ The location and quantity of all forest products and quarry material extractive resources, that are on State land administered under the *Forestry Act 1959*, that may be affected or sterilised from future use by the location and/or operation of the project	As described in Section 2 – Regulatory Framework (Attachment 2-1), consultation will be undertaken with the DAF prior to the commencement of construction to confirm whether there are any forest products or quarry materials authorised under the Forestry Act on the project site.

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ The location and quantity of all forest products and quarry material extractive resources, that are on State land administered under the Forestry Act, the project may take, destroy, access, sample, quarry or remove during the life of the project.	As described in Section 2 – Regulatory Framework (Attachment 2-1), consultation will be undertaken with the DAF prior to the commencement of construction to confirm whether there are any forest products or quarry materials authorised under the Forestry Act on the project site.
■ The identification of the sources of quarry materials both on and off the mining lease for each component of the project	The source of quarry materials for the project will be determined during the detailed design and construction planning phases of the project. The proponent would preferentially seek to use suitable materials sourced from the project site.
■ Details of any use of quarry material either outside the MLA or not consistent with the mining operation	The source of quarry materials for the project will be determined during the detailed design and construction planning phases of the project. The proponent would preferentially seek to use suitable materials sourced from the project site.
■ Existing approval arrangements where forestry and quarry materials are in the project area.	The source of quarry materials for the project will be determined during the detailed design and construction planning phases of the project. The proponent would preferentially seek to use suitable materials sourced from the project site. If required, approval to extract quarry materials would be obtained prior to construction, in consultation with DAF.
5.6 Air quality **5.6.1 Description of environmental values** Describe the existing air quality that may be affected by the project in the context of environmental values as defined by the EP Act and *Environmental Protection (Air) Policy 2008* (EPP (Air)).	Section 15 – Air Quality (Subsections 15.4 and 15.6) Appendix L – *Air Quality Report* (Subsections 2.1 and 4.4)
Discuss the existing local and regional air shed environment, including: ■ Background levels and sources of particulates, gaseous and odorous compounds and any major constituent	Section 15 – Air Quality (Subsection 15.6) Appendix L – *Air Quality Report* (Subsection 4.4)
■ Pollutants (including greenhouse gases)	Section 15 – Air Quality (Subsection 15.6) Appendix L – *Air Quality Report* (Subsection 4.4)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Baseline monitoring results, sensitive receptors	Section 15 – Air Quality (Subsections 15.2 and 15.6) Appendix L – *Air Quality Report* (Subsections 4.3 and 4.4)
Data on local meteorology and ambient levels of pollutants should be gathered to provide a baseline for later studies or for the modelling of air quality environmental harms.	Section 15 – Air Quality (Subsections 15.4 and 15.6) Appendix L – *Air Quality Report*
Parameters should include air temperature, wind speed and direction, atmospheric stability, mixing depth and other parameters necessary for input to the models.	Section 15 – Air Quality (Subsections 15.4 and 15.6) Appendix L – *Air Quality Report* (Subsection 4.1and Appendix A)
5.6.2. Potential impacts and mitigation measures For air quality issues and their mitigation: ■ Include an inventory of air emissions from the project expected during construction and operational activities (including source, nature and levels of emissions)	Section 15 – Air Quality (Subsection 15.8) Appendix L – *Air Quality Report* (Subsection 5)
■ Accurately describe the activities carried out on the site, including a process flow diagram clearly showing all unit operations to be carried out on the premises, and a detailed discussion of all unit operations	Section 4 – Project Description (Subsections 4.8 to 4.13 and Figure 4-27) Section 15 – Air Quality (Subsections 15.2 and 15.3)
■ Outline the chemical properties of the 'coal washery rejects' to be burnt in the on-site power station	Section 15 – Air Quality (Subsections 15.3, 15.8 and 15.9.1) Appendix L – *Air Quality Report* (Subsection 5.3)
■ Describe all pollution control equipment and pollution control techniques employed on the premises and the features of the project designed to suppress or minimise emissions, including dusts	Section 15 – Air Quality (Subsections 15.7.1 and 15.8.12) Appendix L – *Air Quality Report* (Subsection 8)
■ Describe the back-up measures that will act in the event of primary measures failing, to minimise the likelihood of upsets and adverse air impacts	Section 15 – Air Quality (Subsection 15.8.12)
■ Provide an air emission inventory of the project site for all potential point, area and volume sources including fugitive emissions of dusts and a complete list of emissions to the atmosphere including SOx, NOx, CO_2, particulates, PM_{10} and $PM_{2.5}$	Appendix L – *Air Quality Report* (Subsections 5.2.2 and 5.3.2)
■ Identify all expected emissions of hazardous air pollutants and their emissions from known and fugitive sources	Section 15 – Air Quality (Subsection 15.7) Appendix L – *Air Quality Report* (Subsection 5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Estimate emission rates, based on actual measurements of samples taken from similar facilities—either full-scale facilities operating elsewhere, or experimental or demonstration-scale facilities. Where this is not possible, use published emission factors and/or data supplied by manufacturers of process and control equipment	Appendix L – *Air Quality Report* (Subsection 5 and Appendix C)
■ Using relevant inputs of emissions and local meteorology as input to an air dispersion model, estimate the likely impacts on the surrounding environment. (the model inputs should be as detailed as possible, reflecting any variation of emissions with time and including at least a full year of representative hourly meteorological data.)	Section 15 – Air Quality (Subsection 15.8) Appendix L – *Air Quality Report* (Subsections 6 and 7)
■ Estimate maximum ground level concentration and monthly average dust deposition values at the nearest sensitive receptor(s)	Section 15 – Air Quality (Subsection 15.8) Appendix L – *Air Quality Report* (Subsections 6.4 and 7)
■ Present the results of the dispersion modelling as concentration contour plots and concentrations at the discrete sensitive receptors.	Section 15 – Air Quality (Subsection 15.8 and Figures 15-2 to 15-6) Appendix L – *Air Quality Report* (Subsections 6 and 7 and Plate 1 to 12)
■ Predicted ground level concentration should be made for both normal and expected maximum emission conditions and the worst case meteorological conditions should be identified and modelled where necessary	As is normal practice for air quality assessments, air quality modelling is conducted on a complete 12 month meteorological dataset. This dataset covers the full range of seasonal variation in meteorology, including the worst case conditions over a 12 month period. This approach is well accepted by the EHP and other regulators. It is not accepted practice to model worst case meteorological conditions in isolation, as suggested in the TOR.
■ Describe the background ambient air concentration from the existing sources in the airshed and evaluate the cumulative impact on the receiving environment (address both acute and cumulative impacts by considering the project in conjunction with existing and known future emission sources within the region)	Section 15 – Air Quality (Subsections 15.6 and 15.8.11) Appendix L – *Air Quality Report* (Subsections 4 and 7)
■ Provide an averaging period for ground level concentrations of pollutants that are modelled, consistent with the relevant averaging periods for air quality indicators and goals in the EPP (Air) and the *National Environment Protection (Ambient Air Quality) Measure 2003* (National Environmental Protection Council 2003). For example, the modelling of PM_{10} must be conducted for 1 hour, 24 hours and annual averaging periods	Section 15 – Air Quality (Subsection 15.4) Appendix L – *Air Quality Report* (Subsection 6)
■ Identify the worst case meteorological conditions based on the modelled ground level predictions and, using this information, develop dust mitigation measures for the mining activities and describe the dust management plan that will be employed to mitigate adverse air impacts under the worst meteorological conditions	Section 15 – Air Quality (Subsection 15.8.12) Appendix L – *Air Quality Report* (Subsection 8)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Discuss the limitations and accuracy of the applied atmospheric dispersion models and the implications of this for the air quality modelling results	Section 15 – Air Quality (Subsection 15.7.2) Appendix L – *Air Quality Report* (Subsection 3.4)
■ Where there is no single atmospheric dispersion model that can handle the different atmospheric dispersion characteristics exhibited in the proposal area (for example, strong convection, terrain features, temperature inversions and pollutant re circulation), a combination of acceptable models should be applied	Section 15 – Air Quality (Subsection 15.7.2)
■ Identify 'worst case' emissions that may occur during operation. If these emissions are significantly higher than those for normal operations, it will be necessary to separately evaluate the worst-case impact as a separate exercise to determine whether the planned buffer distance between the facility and neighbouring sensitive receptors will be adequate	Section 15 – Air Quality (Subsections 15.7.2 and 15.8) Appendix L – *Air Quality Report* (Subsections 6 and 7)
■ Ground level predictions should be made at any sensitive receptor including proposed accommodation camps and any residential, industrial, agricultural, commercial and community developments believed to be sensitive to the effects of predicted emissions	Section 15 – Air Quality (Subsection 15.2) Appendix L – *Air Quality Report* (Subsection 4.3)
■ Discuss dust and odour generation from construction activities, especially in areas where construction activities are adjacent to existing road networks or are in close proximity to sensitive receivers	Section 15 – Air Quality (Subsections 15.8.4 and 15.8.9) Appendix L – *Air Quality Report* (Subsections 5.1.1, 6.4, 6.9 and 7)
■ Discuss climatic patterns that could affect dust generation and movement	Section 15 – Air Quality (Subsection 15.5) Appendix L – *Air Quality Report* (Subsection 4.1)
■ Discuss vehicle emissions and dust generation along major haulage routes both internal and external to the project site	Section 15 – Air Quality (Subsections 15.3 and 15.7.1) Appendix L – *Air Quality Report* (Subsection 3.2.3)
■ Assess human health risk associated with emissions from project activities of all hazardous or toxic pollutants	Section 15 – Air Quality (Subsections 15.3 and 15.4) Appendix L – *Air Quality Report* (Subsection 2.1)
■ Discuss impacts of air emissions on terrestrial flora and fauna	Section 9 – Terrestrial ecology (Subsection 9.6.5) Appendix F – *Terrestrial Ecology Report* (Subsection 5.5.4)
Detail the best practice mitigation measures together with proactive and predictive operational and maintenance strategies that could be used to prevent and mitigate impacts.	Section 15 – Air Quality (Subsections 15.8.12 and 15.9.2) Appendix L – *Air Quality Report* (Subsections 8 and 9.5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Discuss potential air quality impacts from emissions, with reference to the *National Environmental Protection (Ambient Air Quality) Measure 2003* (Cwlth) and the EPP (Air). If an emission is not addressed in these legislative instruments, discuss the emission with reference to its risk to human health, including appropriate health based guidelines/standards.	Section 15 – Air Quality (Subsections 15.4 and 15.8) Appendix L – *Air Quality Report* (Subsections 2.1 and 6)
Discuss appropriate coal rail transport-related dust mitigation measures to be implemented at the project. Provide evidence of consultation with Aurizon Holdings Limited (ex QR National) Network Division to determine the likely requirements for new or upgraded coal-loading facilities, load controls and spray-on coal dust suppressant systems as a result of implementing the Aurizon Coal Dust Management Plan.	Section 15 – Air Quality (Subsection 15.8.12)
Outline how these dust mitigation measures and the Coal Dust Management Plan will be implemented in the EMP for the project.	Section 15 – Air Quality (Subsection 15.8.12) Appendix L – *Air Quality Report* (Subsection 8).
5.7 Greenhouse gas emissions **5.7.1 Description of environmental situation** Provide an inventory of projected annual emissions for the life of the mine for each relevant greenhouse gas, with total emissions expressed in 'CO_2 equivalent' terms for the following categories:	Section 15 – Air Quality (Subsection 15.9.1) Appendix L – *Air Quality Report* (Subsection 9)
■ Scope 1 emissions—means direct emissions of greenhouse gases from sources within the boundary of the facility and as a result of the facility's activities (including emission from vegetation clearing)	Section 15 – Air Quality (Subsection 15.9.1) Appendix L – *Air Quality Report* (Subsections 9.1 and 9.4)
■ Scope 2 emissions—means emissions of greenhouse gases from the production of electricity, heat or steam that the facility will consume, but that are physically produced by another facility	Section 15 – Air Quality (Subsection 15.9.1) Appendix L – *Air Quality Report* (Subsection 9.1)
Briefly describe method(s) by which estimates were made.	Section 15 – Air Quality (Subsection 15.9.1) Appendix L – *Air Quality Report* (Subsection 9.2)
Use the *National Greenhouse Accounts (NGA) Factors* (Commonwealth of Australia 2014) as a reference source for emission estimates, supplemented by other sources where practicable and appropriate. As a requirement of the NGA factors, estimates should include the loss of carbon sink capacity of vegetation due to clearing.	Section 15 – Air Quality (Subsection 15.9.1) Appendix L – *Air Quality Report* (Subsection 9.2)
5.7.2 Potential impacts and mitigation measures Discuss the potential for greenhouse gas abatement measures, including: ■ The proposed measures (alternatives and preferred) to avoid and/or minimise direct greenhouse gas emissions, for example, using renewable technologies for project power generation	Section 15 – Air Quality (Subsection 15.9.2) Appendix L – *Air Quality Report* (Subsection 9.5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ How the preferred measures minimise emissions and achieve energy efficiency	Section 15 – Air Quality (Subsection 15.9.2) Appendix L – *Air Quality Report* (Subsection 9.5)
■ Any opportunities to further offset greenhouse gas emissions through indirect means including sequestration and carbon trading	Section 15 – Air Quality (Subsection 15.9.2) Appendix L – *Air Quality Report* (Subsection 9.5)
5.8 Noise and vibration **5.8.1 Description of environmental values** Describe the existing noise and vibration environment that may be affected by the project in the context of the environmental values defined by the *Environmental Protection (Noise) Policy 2008* (EPP (Noise)). Refer to the following documents:	Section 16 – Noise and Vibration (Subsections 16.3 and 16.4) Appendix M – *Noise Report*
■ *Noise Measurement Manual, version 4* (Department of Environment and Heritage Protection 2013)	Appendix M – *Noise Report* (Subsection 1.2)
■ *Application requirements for activities with noise impacts* (Department of Environment and Heritage Protection 2014)	Section 16 – Noise and Vibration (Subsection 16.4)
■ Australian Standard AS 2187.2-2006 *Explosives – Storage, transport and use, Part 2 Use of Explosives* (Standards Australia 2006)	Appendix M – *Noise Report* (Subsection 1.2)
Identify sensitive noise receptors adjacent to all project components and estimate typical background noise and vibration levels based on surveys at representative sites. Discuss the potential sensitivity of such receptors and nominate performance indicators and standards.	Section 16 – Noise and Vibration (Subsection 16.2) Appendix M – *Noise Report* (Subsections 1.2 and 2.1)
If the proposed activity could adversely impact on the noise environment, undertake baseline monitoring at a selection of sensitive receptors potentially affected by the project. Sensitive receptors are defined in the EPP (Noise). Illustrate the locations of sensitive receptors on a suitably-scaled map.	Section 16 – Noise and Vibration (Subsection 16.3 and Figure 16-1) Appendix M – *Noise Report* (Subsections 1.2 and 2.1 and Figure 3)
Describe the results of any baseline monitoring of noise and vibration in the proposed vicinity of the project, including long-term measured background noise levels that take into account seasonal variations.	Appendix M – *Noise Report* (Subsection 2.2, and Tables 2 and 3)
Report the daily variation of background noise levels at nearby sensitive receptors, with particular regard to detailing variations at different periods of the night. Monitoring methods should adhere to accepted best practice methodologies, relevant DEHP guidelines and Australian Standards, and any relevant requirements of the EP Regulation 2008 and the EPP (Noise).	Appendix M – *Noise Report* (Subsection 4)
Describe any current activities near the project area that may cause a background level of ground vibration (for example major roads, quarrying activities, etc.)	Section 16 – Noise and Vibration (Subsection 16.3) Appendix M – *Noise Report* (Subsection 2.2)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Develop and describe suitable indicators for measuring noise, and objectives that would protect the environmental values from significant noise and vibration impacts.	Section 16 – Noise and Vibration (Subsections 16.4 and 16.5)
5.8.2 Potential impacts and mitigation measures Describe the impacts of noise and vibration generated during the pre-construction, construction and operational phases of the project. Noise and vibration impact analysis should include:	Section 16 – Noise and Vibration (Subsection 16.6) Appendix M – *Noise Report* (Subsection 4)
■ The levels of noise and vibration generated, including noise contours, assessed against current typical background levels, using modelling (such as Environmental Noise Model or SoundPLAN) where appropriate	Section 16 – Noise and Vibration (Subsections 16.5 and 16.6) Appendix M – *Noise Report* (Subsection 4 and Figures A1 to A13)
■ Impact of noise, including low frequency noise (noise with components below 200 Hz) and vibration at all potentially sensitive receivers (for example, residences, social and public infrastructure, such as health, recreational and educational facilities, roads) compared with the performance indicators and standards nominated above in Section 5.8.1	Section 16 – Noise and Vibration (Subsection 16.6) Appendix M – *Noise Report* (Subsection 4)
■ Impact on terrestrial and avian fauna	Section 9 – Terrestrial Ecology (Subsection 9.6.5) Appendix F – *Terrestrial Ecology Report* (Subsection 5.5.1)
■ Proposals to minimise or eliminate these effects, including details of any screening, lining, enclosing or bunding of facilities, or timing schedules for construction and operations that would minimise environmental harm and environmental nuisance from noise and vibration	Section 16 – Noise and Vibration (Subsection 16.7)
■ Options for sensitive receptors that are otherwise unable to achieve a satisfactory internal noise level for the preservation of health and wellbeing as identified within the EPP (Noise)	Section 16 – Noise and Vibration (Subsection 16.7) Section 22 – Hazard and Risk (Subsection 22.3.3)
Using a suitable acoustic model, predict the likely generation of noise for different times of day under a range of climatic conditions, including the expected worse case.	Section 16 – Noise and Vibration (Subsections 16.5 and 16.6) Appendix M – *Noise Report* (Subsection 4.1)
Describe the predictions using suitable indicators, and illustrate the predicted noise contours on suitably-scaled maps showing the locations of noise sensitive receptors. Assess the potential impacts of noise and vibration at all potentially sensitive receptors in comparison to the objectives and standards to be achieved	Section 16 – Noise and Vibration (Subsection 16.6) Appendix M – *Noise Report* (Subsection 4 and Figures A1 to A13)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
The assessment of noise impacts should include matters raised in the document *The Health Effects of Environmental Noise – Other Than Hearing Loss* (enHealth Council, 2004 (or later editions)).	Not relevant. There are no receivers where project noise is predicted to exceed the Noise EPP. Section 22 - Hazard and Risk (Subsection 22.3.3) discusses the health and wellbeing of workers in the accommodation village.
Assess the potential environmental impacts of noise and vibration on terrestrial and marine animals and birds, including migratory species. Also assess the potential impacts of noise and vibration on any relevant matters of national environmental significance. This information should be provided in the separate chapter or report for matters of national environmental significance.	Section 11 – Matters of National Environmental Significance (Subsection 11.7.5)
Assess potential noise impacts on any nearby protected areas addressing amenity as well as impacts on animals. Provide information on blasting that might cause ground vibration or fly rock on, or adjacent to, the site with particular attention given to places of work, residence, recreation, worship and general amenity. Discuss the magnitude, duration and frequency of any vibration and assess the potential impacts on sensitive receptors.	Section 9 – Terrestrial Ecology (Subsection 9.6.5) Section 16 – Noise and Vibration (Subsections 16.4.6 and 16.6.8) Appendix F – *Terrestrial Ecology Report* (Subsection 5.5.1) Appendix M – *Noise Report* (Subsections 3.6 and 4.8)
Assess potential off-site noise and vibration impacts that could arise due to increased road or rail transportation directly resulting from the project.	Appendix M – *Noise Report* (Subsections 3 and 4.7)
Define and describe practical measures for protecting or enhancing environmental values from impacts by noise and vibration, including details and illustrations of any screening, lining, enclosing or bunding.	Section 16 – Noise and Vibration (Subsection 16.7)
Provide a discussion of timing schedules for construction and operations with respect to minimising environmental nuisance and harm from noise and vibration.	Section 16 – Noise and Vibration (Subsection 16.6)
5.9 Waste **5.9.1 Waste generation** Identify and describe all sources, likely volumes and quality (where applicable) of waste associated with pre-construction, construction, operation and decommissioning of all aspects of the project. Refer to regulated waste listed in Schedule 7 of the *Environmental Protection Regulation 2008* (Qld). Describe:	Section 21 – Non-Mining Waste Management (Subsection 21.2.7 and Table 21-1)
■ Waste generated by delivery of material to site(s)	Section 21 – Non-Mining Waste Management (Subsection 21.2.7 and Table 21-1)
■ All chemical and mechanical processes conducted on the construction sites that produce waste	Section 21 – Non-Mining Waste Management (Subsection 21.2.7 and Table 21-1)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ The amount and characteristics of solid and liquid waste produced on-site by the project	Section 21 – Non-Mining Waste Management (Subsection 21.2.7 and Table 21-1)
■ Hazardous materials to be stored and/or used on-site, including environmental toxicity data and biodegradability	Section 21 – Non-Mining Waste Management (Subsection 21.2.7 and Table 21-1) Section 22 – Hazard and Risk (Subsection 22.6 and Table 22-3)
5.9.2 Waste management Provide details of waste management strategies (including reduction, re-use, recycling, storage, transport and disposal of waste). Demonstrate that waste minimisation and cleaner production techniques and designs will be implemented to prevent or minimise environmental impacts when selecting processes, equipment and facilities.	Section 21 – Non-Mining Waste Management (Subsections 21.2.5 and 21.2.6 and Table 21-1)
Provide information on the variability, composition and generation rates of all waste produced at the site and processing plant.	Section 21 – Non-Mining Waste Management (Table 21-1)
Provide details of cleaner production waste management planning, especially how these concepts will be applied to prevent or minimise environmental impacts at each stage of the proposal.	Section 21 – Non-Mining Waste Management (Subsection 21.2.4)
Discuss measures to improve natural resource use efficiency (for example, energy and water), integrated processing design, any co-generation of power and by-product re-use as shown in a material/energy flow analysis. This information is required to enable the resource management agencies and other stakeholders to assess the efficiency of resource use, and allocation issues.	Section 4 – Project Description (Subsection 4.10) Section 21 – Non-Mining Waste (Subsection 21.2) Appendix K – *Water Management System Modelling Report* (Subsection 2)
■ Air emissions—provide information on air emissions, including particulates, fumes and odours, during the construction and operation stages of the project. Particulate emissions include those that would be produced by any industrial process, or disturbed by wind action on stockpiles and conveyors, or by transportation equipment (for example, trucks, either by entrainment from the load or by passage on unsealed roads). The methods to be employed to mitigate impacts from air emissions should be described in Subsection 5.6.	Appendix L – *Air Quality* (Subsections 5, 6, 7 and 9)
■ Excavated waste—describe and show the location, design and methods for constructing dumps for waste rock and subsoil. Show the location of the dumps on a map relative to topography and other natural features of the area.	Section 4 – Project Description (Subsections 4.6.1 and 4.9 and Figures 4-12 to 4-15) Section 8 – Rehabilitation (Subsection 8.2.1 and Figures 8-2 to 8-5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Tailings—describe the tailings waste produced by preparation and/or processing plants and the proposed methods for its disposal. Describe also the fly-ash waste produced during power generation and proposed methods available for its disposal. Describe alternative options for tailings and fly-ash disposal including the proposed location, site suitability and volume of any tailings and fly-ash storage and/or disposal site(s), including the method of construction. Discuss the options for in-pit disposal of tailings and fly-ash at various stages of mine development. For both tailings and fly-ash describe the:	Section 4 – Project Description (Subsection 4.9, 4.10.1 and 4.16.1) Section 7 – Tailings and Power Station Waste Storage Facilities Appendix C – *Mine Waste Storage Facility Conceptual Design Report*
– approximate quantity of tailings and fly-ash to be produced by the project and its processing plant annually for the life of the mine; also present tailings and fly-ash characterisation information in this section	Section 7 – Tailings and Power Station Waste Storage Facilities (Subsections 7.3 and 7.4.4) Appendix C – *Mine Waste Storage Facilities Conceptual Design Report*
– construction of the tailings storage facility and the fly-ash storage facility with regards to construction material and design; and how the tailings storage facility and fly-ash storage facility complies with relevant codes for the construction of such containment systems	Section 7 – Tailings and Power Station Waste Storage Facilities (Subsection 7.4) Appendix C – *Mine Waste Storage Facilities Conceptual Design Report*
– strategies to monitor and manage seepage into ground and surface waters. Discuss the location of the storage and/or disposal site with regard to adjacent creeks and rivers	Section 7 – Tailings and Power Station Waste Storage Facilities (Subsections 7.4.3 and 7.5)
■ Solid waste disposal—describe the quantity and quality of solid wastes (other than waste rock, subsoil and tailings addressed in other sections) and the proposed methods of their disposal. Show the proposed location, site suitability, dimensions and volume of any landfill, including its method of construction	Section 21 – Non-Mining Waste Management (Subsection 21.2.7 and Table 21-1)
■ Liquid waste—present a description of the origin, quality and quantity of wastewater and any immiscible liquid waste originating from the project other than that addressed in other sections. Pay particular attention to the capacity of wastes to generate acid, and saline or sodic wastewater. A water balance for the proposal and processing plant is required to account for the estimated usage of water	Section 13 – Surface Water (Subsection 13.5) Section 21 – Non-Mining Waste Management (Table 21-1)
The EIS may need to consider the following effects: ■ Groundwater from excavations	Section 12 – Groundwater (Subsection 12.4) Section 13 – Surface Water (Subsections 13.3 and 13.5)
■ Rainfall directly on to disturbed surface areas	Section 13 – Surface Water (Subsection 13.3)
■ Run-off from roads, plant and industrial areas, chemical storage areas	Section 13 – Surface Water (Subsection 13.3)
■ Drainage (that is, run-off plus any seepage or leakage)	Section 13 – Surface Water (Subsections 13.3 to 13.6)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Seepage from other waste storages	Section 7 – Tailings and Power Station Waste Storage Facilities (Subsection 7.4)
■ Water usage for: – process use – dust suppression – domestic purposes	Section 13 – Surface Water (Subsection 13.5.2)
■ Evaporation	Section 13 – Surface Water (Subsections 13.3.1, 13.3.2, 13.5.1 and 13.5.4 and Table 13.2)
■ Domestic sewage treatment—disposal of liquid effluent and sludge	Section 21 – Non-Mining Waste Management (Subsection 21.2.8 and Table 21-1)
■ Water supply treatment plant—disposal of wastes	Section 4 – Project Description (Subsection 4.8.5) Section 13 – Surface Water (Subsection 13.5.2) Section 21 – Non-Mining Waste Management (Subsection 21.2.8 and Table 21-1)
5.10 Transport Present the transport assessment in separate reports for each project affected mode (road, rail, air and sea) as appropriate for each phase of the project. These assessment reports should provide sufficient information to allow an independent assessment of how existing transport infrastructure will be affected by project transport at the local and regional level.	Section 19 – Traffic and Transport Appendix O – *Road Impact Assessment Report*
5.10.1 Existing infrastructure Describe the extent, condition and capacity of the existing transport infrastructure on which the project will depend.	Section 19 – Traffic and Transport (Subsection 19.2.1) Appendix O – *Road Impact Assessment Report* (Subsection 3)
Include maps (at appropriate scales and level of detail) of the existing state-controlled road network identifying the state-controlled road network and other major inventory features (for example bridges along the state-controlled road network) to help establish the context of the site in relation to the network.	Section 19 – Traffic and Transport (Figure 19-1) Appendix O – *Road Impact Assessment Report* (Appendix A)
5.10.2 Transport activities and routes **Freight** Provide a summary of all the freight tasks (inputs and outputs, including wastes) associated with all phases of the project. The summary will be in tabular form (or other suitable format) and include for each freight task:	Section 19 – Traffic and Transport (Subsections 19.2.3 and 19.2.4) Appendix O – *Road Impact Assessment Report* (Subsection 2)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Tonnage/volume	Section 19 – Traffic and Transport (Subsections 19.2.3 and 19.2.4) Appendix O – *Road Impact Assessment Report* (Subsection 2 and Appendix B)
■ Proposed transport methodologies (modes, vehicle types, payloads)	Section 19 – Traffic and Transport (Subsections 19.2.3 and 19.2.4) Appendix O – *Road Impact Assessment Report* (Subsection 2 and Appendix B)
■ Estimates of the number of discrete trips required for each task	Appendix O – *Road Impact Assessment Report* (Appendix C)
■ Origins of inputs and destinations of outputs (including wastes)	Section 19 – Traffic and Transport (Subsections 19.2.3 and 19.2.4) Appendix O – *Road Impact Assessment Report* (Subsection 2)
Cross-reference to the relevant section in the EIS where the task is fully described and/or assessed.	Section 19 – Traffic and Transport
Traffic generation For each mode of transport and each phase of the project, provide traffic generation information on: ■ Existing background traffic including volumes, composition, peak traffic and peak times along the transport routes to and from the project	Section 19 – Traffic and Transport (Subsection 19.2.2) Appendix O – *Road Impact Assessment Report* (Appendix C)
■ Background traffic growth for the transport routes for all stages of the project life	Section 19 – Traffic and Transport (Subsection 19.2.2) Appendix O – *Road Impact Assessment Report* (Subsection 6)
■ The construction of any project-related plant and utilities within or impacting on the jurisdiction of any transport authority	Appendix O – *Road Impact Assessment Report* (Subsections 6, 7, 8 and 9)
■ The stages, timing and duration of each stage/phase and how these impact on the transport-related infrastructure	Section 19 – Traffic and Transport (Subsections 19.2.3 and 19.2.4) Appendix O – *Road Impact Assessment Report* (Subsection 2)
■ Comparison of the traffic situation and road conditions with and without the project	Section 19 – Traffic and Transport (Subsections 19.2.5 to 19.2.10) Appendix O – *Road Impact Assessment Report* (Subsections 6 to 9)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Expected volumes of project inputs and outputs of transported raw materials, plant, construction materials and operational equipment, waste, hazardous goods and finished products for all phases of the project	Section 19 – Traffic and Transport (Subsections 19.2.3 and 19.2.4) Appendix O – *Road Impact Assessment Report* (Subsection 2 and Appendix B)
■ How identified project inputs and outputs will be moved through the local and regional transport network (including number and type of vehicles, mode, volume, composition, trip timing and routes)	Section 19 – Traffic and Transport (Subsections 19.2.3 and 19.2.4) Appendix O – *Road Impact Assessment Report* (Subsection 2 and Appendices B and C)
■ Traffic generated by construction and operational workforce personnel including visitors (volume, composition, timing and routes) and likely accommodation facilities	Section 19 – Traffic and Transport (Subsections 19.2.3 and 19.2.4) Appendix O – *Road Impact Assessment Report* (Subsection 2 and Appendix C)
■ Likely heavy, oversize and indivisible loads (volume, composition, timing and routes) highlighting any vulnerable bridges and structures along proposed routes	Section 19 – Traffic and Transport (Subsections 19.2.3 and 19.2.4)
Provide traffic data in a format similar to ARMIS traffic data (refer Department of Transport and Main Roads) for identifying and comparing with current departmental traffic data to allow cumulative impacts of the project and nearby major development projects to be assessed. Data to be provided includes average annual daily traffic (AADT) total and (separately for each direction of traffic flow and percentage of vehicle by class) light vehicle, heavy vehicle, short vehicle, truck or bus, articulated vehicle and roadtrain in line with the Austroads Vehicle Classes.	Appendix O – *Road Impact Assessment Report* (Subsections 6 to 9 and Appendix E)
Describe: ■ Access locations (existing and proposed) to state-controlled roads	Section 4 – Project Description (Subsection 4.13.3) Appendix O – *Road Impact Assessment Report* (Subsection 2 and Section 7.3)
■ Locations of proposed road-crossing points of existing and proposed rail infrastructure associated with the project	Section 4 – Project Description (Subsection 4.13.2)
5.10.3 Potential impacts and mitigation measures Impact assessment reports should include details of the adopted assessment methodology (for impacts on roads: the road impact assessment report in accordance with the *Guidelines for Assessment of Road Impacts of Development* (Department of Main Roads 2006). Assessment of traffic impacts is to include the transport arrangements for permanent and temporary workforce associated with all phases of the project and the impacts on the road network from the construction phase of the project (for example haulage of construction inputs, etc.).	Section 19 – Traffic and Transport (Subsections 19.2.5 to 19.2.10) Appendix O – *Road Impact Assessment Report*

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Assess project impacts on: ■ Local and state-controlled road networks, including key road and road/rail intersections, at project construction, operation and decommissioning stages. Any impact to level crossings should be assessed using the Australian Level Crossing Assessment Model (ALCAM)	Section 19 – Traffic and Transport (Subsections 19.2.5 to 19.2.8) Appendix O – *Road Impact Assessment Report* (Subsections 6 to 9 and Appendix C)
■ Potential fatigue impacts associated with the movement of staff from major regional centres to the project site and accommodation centres	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 4.5, 6.4.1, 6.4.2 and 7.3.2)
■ Capacity, safety, local amenity, efficiency and condition of transport operations, services and assets from either transport or project operations, including an assessment of pavement life of the road network as a result of the project. Refer, where relevant, to the *Queensland Road Safety Action Plan 2013–2015* (Department of Transport and Main Roads 2013)	Section 19 – Traffic and Transport (Subsections 19.2.5 to 19.2.10) Appendix O – *Road Impact Assessment Report* (Subsections 6 to 9 and Appendices C and E)
■ Possible interruptions to transport operations	Section 19 – Traffic and Transport (Subsection 19.2.3)
■ The natural environment within the jurisdiction of an affected transport authority (for example, road and rail corridors)	The project does not involve an expansion to the existing road network. Section 5 – Land Use, Section 9 – Terrestrial Ecology, Section 11 – Matters of National Environmental Significance and Section 13 – Surface Water, provide information of the natural environment of the project site. Appendix O – *Road Impact Assessment Report*
■ The nature and likelihood of product-spill to both land and marine environments during transport, if relevant	Section 22 – Hazard and Risk (Subsection 22.7 and Table 22-5)
■ Driver fatigue for workers travelling to and from regional centres and key destinations	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 4.5, 6.4.1 and 7.3.1)
■ Any existing or proposed strategies for public passenger transport and active transport and address, where relevant, requirements of Part 2A of the *Transport Planning and Coordination Act 1994*	Section 19 – Traffic and Transport (Subsections 19.2.9 and 19.2.10) Appendix O – *Road Impact Assessment Report* (Subsection 3.4)
■ Access to transport for people with a disability	This is not relevant due to the remote location of the project site.
■ Transport and handling of hazardous substances and dangerous goods	This information is best provided once detailed design and precise project planning has occurred as this is highly dependent on the proposed operations.

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ The cumulative impact of this project adding to the impact of other known proposed or current major projects impacting on the road network	Section 19 – Traffic and Transport (Subsection 19.2.2) Appendix O – *Road Impact Assessment Report* (Subsections 6 to 9)
5.10.4 Infrastructure alterations Detail: ■ Any proposed alterations or new transport-related infrastructure and services required by the project (as distinct from impact mitigation works)	Section 19 – Traffic and Transport (Subsections 19.2.5 to 19.2.10) Appendix O – *Road Impact Assessment Report* (Subsections 6 to 9)
■ Construction of any project-related plant and utilities, within or impacting on the jurisdiction of any transport authority	Appendix O – *Road Impact Assessment Report* (Subsections 6,7,8 and 9)
Include maps (at appropriate scales and level of detail) of the existing state-controlled road network identifying:	Section 19 – Traffic and Transport (Figure 19-1) Appendix O – *Road Impact Assessment Report* (Appendix A)
■ Location of construction activities	Section 4 – Project Description (Figure 4-2) Section 19 – Traffic and Transport (Figure 19-1) Appendix O – *Road Impact Assessment Report* (Appendix A and Figure A1)
■ Existing and proposed access locations to the state-controlled road network (if applicable)	Section 19 – Traffic and Transport (Figure 19-1) Appendix O – *Road Impact Assessment Report* (Appendix A)
■ Construction accommodation camps	Section 4 – Project Description (Figures 4-2 and 4-29) Section 19 – Traffic and Transport (Figure 19-1) Appendix O – *Road Impact Assessment Report* (Appendix A)
■ Detail on the proposed location of project facilities in relation to the state-controlled road network, identifying any facilities which are proposed within and across state controlled road reserves	Section 4 – Project Description (Figure 4-3) Section 19 – Traffic and Transport (Figure 19-1) Appendix O – *Road Impact Assessment Report* (Appendix A)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
5.10.5 Transport impact management strategies Discuss and recommend how identified impacts will be mitigated so as to maintain safety, efficiency and condition of each mode. These mitigation strategies are to be prepared in close consultation with the Queensland Police Service, emergency services and relevant transport authorities (including local government), consider those authorities' works program and forward planning, and be in accordance with the relevant transport authorities' methodologies and design manuals.	Section 19 – Traffic and Transport (Subsections 19.2.5 to 19.2.11) Appendix O – *Road Impact Assessment Report* (Subsections 7 to 9)
Findings of studies and transport infrastructure impact assessments should be an input into preparing a transport management plan.	Section 19 – Traffic and Transport (Subsection 19.2.11)
Road/rail management planning Outline: ■ Procedures for assessing and agreeing on the scope of required mitigation works with road/rail corridor managers (for example, maintenance or upgrades), including any associated works, such as sourcing water and gravel	Section 19 – Traffic and Transport (Subsections 19.2 and 19.3) Appendix O – *Road Impact Assessment Report* (Subsections 7 to 9)
■ Strategies to minimise the effects of project transport on existing and future public road or rail corridors	Section 19 – Traffic and Transport (Subsections 19.2 and 19.3) Appendix O – *Road Impact Assessment Report* (Subsections 7 to 9)
■ Steps to be taken to prevent access from public roads/rail corridors to the project sites	There are no public roads/rail corridors that provide access to the project site.
■ Strategies to maintain safe access to public road/rail reserves to allow road/rail/pipeline maintenance activities	There are no road or rail reserves within the project site.
■ Process for decommissioning any temporary access to road/rail reserves, for example, stockpile sites	There are no such temporary accesses proposed.
Findings of studies and transport infrastructure impact assessments should be an input into preparing a draft road-use management plan. Conditions of approval for transport management impacts should also be detailed in the EMP.	A Road-Use Management Plan will be a TMR approval condition.
Air service management planning Describe the air services and their current capacity serving the region. Estimate the project's requirements for air transport to and from these regions, and the services required to supply these projections. Provide an assessment of the infrastructure needed to support the projected level of air services.	Section 4 – Project Description (Subsection 4.12) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 4.5)
5.11 Indigenous cultural heritage **5.11.1 Cultural heritage management plan** Unless an exemption applies under section 86 of the ACH Act, a Cultural Heritage Management Plan (CHMP) must be prepared in accordance with the requirements of Part 7 of that Act. The gazetted Cultural Heritage Management Plan Guidelines may assist in the development of the CHMP.	Section 20 – Cultural Heritage (Subsections 20.2.1 and 20.2.2)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
During the EIS process, the proponent should initiate a CHMP under the ACH Act and make the EIS Coordinator aware of the progress of the CHMP approval process and of any related issues that should be addressed in the EIS assessment report. An approved CHMP in a form that complies with Part 7 of the ACH Act will ensure that the project meets the Aboriginal cultural heritage duty of care imposed by the ACH Act.	Section 20 – Cultural Heritage (Subsections 20.2.1 and 20.2.2)
If a CHMP has not been approved when the EIS is submitted to the Coordinator-General details of the proposed steps and timeframes for finalising the CHMP must be provided.	Section 20 – Cultural Heritage (Subsection 20.2.2)
5.11.2 Native title Identify areas covered by applications for native title claims or native title determinations, providing boundary descriptions of native title representative body(ies), and whether it is necessary to notify the representative body(ies) or if there is evidence that native title does not exist.	Section 5 – Land Use (Subsection 5.4.5)
Identify the potential for native title rights and interests likely to be impacted upon by the project and the potential for managing those impacts by an Indigenous land use agreement or other native title compliance outcomes.	Section 5 – Land Use (Subsection 5.4.5)
5.12 Non-Indigenous cultural heritage **5.12.1 Description of existing non-Indigenous cultural heritage values** Include a cultural heritage study/survey that describes non-Indigenous cultural heritage sites and places, and their values.	Section 20 – Cultural Heritage (Subsection 20.3) Appendix P – *Non-Indigenous Cultural Heritage Report*
Describe the significance of artefacts, items or places of conservation or non-Indigenous cultural heritage value likely to be affected by the project and their values at a local, regional, state and national level.	Section 20 – Cultural Heritage (Subsection 20.3.6) Appendix P – *Non-Indigenous Cultural Heritage Report* (Subsection 5)
Any such study should be conducted by an appropriately qualified cultural heritage practitioner and should include the following: ■ Review of: – the Australian Heritage Places Inventory – the Queensland Heritage Register and other information regarding places of potential non-Indigenous cultural heritage significance – any local government heritage register – any existing literature relating to the heritage of the affected areas	Section 20 – Cultural Heritage (Subsections 20.3.3 and 20.3.4) Appendix P – *Non-Indigenous Cultural Heritage Report* (Subsection 3.5)
■ Liaison with relevant community groups/organisations (for example, local historical societies) concerning places of non-Indigenous cultural heritage significance located or identified	Section 20 – Cultural Heritage (Subsection 20.3.2) Appendix P – *Non-Indigenous Cultural Heritage Report* (Subsections 4.1 and 4.2)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Locations of culturally and historically significant sites, shown on maps, which could potentially be impacted by the project	Section 20 – Cultural Heritage (Subsection 20.3.6) Appendix P – *Non-Indigenous Cultural Heritage Report* (Subsection 4.3 and Figures 2 and 3)
■ A constraints analysis of the proposed development area to identify and record non Indigenous cultural heritage places	Section 20 – Cultural Heritage (Subsections 20.3.6 and 20.3.7) Appendix P – *Non-Indigenous Cultural Heritage Report* (Subsection 6)
5.12.2 Potential impacts and mitigation measures Provide an assessment of any likely effects on sites of non-Indigenous cultural heritage values.	Section 20 – Cultural Heritage (Subsection 20.3.6) Appendix P – *Non-Indigenous Cultural Heritage Report* (Subsection 6)
Provide strategies to mitigate and manage any negative impacts on non-Indigenous cultural heritage values and enhance any positive impacts.	Section 20 – Cultural Heritage (Subsection 20.3.7) Appendix P – *Non-Indigenous Cultural Heritage Report* (Subsection 7)
As a minimum, investigation, consultation, impact assessment, management and protection strategies should satisfy statutory responsibilities and duties of care.	Section 20 – Cultural Heritage (Subsection 20.3.1) Appendix P – *Non-Indigenous Cultural Heritage Report* (Subsection 2)
6 Social values and management of impacts **6.1 Description of existing social values** Conduct a social impact assessment (SIA) in consultation with the Coordinated Project Delivery Division in the office of the Coordinator-General. Matters to be considered in the SIA are detailed in the following subsections.	Section 18 – Socio-Economic Impact Assessment Appendix N – *Socio-Economic Impact Assessment Report*
6.1.1 Social and cultural area Define the project's social and cultural area of influence, including the local, district, regional and state level as relevant, taking into account the:	Section 18 – Socio-Economic Impact Assessment (Subsection 18.4.1) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 3.3)
■ Potential for social and cultural impacts to occur	Section 18 – Socio-Economic Impact Assessment (Subsection 18.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 6)
■ Location of other relevant proposals or projects	Section 18 – Socio-Economic Impact Assessment (Subsection 18.2.1) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 2.1.2)
■ Location and types of physical and social infrastructure, settlement and land use patterns	Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Social values that might be affected by the project (for example, integrity of social conditions, visual amenity and liveability, social harmony, public health and wellbeing, and sense of community)	Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5)
■ Indigenous social and cultural characteristics such as native title rights and interests, and cultural heritage	Section 3 – Consultation (Subsection 3.3) Section 5 – Land Use (Subsections 5.2.3 and 5.3.3) Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Appendix B)
6.1.2 Community engagement Consistent with national and international good practice, and with regard to local and regional strategies for community engagement, the proponent should undertake a community engagement strategy to engage at the earliest practicable stage with likely affected parties to discuss and explain the project, and to identify and respond to issues and concerns regarding social impacts. The strategy should detail all existing relevant community forums, groups and any proposal to establish additional community engagement.	Section 3 – Consultation (Subsections 3.4 to 3.7 and 3.8.2) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.6)
Provide details of the community engagement processes used to conduct open and transparent dialogue with stakeholders. Such processes should include, but not be limited to, community reference group forums. Include any proposal to establish a common forum with other proponents and/or existing forums in the southern sector of the Galilee Basin.	Section 3 – Consultation (Subsection 3.5)
Include the project's planning and design stages and future operations including affected local and state authorities. Engagement processes should consider social and cultural factors, customs and values, and, where relevant, linkages between environmental, economic, and social impact issues.	Section 3 – Consultation (Subsections 3.3, 3.5 and 3.8) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.6)
Discuss engagement strategies and processes, including how complaint resolution will be addressed, for all stages of the project.	Section 24 – Environmental Management (Subsection 24.3.2) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.6.1)
6.1.3 Social baseline study Undertake a targeted baseline study of the people residing in the project's social and cultural area, to identify the project's social issues, potential adverse and positive social impacts, and strategies and measures developed to address the impacts. The social baseline study should be based on qualitative, quantitative, and participatory methods. It should be supplemented by community engagement processes, and reference relevant data contained in local and state government publications, reports, plans, guidelines and documentation, including regional plans and, where available, community plans.	Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 2.2, 3.4, 4, 5, 6, 7 and Appendix B)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Describe and analyse a range of demographic and social statistics determined relevant to the project's social and cultural area including:	Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 5.2.3 and 5.3.3 and Appendix B)
■ Major population trends and changes occurring irrespective of the project	Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5.2.3, 5.3.3 and Appendix B)
■ Total population (the total enumerated population for the social and cultural area and the full-time equivalent transient population), 18 years and older	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5, 2.3, 3.3 and 5.3.3 and Appendix B - Subsections 2.1.1 and 2.1.2)
■ Estimates of population growth and population forecasts resulting from the proposal	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 5, 6.2 and Appendix B)
■ Family structures	Appendix N – *Socio-Economic Impact Assessment Report* (Appendix B – Subsection 2.1.4)
■ Age and gender distributions	Appendix N – *Socio-Economic Impact Assessment Report* (Appendix B – Subsection 2.1.3)
■ Education, including schooling levels	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5 and Appendix B – Subsection 2.1.5)
■ Health and wellbeing measures	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 5.2.3 and 5.3.3 and Appendix B)
■ Cultural and ethnic characteristics	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection Subsections 5.2.3 and 5.3.3)
■ The Indigenous population including age and gender	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 5.2.3 and 5.3.3 and Appendix B)
■ Income including personal and household	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 5.2.3 and 5.3.3 and Appendix B – Subsection 2.4.4)
■ Labour force by occupation and industry	Appendix N – *Socio-Economic Impact Assessment Report* (Appendix B – Subsections 2.4)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Housing costs—monthly housing repayments (per cent of dwellings in each category) and weekly rent (per cent of dwellings in each category), housing tenure type and landlord type, household and family type	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 5.2.3, 5.3.3 and 6 and Appendix B – Subsections 2.1 and 2.2)
■ Housing availability and affordability: the rental market (size, vacancy rate, seasonal variations, weekly rent by percentage dwellings in each category); the availability and typical costs of housing for purchase, monthly housing repayments by percentage dwellings in each category; and the availability of social housing	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 5.2.3, 5.3.3 and 6 and Appendix B – Subsection 2.2)
■ Disability prevalence	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 5.2.3 and 5.3.3)
■ The social and economic index for areas, index of disadvantage—score and relative ranking	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 5.2.3 and 5.3.3 and Appendix B)
■ Crime, including domestic violence	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5)
■ Any other indicators determined through the community engagement process as relevant	Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5 and Appendix B)
The social baseline study should take account of current social issues such as: ■ The social infrastructure, including community and civic facilities, services and networks—for definition see *South East Queensland Regional Plan 2009–2031* (Department of Infrastructure and Planning 2009)	Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5)
■ Settlement patterns including the names, locations, size, history and cultural aspects of settlement in the social and cultural area	Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5)
■ The identity, values, lifestyles, vitality, characteristics and aspirations of communities in the social and cultural area, including Indigenous communities	Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5)
■ Land use and land ownership patterns including:	Section 5 – Land Use (Subsections 5.3 and 5.4) Section 18 – Socio-Economic Impact Assessment (Subsection 18.5)
– rural properties, farms, croplands and grazing areas including on farm activities near the proposed activities	Section 5 – Land Use (Subsections 5.3 and 5.4)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
– the number of properties directly affected by the project	Section 5 – Land Use (Subsection 5.3.3)
– the number of families directly and indirectly affected by the project including Indigenous traditional owners and their families, property owners, and families of workers either living on the property or workers where the property is their primary employment	Section 5 – Land Use (Subsection 5.3.3)
■ Use of the social and cultural area for forestry, fishing, recreation, business and industry, tourism, aquaculture, and Indigenous cultural use of flora and fauna	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5.2)
Cross-reference this section with Subsection 7.1	Appendix N – *Socio-Economic Impact Assessment Report* (Appendix A - Subsection 2.4)
6.1.4 Workforce profile The SIA should include a profile of the workforce that describes the following: **Workforce demand** The estimated composition of workforce by occupation, project stage and duration (including any planned construction prior to final investment decision) using the template provided at www.training.qld.gov.au	Section 18 – Socio-Economic Impact Assessment (Subsection 18.6) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 4.2)
Supply issues and strategies ■ Analysis of relevant local, state and national workforce profiles and labour supply	Section 18 – Socio-Economic Impact Assessment (Subsections 18.5 and 18.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 5 and 6.3.3 and Appendix D)
■ Strategies and proposed programs for: – recruitment and attraction	Section 18 – Socio-Economic Impact Assessment (Subsection 18.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 6.3.6 and 7.2.1)
– population groups (including Indigenous people, women, secondary school students and unemployed and underemployed)	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 7.2.2, 7.2.3 and 7.2.4)
– unskilled and semi-skilled labour requirements	Section 18 – Socio-Economic Impact Assessment (Subsections 18.6 and 18.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 4.3.2, 4.4.2 and 6.3.5, and Appendix D – Subsection 6.1.4)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
– structured training (apprenticeships, traineeships, graduates)	Section 18 – Socio-Economic Impact Assessment (Subsection 18.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 6.3.6 and 7.2.4)
– analysis of impact on local community workforce	Section 18 – Socio-Economic Impact Assessment (Subsection 18.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 46.3)
6.2 Potential impacts Assess and describe the type, level and significance of the project's social impacts (both beneficial and adverse) on the local and cultural area, based on outcomes of community engagement processes and the social baseline study. Furthermore:	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 6.1 and Appendix C)
■ Describe and summarise outcomes of community engagement processes including the likely response of the affected communities, including Indigenous people	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 6)
■ Include sufficient data to enable affected local and state authorities to make informed decisions about the project's effect on their business and plan for the provision of social infrastructure in the project's social and cultural area. If the project is likely to result in a significant increase in the population of the area, then the proponent should consult the relevant management units of the state authorities and summarise the results of the consultations	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 6.5, 6.6 and 6.7 and Table 25)
■ Address direct, indirect and secondary impacts from any existing projects and the proposed project including an assessment of the size, significance, and likelihood of these impacts at the local and regional level. Consider the following:	The assessment of indirect and secondary impacts is not required under the new SIA Guideline. References for these sections relate to direct impacts only. Unmitigated and mitigated impact rankings are included in Appendix N – *Socio-Economic Impact Assessment Report* (Appendix C)
– key population and demographic shifts; disruptions to existing lifestyles, the health and social wellbeing of families and communities; social dysfunction including alcohol and drugs, crime, violence, and social or cultural disruption due to population influx	Section 18 – Socio-Economic Impact Assessment (Subsection 18.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 6.2, 6.6 and 6.8 and Table 25)
– the needs of vulnerable groups including unemployed, those with low social-economic status, women, children and young people, the aged and people with a disability	Section 18 – Socio-Economic Impact Assessment (Subsection 18.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 6)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
– Indigenous peoples including cultural property issues	Section 20 – Cultural Heritage (Subsection 20.2) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 6.6.8)
– local, regional and state labour markets during the construction and operational phases, with regard to the source of the workforce. Present this information according to occupational workforce groupings. Detail whether the proponent and/or contractors are likely to employ locally or through other means, including internationally, and whether there are initiatives for local employment business opportunities and how these workforce strategies relate and align to state and Commonwealth resource workforce planning, skill development and training strategies and policies	Section 18 – Socio-Economic Impact Assessment (Subsection 18.6) Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 4.3.1, 6.3 .and 7.2.4 and Appendix D)
– proposed new skills and training related to the project including the occupational skill groups required and potential skill shortages anticipated	Section 18 – Socio-Economic Impact Assessment (Subsection 18.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 4.2 and 6.3)
– how much service revenue and work from the project would be likely to flow to the project's social and cultural area	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 6.1 and 6.3 and Appendix A)
– impacts of construction and operational workforces, their families, and associated contractors on housing and accommodation availability and affordability, land use and land availability. Discuss the capability of existing housing and rental accommodation to meet any additional demands created by the project, including direct impacts on Indigenous people	Housing baseline is described in Appendix N – *Socio-Economic Impact Assessment Report* (Section 6.8 and Appendix B). Housing impacts are considered an indirect impact. The assessment of indirect and secondary impacts is not required under the new SIA Guideline.
6.2.1 Cumulative impacts Evaluate and discuss the potential cumulative social impacts resulting from the project including an estimation of the overall size, significance and likelihood of those impacts. Cumulative impacts, in this context, is defined as the additional impacts on population, workforce, accommodation, housing, and use of community infrastructure and services, from the project, and other proposals for development projects in the area, which are publicly known or communicated by the office of the Coordinator-General, if they overlap the proposed project in the same timeframe as its construction period.	Cumulative impacts to which the project's contribution is not clearly defined are not required under the new SIA Guideline. Cumulative impacts have been discussed where relevant in Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 6.9).
Discuss the concept of longitudinal cumulative impacts, or 'project fatigue', where the community in the study area has been subject to a number of large-scale construction projects in recent years.	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 6.9)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
6.3 Impact mitigation measures and management strategies For identified social impacts, social impact mitigation strategies and measures should be presented to address the: ■ Recruitment and training of the construction and operational workforces and the social and cultural implications this may have for the host community, including if any part of the workforce is sourced from outside the social and cultural area	Section 18 – Socio-Economic Impact Assessment (Subsection 18.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 4.4.6 and 7.2)
■ Housing and accommodation issues	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 6.8)
■ Demographic changes in the profile of the region and the associated sufficiency of current social infrastructure, particularly health and welfare, education, policing and emergency services	The direct impact of the project on servicing in the surrounding area is discussed in Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 6.2, 6.7 and 7.5).
■ Adequate provision of education, training and employment for women, people with a disability, and Indigenous peoples	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 6.3.6)
Describe any consultation about acceptance of proposed mitigation strategies, and how practical management and monitoring regimes would be implemented.	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 3, 6, 7.6 and 7.7)
Discuss special strategies that might be deployed by the proponent during all stages of the project to mitigate 'project fatigue' impacts.	During preparation of the EIS, Hansen Bailey consulted with all relevant regional communities. During this consultation, consultation fatigue was not raised or evident. Stakeholders were willing participants in the stakeholder engagement process, particularly the small business survey.
6.3.1 Social impact management plan Present a draft social impact management plan (SIMP) that promotes an active and ongoing role for impacted communities and local authorities through the project life cycle. The draft plan should cover:	A SIMP is no longer required under the new SIA Guideline. All requirements are addressed in Appendix N – *Socio-Economic Impact Assessment Report.*
■ Assignment of accountability and resources	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.7.1)
■ Updates on activities and commitments	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.7.1)
■ Mechanisms to respond to public enquiries and complaints	Section 24 – Environmental Management (Subsection 24.3.2) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.6.1)
■ Mechanisms to resolve disputes with stakeholders	Section 24 – Environmental Management (Subsection 24.3.2) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.6.1)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Periodic evaluation of the effectiveness of community engagement processes	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 7.6.2 and 7.7.1)
■ Practical mechanisms to monitor and adjust mitigation strategies and action plans	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.7.1)
■ Action plans to implement mitigation strategies and measures	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 7.2, 7.3, 7.4, 7.5 and 7.6)
For further information refer to *Social impact assessment: guideline* (Department of State Development, Infrastructure and Planning 2013).	Noted.
7 Economies and management of impacts **7.1 Description of affected local and regional economies** Describe the existing economy in which the project is located and the economies materially impacted by the project. Include:	Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5)
■ A map illustrating the local and regional economies (local government areas—LGAs) that could be potentially affected by the project	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 3.3 and Figures 6 and 8)
■ Gross regional product or other appropriate measure of annual economic production	Appendix N – *Socio-Economic Impact Assessment Report* (Appendix A – Table 8)
■ Demographic and employment profile of the study area as a whole and disaggregated by LGA. Include:	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5 and Appendix B)
– existing population (size, age, distribution)	Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Appendix B - Subsections 2.1, 5.3.2 and 5.3.3)
– existing community profiles of the LGAs directly affected by the project (household type, size, average income)	Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Appendix B - Subsections 2.1, 2.2, 2.4.4 and 5.2.3)
– existing employment statistics (part-time/full-time, by occupation)	Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5 and Appendix B – Subsection 2.4)
– the regional economy's key industries and their contribution to regional economic income	Section 18 – Socio-Economic Impact Assessment (Subsection 18.5) Appendix N – *Socio-Economic Impact Assessment Report* (Appendix B – Subsections 2.4.1 and 2.4.2)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Sufficient baseline economic data to underpin a comprehensive assessment of the direct, indirect, cumulative, costs and impacts of the project	Appendix N – *Socio-Economic Impact Assessment Report* (Appendix A and Appendix B)
■ The key regional markets relevant to the project: – labour market	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 5 and 6.1.3, Appendix B – Subsection 2.4)
– education and training markets	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5 and Appendix B – Subsection 2.5.4)
– housing and land markets	Appendix N – *Socio-Economic Impact Assessment Report* (Appendix B – Subsections 2.2).
– construction services, building inputs and extractive resources market	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 5 and 6.5.3, Appendix D – Subsections 2.2 and 2.3)
– regional competitive advantage and expected future growth	Appendix N – *Socio-Economic Impact Assessment Report* (Section 5.3.3 and Appendix D – Subsections 2.2 and 2.3)
With regard to the region's key industries and factor prices, provide information on: ■ Current input costs (for example, wage rates, building costs, housing rent)	Appendix N – *Socio-Economic Impact Assessment Report* (Sections 5.2.3 and 5.3.3 and Appendix B – Subsections 2.2.3, 2.2.7 and 2.4.4)
■ Land values in the region by type of use	Section 5 – Land Use (Subsections 5.3.1, 5.3.2 and 5.4.4) discusses regional land use, surrounding land use and current land use. Appendix N – *Socio-Economic Impact Assessment Report* (Appendix B – Subsection 2.2.8) Land values in the region presented by type of use does not significantly influence the socio-economic impacts of the project due to the remote location of the project site and the geographical dispersion of the workforce.
7.2 Potential impacts and mitigation measures The potential impacts should consider local, regional, state and national perspectives as appropriate to the scale of the project.	Section 18 – Socio-Economic Impact Assessment (Subsection 18.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 6.1 and Appendix A)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
The analysis should describe both the potential and direct economic impacts including estimated costs, if material, on industry and the community, assessing the following:	Appendix N – *Socio-Economic Impact Assessment Report* (Appendix A)
■ Property values	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 6.6.5)
■ Industry output	Appendix N – *Socio-Economic Impact Assessment Report* (Appendix A – Table 9)
■ Employment	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 6.3, Table 21 and Appendix A – Table 12)
■ The indirect impacts likely to flow to other industries and economies from developing the project, and the implications of the project for future development	Appendix N – *Socio-Economic Impact Assessment Report* (Appendix A – Tables 9, 10 and 12).
■ The potential impact on extractive resource availability in the regions both during and after construction and any economic consequences for the regions	Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 6.5.3)
■ The distributional effects of the proposal including proposals to mitigate any negative impact on disadvantaged groups	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 6.5.4 and 7 and Appendix A)
7.2.1 Strategies for local participation The assessment of economic impacts should outline strategies to encourage participation by local industry and the local workforce, including: ■ Strategies for assessing the capacity and cost-effectiveness of sourcing goods and services from the regional and wider state economy during the pre-construction, construction, operation and rehabilitation phases of the project	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 6.3.6, 6, 7.2.1, 7.4.1 and 7.4.2)
■ Strategies for ensuring local suppliers of goods and services receive full, fair and reasonable opportunity to tender for work throughout the life of the project. Government-funded projects must prepare a Statement of Intent (SOI) in accordance with the *Charter for Local Content* (Department of State Development, Infrastructure and Planning 2014) and its associated guidelines. Private sector projects without government funding are recommended voluntarily to apply the policy's principles, for example, by preparing a SOI and working with the Queensland Office of the Industry Capability Network (www.icnqld.org.au) to promote tender opportunities and identify capable local suppliers. Also have regard to the *Queensland Resources and Energy Sector Code of practice for local content* (Queensland Resources Council 2013) and its associated guidelines	Section 18 – Socio-Economic Impact Assessment (Subsection 18.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.4)
■ Employment strategies for local residents including members of Indigenous communities and people with a disability, including a skills assessment and recruitment and training programs to be offered	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 6.3.6 7.2.2, 7.2.3 and 7.4)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Strategies adopting relevant government policy, relating to: – the level of training provided for construction contracts on Queensland Government building and construction contracts, with regard to the *Queensland Government Building and Construction Training Policy* (Department of Education, Training and Employment 2014)	Not applicable – the project is not a Queensland Government project.
7.2.2 Impact upon property management Address the current and future management processes for adjacent properties that are likely to be impacted by the project during construction and/or operation and how these impacts will be managed. Mention the:	Section 18 – Socio-Economic Impact Assessment (Subsection 18.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 6.6.2)
■ Impact of the project on existing agricultural land uses and management practices (for example, disruption to stockyards, fences, water points, sowing or harvesting of crops, increased risk of spread and establishment of weeds and pest animals, movement of livestock, agricultural machinery and any loss of agricultural land)	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 6.6.3 and 6.6.9)
■ Impact of the project on residential, commercial and industrial land uses, property values and property management practices	Section 18 – Socio-Economic Impact Assessment (Subsection 18.7) Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 6.6.3 and 6.6.9)
■ Range of measures required to mitigate real and potential disruptions to rural, residential, commercial and industrial property uses and management practices	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 6.6.9)
8 Hazard and risk **8.1 Hazard and risk assessment** Describe the potential hazards and risks to people and property that may be associated with the project, which may include but are not restricted to:	Section 22 – Hazard and Risk (Subsection 22.6 and Table 22-5)
■ Identifying potential hazards, accidents, spillages, fire and abnormal events that may occur during all stages of the project, including possible risk of occurrence	Section 22 – Hazard and Risk (Subsection 22.6 and Table 22-5)
■ Identifying all hazardous substances to be used, stored, processed or produced and the rate of usage	Section 22 – Hazard and Risk (Subsection 22.6.2 and Table 22-3)
■ Potential wildlife hazards, natural events (for example, cyclone, storm surge, flooding, bushfire) and implications related to climate change	Section 22 – Hazard and Risk (Subsection 22.6.3 and Table 22-5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Lack of baseline information to inform/measure: – direct impact on the water resources and vulnerable assets – indirect impacts on environment that is supported by the water resource – consequential impacts – cumulative impacts	Baseline assessments of the existing environment have been undertaken, where necessary, in order to inform the understanding of the existing environment and provide a basis to assess project impacts. These are discussed in the appropriate sections of the EIS. Where information is perceived to be lacking, the limitations have also been discussed. Mitigation and management measures have been proposed, as appropriate, in order to conservatively address the projects impacts. These are discussed throughout the EIS.
■ Lack of adequate proposed monitoring and/or demonstrated capacity to manage environmental consequences	Section 24 – Environmental Management (Subsection 24.4.14)
■ Likelihood of subsidence uncertain and/or not adequately monitored or managed	Section 6 – Subsidence (Subsection 6.2.4)
■ Likelihood of disruption to aquifer flow or creation of aquifer interconnectivity	Section 12 – Groundwater (Subsection 12.4)
■ Uncertain and/or not adequately monitored or managed drawdown of water table	Section 12 – Groundwater (Subsections 12.4 and 12.5)
■ Co-produced water or mine water not adequately monitored or managed	Section 13 – Surface Water (Subsection 13.5.6)
■ Groundwater dependent ecosystems significantly impacted	Section 9 – Terrestrial Ecology (Subsection 9.5.5)
■ Likelihood of surface water adversely impacted	Section 22 – Hazard and Risk (Subsections 22.6.1, 22.6.6 and Table 22-5)
■ Possibility of drinking water and irrigation supply contamination	Section 22 – Hazard and Risk (Subsection 22.7 and Table 22-5)
Undertake a preliminary risk assessment for all components of the project, as part of the EIS process in accordance with Australia/New Zealand AS/NZS ISO 31000:2009 *Risk management—Principles and guidelines* (Standards Australia/Standards New Zealand 2009) and *Managing environment-related risk* (HB203:2012) (Standards Australia 2012). The *National Emergency Risk Assessment Guidelines* (NERAG) should also be considered. With respect to risk assessment, the EIS must:	Section 22 – Hazard and Risk (Subsection 22.7 and Table 22-5)
■ Deal comprehensively with external and on-site risks including transport risks	Section 22 – Hazard and Risk (Subsection 22.7 and Table 22-5)
■ Assess risks during the pre-construction, construction, operational and decommissioning phases of the project	Section 22 – Hazard and Risk (Subsection 22.7 and Table 22-5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Include an analysis of the consequences of each hazard on safety in the project area, examining the likelihood of both individual and collective consequences, involving injuries and fatalities to workers and to the public	Section 22 – Hazard and Risk (Subsection 22.7 and Table 22-5)
■ Present quantitative levels of risks from the above analysis	Section 22 – Hazard and Risk (Subsection 22.7 and Table 22-5)
Provide details on the safeguards that would reduce the likelihood and severity of hazards, consequences and risks to persons, within and adjacent to the project area(s).	Section 22 – Hazard and Risk (Subsection 22.7 and Table 22-5)
Present a comparison of assessed and mitigated risks with acceptable risk criteria for land uses in and adjacent to the project area(s).	Section 22 – Hazard and Risk (Subsection 22.7 and Table 22-5)
Identify the residual risk following application of mitigation measures. Present an assessment of the overall acceptability of the impacts of the project in light of the residual uncertainties and risk profile.	Section 22 – Hazard and Risk (Subsection 22.7.1 and Table 22-5)
Conduct a hazard identification study to identify the nature and scale of hazards that might occur during the construction and operation of the project. This would be expected to include hazards involving:	Section 22 – Hazard and Risk (Subsection 22.6 and Table 22-5)
■ Construction accidents	Section 22 – Hazard and Risk (Subsection 22.6 and Table 22-5)
■ Pipeline, processing unit or storage vessel rupture or loss of containment, and explosions and fires associated with such incidents	Section 22 – Hazard and Risk (Subsection 22.6 and Table 22-5)
■ Release to the environment of liquid gaseous or particulate pollutants or any other hazardous material used, produced or stored on the site	Section 22 – Hazard and Risk (Subsection 22.6 and Tables 22-3 and 22-5)
■ Spills of materials during loading, unloading and transport	Section 22 – Hazard and Risk (Subsection 22.6 and Tables 22-3 and 22-5)
■ The extent of heatflux and/or overpressure zones following hazard/ignition incidents (for example, in terms of 23 kW/m^2, 5 kW/m^2 heatflux and 35 kPa and 7 kPa overpressure end points)	Hazard and ignition incidents are considered in Section 22 – Hazard and Risk (Subsection 22.6 and Table 22-5)
■ Natural events such as cyclones, earthquakes, bushfires or local flooding	Section 22 – Hazard and Risk (Subsection 22.6 and Table 22-5)
A set of representative incident scenarios should be selected. This set should include credible event scenarios (for example, a catastrophic failure of a processing unit and the consequential explosion zone). This will require an evaluation of the likelihood of each scenario occurring in order to calculate the level of risk in surrounding areas due to the presence of the facility.	Section 22 – Hazard and Risk (Subsection 22.7 and Table 22-5)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
The risk analysis should include fatality and serious injury consequences, and present individual fatality risk contours at 0.5, 1, 5, 10, and 50 x 10^{-6} per year and injury risk contours at 10 and 50 x 10^{-6} per year. Risk contours should be presented on a suitably scaled location map.	Section 22 – Hazard and Risk (Subsection 22.7.1 and Tables 22-4 and 22-5) includes a Preliminary Hazard Analysis (PHA) which is considered best practice for conducting preliminary assessments of hazards that are undertaken in support of a development application, such as an EIS. The PHA was undertaken in consideration of the current level of project planning. A rigorous re-appraisal of hazards and risks, including assessment of fatality and serious injury consequences, will be undertaken as part of the SHMS prior to the commencement of the construction, operations and decommissioning phases of the project, based on detailed design and operating plans.
In addition, the proponent must undertake a detailed risk assessment of the plant and associated operational activities to identify risks and mitigation measures to ensure containment within the site boundaries, so as not to impact on future industrial development on adjacent industrial land. Any identified impact on the project should also be extended to determine the resultant impact on the surrounding areas and community.	Section 22 – Hazard and Risk (Table 22-5)
Assess the acceptability of the risk on-site and to surrounding land uses by referring to nationally adopted risk criteria presented in the New South Wales Department of Urban Affairs and Planning's *Hazardous Industry Planning Advisory Paper No. 4: Risk Criteria for Land Use Safety Planning* (Department of Planning (NSW) 2008). Provide details of the methodology and results of each step described above.	Due to the remoteness of the site from populated areas and the closest sensitive receptor being located approximately 7 km from the site, a detailed assessment of the risk criteria for land use planning was not considered warranted. Project risks and hazards are presented in Section 22 – Hazard and Risk (Subsection 22.7 and Table 22-5). These will be re-assessed as part of the SHMS prior to the commencement of the construction based on detailed design and operating plans.
8.2 Health and safety **8.2.1 Description of public health and safety community values** Describe the existing health and safety values of the community, workforce, suppliers and other stakeholders in terms of the environmental factors that can affect human health, public safety and quality of life, such as air pollutants, odour, lighting and amenity, dust, noise, water, disease vectors, pests and vermin.	Section 22 – Hazard and Risk (Subsection 22.5.3)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Describe how potable water will be treated, stored and tested in accordance with the microbiological, physical and chemical standards stipulated in *Australian Drinking Water Guidelines Paper 6, National Water Quality Management Strategy* (Commonwealth of Australia 2011 as revised December 2013). Include the establishment and adoption of an appropriate risk framework to ensure a safe potable water supply.	Section 13 – Surface Water (Subsection 13.5.2) Section 22 – Hazard and Risk (Subsection 22.7 and Table 22-5)
Provide a description of existing health services in the neighbouring community/towns.	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 5.1 and 5.2)
8.2.2 Potential impact and mitigation measures Define and describe the objectives and practical measures for protecting or enhancing health and safety community values. Describe how nominated quantitative standards and indicators may be achieved for social impact management, and how the achievement of the objectives will be monitored, audited and managed.	Section 22 – Hazard and Risk (Subsection 22.3.1) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.3.1)
Develop a mosquito and pest management plan for the entire site and in particular areas where it is intending to pond significant volumes of water. Refer to *Guidelines to minimise mosquito and biting midge problems in new development areas* (Queensland Health 2002).	Section 22 – Hazard and Risk (Subsection 22.7 and Table 22-5)
Assess the cumulative effects on public health values and occupational health and safety impacts on the community, workforce and regional health services from project operations and emissions. Recommend any practical monitoring regimes in this section.	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 6.4, 6.6, 7.3.1, 7.5.1 and 7.7)
Include relevant consultation with the appropriate regional health service providers.	Section 22 – Hazard and Risk (Subsection 22.8)
Provide: ■ Information on the provision of health care facilities for project personnel at the mine site and personnel at the accommodation village. Where medical facilities are to be provided it must be noted that the requirements of the *Health (Drugs and poisons) Regulations 1996* will be applicable	Appendix N – *Socio-Economic Impact Assessment Report* (Subsections 7.3.1 and 7.5.1)
■ A description of how the proponent will manage the delivery of health services and/or support/strengthen local health services. Specify how health services will be provided to the workforce and/or how the proponent intends to support local health services	Section 18 – Socio-Economic Impact Assessment (Subsections 18.6.6, 18.7.1) Appendix N – *Socio-Economic Impact Assessment Report (*Subsections 7.3.1 and 7.5.1)
■ An outline of the proposed arrangements with local services and those provided by the relevant Health Services regarding emergency management protocols and procedures	Section 22 – Hazard and Risk (Subsections 22.3.2 and 22.8) Appendix N – *Socio-Economic Impact Assessment Report* (Subsection 7.5.1)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ Information on how utilities (water, electricity, gas) serving health facilities will be managed and distributed (if applicable)	Health facilities for the project will be located on the project site and will be serviced by the same infrastructure as the rest of the project site, as discussed in Section 4 – Project Description (Subsections 4.8 to 4.12). Off-site infrastructure is not included in this EIS.
■ An assessment of the risk relating to the health and well-being of workers and residents in the surrounding area from the transmission of communicable diseases. This assessment should incorporate relevant programs such as incorporate/highlight any proposed vaccination, monitoring, and response program.	Section 22 – Hazard and Risk (Subsection 22.7 and Table 22-5)
8.3 Emergency management plan Present preliminary information on the design and operation of proposed safety/contingency/notification systems to address significant emergency issues delineated in the risk assessment, together with at least the following areas of emergency: ■ Fire prevention/protection ■ Leak detection/minimization ■ Release of contaminants ■ Emergency shutdown systems and procedures ■ Natural disasters ■ Onsite drinking water incident	Section 22 – Hazard and Risk (Subsection 22.3.2) Section 24 – Environmental Management (Subsection 24.4.14 and Table 24-2) discusses the intention to prepare an Emergency Response Management Plan (ERMP) to specifically address major emergencies and incidents that could impact upon surrounding land uses.
In addition, undertake an assessment of businesses that may be affected in the event of an emergency, including strategies to mitigate the impact on these businesses.	Due to the remoteness of the site, it is unlikely that businesses would be affected in the event of an emergency.
In regard to fires, outline strategies to manage the provision of: ■ Fire management systems to ensure the retention on-site of fire water or other fire suppressants used to combat emergency incidents ■ Building fire safety measures for any construction or permanent accommodation ■ Details of any emergency response plans and bushfire mitigation plans ■ On-site firefighting equipment provided and the level of training of staff who will be tasked with emergency management activities ■ Detailed maps showing the plant outline, potential hazardous material stores, incident control points, firefighting equipment and the like ■ An outline of any dangerous goods stores associated with the plant operations, including fuel storage and emergency response plans	Detailed strategies relating to the provision of fire management and safety measures will be undertaken as part of the detailed design of the project. Section 22 - Hazard and Risk (Subsections 22.3.2, 22.6.5 and 22.6.6) Section 24 - Environmental Management (Subsection 24.4.14)
Present outlines of emergency planning and response strategies, including a protocol to identify and notify relevant parties, to deal with relevant incidents above, which have been determined in consultation with state and regional emergency service providers, and which show integration of emergency services into the plans.	Section 22 – Hazard and Risk (Subsections 22.3.2 and 22.8)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Present plans for emergency medical response and transport and first aid matters with involvement of the relevant state agencies (such as the Queensland Ambulance Service, Queensland Fire and Emergency Services, Emergency Management Queensland and Queensland Police Service).	Section 22 – Hazard and Risk (Subsections 22.3.2 and 22.8)
9 Cumulative impacts Summarise the project's cumulative impacts and describe these impacts in combination with those of existing or proposed project(s) publicly known or advised by the office of the Coordinator-General to be in the region, to the greatest extent practicable. Assess cumulative impacts with respect to both geographic location and environmental values. In particular, address cumulative impacts in sensitive environmental areas identified in Section 5.3.1 of this TOR.	Section 23 – Cumulative Impacts
Explain the methodology used to determine the cumulative impacts of the project, detailing the range of variables considered (including relevant baseline or other criteria upon which the cumulative aspects of the project have been assessed, where applicable)	Section 23 – Cumulative Impacts (Subsection 23.3)
10 Sustainable development Provide a comparative analysis of how the project conforms to the objectives for 'sustainable development'—see the *National Strategy for Ecologically Sustainable Development* (Commonwealth of Australia 1992).	Section 2 – Regulatory Framework (Subsection 2.4)
Consider the cumulative impacts (both beneficial and adverse) of the project from a life-of-project perspective, taking into consideration the scale, intensity, duration and frequency of the impacts to demonstrate a balance between environmental integrity, social development and economic development.	Section 23 – Cumulative Impacts (Subsections 23.4 to 23.12)
This information is required to demonstrate that sustainable development aspects have been considered and incorporated during the scoping and planning of the project.	Noted.
11 Environmental management plan Detail the EMPs for the construction and operational phases of the project. The EMP should be developed from, and be consistent with, the information in the EIS. The EMP must meet the requirements of section 203 of the EP Act, address discrete project elements and provide life-of-proposal control strategies. It must be capable of being read as a stand-alone document without reference to parts of the EIS. The EMP must comprise the following components for performance criteria and implementation strategies:	The Greentape Reduction Act removes the requirement for an EM plan. However, key management commitments that are detailed throughout the EIS have been summarised in Section 24 – Environmental Management.
■ The proponent's commitments to acceptable levels of environmental performance, including environmental objectives, performance standards and associated measurable indicators, performance monitoring and reporting	Section 24 – Environmental Management (Subsection 24.3 and Attachment 24-2)

<table>
<tr><th>TERMS OF REFERENCE</th><th>DRAFT EIS SECTION REFERENCE/COMMENTS</th></tr>
<tr><td>■ Impact prevention or mitigation actions to implement the commitments</td><td>Section 24 – Environmental Management (Subsection 24.4 and Attachment 24-2)</td></tr>
<tr><td>■ Corrective actions to rectify any deviation from performance standards</td><td>Section 24 – Environmental Management (Subsection 24.4)</td></tr>
<tr><td>■ An action program to ensure the environmental protection commitments are achieved and implemented. This will include strategies in relation to:
– continuous improvement
– environmental auditing
– monitoring
– reporting
– staff training
– where relevant, a rehabilitation program for land proposed to be disturbed under each relevant aspect of the proposal</td><td>Section 24 – Environmental Management (Subsection 24.4 and Attachment 24-2)</td></tr>
<tr><td>The recommended structure of each element of the EMP is shown below.</td><td>Noted.</td></tr>
<tr><td colspan="2"><table>
<tr><th>Element/issue</th><th>Aspect of construction or operation to be managed (as it affects environmental values).</th></tr>
<tr><td>Operational policy</td><td>The operational policy or management objective that applies to the element.</td></tr>
<tr><td>Performance criteria</td><td>Measurable performance criteria (outcomes) for each element of the operation.</td></tr>
<tr><td>Implementation strategy</td><td>The strategies, tasks or action program (to nominated operational design standards) that would be implemented to achieve the performance criteria and also include the implementation agency for each element of the EMP.</td></tr>
<tr><td>Monitoring</td><td>The monitoring requirements to measure actual performance (for example, specified limits to pre-selected indicators of change).</td></tr>
<tr><td>Auditing</td><td>The auditing requirements to demonstrate implementation of agreed construction and operation environmental management strategies and compliance with agreed performance criteria.</td></tr>
<tr><td>Reporting</td><td>Format, timing and responsibility for reporting and auditing of monitoring results.</td></tr>
<tr><td>Corrective action</td><td>The action (options) to be implemented in case a performance requirement is not reached and the person(s) responsible for action (including staff authority and responsibility management structure).</td></tr>
</table></td></tr>
<tr><td>The proponent’s commitments to environmental performance, as described in the EMP, may be included in the Coordinator-General’s evaluation report as conditions, to ensure the commitments are met. Therefore, the EMP is a relevant document for project approvals, environmental authorities and permits, and may be referenced by them.</td><td>Noted.</td></tr>
<tr><td>12 Matters of National Environmental Significance
This section should provide a stand-alone description and detailed assessment of the impacts of the project on the controlling provisions for the project under the EPBC Act inclusive of any avoidance, mitigation and offset measures. This section should also cross-reference to the relevant section in the EIS that address each of the requirements under Division 5.2 of the Environment Protection and Biodiversity Conservation Regulations 2000 not covered below.</td><td>Section 11 – Matters of National Environmental Significance</td></tr>
</table>

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
The controlling provisions under the EPBC Act relevant to this project are: ■ listed threatened species and communities (sections 18 and 18A) ■ listed migratory species (sections 20 and 20A) ■ a water resource, in relation to coal seam gas development and a large coal mining development (sections 24C and 24D).	Section 11 – Matters of National Environmental Significance (Subsection 11.2)
Consider any relevant advice, policy statements and guidelines available at www.environment.gov.au including but not limited to: ■ Significant impact guidelines 1.1: Matters of National Environmental Significance	Section 9 – Terrestrial Ecology (Subsection 9.6.8) Section 11 – Matters of National Environmental Significance (Subsections 11.5.2, 11.7.8 and 11.7.9) Appendix F – *Terrestrial Ecology Report* (Subsections 3.2.7, 3.4 and 5.2.7 and Appendix F)
■ Significant impact guidelines 1.3: Coal seam gas and large coal mining developments—impacts on water resources	Section 11 – Matters of National Environmental Significance addresses the requirements of the significant impact guidelines. Section 11 – Matters of National Environmental Significance (Attachment 11-2) provides a cross-referenced guide to the Information Guidelines for Independent Expert Scientific Committee Advice on Coal Seam Gas and Large Coal Mining Development Proposals.
■ Information Guidelines for Independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals	Section 11 – Matters of National Environmental Significance (Subsection 11.10 and Attachment 11-2)
■ Environment Protection and Biodiversity Conservation Act 1999, Environmental Offsets Policy, 2012	Section 11 – Matters of National Environmental Significance (Subsection 11.9 and Attachment 11-1) Appendix F – *Terrestrial Ecology Report* (Subsections 2.1 and 2.10) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 2.1 and 2.7) Appendix H – *Biodiversity Offset Strategy* (Subsection 2.1)
■ approved conservation advice, recovery plans and threat abatement plans.	Appendix F – *Terrestrial Ecology Report* (Appendix L)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
Insofar as it relates to each matter of national environmental significance, this section must include: ■ a description of the relevant direct, indirect and cumulative impacts of the project	Section 11 – Matters of National Environmental Significance (Subsection 11.7) Appendix F – *Terrestrial Ecology Report* (Subsection 5) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 4.1.1, 4.5.1 and 4.5.2)
■ a detailed assessment of the nature and extent of the likely short-term and long-term relevant impacts	Section 11 – Matters of National Environmental Significance (Subsection 11.7) Appendix F – *Terrestrial Ecology Report* (Subsection 5)
■ a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible	Section 11 – Matters of National Environmental Significance (Subsection 11.7) Appendix F – *Terrestrial Ecology Report* (Subsection 5)
■ analysis of the significance of the relevant impacts	Appendix F – *Terrestrial Ecology Report* (Subsections 3.4 and 5 and Appendix L)
■ any technical data and other information used or needed to make a detailed assessment of the relevant impacts, including: -the source of the information -how recent the information is -how the reliability of the information was tested what uncertainties (if any) are in the information	Section 11 – Matters of National Environmental Significance (Subsections 11.5 to 11.7) Appendix F – *Terrestrial Ecology Report* (Subsections 3 to 5) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsections 3 to 5) Appendix H – *Biodiversity Offset Strategy* (Subsection 3)
■ a description of the measures to avoid the relevant impacts of the project	Section 11 – Matters of National Environmental Significance (Subsection 11.8) Appendix F – *Terrestrial Ecology Report* (Subsection 6)
■ a description of, and an assessment of the expected or predicted effectiveness of, measures to mitigate the relevant impacts of the project	Section 11 – Matters of National Environmental Significance(Subsection 11.8) Appendix F – *Terrestrial Ecology Report* (Subsection 6)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ any statutory or policy basis for the mitigation measures	Section 11 – Matters of National Environmental Significance (Subsection 11.9) Appendix F – *Terrestrial Ecology Report* (Subsections 2 and 6)
■ the likely residual impacts, including reasons why the avoidance or mitigation of impacts is not achieved	Section 11 – Matters of National Environmental Significance (Subsection 11.9) Appendix F – *Terrestrial Ecology Report* (Subsection 7)
■ identification and analysis of the significant residual impacts	Section 11 – Matters of National Environmental Significance (Subsection 11.9) Appendix F – *Terrestrial Ecology Report* (Subsection 7) Appendix H – *Biodiversity Offset Strategy*
■ details of the proposed offsets package to compensate for residual significant impacts and an analysis of how the offset meets the requirements of the EPBC Act Offsets Policy	Section 11 – Matters of National Environmental Significance (Subsection 11.9) Appendix F – *Terrestrial Ecology Report* (Subsection 7) Appendix H – *Biodiversity Offset Strategy*
■ an overall conclusion as to the environmental acceptability of the project on each matter of national environmental significance, including: - a discussion on the consideration with the requirements of the EPBC Act, including the objects of the EPBC Act, the principles of ecologically sustainable development and the precautionary principle - -reasons justifying undertaking the project in the manner proposed, including the acceptability of the avoidance and mitigation measures - a discussion of residual significant impacts and any offsets and compensatory measures proposed or required for residual significant impacts, and the relative degree of compensation and acceptability.	Section 2 – Regulatory Framework (Subsections 2.2.2 and 2.4) Section 4 – Project description 9Subsection 4.16) Section 11 – Matters of National Environmental Significance (Subsections 11.2, 11.8 and 11.9) Appendix H – *Biodiversity Offset Strategy* (Subsections 5.3 to 5.6 and 6)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
The EIS must also do the following, in relation to the relevant controlling provisions below:	Noted.
12.1 Listed threatened species and communities ■ provide details of the scope, timing, effort and methodology for studies or surveys used to provide information on the listed species or community or habitat that may be impacted as a result of the project	Section 9 – Terrestrial Ecology (Subsection 9.4) Section 10 – Aquatic Ecology (Subsection 10.4) Section 11 – Matters of National Environmental Significance (Subsection 11.5) Appendix F – *Terrestrial Ecology Report* (Subsection 3) Appendix G – *Aquatic Ecology and Stygofauna Report* (Subsection 3.2)
■ include details of the application of best practice survey guidelines and how studies or surveys are consistent with (or a justification for divergence from) published Australian Government advice, policy statements and guidelines	Section 11 – Matters of National Environmental Significance (Subsection 11.5.2 to 11.5.5) Appendix F – *Terrestrial Ecology Report* (Subsection 3.2.7 and Appendices F and L)
■ discuss how the project would be consistent with approved conservation advice for the species or community	Appendix F – *Terrestrial Ecology Report* (Appendix L)
■ demonstrate that the project will not be inconsistent with: - Australia's obligations under: - the Biodiversity Convention - the Convention on Conservation of Nature in the South Pacific (Apia Convention) - Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) - a recovery plan or threat abatement plan	The EIS has been conducted in accordance with the relevant legislation, including the relevant Commonwealth legislation as outlined in Section 2 – Regulatory Framework. Section 11 – Matters of National Environmental Significance (Subsection 11.3.2) Appendix F – *Terrestrial Ecology Report* (Subsection 2.8 and Appendix L)
12.2 Listed migratory species ■ provide details of the scope, timing, effort and methodology for studies or surveys used to provide information on the listed species or habitat that may be impacted as a result of the project	Section 9 – Terrestrial Ecology (Subsection 9.4) Section 11 – Matters of National Environmental Significance (Subsection 11.6) Appendix F – *Terrestrial Ecology Report* (Subsection 3)
■ include details of the application of best practice survey guidelines and how studies or surveys are consistent with (or a justification for divergence from) published Australian Government advice, policy statements and guidelines	Section 11 – Matters of National Environmental Significance (Subsection 11.5) Appendix F – *Terrestrial Ecology Report* (Subsection 3.2.7 and Appendices F and L)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ discuss how the project would be consistent with approved conservation advice for the species	Appendix F – *Terrestrial Ecology Report* (Appendix L)
■ demonstrate that the project will not be inconsistent with: - the Bonn Convention - China–Australia Migratory Bird Agreement (CAMBA) - Japan–Australia Migratory Bird Agreement (JAMBA) - an international agreement approved under subsection 209(4) of the EPBC Act.	The EIS has been conducted in accordance with the relevant legislation, including the relevant Commonwealth legislation as outlined in Section 2 – Regulatory Framework. Section 11 – Matters of National Environmental Significance (Subsection 11.3.2) Appendix F – *Terrestrial Ecology Report* (Subsection 2.8 and Appendix L)
12.3 A water resource, in relation to coal seam gas development and large coal mining development ■ address the *Information Guidelines for Independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals* and provide a cross-reference table to identify where each component of the IESC Guidelines has been addressed	Section 11 – Matters of National Environmental Significance (Attachment 11-2)
■ provide maps and hydrographs to present standing groundwater water levels, potentiometric heads and groundwater flow for each individual hydrogeological unit potentially impacted. These should be presented to show pre-mining or existing conditions, conditions during mining and post-mining recovery conditions at the regional and smaller (project area) scale	Appendix I – *Groundwater Report*
■ adequately characterise and assess faults within the project area and their potential influence on groundwater drawdown, changes to groundwater flow, and inter-aquifer connectivity	Appendix I – *Groundwater Report* (Subsections 5 and 8 and Appendices A and B)
■ provide technical data or other information used to model or assess the relevant impacts, or which is needed to make a detailed assessment of the relevant impacts, including: - hydrogeological parameters and boundary conditions used in the construction of any groundwater models	Appendix I – *Groundwater Report* (Subsection 6, Appendix A and Appendix B)
- bore logs, baseline bore data and hydrographs	Appendix I – *Groundwater Report* (Subsection 6, Figures 14 and 15, and Appendix A)
- raw data such as records of seasonal and/or historic annual variations in water quality and quantity, bore logs and water quality parameters (such as relevant inorganic chemicals)	Appendix I – *Groundwater Report* (Appendices A and B)
- mapping and hydrographs to illustrate modelled drawdown (both at local and regional scales)	Appendix I – *Groundwater Report* (Figures 27 to 33, Figures 35 to 41 and Figures 44 to 49)
- modelled head distribution	Appendix I – *Groundwater Report* (Appendix B)

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
- bore locations and geological structures to assist in the interpretation of model outcomes	Section 4 – Project Description (Subsection 4.5) Appendix A – *Subsidence Report* Appendix I – *Groundwater Report* (Figures 10 to 12, Appendix A)
- data such as dates and locations of measurements, flow conditions, and elevations of the reference points from which water levels were measured.	Appendix I – *Groundwater Report* (Appendix A)
■ provide an uncertainty analysis of data, including seasonal and long-term climate variations as well as the development of the activity over time. All results of modelling should take account of the sensitivity and uncertainty of the model. If the potential impacts are significant and the predictions subject to significant uncertainty, then present results in a probabilistic way (as data ranges with probabilities stated)	Section 11 – Matters of National Environmental Significance (Attachment 11-2)
12.4 Environmental record of person(s) proposing to take the action This section must address the environmental record of the person proposing to take the action including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against: ■ the person proposing to take the action ■ for an action for which a person has applied for a permit; the person making the application.	Section 24 – Environmental Management (Subsection 24.3.1 and Attachment 24-1)
13 Conclusions and recommendations Make conclusions and recommendations with respect to the project, based on the studies presented, the EMP, the SIMP and conformity of the project with legislative and policy requirements.	These requirements underpin the EIS. As a result, conclusions and recommendations are addressed in all relevant sections of the EIS.
14 References All references and sources of data consulted in the preparation of the EIS should be presented in this section of the EIS in a recognised format.	Section 25 – References
15 Appendices Provide the following as appendices to the EIS: ■ Final TOR for this EIS	Section 29 – Terms of Reference
■ TOR cross-reference table, which links the requirements of each section/subsection of the TOR with the corresponding section/subsection of the EIS, where those requirements have been addressed	Section 30 – Guide to the Terms of Reference
■ A list of the project approvals required by the project	Section 2 – Regulatory Framework
■ The consultation report, as described in Subsection 3.7	Section 3 – Consultation
■ A list of the relevant qualifications and experience of the key study team members and specialist sub-consultants	Section 28 – EIS Study Team
■ A glossary of technical terms	Section 26 – Glossary

TERMS OF REFERENCE	DRAFT EIS SECTION REFERENCE/COMMENTS
■ A list of abbreviations	Section 27 – Abbreviations
■ Any reports of specialist studies undertaken as part of the EIS. Reports should contain a reference list for the source of data used in the preparation of the report	Table of Contents
■ A copy of the proponent's corporate environmental policy and planning framework document	Section 24 – Environmental Management (Attachment 24-1)
■ A list of all commitments made by the proponent in the EIS, with cross-references to the relevant section in the EIS	Section 24 – Environmental Management (Attachment 24-2)
■ A copy of the proponent's land acquisition protocols	Land acquisition protocols will be developed during detailed design and operations.