

# B | Terms of Reference Cross-reference Table



## Appendix B Terms of Reference Cross-Reference Table

Table B-1 Terms of Reference Cross-Reference Table

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
	<b>Executive Summary</b>	The executive summary should convey the most important aspects and options relating to the project to the reader in a concise and readable form. It should use plain English and avoid using jargon. It should be written as a stand-alone document and be structured to follow the EIS. It should be able to be reproduced on request and distributed to interested parties who may not wish to read or purchase the EIS as a whole.	Volume 1 Section 0
		The executive summary should include: <ul style="list-style-type: none"> <li>• The title of the project</li> </ul>	Volume 1 Section 0.1
		<ul style="list-style-type: none"> <li>• Name and contact details of the proponent and a discussion of previous projects undertaken by the proponent, if applicable, and their commitment to effective environmental management</li> </ul>	Volume 1 Section 0.2
		<ul style="list-style-type: none"> <li>• A concise statement of the aims and objectives of the project</li> </ul>	Volume 1 Section 0.4
		<ul style="list-style-type: none"> <li>• The legal framework, decision-making authorities and advisory agencies</li> </ul>	Volume 1 Section 0.10 and 0.13

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• An outline of the background and need for the project, including the consequences of not proceeding with the project</li>   <li>• An outline of the alternative options considered and reasons for the selection of the proposed development option</li>   <li>• A brief description of the project (pre-construction, construction, operational activities and decommissioning) and the existing environment, utilising visual aids where appropriate</li>   <li>• An outline of the principal environmental impacts predicted and the proposed environmental management strategies and commitments to minimise the significance of these impacts</li>   <li>• A discussion of the cumulative impacts in relation to social, economic and environmental factors of associated infrastructure projects proposed within the region.</li> </ul>	Volume 1 Section 0.5 and 0.7  Volume 1 Section 0.6  Volume 1 Section 0.3 and 0.11  Volume 1 Section 0.11 and 0.12  Volume 1 Section 0.11.23
		Detailed maps of the proposed project location and any other critical figures should also be included.	Volume 1 Section 0, Figures 0.1 and Figure 0.2
	Glossary of Terms	A glossary of technical terms, acronyms, abbreviations and references should be provided in the	Volume 2 Appendix C

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		EIS.	
1.	INTRODUCTION		
		The introduction should clearly explain the function of the EIS, why it has been prepared and what it sets out to achieve. It should contain an overview of the structure of the document.	Volume 1 Section 1.1
1.1	Project Proponent	This section should describe the experience of the project proponent, including the nature and extent of business activities, experience and qualifications, and environmental record, including the proponent's environmental, health, safety and community policies.	Volume 1 Section 1.2
1.2	Project Description	A brief description of the key elements of the project should be provided with illustrations or maps. Any major associated infrastructure requirements should also be summarised. Detailed descriptions of the project should follow in section 2.	Volume 1 Section 1.3
1.3	Project Rationale	The specific objectives and justification for the project should be described including its strategic, economic, environmental and social implications, technical feasibility and commercial drivers. The status of the project should be discussed in a regional, state and national context. The project's compatibility with relevant policy, planning and regulatory frameworks should also be mentioned.	Volume 1 Section 1.4
1.4	Relationship to other projects	This section should also describe how the project relates to any other infrastructure projects of which the proponent should reasonably be aware, that have been or are being undertaken or that have been approved in the area affected by the project.	Volume 1 Section 1.5
1.5	Alternatives to the project	This section should describe feasible alternatives including conceptual, technological and locality alternatives to the proposed project, as well as discussion of the consequences of not proceeding with the project. Alternatives should be discussed in sufficient detail to enable an understanding of	Volume 1 Section 1.7

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		the reasons for preferring certain options or courses of action and rejecting others. This should include a discussion of the 'no action' option. A discussion of the methodology adopted to discern between the feasible options should be included.	
		The interdependencies of the project components should be explained, particularly in regard to how each of any infrastructure requirements relate to the viability of the project.	Volume 1 Section 1.7.7
		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 have been considered and incorporated during the scoping of the project.	Volume 1 Section 1.7
		This section should also comply with the EPBC Act regulations listed in section 2.01(g) of Schedule 4.	Volume 1 Section 1.7
1.6	Co-location opportunities	Opportunities may exist for co-location of existing or proposed infrastructure enabling efficiency gains and the mitigation of environmental, social and property impacts. The proponent should identify any proposals to develop infrastructure within the vicinity of the proposed project. Such proposals would be limited to those projects which are in the public arena during the period of preparation of this EIS and for which a proponent can be readily identified.	Volume 1 Section 1.8
		Whilst it may be inappropriate for this EIS to evaluate the environmental impacts of other infrastructure not directly required for this project, the EIS should describe the broad implications of locating other forms of linear infrastructure within or near the proposed project infrastructure. Where co-location may be likely, the EIS should consider opportunities to coordinate or enhance any of the impact mitigation strategies proposed through cooperation with other proponents in the	Volume 1 Section 1.8

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		locality.	
1.7	The Environmental Impact Assessment Process		
1.7.1	Methodology of the EIS	This section should provide an outline of the environmental impact assessment process including the role of the EIS in the Coordinator-General's decision making process. It should include information on relevant stages of the EIS development, statutory and public consultation requirements and any interdependencies that exist between approvals sought.	Volume 1 Section 1.9
		<p>The information in this section is required to ensure:</p> <ul style="list-style-type: none"> <li>• Relevant legislation is addressed</li> <li>• Readers are informed of the process to be followed</li> <li>• Stakeholders are aware of any opportunities for input and participation.</li> </ul>	Volume 1 Section 1.9
1.7.2	Objectives of the EIS	This section should provide a statement of the objectives of the environmental impact assessment process. The structure of the EIS can then be outlined as an explanation of how the EIS will meet its objectives.	Volume 1 Section 1.9.1
		<p>The purpose of the EIS is to:</p> <ul style="list-style-type: none"> <li>• Provide public information on the need for the project, alternatives to it and options for its implementation</li> <li>• Present the likely effects of the project on the natural, social and economic environment</li> <li>• Demonstrate how environmental impacts can be avoided managed or mitigated and offsets for</li> </ul>	Statement

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		any residual impacts.	
		The role of the EIS in providing information for the formulation of the environmental management plan (EMP) for the project should be discussed.	Volume 1 Section 1.9.1
1.7.3	Submissions	The EIS should inform the reader how to properly make submissions and what form the submissions should take. The reader should be informed as to how and when properly made public submissions on the EIS will be addressed and taken into account in the decision-making process. The EIS should also indicate any implications for submissions in the event of any appeal processes	Volume 1 Section 1.9.2 Volume 1 Section 1.9.5
1.8	The Public Consultation Process	The public consultation process should provide opportunities for community involvement and education. It may include interviews with individuals, public communication activities, interest group meetings, production of regular summary information and updates (i.e. newsletters), and other consultation mechanisms to encourage and facilitate active public consultation. Public consultation processes (community engagement) for all parts of the EIS should be integrated.	Volume 1 Section 1.9.4
		This section should outline the methodology that will be adopted to: <ul style="list-style-type: none"> <li>• Identify the stakeholders and how their involvement was facilitated</li> <li>• Identify the processes conducted to date and the future consultation strategies and programs including those during the operational phase of the project</li> <li>• Indicate how consultation involvement and outcomes were integrated into the EIS process and future site activities including opportunities for engagement and provision for feedback and action if necessary.</li> </ul>	Volume 1 Section 1.9.2

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		A list of the stakeholders consulted during the program should be provided as well as any meetings held, presentations made and any other consultation undertaken for the EIS process	Volume 1 Section 21.2
		Information about the consultation process that has taken place and the results should be provided.	Volume 1 Section 21.2
1.9	Project Approvals		
1.9.1	Relevant legislation and approvals	This section must describe and list Commonwealth, state and local legislation and policies relevant to the planning, approval, construction and operation of the project. The EIS should identify all approvals, permits, licences and authorities that will need to be obtained for the proposed project. Triggers for the application of each of these should be outlined and relevant approval requirements identified.	Volume 1 Section 1.9 and 1.10
		Relevant Australian Government legislation may include, but not limited to: <ul style="list-style-type: none"> <li>• Aboriginal and Torres Strait Islander Heritage Protection Act 1994.</li> <li>• Environment Protection and Biodiversity Conservation Act 1999</li> <li>• Native Title Act 1993</li> </ul>	Volume 1 Section 1.9.3 and 1.10.2
		Relevant Commonwealth obligations such as protection of World Heritage values, migratory animals (CAMBA, JAMBA and Bonn Convention), biodiversity, climate and wetlands of international importance (Ramsar) should also be outlined and identified.	Volume 1 Section 1.9.2.5
		Reference must also be made, where relevant, to applicable Queensland legislation but not limited	Volume 1 Section

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>to:</p> <ul style="list-style-type: none"> <li>• Aboriginal Cultural Heritage Act 2003</li> <li>• Environmental Protection Act 1994</li> <li>• Fisheries Act 1994</li> <li>• Land Act 1994</li> <li>• Land Protection (Pest and Stock Route Management) Act 2002</li> <li>• Mineral Resources Act 1989</li> <li>• Nature Conservation Act 1992</li> <li>• Queensland Heritage Act 1992</li> <li>• Sustainable Planning Act 2009</li> <li>• Torres Strait Islander Cultural Heritage Act 2003</li> <li>• Transport Infrastructure Act 1994</li> <li>• Vegetation Management Act 1999</li> <li>• Water Act 2000.</li> </ul>	1.10.1 and 1.10.3
1.9.2	Relevant plans	<p>This section should outline the project's consistency with the existing national, state, regional and local planning framework that applies to the project location. This should include reference to all relevant statutory and non-statutory plans, including Water Resources Plans under the Water Act</p>	Volume 1 Section 1.10.4

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		2000, planning policies, guidelines, strategies and agreements	
1.9.3	Accredited process for controlled actions under Australian Governments legislation	<p>The EIS will be developed pursuant to the bilateral agreement between the Australian and Queensland Governments for the purposes of the Australian Government's assessment under Part 8 of the EPBC Act.</p> <p>The EIS should address potential impacts on the MNES that were identified when the project was determined to be a controlled action.</p>	Volume 1 Section 1.10.2 Volume 2 Appendix H
		Section 9 outlines the requirements in relation to this matter.	Statement
<b>2. DESCRIPTION OF THE PROJECT</b>			
		The objective of this section is to describe the project through its lifetime of 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.	Volume 1 Section 2
2.1	Overview of the project	<p>The EIS should provide an overview of the project to put it into context. This section should include:</p> <ul style="list-style-type: none"> <li>• A rationale explaining the selection of the preferred operating scenario, including details such as cost, environmental impacts, and the operational efficiencies of each option</li> <li>• A description of the key components of the project including the use of text and design plans where applicable</li> </ul>	Volume 1 Section 2.1 Volume 1 Section 1.7 Volume 1 Section 2.3

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• The expected cost, timing, and overall duration of the project</li> <li>• A summary of any environmental design features of the project should be presented.</li> </ul>	Volume 1 Section 2.1  Volume 1 Sections 2.6.3, 2.6.4, 2.6.5, 2.6.6, 2.6.7 and 2.6.8
2.2	Location	<p>This section should describe, through maps at suitable scales, the regional and local context of the project and all associated infrastructure. Real property descriptions of the project should be provided. Maps should show the precise location of the project area, in particular:</p> <ul style="list-style-type: none"> <li>• The location and boundaries of current or proposed land tenures, that the project area is or will be subject to</li> <li>• The location and boundaries of the project footprint, including easement widths and access requirements</li> <li>• The location of any proposed buffers surrounding the working areas (for construction and operation)</li> <li>• The location of existing infrastructure such as roads, weirs, powerlines, and marine infrastructure as relevant</li> <li>• The location of geomorphic features such as waterways (e.g. rivers, streams, creeks and other waterbodies), shorelines and wetlands</li> <li>• The location of any proposed project infrastructure requirements (e.g. site offices and</li> </ul>	Volume 1 Section 2.2  Volume 1 Section 2, Figure 2-3  Volume 1 Section 2, Figure 2-2  NA  Volume 1 Section 2, Figure 2-2  Volume 1 Section 2, Figure 2-2  Volume 1 Section 2, Figure 2-2  Volume 1 Section 2, Figure 2-6

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		accommodation sites), with reference to size, type and use, during all project phases.	
2.3	Construction	The following information should be provided on the pre-construction, construction and commissioning of the project including detailed plans where appropriate.	Volume 1 Section 2.4
2.3.1	Pre-construction activities	<p>This section should set out a description of all the pre-construction activities, including:</p> <ul style="list-style-type: none"> <li>• Any land acquisitions required, be it in full or as easements, leases, etc</li> <li>• Vegetation clearing</li> <li>• Site access</li> <li>• Earthworks</li> <li>• Interference with watercourses (e.g. rivers, streams, creeks other waterbodies and wetlands)</li> <li>• Site establishment requirements for construction facilities, including access restriction measures</li> <li>• Temporary works</li> </ul>	Volume 1 Section 2.4.1.1, Volume 1 Section 6.3.1 Volume 1 Section 2.4.1 Volume 1 Section 2.4.1 Volume 1 Section 2.4.1 Volume 1 Section 2.6.7 Volume 1 Section 2.4.1 Volume 1 Section 2.4.1

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• Upgrade, relocation, realignment or deviation of roads and other infrastructure.</li> </ul>	2.4.1 Volume 1 Section 2.6.2
2.3.2	Construction	<p>This section should set out a description of all the construction elements of the project, including:</p> <ul style="list-style-type: none"> <li>• An indicative construction timetable, including expected commissioning and start-up dates and hours of operation</li> <li>• Description of major work programs for the construction phase, including an outline of construction methodologies</li> <li>• Construction inputs, handling and storage including an outline of potential locations for source of construction materials</li> <li>• Major hazardous materials to be transported, stored and/or used on-site, including environmental toxicity data and biodegradability</li> <li>• Clean up and restoration of areas used during construction, including camp site(s) and storage areas.</li> </ul>	Volume 1 Section 2.4 Volume 1 Section 2.4 Volume 1 Section 2.4 Volume 1 Section 2.4 NA Volume 1 Section 2.4.3.3
2.3.3	Commissioning	A description of the commissioning process including the associated environmental impacts should be provided.	Volume 1 Section 2.4
2.4	Operation	<p>This section should provide full details of the operation for all elements of the project, including:</p> <ul style="list-style-type: none"> <li>• A description of the project site, including concept and layout plans of buildings, structures,</li> </ul>	Volume 1 Section 2.5 Volume 1 Section

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>plant and equipment to be employed</p> <ul style="list-style-type: none"> <li>• Nature and description of all key operational activities</li> <li>• The capacity of the project equipment and operations</li> <li>• Estimated numbers and roles of persons to be employed during the operational phase of the project.</li> </ul>	2.5.1 Volume 1 Section 2.5 Volume 1 Section 2.5 Volume 1 Section 2.5
2.5	Associated infrastructure	<p>This section should detail, with concept and layout plans, requirements for new infrastructure or the upgrading/relocating of existing infrastructure to service the project. Matters to be considered include such infrastructure as transportation, water supply, energy supply, telecommunications, stormwater, waste disposal, accommodation and sewerage.</p>	Volume 1 Section 2.6
		<p>The associated rail infrastructure component of the project should contain the:</p> <ul style="list-style-type: none"> <li>• Location of the rail corridor, railway and associated rail infrastructure</li> <li>• Location and boundaries of land tenures, in place or proposed, to which the rail component is or will be subject</li> <li>• Point of interface between the main rail corridor, branch line and proposed balloon loop</li> <li>• Location and boundaries of the rail project footprint showing all key aspects including excavations, stockpiles, areas of fill, watercourses, bridges, culverts, handstands, etc</li> <li>• Location of all proposed project rail transport and coal loading infrastructure.</li> </ul>	Volume 1 Section 2.6.2.2 and Figure 2-2 and Figure 2-3

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		<p>As such, consideration should also be given to resource extraction areas, access roads, and connection to sewerage or water supply, should be described including the design and construction standards to be met (e.g. waterway crossings should be designed to meet the requirements of the Fisheries Act 1994 and in consultation with the Department of Employment, Economic Development and Innovation). Alternative approaches or the opportunity of obtaining materials from alternative sources should be discussed.</p>	Volume 2 Section 2.6
2.5.1	Water distribution infrastructure	<p>The process and criteria used for the selection of the preferred design and preferred construction techniques should be described, including:</p> <ul style="list-style-type: none"> <li>• The method of extracting and/or releasing water from the storage</li> <li>• Any treatment methods proposed</li> <li>• If distribution is by pipe:                     <ul style="list-style-type: none"> <li>— Provision for route refinement and right of way.</li> <li>— Pipeline design parameters, including capacity and design life</li> <li>— Above ground facilities—physical dimensions and construction materials for surface facilities along the pipeline route, including information on pipeline markers</li> <li>— 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</li> </ul> </li> </ul>	Volume 1 Section 2.6.5.1

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		— Design measures to prevent inter-basin transfer of aquatic flora and fauna.	
2.6	Decommissioning and rehabilitation	<p>This section should describe the options, strategies and methods for progressive and final rehabilitation of the environment disturbed by the project, including:</p> <ul style="list-style-type: none"> <li>A preferred rehabilitation strategy should be developed with a view to minimising the amount of land disturbed at any one time</li> <li>The final topography of any excavations, waste areas and dam sites and subsidence areas should be shown on maps at a suitable scale</li> <li>The means of decommissioning the project, in terms of the removal of equipment, structures and buildings, and the methods proposed for the stabilisation of the affected areas</li> <li>Options and methods for the disposal of wastes from the demolition of the project infrastructure should be discussed in sufficient detail for their feasibility and suitability to be established</li> <li>A discussion of future land tenure arrangements post decommissioning of the project.</li> </ul>	Volume 1 Section 2.7
		Detail of the impacts of the preferred rehabilitation strategy should be discussed in the appropriate subsections of section 3.	Volume 1 Section 2.7
		Reference should also be made to infrastructure that is not intended to be decommissioned. In this situation the entity, to which the infrastructure is intended to be transferred, should be described with the proposed environmental management regimes.	Volume 1 Section 2.7
3.	ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS		
		This section should detail the environmental protection and mitigation measures incorporated in	Statement

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>the planning, construction, rehabilitation, commissioning, operations and decommissioning of all facets of the project. Measures should prevent, or where prevention is not possible, minimise environmental harm and maximise environmental benefits of the project. Preferred measures should be identified and described in more detail than other alternatives.</p>	
		<p>The objectives of subsequent sections are to:</p> <ul style="list-style-type: none"> <li>• Describe the existing environmental values of the area that may be affected by the project, using background information and/or new studies to support. This shall include reference to all definitions of environmental values set out in relevant legislation, policies and plans.</li> <li>• 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</li> <li>• Describe any cumulative impacts on environmental values caused by the project, either in isolation or by combination with other known existing or planned projects</li> <li>• Present environmental protection objectives, standards and measurable indicators to be achieved</li> <li>• Examine viable alternative strategies for managing impacts. These alternatives should be presented and compared in view of the stated objectives and standards to be achieved.</li> <li>• Discuss the available techniques to control and manage impacts in relation to the nominated objectives.</li> </ul>	
		<p>Proposals to offset any impacts should be presented in accordance with the Queensland</p>	<p>Statement</p>

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		Government Environmental Offset Policy (2008),	
		Offsets must be discussed with regard to impacts on EPBC Act matters, reference should be made to the eight principles set out in the DEWHA's Draft Policy Statement: Use of Environmental Offsets under the Environment Protection and Biodiversity Conservation Act 1999 or the finalised policy if available when the EIS is produced and its accompanying Discussion Paper in August 2007.	Volume 2 Appendix H and Volume 2 Appendix Z
		The EIS should follow the format and content outlined in these TOR however changes to the structure can be discussed with the DIP. The mitigation measures, monitoring programs etc., identified in this section of the EIS should be used to develop the EMP for the project (see section 8 - Environmental management plan).	Statement
3.1	Climate, natural hazards and climate change	This section should 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 and natural or induced hazards. A risk assessment and management plan detailing these potential threats to the construction, and operation of the project should be provided.	Volume 1 Sections 3.1 to 3.8
		The most recent information on potential impacts of climatic factors should be addressed in the appropriate sections of the EIS.	Volume 1 Section 14.3.1
		An assessment of climate change risks and possible adaptation strategies should be included, as well as the following: <ul style="list-style-type: none"> <li>• A risk assessment of changing climate patterns that may affect the viability and environmental management of the project</li> </ul>	Volume 1 Section 14.3.2
			Volume 1 Section

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• The preferred and alternative adaptation strategies to be implemented</li> <li>• Commitments to undertaking, where practicable, a cooperative approach with government, other industry and other sectors to address adaptation to climate change.</li> </ul>	14.3.3 Volume 1 Section 14.3.2
3.1.1	Flood plain management	<p>Due to the site location a comprehensive flood study should be included in the EIS, including:</p> <ul style="list-style-type: none"> <li>• Quantification of flood impacts on properties surrounding and external to the project site from redirection or concentration of flows</li> <li>• Identification of likely increased flood levels, increased flow velocities or increased time of flood inundation as a result of the development</li> </ul>	Volume 1 Section 3.8.2 and Volume 2, Appendix M 2.1
		<p>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.</p>	Volume 1 Section 3.8.2 and Volume 2, Appendix M 2.1
3.1.1.1	Potential impacts and mitigation measures	<p>Details should be provided on the:</p> <ul style="list-style-type: none"> <li>• Potential impacts of floods at a range of flood intervals, including the probable maximum flood event</li> <li>• Potential impacts of flooding on environmental values due to the identified likely increased flood levels, increased flow velocities or increased time of flood inundation as a result of the project, and</li> </ul>	Volume 1, Section 3.8.2 and Volume 2, Appendix M 2.1

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		<ul style="list-style-type: none"> <li>Impacts and mitigation measures for flooding. The construction of any flood protection levees should be described with regards to construction material, design and methods.</li> </ul>	
3.2	Land	This section should detail the existing land environment values for all areas associated with the project. It should also 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.	Statement
3.2.1	Scenic Amenity and Lighting		
3.2.1.1	Description of environmental values	<p>This section should describe in general terms the existing character of the landscape and the general impression that would be obtained while travelling through and around it. It should outline existing landscape features, panoramas and views that have, or could be expected to have, value to the community. Information in the form of maps and photographs should be used, particularly where addressing the following issues:</p> <ul style="list-style-type: none"> <li>Major views, view sheds, outlooks, and features contributing to the amenity of the area, including assessment from private residences</li> <li>Focal points, landmarks, waterways (e.g. rivers, streams, creeks other waterbodies and wetlands) and other features contributing to the visual quality of the area and the project site(s)</li> <li>Character of the local and surrounding areas including vegetation and land use.</li> </ul>	Volume 1 Section 7 Volume 1 Section 7.6 Volume 1 Sections 7.7 to 7.10 Volume 1 Section 7.12 and Figure 7-6
		At a level of detail appropriate to the scale of the project, provide a description of the relevant geomorphology, supported by illustrative mapping highlighting any significant features and associated environmental values.	Volume 1 Section 7.5 and Figure 7-2

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
3.2.1.2	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. Details should be provided of measures to be undertaken to mitigate or avoid the identified impacts.	Volume 1 Sections 7.15 and 7.17 to 7.20
3.2.1.3	Lighting	<p>An assessment of all potential impacts of the project's lighting, during all stages, is to be provided, with particular reference to objectives to be achieved and management methods to be implemented to mitigate or avoid, such as:</p> <ul style="list-style-type: none"> <li>• The visual impact at night</li> <li>• Night operations/maintenance and effects of lighting on fauna and residents</li> <li>• The potential impact of increased vehicular traffic</li> <li>• Changed habitat conditions for nocturnal fauna and associated impacts.</li> </ul>	Volume 1 Sections 7.20 to 7.22
3.2.2	Topography, Geology and Soils		
3.2.2.1	Description of environmental values	<p>Maps should be provided 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. Significant features of the landscape and topography should be included and commented on the maps.</p>	Volume 1 Figures 5-1, 5-2 and 5-3 Volume 2 Appendix I Figures 1, 2, 4, 5 and 6
		The EIS must provide a description, map and a series of cross-sections of the geology of the project area relevant to the project components.	Volume 1 Section 4.3 and Figures 4-4,

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>Geological properties that may influence ground stability, occupational health and safety, or the quality of stormwater leaving any area disturbed by the project must be described.</p> <p>In locations where the age and type of geology is such that significant fossil specimens may be uncovered during construction/operations, the EIS must address the potential for significant finds.</p>	4-5, 4-6 and Plates 4-1, 4-2 and 4-3 Volume 1 Section 4-6 Volume 1 Section 4.12.8
		<p>Existing land system and reconnaissance soil data sets for the project area should be reviewed and discussed. A soil survey of the sites affected by the project must be conducted at 1:25 000 scale or larger as set out in Land Suitability Assessment Techniques in the Technical Guidelines for the Environmental Management of Exploration and mining in Queensland (1995), the State Planning Policy 1/92: Development and the conservation of agricultural land and described according to the Australian Soil and Land Survey Field Handbook (NCST 2009) and Australian Soil Classification (Isbell, 1996).</p>	Volume 1 Section 5.2
		<p>The soil physical and chemical properties of the materials that will influence topsoil stripping suitability for cropping and grazing, erosion potential, storm water run-off quality, rehabilitation and agricultural productivity of the land should be recorded and discussed.</p> <p>Information must also be provided on the engineering properties of the soils such as soil stability</p>	Volume 1 Sections 5.2.1 Volume 1 Section 5.4

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		and suitability for construction of project facilities.	
3.2.2.1	Mineral resources	The EIS should provide a summary of the results of studies and surveys undertaken to identify and delineate the mineral resources within the project area (including any areas underlying related infrastructure).	Volume 1 Section 4.9
		The location, tonnage and quality of the mineral resources within the project area should be described in detail as indicated below. For coal projects, where possible it should be presented 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 in accordance with the Australasian code for reporting of mineral resources and ore reserves (the JORC Code - available at <a href="http://www.jorc.org/main.php">www.jorc.org/main.php</a> ) and the principles outlined in the Australian guidelines for the estimating and reporting of inventory coal, coal resources and coal reserves (available at <a href="http://www.jorc.org/pdf/coalguidelines.pdf">www.jorc.org/pdf/coalguidelines.pdf</a> ).	Volume 1 Section 4.9
		In addition, maps (at appropriate scales) should be provided showing the general location of the project area In particular the: <ul style="list-style-type: none"> <li>• Location and aerial extent of the mineral resources to be developed or mined</li> <li>• Location and boundaries of mining tenures, granted or proposed, to which the project area is, or will be subject</li> <li>• Location of the proposed mine excavation(s)</li> <li>• Location and boundaries of any project sites</li> <li>• Location and boundaries of any other features that will result from the proposed mining</li> </ul>	Volume 1 Section 4

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>including waste/spoil dumps, water storage facilities and other infrastructure</p> <ul style="list-style-type: none"> <li>• Location of any proposed buffers, surrounding the working areas, and</li> <li>• 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.</li> </ul>	
3.2.2.2	Potential impacts and mitigation measures	<p>This section should provide details of any potential impacts to the topography or geomorphology associated with the project and proposed mitigation measures, including:</p> <ul style="list-style-type: none"> <li>• 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</li> <li>• The objectives to be used for the project in any re-contouring or consolidation, rehabilitation, landscaping, and fencing.</li> </ul>	Volume 1 Section 4.12
		<p>Identify for all permanent and temporary landforms the possible soil erosion rate and provide a description of the techniques used to manage the impact. Identify all soil types and outline the erosion potential (both wind and water) and erosion management techniques to be used. An erosion-monitoring program, including rehabilitation measures for erosion problems identified during construction, must also be outlined and acceptable mitigation strategies provided.</p>	Volume 1 Section 5.4.3 and 5.4.4
		<p>The report must include an assessment of likely erosion effects, especially those resulting from the removal of vegetation, and construction of retaining walls both on-site and off-site for all disturbed areas.</p>	Volume 1 Section 5.4.3
		<p>It should summarise methods proposed to prevent or control erosion with regard to (a) the Soil Erosion and Sediment Control - Engineering Guidelines for Queensland Construction Sites</p>	Volume 1 Section

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		(Institute of Engineers Australia (Qld Division) 1996); (b) the EPA Guideline—EPA Best Practice Urban Stormwater Management: Erosion and Sediment Control; (c) preventing soil loss in order to maintain land capability/suitability; and (d) preventing degradation of local waterways.	11.4.6
		The potential for acid generation by disturbance of acid sulfate soils during earthworks and construction should be discussed and measures for management of soils and mitigation of impacts should be proposed for all site earthworks and construction activities. Should action criteria be triggered by acid generating potential as a result of testing, management measures are to be outlined in an Acid Sulfate Soils Management Plan prepared in accordance with Queensland Acid Sulfate Soils Investigation Team (QASSIT) guidelines and the requirements of State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils and its accompanying Guideline 2/02.	Volume 1 Section 5.4.1
	Resource utilisation	The EIS should 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. It should 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.	Volume 1 Section 4 to 10
	Subsidence	This section will provide comprehensive surface subsidence predictions taking into account factors such as topographic variations and geological complexities, with a full description of the methodology and including an assessment of the reliability of the predictions. The results of the predictions will be shown on maps with one metre contour increments and a scale appropriate for	Volume 1 Section 4.6.4 and Volume 2 Appendix J

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		assessment of surface subsidence impacts. Mitigation measures will be proposed to deal with any significant impacts that would result from subsidence.	
	Land disturbance	A strategy should be developed that will minimise the amount of land disturbed at any one time. The strategic approach to progressive rehabilitation of landforms and final decommissioning should be described. The methods to be used for the proposal, including backfilling, covering, re-contouring, topsoil handling and revegetation, should be described.	Volume 1 Section 4.12 and Section 26.4.4, 26.4.5
		Where waterways are proposed to be diverted, the impact on land use due to hydrology changes, both upstream and downstream, should be described. Also, the final drainage and seepage control systems and any long-term monitoring plans should be detailed.	Volume 1 Section 11.4.1 and Section 26.3.3
		Where dams, roads, levee banks, waterway diversions, other waterway barriers and other infrastructure are to remain upon project decommissioning, proposals for the management and maintenance of these structures should be given. All proposals should protect any residual voids from 'probable maximum flood level' based on the Bureau of Meteorology's 'probable maximum precipitation' forecast for the locality from nearby watercourses such that the protection is sustainable for the foreseeable future. The EIS should also demonstrate 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. Management and maintenance arrangements should be supported by appropriate erosion and stability monitoring to substantiate long-term rehabilitation sustainability.	Volume 1 Section 26
		The EIS should include, but not limited to: <ul style="list-style-type: none"> <li>• The predicted storage capacity of void water during AEP 1 in 25, 1 in 50, 1 in 100, 1 in 200 and</li> </ul>	Volume 2 Section 26 12.13

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>1 in 1000 year rainfall events and potential for discharge</p> <ul style="list-style-type: none"> <li>• The predicted quality of void water during potential release event</li> <li>• The predicted impact on the environment caused by the release of any void water</li> <li>• Modelling and assessment of practicable management measures to mitigate contaminant increases in storage dams</li> <li>• Develop a monitoring program to be undertaken both during and after mining, to assess the performance of the proposed management measures, and</li> <li>• The ability of the final void water to meet the rehabilitation criteria being safe, stable and non-polluting.</li> </ul>	
		The mitigation measures for land disturbance to be used on decommissioning the site should be assessed in sufficient detail to decide their feasibility. In particular, the EIS should 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.	Volume 1 Section 26.3.5
		A description of topsoil management should consider transport, storage and replacement of topsoil to disturbed areas. The topsoil management should also outline how soil from good quality agricultural land will be best utilised. Minimising topsoil storage times (to reduce fertility degradation) should also be addressed. Erosion and sediment control measures should be described, particularly in relation to the management of sodic and saline overburden material.	Volume 1 Section 26.4.6
		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	Statement

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		construction/operations and propose strategies for protecting the specimens and alerting the Queensland Museum to the find.	
3.2.3	Land Contamination		
3.2.3.1	Description of environmental values	<p>The following information needs to be presented in the EIS:</p> <ul style="list-style-type: none"> <li>• Mapping of any areas listed on the Environmental Management Register or Contaminated Land Register under the EP Act</li> <li>• Identification of any potentially contaminated sites not on the registers which may need remediation</li> <li>• A description of the nature and extent of contamination at each site.</li> </ul>	Volume 1 Section 8.2 Volume 1 Figure 8-1 Volume 1 Section 8.2
	Potential impacts and mitigation measures	The EIS should discuss the management of any contaminated land and potential for contamination from construction, commissioning and operation, in accordance with Department of Environment and Resource Management (DERM – formerly EPA) Draft Guidelines for the Assessment and Management of Contaminated Land in Queensland (1998) and the National Environment Protection (Assessment of Site Contamination) Measure (1999).	Volume 1 Section 8.3
		This section should 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.	Volume 1 Section 8.3 and Table 16-1
		Intentions should be stated concerning the classification of land contamination after project completion.	Volume 2 Appendix K Section 6.1

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
3.2.4	Land Use and Tenure		
3.2.4.1	Description of environmental situation	<p>The EIS should identify, with the aid of maps:</p> <ul style="list-style-type: none"> <li data-bbox="635 591 1814 695">• Land tenure, including reserves, tenure of special interest such as protected areas and forest reserves, identification of existing and proposed gas, water pipelines, power lines and transport corridors, including local roads, state-controlled roads and rail corridors</li> <li data-bbox="635 710 1814 964">• Existing land uses and facilities surrounding the project. The land use suitability of the project area in terms of the physical and economic attributes, in particular for broadscale rainfed cropping and grazing should be assessed. The assessment should set out soil and landform subclasses assigned to soil mapping units in order to derive land suitability classes. The limitations and land suitability classification system should comply with that in Attachment 2 of Land Suitability Assessment Techniques in the Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland (1995)</li> <li data-bbox="635 1036 1814 1139">• The Agricultural Land Classes should be assessed and Good Quality Agricultural Land identified according to State Planning Policy 1/92 Guidelines: The Identification of Good Quality Agricultural Land (DHLGP 1993).</li> <li data-bbox="635 1155 1814 1306">• Areas covered by applications for native title claims or native title determinations, providing boundary descriptions of native title representative body(ies). The proponent should also identify in the EIS whether there are any necessary notifications required to the representative body(ies) or evidence that native title does not exist</li> </ul>	Volume 1 Section 6.3, 6.4 and 6.5 Volume 1 Sections 5.2.1, 6.6 and 6.9 Volume 1 Sections 5.3.1 and 6.9 Volume 1 Section 6.7 Volume 1 Section

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• Include the identification of affected stock routes and consultation with Stock Route Management Unit staff of DERM</li> <li>• Distance of the project from residential and recreational areas</li> <li>• Declared water storage catchments</li> <li>• Location of the project in relation to environmentally sensitive areas.</li> </ul>	6.5.4 Volume 1 Section 6.3 and 6.6.2 Volume 1 Section 6.8.3 Volume 1 Section 6.8.2
	Potential impacts and mitigation	The potential for the construction and operation of the project to change existing and potential land uses of the project site and adjacent areas should be detailed.	Volume 1 Section 6.6.3
		<p>A description of the following should be included:</p> <ul style="list-style-type: none"> <li>• Impacts on surrounding land uses and human activities and strategies for minimisation, such as: <ul style="list-style-type: none"> <li>— Good quality agricultural land</li> <li>— Key resource areas (refer to State Planning Policy 2/07: Protection of Extractive Resources and Guideline)</li> <li>— Residential and industrial uses</li> </ul> </li> <li>• Possible effect on town planning objectives and controls, including local government zoning and</li> </ul>	Volume 1 Section 6.6.3 and 6.9.3 Volume 1 Section 6.6.3 Volume 1 Section 6.6.3.3 and 6.10.13 Volume 1 Section 6.6.3.5 and 6.6.3.6 Volume 1 Section

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		strategic plans <ul style="list-style-type: none"> <li>• Constraints to potential developments and possibilities of rezoning adjacent to the development area</li> <li>• Management of the immediate environs of the project including construction buffer zones</li> <li>• The identification of the potential native title rights and interests likely to be impacted upon by the project and the potential for management of those impacts by an Indigenous Land Use Agreement or other native title compliance outcomes</li> <li>• Include mitigation strategies for potential adverse impacts of the project on the State's stock route network in consultation with Stock Route Management Unit staff of DERM</li> <li>• 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</li> <li>• Potential issues involved in proximity and/or co-location of other current or proposed infrastructure services</li> <li>• Potential impacts on future road and rail upgrades</li> <li>• Identification of any land units requiring specific management measures.</li> </ul>	6.6.3.5 and 6.6.3.6 Volume 1 Section 6.8.1 Volume 1 Section 6.7 Volume 1 Section 6.5.4 Volume 1 Section 6.8.2 Volume 1 Section 6.5.5 Volume 1 Section 6.5.1 and 6.5.2 Volume 1 Section 6.8.2 and Section 6.9
3.3	Nature Conservation	This section should detail the existing nature conservation values that may be affected by the proposal. The environmental values should be described in terms of:	Volume 1, Section

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• Integrity of ecological processes, including habitats of rare and threatened species</li> <li>• Conservation of resources</li> <li>• Biological diversity, including habitats of rare and threatened species Integrity of landscapes and places including wilderness and similar natural places</li> <li>• Aquatic and terrestrial ecosystems.</li> </ul>	9.3, 9.4, 10.3.3 and Volume 2 Appendix H.A.  Volume 1 Sections 9 and 10, and Appendix L1 Section 6.0 and 7.0 and Appendix L2 Section 6.0
		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. The survey should account for the ephemeral nature of watercourses traversing the proposal area, and seasonal variation in fauna populations.	Volume 1, Section 9.3.1.1 and 9.4.1.1 and Volume 2
		Wherever possible seek the involvement of the local Indigenous community in the conduct of field observations and survey activities to identify the traditional and contemporary Indigenous uses of species.	Statement
		The section should also outline the proposed strategies to avoid, or minimise and mitigate impacts on the identified values within the project's footprint.	Volume 1 Sections 9.3.2 and 9.4.3
		Key flora and fauna indicators should be identified for future ongoing monitoring.	Appendix W, Section W.3.9.6 and W.3.9.7

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
3.3.1	Sensitive Environmental Areas		Volume 1, Section 9.2
3.3.1.1	Description of environmental values	<p>The EIS should identify areas that are environmentally sensitive in proximity to the project on a map of suitable scale. This should include areas classified as having national, state, regional or local biodiversity significance, or flagged as important for their integrated biodiversity values. Reference should be made to both Queensland and Australian Government legislation and policies on threatened species and ecological communities.</p>	Volume 1, Section 9.2.1 and Figure 9-1
		<p>Areas regarded as sensitive with respect to flora and fauna have one or more of the following features and which should be identified and mapped:</p> <ul style="list-style-type: none"> <li data-bbox="631 922 1814 1028">• Important habitats of species listed under the Nature Conservation Act 1992 and/or Commonwealth Environment Protection and Biodiversity Conservation Act 1999 as presumed extinct, endangered, vulnerable or rare</li> <li data-bbox="631 1144 1814 1266">• Regional ecosystems listed as 'endangered' or 'of concern' under State legislation, and/or ecosystems listed as presumed extinct, endangered or vulnerable under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999</li> </ul>	Volume 1 Section 9.2.1 and Figure 9-1 Volume 1 Section 9.2.1 and Figure 9-1 and Volume 2, Appendix H Volume 2 Appendix L1 Section 6 Figure 8 and Table 30 Volume 1 Section 9.3

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• Good representative examples of remnant regional ecosystems or regional ecosystems which are described as having 'medium' or 'low' representation in the protected area estate as defined in the Regional Ecosystem Description Database available at the DERM website <a href="http://www.derm.qld.gov.au">www.derm.qld.gov.au</a></li>   <li>• Sites listed under international treaties such as Ramsar wetlands and World Heritage areas</li>   <li>• Sites containing near threatened or bio-regionally significant species or essential, viable habitat for near threatened or bio-regionally significant species</li>   <li>• Sites in, or adjacent to, areas containing important resting, feeding or breeding sites for migratory species of conservation concern listed under the Convention of Migratory Species of Wild Animals, and/or bilateral agreements between Australia and Japan (JAMBA) and between Australia and China (CAMBA)</li>   <li>• Sites adjacent to nesting beaches, feeding, resting or calving areas of species of special</li> </ul>	and Volume 2, Appendix L1, 4.1 Table 5  Volume 1 Section 9.1.2 and Volume 2, Appendix L1 Section 4.3  Volume 2 Appendix L1 Sections 4.2, 7.3.2, 7.3.3 and 7.4.2  Volume 2 Appendix L1 Sections 7.5, 7.3.2 and 7.3.3  N/A

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>interest, for example, marine turtles, dugong and cetaceans</p> <ul style="list-style-type: none"> <li>• Sites containing common species which represent a distributional limit and are of scientific value or which contains feeding, breeding, resting areas for populations of echidna, koala, platypus and other species of special cultural significance</li> <li>• Sites containing high biodiversity that are of a suitable size or with connectivity to corridors/protected areas to ensure survival in the longer term; such land may contain:                     <ul style="list-style-type: none"> <li>— Natural vegetation in good condition or other habitat in good condition (e.g. wetlands)</li> <li>— Degraded vegetation or other habitats that still supports high levels of biodiversity or acts as an important corridor for maintaining high levels of biodiversity in the area</li> </ul> </li> <li>• A site containing other special ecological values, for example, high habitat diversity and areas of high endemism</li> <li>• Ecosystems which provide important ecological functions such as: wetlands of national, state and regional significance; coral reefs; riparian vegetation; important buffer to a protected area or important habitat corridor between areas</li> <li>• Sites of palaeontologic significance, such as fossil sites</li> </ul>	<p>Volume 2 Appendix L1 Section 7.4.1</p> <p>Volume 1 Section 9.2</p> <p>Volume 1 Section 9.2</p> <p>Volume 1 Section 9.2</p> <p>Volume 1 Section 4, Volume 2 Appendix W Section W.3.11</p> <p>N/A</p>

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• Sites of geomorphological significance, such as lava tubes or karst</li> <li>• Protected areas which have been proclaimed under the Nature Conservation Act 1992 and Marine Parks Act 1982 or are under consideration for proclamation</li> <li>• Areas of major interest, or critical habitat declared under the Nature Conservation Act 1992 or high nature conservation value areas or areas vulnerable to land degradation under the Vegetation Management Act 1999.</li> </ul>	Volume 1 Section 9.2 Volume 1 Section 9.2
		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.	Volume 1 Section 9.2
3.3.1.2	Potential impacts and mitigation measures	This section should discuss the impact of the project on species, communities and habitats of local, regional or national significance in sensitive environmental areas as identified above. It should also include human impacts and the control of any domestic animals introduced to the area.	Volume 1 Sections 9.2.2, 9.3.2 and 9.4.2
		<p>The EIS should demonstrate how the project would comply with the following hierarchy:</p> <ul style="list-style-type: none"> <li>• Avoiding impact on areas of remnant vegetation and other areas of conservation value</li> <li>• Mitigation of impacts through rehabilitation and restoration including, where relevant, a</li> </ul>	Volume 1 Sections 9.2.2, 9.3.2 and 9.4.2 Volume 1 Section 9.3.2 Volume 1 Section 9.3.2

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>discussion of any relevant previous experience or trials of the proposed rehabilitation</p> <ul style="list-style-type: none"> <li>• Measures to be taken to replace or offset the loss of conservation values where avoidance and mitigation of impacts cannot be achieved</li> <li>• Explanation of why measures above would not apply in areas where loss would occur.</li> </ul>	Volume 1 section 9.3.2 and 9.4.2  Volume 1 Section 9.2.2, 9.3.2 and 9.4.2
		The boundaries of the areas impacted by the project within or adjacent to an endangered ecological community, including details of footprint width should be discussed. Where the project area would impact upon a threatened community, the discussion should include reasons for the preferred alignment and the viability of alternatives.	Volume 1 Sections 9.2.2, 9.3.2 and 9.4.2 and Volume 2 Appendix L1, Sections 8.2 and 8.3
		The EIS should address any actions of the project or likely impacts that require an authority under the Nature Conservation Act 1992, and/or would be assessable development for the purposes of the Vegetation Management Act 1999.	Volume 1 Sections 9.2 and 9.3.2, Table 9-25
		Outline how these measures will be implemented in the overall EMP for the project.	Volume 2 Appendix W
		Where relevant, this section should discuss environmental offset requirements in accordance with the Queensland Government Environmental Offsets Policy and take into account the applicable specific-issue offset policies, as follows:	Volume 1 Section 9.1.3.2  Volume 2 Appendix

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• Policy for Vegetation Management Offsets (NRW, 2007)</li> <li>• Mitigation and Compensation for Works or Activities Causing Marine Fish Habitat Loss (DPI&amp;F, 2002)</li> <li>• Draft Policy for Biodiversity Offsets (consultation draft, EPA, 2008)</li> </ul>	L1 Section 3.3 N/A Volume 2 Appendix L1 section 3.5
		Any departure from no net loss of ecological values should be described.	NA
3.3.2	Terrestrial Flora		
3.3.2.1	Description of environmental values	<p>This section should provide vegetation mapping for all relevant project sites. Adjacent areas should also be mapped 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.</p>	Volume 2 L1 Section 5.2.2
		<p>The terrestrial vegetation communities within the affected areas should be described at an appropriate scale (maximum 1:10 000) with mapping produced from aerial photographs and ground-truthing, showing the:</p> <ul style="list-style-type: none"> <li>• Location and extent of vegetation types using the regional ecosystem type descriptions in accordance with the REDD</li> <li>• Location of vegetation types of conservation significance based on regional ecosystem types and occurrence of species listed as protected plants under the Nature Conservation (Wildlife)</li> </ul>	Volume 1 Section 9.3 and Volume 2, Appendix L1 Section 4.1, 5.2.2 and 5.2.4 Volume 2 Appendix L1, Section 6, Fig 8 and Table 30 Volume 2 Appendix

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>Regulation 1994 and subsequent amendments, as well as areas subject to the Vegetation Management Act 1999</p> <ul style="list-style-type: none"> <li>• 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 Land Act 1991)</li> <li>• Location of any horticultural crops in the vicinity of the project area</li> <li>• Location and abundance of any exotic or weed species. Reference should be made to Biosecurity Queensland's Annual Pest Distribution Survey 2008 data and predictive maps available on the DEEDI website and be used in conjunction with Queensland Herbarium naturalised flora data to source the occurrence of pest plants in the project area. Local Government Area Pest Management Plans should also be utilised to source the occurrence of priority pest plants in the project area.</li> <li>• Any plant communities of cultural, commercial or recreational significance should be identified.</li> </ul>	<p>L1, Section 6, Fig 8 Volume 2 Appendix L1 Section 6, Fig 8 NA Volume 1, Section 9.3, and Volume 2, Appendix L1, 8.4.1 Volume 2, Appendix L1, Section 6, Fig 8 and Volume 1, Section 9.3</p>
		Sensitive or important vegetation types should be highlighted, including any marine littoral and	Volume 2, Appendix

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		sub-tidal zone and 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.	L1 Section 8.2.1
		<p>For each significant natural vegetation community likely to be impacted by the project, vegetation surveys should be undertaken at an appropriate number of sites, allowing for seasonal factors, and satisfying the following:</p> <ul style="list-style-type: none"> <li>• The relevant Regional Vegetation Management Codes</li> <li>• Site data should be recorded in a form compatible with the Queensland Herbarium CORVEG database</li> <li>• The minimum site size should be 10 by 50 metres</li> <li>• A complete list of species present at each site should be recorded</li> <li>• The surveys to include species structure, assemblage, diversity and abundance</li> </ul>	Volume 2, Appendix L1 Section 5.2 Volume 2, Appendix L1 Section 5.2 Volume 2, Appendix L1, Section 6 Volume 2, Appendix L1 Section 5.2.1 Volume 2, Appendix L1 Section 6.0 Volume 2, Appendix L1 Section 6.0

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• The relative abundance of plant species present to be recorded</li> <li>• Any plant species of conservation, cultural, commercial or recreational significance to be identified</li> <li>• Specimens of species listed as protected plants under the Nature Conservation (Wildlife) Regulation 1994, other than common species, are to be submitted to the Queensland Herbarium for identification.</li> </ul>	Volume 2 L1 Appendix A and Appendix L1, Section 8.2.1  Volume 2, Appendix L1 Section 6, Fig 8  Volume 2 Appendix L1 Appendix E
		Existing information on plant species may be used instead of new survey work provided that the data is derived from previous surveys at the site consistent with the above methodology. Methodology used for flora surveys should be specified in the appendices to the report.	Statement
		The potential environmental harm to the ecological values of the area arising from the construction, operation and decommissioning of the project including clearing, salvaging or removal of vegetation should be described, and the indirect effects on remaining vegetation should be discussed. Short-term and long-term effects should be considered with comment on whether the impacts are reversible or irreversible.	Volume 2 Appendix L1 Section 8.2.1
		With regard to all components of the project, this section should include:	

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• Any management actions to minimise vegetation disturbance and clearance</li> <li>• A discussion of the ability of identified vegetation to withstand any increased pressure resulting from the project and any measures proposed to mitigate potential impacts</li> <li>• Where loss of native vegetation is unavoidable, offsets consistent with the Queensland Governments Environmental Offsets Policy should be proposed</li> <li>• A description of the methods to ensure rapid rehabilitation of disturbed areas following construction, including the species chosen for revegetation which should be consistent with the surrounding associations</li> <li>• Details of any post construction monitoring programs</li> <li>• A discussion of the potential environmental harm on flora due to any alterations to the local surface and ground water environment with specific reference to impacts on riparian vegetation or other sensitive vegetation communities.</li> </ul>	Volume 2 Appendix L1 Section 8.3.1 Volume 2 Appendix L1 Section 8.3 Volume 1 Section 9.3.2 Volume 1 Section 9.3.2 and Volume 2, Appendix W.3.9.4, W.3.9.5 and W.3.9.6 and Tables W-39 and W-40 Volume 2 Appendix W.3.9.6 Volume 1 Section 9.3
		It will also outline how these measures will be implemented in the overall EMP for the project. Weed management strategies are required for containing existing weed species (e.g. parthenium and other declared plants) and ensuring no new declared plants are introduced to the area.	Volume 1 Section 9.3.2

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		Reference should be made to the local government authority's pest management plan and any strategies and plans recommended for the project area by Biosecurity Queensland. The strategies should be discussed 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.	Volume 2 Appendix W.3.9.5 and W.3.9.7
		If offsets are proposed as a result of the unavoidable loss of vegetation, it must be explained how the offsets would be managed in a way consistent with the Queensland Governments Environmental Offsets Policy.	Volume 1 Section 9.2
3.3.3	Terrestrial Fauna		Volume 1 Section 9.4
3.3.3.1	Description of environmental values	<p>The terrestrial and riparian fauna occurring in the areas affected by the proposal should be described, 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 area should include:</p> <ul style="list-style-type: none"> <li>• Species diversity (i.e. a species list) and abundance of animals of recognised significance</li> <li>• Any species that are poorly known but suspected of being rare or threatened</li> <li>• Habitat requirements and sensitivity to changes; including movement corridors and barriers to movement</li> <li>• The existence of feral or introduced animals including those of economic or conservation</li> </ul>	Volume 1 Section 9.4, Volume 2, Appendix L1 Section 7.1.2, 7.2.2, 7.3.2 Volume 1 Section 9.1.2 and Volume 2, Appendix L1 Section 8.2 Volume 1 Section

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>significance. Reference should be made to Biosecurity Queensland's Annual Pest Distribution Survey 2008 data and predictive maps available on the DEEDI website <a href="http://www.deedi.qld.gov.au">www.deedi.qld.gov.au</a>. Local Government Area Pest Management Plans should also be utilised to source the occurrence of priority pest animals in the project area</p> <ul style="list-style-type: none"> <li>• Existence (actual or likely) of any species/communities of conservation significance in the study area, including discussion of range, habitat, breeding, recruitment feeding and movement requirements, and current level of protection (e.g. any requirements of protected area management plans or threatened species recovery plans)</li> <li>• Habitat requirements and sensitivity to changes, including movement corridors and barriers to movement</li> <li>• An estimate of commonness or rarity for the listed or otherwise significant species</li> <li>• Use of the area by migratory fauna.</li> </ul>	<p>9.3.2, Volume 2, Appendix L1 Section 8.4.2</p> <p>Volume 1 Section 9.3 and 9.4, Volume 2 Appendix L1 Section 7.5</p> <p>Volume 1 Sections 9.3 and 9.4, Volume 2 Appendix L1 Section 7.0 and Volume 2 Appendix L1 Appendix F</p> <p>Volume 1 Section 9.3 and 9.4, Volume 2 Appendix L1 Section 7</p> <p>Volume 1 Section 9.4.2, Volume 2 Appendix L1,</p>

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
			Appendix G
		<p>The EIS should indicate how well any affected communities are represented and protected elsewhere in the bio-region where the project occurs. The methodology used for fauna surveys should be specified. Relevant site data should be provided to the DERM in a format compatible with the WildNet database for listed threatened species. The occurrence of feral species in the project area should be described.</p>	Volume 2 Appendix L1 Sections 5.3, 5.3.2, 5.3.3 Volume 1, Section 9.4.1
3.3.3.2	Potential impacts and mitigation measures	<p>The assessment of potential impact should consider impacts the project may have on terrestrial fauna, relevant wildlife habitat and other fauna conservation values, including:</p> <ul style="list-style-type: none"> <li data-bbox="631 898 1814 969">• Impacts due to loss of range/habitat, food supply, nest sites, breeding/recruiting potential or movement corridors or as a result of hydrological change</li> <li data-bbox="631 1025 1814 1064">• Impacts on species of conservation significance</li> <li data-bbox="631 1136 1814 1175">• Cumulative effects of direct and indirect impacts</li> <li data-bbox="631 1247 1814 1287">• Threatening processes leading to progressive loss.</li> </ul>	Volume 1, Section 9.4.2 Volume 2, Appendix L1 Sections 8.2.2, 8.2.3 Volume 2, Appendix L1 Section 8.2.3 Volume 1, Section 9.4.3.3 Volume 2, Appendix L1 Section 8.2

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>The EIS should address any actions of the project or likely impacts that require an authority under the Nature Conservation Act 1992. With respect to mitigation strategies the following should be provided:</p> <ul style="list-style-type: none"> <li>• 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</li> <li>• Details of the methodologies that would be used to avoid injuries to 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</li> <li>• Strategies for complying with the objectives and management practices of relevant recovery plans</li> </ul>	Volume 1, Section 9.4.2  Volume 1, Section 9.4.3 & 9.4.3.5  Volume 1, Section 9.4.3.4 and Volume 2, Appendix L1, Section 8.3  Volume 2, Appendix W.3.9.7 and W.4
		<p>It should be described how these measures will be implemented in the overall EMP for the project. Rehabilitation of disturbed areas should incorporate, where appropriate, provision of nest hollows and ground litter.</p>	Volume 2, Appendix W.3.9.7
		<p>Feral animal management strategies and practices should be addressed. The study should develop strategies to ensure that the project does not contribute to increased encroachment of a feral animal species. Reference should be made to the local government authority's pest management plan and any strategies and plans recommended for the project area by Biosecurity</p>	Volume 1, Section 9.4.3.6  Volume 2, Appendix

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		Queensland. The strategies should be discussed 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.	L1, Section 8.4.2
3.3.4	Aquatic Biology		
3.3.4.1	Description of environmental values	<p>The aquatic flora and fauna occurring in the areas affected by the proposal should be described, noting the patterns and distribution in the waterways (e.g. rivers, streams, creeks and other waterbodies) and any associated wetlands. The description of the flora and fauna present or likely to be present in the area should include:</p> <ul style="list-style-type: none"> <li>• Fish species, mammals, reptiles, amphibians, crustaceans and aquatic invertebrates occurring in the waterways within the affected area and any associated wetlands</li> <li>• Any rare or threatened marine species</li> <li>• Description of the habitat requirements, including movement requirements, and the sensitivity of aquatic species to changes in flow regime, water levels and water quality in the project areas</li> </ul>	Volume 1 Section 10 and Volume 2 Appendix L2  Volume 1 Section 10.3.3, Volume 2 Appendix L2, Section 6.4, 6.5, 6.5.2  Volume 1 Section 10.3.3, Volume 2, Appendix L2, Section 6.5.3  Volume 1, Section 10.2.3 and 10.3.3, 10.3.4.1

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• Aquatic plants including native and exotic/weed species. Reference should be made to Biosecurity Queensland's Annual Pest Distribution Survey 2008 data and predictive maps available on the DEEDI website <a href="http://www.deedi.qld.gov.au">www.deedi.qld.gov.au</a> and used in conjunction with Queensland Herbarium naturalised flora data to source the occurrence of aquatic pest plants in the project area. Local Government Area Pest Management Plans should also be utilised to source the occurrence of priority aquatic pest plants in the project area.</li>   <li>• Aquatic and benthic substrate</li>   <li>• Habitat downstream of the project or potentially impacted due to currents in associated lacustrine and marine environments</li>   <li>• Identification of all types of groundwater dependent ecosystems occurring within and outside the project area and potentially impacted by project activities. An assessment should be made of the environmental water requirements for the protection of the indentified groundwater dependent ecosystems. Groundwater dependent ecosystems may include:</li> </ul>	Volume 1 Section 10.3.3.1, 10.3.3.7 and 10.3.3.8, Volume 2, Appendix L2, Section 6.3 to 6.3.4  Volume 1 Section 10.3.3, Volume 2, Appendix L2 Section 6  N/A  Volume 2, Appendix L2 Section 6.6

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>— subterranean ecosystems</li> <li>— phreatophytic terrestrial and riparian vegetation</li> <li>— springs and other wetlands. and</li> <li>— stream communities dependent on baseflow.</li> <li>• Aquatic substrate and stream type, including the locations and extent of any permanent and semi-permanent water holes or streams potentially affected by the mine and its operations.</li> </ul>	Volume 1 Section 10.4  Volume 1 Section 10.3.3.1  N/A  N/A  Volume 1 Section 10.3.3 and 10.3.4
		Wetlands listed by DERM as areas of national, state or regional significance should be described and their values and importance for aquatic flora and fauna species.	Volume 1, Section 10.2.1 and Volume 2, Appendix L2, 4.3
3.3.4.1	Potential impacts and mitigation measures	<p>This section should provide a discussion of the potential impacts of the project on the aquatic ecosystems and a description of proposed mitigation actions, including:</p> <ul style="list-style-type: none"> <li>• Details of proposed stream diversions, causeway construction and crossing facilities, stockpiled material and other impediments that would restrict free movement of aquatic fauna</li> </ul>	Volume 1, Section 10.2.4, 10.3.4, 10.4.3 also below  N/A

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• Measures to avoid fish spawning periods, such as seasonal construction of waterway crossings or other waterway barriers and measures to facilitate fish movements through water crossings</li> <li>• Details of alternatives to waterway crossings or other waterway barriers where possible</li> <li>• Offsets proposed for unavoidable, permanent loss of fisheries habitat</li>   <li>• A description of methods to minimise the potential for the introduction and/or spread of weed species or plant disease</li>   <li>• Measures to avoid or mitigate potential impacts on groundwater dependant ecosystems. Describe the proposed monitoring for each identified groundwater dependent ecosystem.</li>   <li>• Monitoring of aquatic biology health, productivity and biodiversity in areas subject to direct discharge.</li> </ul>	N/A    N/A N/A   Volume 1, Section 10.3.4.4 and Volume 2, Appendix W.3.9.7   Volume 2, Appendix L3 Section 4.0 and 5.0   Volume 2, Appendix W.3.10.7 and W.4.1
		<p>The EIS should address any actions of the project or likely impacts that require an authority under the relevant legislation including the Nature Conservation Act 1992 and/or the Fisheries Act 1994. Outline how these measures will be implemented in the overall EMP for the project.</p>	Volume 2, Appendix W.5
3.4	Water Resources		

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
3.4.1	Description of environmental values	<p>This section of the EIS should provide a description of the existing water resources that may be affected by the project in the context of environmental values as defined in such documents as the EP Act, Environmental Protection (Water) Policy 2009 [EPP (Water)], Australia and New Zealand Guidelines for Fresh and Marine Water Quality 2000 and the EPA Queensland Water Quality Guidelines 2009.</p>	Volume 1, Section 11
		<p>An indication of the quality and quantity of water resources in the vicinity of the project area should be given. This section should describe:</p> <ul style="list-style-type: none"> <li data-bbox="619 774 1814 837">• Existing surface waters, wetlands and groundwater in terms of physical, chemical and biological characteristics</li> <li data-bbox="619 858 1814 922">• Existing surface drainage patterns, flows, history of flooding including extent, levels and frequency and present water uses.</li> </ul>	Volume 1, Section 11.3 and 12.8.2
		<p>The surface water quality should be described considering seasonal variations in flow. This should include water quality indications likely to be affected by the proposal such as electrical conductivity, sulfate, metals (dissolved), turbidity, suspended sediments and pH. All sampling should be performed in accordance with the Water Quality Sampling Manual (EPA, 1999) or the most current edition.</p>	Volume 1, Section 11.3
		<p>The environmental values of the surface waterways and groundwater of the affected area should be described in terms of:</p> <ul style="list-style-type: none"> <li data-bbox="619 1250 1814 1282">• Values identified in the EPP (Water)</li> <li data-bbox="619 1302 1814 1334">• Physical integrity, fluvial processes and morphology, including riparian zone vegetation and</li> </ul>	

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>form, if relevant</p> <ul style="list-style-type: none"> <li>• Any impoundments (e.g. dams, levees, weirs etc.) or natural (e.g. cascades) waterway barriers</li> <li>• Hydrology of waterways and groundwater</li> <li>• Sustainability, including both quality and quantity</li> <li>• Dependent ecosystems</li> <li>• Existing and other potential surface and groundwater users</li> <li>• Details of any proposed buffer widths between project activities and waterways (e.g. rivers, streams, creeks, other waterbodies and wetlands) and other fisheries values, as well as any potential temporary and/or permanent impacts to aquatic flora and fauna (if any)</li> <li>• Any water resource plans relevant to the affected catchments.</li> </ul>	Volume 1, Section 11.3 and 12.8.2
		<p>If the project is likely to use or affect local sources of groundwater, this section should provide a description of groundwater resources in the area in terms of:</p> <ul style="list-style-type: none"> <li>• A comprehensive hydrogeological description covering: the coal seams and surrounding aquifers, both artesian and sub-artesian; inter-aquifer connectivity; flow of water; recharge and discharge mechanisms; and hydrogeological processes at work</li> <li>• Current extraction regime</li> <li>• Geology/stratigraphy</li> <li>• Aquifer type—such as confined, unconfined</li> </ul>	Volume 1, Section 12.8

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• Depth to and thickness of the aquifers</li> <li>• Depth to water level and seasonal changes in levels</li> <li>• Groundwater flow directions (defined from water level contours)</li> <li>• Interaction with surface water possible sources of recharge</li> <li>• Potential exposure to pollution</li> <li>• Current access to groundwater resources in the form of bores, springs, ponds, including quantitative yield of water and locations of access.</li> </ul>	
		<p>The groundwater assessment should also be consistent with relevant guidelines for the assessment of acid sulphate soils including spatial and temporal monitoring to accurately characterise baseline groundwater characteristics.</p>	Volume 1, Section 12.8
		<p>For the taking of groundwater, the EIS should review the significance of groundwater in the project area, together with groundwater use in neighbouring areas. Specific reference should be made to relevant legislation or water resource plans for the region. 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.</p>	Volume 1, Section 12.3 and 12.8
		<p>The review should include a survey of existing groundwater supply facilities (bores, wells, or excavations) to the extent of any environmental harm. Information gathered for analysis should include:</p> <ul style="list-style-type: none"> <li>• Location, type and status of existing water entitlements and associated infrastructure (bores,</li> </ul>	Volume 1, Section 12.8

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>wells or excavations)</p> <ul style="list-style-type: none"> <li>• Pumping parameters</li> <li>• Draw down and recharge at normal pumping rates</li> <li>• Seasonal variations (if records exist) of groundwater levels.</li> </ul>	
		A network of observation points which would satisfactorily monitor groundwater resources both before and after commencement of operations should be developed.	Volume 1, Section 12.13.5
		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.	Volume 1, Section 12.13.5
3.4.2	Potential impacts and mitigation measures	<p>This section should assess potential impacts of the project on water resource environmental values identified in the previous section. It should also define and describe the objectives and practical measures for protecting or enhancing water resource environmental values, to describe how nominated quantitative standards and indicators may be achieved, and how the achievement of the objectives will be monitored, audited and managed. Matters to be addressed include:</p> <ul style="list-style-type: none"> <li>• Potential impacts on the flow and the quality of surface and groundwaters from all phases of the project, with reference to their suitability for the current and potential downstream uses and discharge licences</li> <li>• An assessment of all likely impacts on groundwater depletion or recharge regimes</li> <li>• An assessment of the potential environmental impact caused by the project (and its associated</li> </ul>	Volume 1, Section 12.12

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>project components) to local groundwater resources, including the potential for groundwater induced salinity</p> <ul style="list-style-type: none"> <li>• The response of the groundwater resource to the progression and finally cessation of the proposal should be described</li> <li>• An assessment the project's impact on the local ground water regime caused by the altered porosity and permeability of any land disturbance</li> <li>• Any potential for the project to impact on groundwater dependent vegetation should be assessed and described, including avoidance and mitigation measures</li> <li>• Potential impacts of surface water flow on existing infrastructure, with reference to the EPP (Water) and the Water Act 2000</li> <li>• Chemical and physical properties of any waste water including stormwater at the point of discharge into natural surface waters, including the toxicity of effluent to flora and fauna</li> <li>• Potential impacts on other downstream receiving environments considering the available assimilative capacity of the receiving waters, if it is proposed to discharge water to a riverine system</li> <li>• If it is proposed to discharge water to a riverine system, mitigation measures for water treatment should be discussed</li> <li>• The results of a risk assessment for uncontrolled releases to water due to system or catastrophic failure, implications of such emissions for human health and natural ecosystems,</li> </ul>	

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>and list strategies to prevent, minimise and contain impacts</p> <ul style="list-style-type: none"> <li>An assessment of the potential to contaminate surface and ground water resources and measures to prevent, mitigate and remediate such contamination.</li> </ul>	
		The environmental values of the surface waters potentially affected by the project should be identified in accordance with the EPP (Water). Surface water quality objectives should be determined after consideration of the Queensland Water Quality Guidelines (EPA, 2007) and the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC & ARMCANZ 2000).	Statement
		Reference should be made to the properties of the land disturbed and processing liquid wastes, the technology for settling suspended clays from contaminated water, and the techniques to be employed to ensure that contaminated water is contained and successfully treated on the site.	Volume 1, Section 11.3.8.4
		Management strategies should be adequately detailed to demonstrate best practice management and that environmental values of receiving waters will be maintained to nominated water quality objectives. Monitoring programs, which will assess the effectiveness of management strategies for protecting water resources during the construction, operation and decommissioning of the project, should be described. It should also outline how these strategies are incorporated into appropriate sections of the EMP.	Volume 1 Section 11.5.1
		The principles and objectives of the proposed monitoring in the coal seams and surrounding aquifers should be identified and include a supporting rationale for the monitoring. The approach should describe the parameters to be monitored, the frequency of monitoring and the proposed recording mechanisms and reporting arrangements.	Volume 1 Section 12.13.5

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
3.5	Air Quality		
3.5.1	Description of environmental values	<p>This section should 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.</p>	Volume 1 Section 13.2
		<p>A discussion of the existing air shed environment both local and regional should be provided, including:</p> <ul style="list-style-type: none"> <li>• Background levels and sources of particulates, gaseous and odorous compounds and any major constituent</li> <li>• Pollutants including greenhouse gases which may be affected by the project</li> <li>• Baseline monitoring results, sensitive receptors</li> <li>• 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.</li> </ul>	Volume 1 Section 13.2
		<p>Parameters should include air temperature, wind speed and direction, atmospheric stability, mixing depth and other parameters necessary for input to the models.</p>	Volume 1 Section 13.3 and Volume 2, Appendix O Section 3.1
3.5.2	Potential impacts and mitigation measures.	<p>The following air quality issues and their mitigation should be considered:</p> <ul style="list-style-type: none"> <li>• An inventory of air emissions from the project expected during construction and operational activities</li> </ul>	Volume 1 Section 13.3.2.4 and Table 13-4

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• 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 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</li> <li>• Ground level predictions should be made at any sensitive receptor including residential, industrial, agricultural, commercial and community developments believed to be sensitive to the effects of predicted emissions</li> <li>• Dust generation from construction activities especially in areas where construction activities are adjacent existing road networks or are in close proximity to sensitive receivers</li> <li>• Climatic patterns that could affect dust generation and movement</li> <li>• Vehicle emissions and dust generation along major road and rail haulage routes both internal and external to the project site</li> <li>• Human health risk associated with emissions from the facility of all hazardous or toxic pollutants should be assessed</li> <li>• Impacts on terrestrial flora and fauna.</li> </ul>	Volume 1 Section 13.4.3 Volume 1 Section 13.4.2 Volume 1 Section 13.4.2 Volume 1 Section 13.4.4 Volume 1 Section 13.3.2.1 Volume 1 Section 13.4.2 Volume 1 Section 9
		Potential air quality impacts from emissions, must be discussed with reference to the National	Volume 1 Section

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		Environmental Protection Measures (NEPM) for ambient air quality (1998) and the Environmental Protection (Air) Policy 2008. If an emission is not addressed in these legislative instruments, the emission should be discussed with reference to its risks to human health, including appropriate health-based guidelines/standards.	13.4
		To ensure that appropriate coal rail-transport related dust mitigation measures are implemented at the Kevin's Corner project, the proponent should consult with QR Limited's QR 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 the implementation of the Transitional Environmental Program and QR Coal Dust Management Plan across all coal railways in Queensland.	Statement
3.6	Greenhouse Gas Emissions		
3.6.1	Description of environmental values	<p>This section should provide an inventory of projected annual emissions for each relevant greenhouse gas, with total emissions expressed in 'CO<sub>2</sub> equivalent' terms for the following categories:</p> <ul style="list-style-type: none"> <li>• Scope 1 emissions, where '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</li> <li>• Scope 2 emissions, where '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</li> </ul>	Volume 1 Section 14.2.3.1

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>Briefly describe method(s) by which estimates were made.</li> </ul>	
		The Department of Climate Change National Greenhouse Accounts Factors can be used as a reference source for emission estimates and supplemented by other sources where practicable and appropriate. As a requirement of the National Greenhouse Accounts Factors, estimates should include the loss of carbon sink capacity of vegetation due to clearing and impoundment	Volume 1 Section 14.2.2.3
3.6.2	Potential impacts and mitigation measures	<p>This section should discuss the potential for greenhouse gas abatement measures, including:</p> <ul style="list-style-type: none"> <li>- a description of the proposed measures (alternatives and preferred) to avoid and/or minimise direct greenhouse gas emissions</li> <li>- an assessment of how the preferred measures minimise emissions and achieve energy efficiency</li> <li>- a description of any opportunities for further offsetting greenhouse gas emissions through indirect means including sequestration and carbon trading.</li> </ul>	Volume 1 Section 14.2.5
3.7	Noise and Vibration		
3.7.1	Description of environmental values	This section should describe the existing noise and vibration environment that may be affected by the project in the context of environmental values as defined by the Environmental Protection (Noise) Policy 2008. The DERM's Noise Measurement Manual should be considered and references should be made to the EPA Guideline: Noise and Vibration from Blasting.	Volume 1 Section 15 and Volume 2 Appendix P Section 3
		Sensitive noise receptors adjacent to all project components should be identified and typical background noise and vibration levels estimated based on surveys at representative sites. The potential sensitivity of such receptors should be discussed and performance indicators and	Volume 1 Sections 15.2.1, 15.2.2 and 15.3 and Volume 2 Appendix P Section

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		standards nominated.	2.3 and 3.2
		Where a railway is also proposed to be constructed and operated, an assessment of the acoustic impacts of the rail should be carried out in the context of the QR Code of Practice for Railway Noise Management.	Volume 1 Section 15.4.9 and Volume 2 Appendix P Section 4.7 and 5.10
3.7.2	Potential impacts and mitigation measures	<p>The EIS should describe the impacts of noise and vibration generated during the construction and operational phases of the project. Noise and vibration impact analysis should include:</p> <ul style="list-style-type: none"> <li>• The levels of noise and vibration generated, including noise contours, assessed against current typical background levels, using modelling where appropriate</li> <li>• Impact of noise, including low frequency noise (noise with components below 200 hertz) and vibration at all potentially sensitive receivers compared with the performance indicators and standards nominated above</li> <li>• Impact on terrestrial and aquatic fauna</li> <li>• 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.</li> </ul>	Volume 2 Appendix P, Section 5 and 6. Volume 1 Section 15.4 Volume 2 Appendix W
3.8	Waste		
3.8.1	Waste generation	The EIS should identify and describe all sources, likely volumes and quality (where applicable) of waste associated with construction, operation and decommissioning of all aspects of the project.	Volume 1 Section 16.6

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>This section should describe:</p> <ul style="list-style-type: none"> <li>• Waste generated by delivery of material to site(s)</li> <li>• All chemical and mechanical processes conducted on the construction sites that produce waste</li> <li>• The amount and characteristics of solid and liquid waste produced on-site by the project</li> <li>• Hazardous materials to be stored and/or used on-site, including environmental toxicity data and biodegradability.</li> </ul>	
3.8.2	Waste management	<p>Having regard for best practice waste management strategies and the Environmental Protection (Waste) Policy 2000 and the Environmental Protection (Waste) Regulation 2000, this section should assess the potential impact of all wastes generated during construction and operation and provide details of each waste in terms of:</p> <ul style="list-style-type: none"> <li>• The options available for avoidance/minimisation</li> <li>• Operational handling and fate of all wastes including storage</li> <li>• On-site treatment methods proposed for any wastes</li> <li>• Methods of disposal (including the need to transport wastes off-site for disposal) proposed to be used for any trade wastes, liquid wastes and solid wastes</li> </ul>	Volume 1 Section 16.5 Volume 1 Section 16.7.1 Volume 1 Section 16.7.3 Volume 1 Section 16.7.3, 4 and 6 Volume 1 Section 16.7.3, 16.7.4 and 16.7.6 Volume 1 Section

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• The potential level of impact on environmental values</li> <li>• Measures to ensure stability of the waste storage areas and impoundments</li> <li>• Methods to prevent, seepage and contamination of groundwater from stockpiles and/or storage areas and impoundments</li> <li>• Measures to minimize attraction of vermin, insects and pests</li> <li>• Options available for using recycled materials</li> <li>• Market demand for recyclable waste (where appropriate)</li> <li>• Decommissioning of the construction site.</li> </ul>	16.7.5 and 16.8.3 Volume 1 Section 16 Table 16-1 and Table 16-2 Volume 1 Section 16.8.2, 16.18 and 16.19 Table 16-9 Volume 1 Section 16.7.4, 16.7.5 and 16.8.2 Volume 1 Section 16.7.1, 16.7.3 and 16.7.7 Volume 1 Section 16.7.1, 16.7.3 and 16.7.7 Volume 1 Section 16.6.3
		The EIS should provide details of waste management strategies (including reduction, reuse,	Volume 1 Section

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		recycling, storage, transport and disposal of waste) which demonstrate that waste minimisation and cleaner production techniques and designs have been implemented through the selection of processes, equipment and facilities to prevent or minimise environmental impacts.	16.7.1
		Information should also be provided on the variability, composition and generation rates of all waste produced at the site and processing plant.	Volume 1 Section 16 Table 16-1 and 16-2
		Cleaner production waste management planning should be detailed especially as to how these concepts have been applied to preventing or minimising environmental impacts at each stage of the proposal. Measures to improve natural resource use efficiency (e.g. energy and water), integrated processing design, any co-generation of power and by-product reuse as shown in a material/energy flow analysis should be presented.	Volume 1 Section 16.7.1
		This information is required to enable the resource management agencies and other stakeholders to assess the efficiency of resource use, and allocation issues.	Volume 1 Section 16.6 and 16.7
		<ul style="list-style-type: none"> <li>• Air emissions: this section should 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 (e.g. trucks, either by entrainment from the load or by passage on unsealed roads). The methods to be employed in the mitigation of impacts from air emissions should be described in the section 3.5.</li> </ul>	Volume 1 Section 16.8.3 Volume 2 Appendix O Sections 4.1 and 4.2
		<ul style="list-style-type: none"> <li>• Waste rock: this section should identify and describe waste rock characteristics including but not limited to: net acid producing potential; salinity; the following contaminants: iron (Fe), aluminium (Al), copper (Cu), magnesium (Mg), manganese (Mn), calcium (Ca), sodium (Na)</li> </ul>	Volume 1 Section 16.10 Volume 2

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		and sulphate (SO <sub>4</sub> ) and the physical properties of the waste rock.	Appendices Q1 and Q2 Volume 1 Section 26.4.6.3
		<ul style="list-style-type: none"> <li>• Excavated waste: this section should describe the proposed management methods including the location, design and methods for constructing dumps for waste rock and subsoil. The location of the dumps should be shown on a map relative to topography and other natural features of the area.</li> </ul>	Volume 1 Section 2 Volume 1 Sections 16.13 to 16.15 and 16.19
		<ul style="list-style-type: none"> <li>• Tailings: this section should describe the tailings waste produced by preparation and/or processing plants and the proposed methods for its disposal. Describe alternative options for tailings disposal including the proposed location, site suitability and volume of any tailings storage and/or disposal site(s), including the method of construction.             <ul style="list-style-type: none"> <li>— describe the approximate quantity of tailings to be produced by the project and its processing plant annually for the life of the mine. Tailings characterisation information should also be presented in this section.</li> <li>— the construction of the tailings storage facility should be described with regards to construction material and design. The EIS should address how the tailings storage facility complies with relevant codes for the construction of such containment systems</li> <li>— describe the strategies to monitor and manage seepage into ground and surface waters. The location of the storage and/or disposal site with regard to adjacent creeks and rivers</li> </ul> </li> </ul>	Volume 1 Section 26 Volume 2 Appendix J  Volume 1 Section 16.13 and 16.14.  Volume 1 Section 16.19 and 16.20  Volume 2



Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		should be described.	Appendices Q1 and Q2
		<ul style="list-style-type: none"><li>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. The proposed location, site suitability, dimensions and volume of any landfill, including its method of construction, should be shown.</li></ul>	Volume 1 Section 16.7.3 and 16.7.4  Volume 1 Section 16.8
		<ul style="list-style-type: none"><li>Liquid waste: a description should be presented of the origin, quality and quantity of wastewater and any immiscible liquid waste originating from the project other than that addressed in other sections. Particular attention should be given 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.</li></ul>	Volume 1 Section 16.6  Volume 1 Section 16.10  Volume 1 Section 10 Table 16-1 and Table 16-2
		The EIS may need to consider the following effects: <ul style="list-style-type: none"><li>Groundwater from excavations</li><li>Rainfall directly onto disturbed surface areas</li><li>Run-off from roads, plant and industrial areas, chemical storage areas</li></ul>	Volume 1 Section 16.6

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference		
		<ul style="list-style-type: none"> <li>• Drainage (i.e. run-off plus any seepage or leakage)</li> <li>• Seepage from other waste storages</li> <li>• Water usage for (1) process use (2) dust suppression, and (3) domestic purposes</li> <li>• Evaporation</li> <li>• Domestic sewage treatment—disposal of liquid effluent and sludge</li> <li>• Water supply treatment plant—disposal of wastes.</li> </ul>			
3.9	Transport				
3.9.1	Existing infrastructure	<p>The transport assessment is to be presented in separate reports for each project-affected mode (road, rail, air and sea) as appropriate. 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. They should also include all base data assumptions, including current condition of the affected network and its performance.</p>	Volume 2 Appendix R Section 3, 4 and 6.		
3.9.2	Transport tasks and routes	<p>This section should describe for all phases of the project:</p> <ul style="list-style-type: none"> <li>• Expected volumes of project inputs and outputs of transported raw materials, wastes, hazardous goods, finished products</li> <li>• How identified project inputs and outputs will be moved through the transport network (volume, composition, trip timing and routes)</li> <li>• Traffic generated by workforce personnel including visitors (volume, composition, timing and</li> </ul>	Volume 2 Appendix R Section 7.8.	Volume 2 Appendix R Section 4.4 and 7.8	Volume 2 Appendix R

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>routes)</p> <ul style="list-style-type: none"> <li>Likely heavy and oversize/indivisible loads (volume, composition, timing and routes) highlighting any vulnerable bridges and structures along proposed routes.</li> </ul>	Section 4.4 Volume 2 Appendix R Section 4.4 and 5
3.9.3	Potential impacts and mitigation measures	<p>Impact assessment reports should include:</p> <ul style="list-style-type: none"> <li>Details of the adopted assessment methodology (for impacts on roads: The Road Impact Assessment Report in general accordance with DTMR Guidelines for Assessment of Road Impacts of Development 2006</li> <li>Description of input data and assumptions</li> <li>A summary of consultation undertaken with transport authorities regarding scope of impact assessment and methodology.</li> </ul>	Volume 2 Appendix R Section 6 Volume 2 Appendix R Section 6 Volume 2 Appendix R Section 3.5
		<p>The EIS should assess project impacts on:</p> <ul style="list-style-type: none"> <li>Capacity, safety, efficiency and condition of transport operations, services and assets (from either transport or project operations)</li> <li>Any other proposed rail projects in the vicinity of the subject proposal</li> <li>Possible interruptions to transport operations</li> <li>The natural environment within the jurisdiction of an affected transport authority (e.g. road and rail corridors)</li> </ul>	Volume 1 Section 17.2 Volume 1 Section 17.2 Volume 1 Section 17.5

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• The nature and likelihood of product-spill during transport if relevant</li> <li>• Driver fatigue for workers travelling to and from regional centres and key destinations</li> <li>• 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</li> <li>• Accessibility to transport for people with a disability.</li> </ul>	Volume 1 Section 17.5  Volume 1 Section 17.7.6  Volume 2 Appendix R Section 8.1.5
3.9.4	Infrastructure alterations	<p>The EIS should detail:</p> <ul style="list-style-type: none"> <li>• Any proposed alterations or new transport-related infrastructure and services required by the project (as distinct from impact mitigation works)</li> <li>• Construction of any project-related plant and utilities, within or impacting on the jurisdiction of any transport authority.</li> </ul>	Volume 1 Section 17.4  N/A
3.9.5	Transport management strategies	<p>The proponent is to 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 by the proponent in close consultation with relevant transport authorities and include consideration of those authority's works program and forward planning.</p>	Volume 1 Section 17.8.5
		<p>Findings of studies and transport infrastructure impact assessments should be an input into preparing a transport management plan.</p>	Statement

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
3.10	Indigenous Cultural Heritage		
3.10.1	Description of existing indigenous cultural heritage values	This section should describe the existing Aboriginal cultural heritage values that may be affected by the project and the environmental values of the cultural landscapes of the affected area in terms of the physical and cultural integrity of the landforms.	Volume 1 Section 18.2
		The section should also describe how in conjunction with the appropriate Aboriginal people the cultural heritage values were ascertained including for example the results of any Aboriginal cultural heritage survey undertaken; the DERM Aboriginal Cultural Heritage Register and Database; any existing literature relating to Indigenous cultural heritage in the project area.	Volume 1 Section 18.3
3.10.2	Potential impacts and mitigation measures	This section should define and describe the objectives and practical measures for protecting or enhancing Indigenous cultural heritage environmental values, describe how nominated quantitative standards and indicators may be achieved for cultural heritage management, and describe how the achievement of the objectives will be monitored, assessed and managed.	Volume 1 Section 18.4
		<p>To the greatest extent practicable, significant cultural heritage areas should be avoided by the project. The EIS should provide an assessment of likely effects on sites of Indigenous cultural heritage values, including but not limited to the following:</p> <ul style="list-style-type: none"> <li data-bbox="631 1155 1805 1223">• Description of the significance of artefacts, items or places of conservation or cultural heritage values likely to be affected by the project and their values at a local, regional and national level</li> <li data-bbox="631 1239 1805 1307">• Recommended means of mitigating any negative impact on cultural heritage values and enhancing any positive impacts.</li> </ul>	Volume 1 Section 18.3.3 Volume 1 Section 18.4.2

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		As a minimum, impact assessment, management and protection strategies should satisfy statutory responsibilities and duties of care.	Volume 1 Section 18.4
		A Native Title Agreement, as that term is defined under the Aboriginal Cultural Heritage Act 2003 (ACH Act), that includes management and protection strategies for Aboriginal cultural heritage (NT Agreement) or a Cultural Heritage Management Plan under the ACH Act (CHMP) should be initiated during the EIS process. An NT Agreement or an approved CHMP in a form which 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.	Volume 1 Section 18.4
		<p>If an NT Agreement is not finalised or a CHMP has not been approved, when the EIS is submitted to the Coordinator-General the following must be provided:</p> <ul style="list-style-type: none"> <li>• An outline of the draft CHMP or draft plan within the NT Agreement which addresses management and protection strategies for cultural heritage, subject to any confidentiality provisions, outlining the position of the relevant parties</li> <li>• Details of the proposed steps and timeframes for finalising the CHMP or NT Agreement.</li> </ul>	Not Applicable
		An NT Agreement or CHMP should be negotiated between the proponent and the appropriate Native Title/Indigenous parties and should address and include the following: <ul style="list-style-type: none"> <li>• A process for including Indigenous people associated with the development areas in protection and management of Indigenous cultural heritage</li> <li>• Processes for mitigation, management and protection of identified cultural heritage sites and</li> </ul>	Volume 1 Section 18.3.1

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference		
		<p>objects in the project areas, including associated infrastructure developments, during both the construction and operational phases of the project</p> <ul style="list-style-type: none"> <li>• Provisions for the management of the accidental discovery of cultural material, including burials</li> <li>• A clear recording process to be developed to assist initial management and recording of accidental discoveries</li> <li>• A cultural heritage induction for project staff</li> <li>• The development of a cultural heritage awareness program to be incorporated into the contractor/employee manual as well as induction manual. This is to be in the form of a plain language, short document which is easy for contractors and staff 'on the ground' to understand</li> <li>• A conflict resolution process.</li> </ul>			
3.11	Non-Indigenous Cultural Heritage				
3.11.1	Description of existing non-indigenous heritage values	<p>The EIS should include a cultural heritage study that describes non-Indigenous cultural heritage sites and places, and their values. Any such study should be conducted by an appropriately qualified cultural heritage practitioner and should include the following:</p> <ul style="list-style-type: none"> <li>• Consultation with: <ul style="list-style-type: none"> <li>— the Australian Heritage Places Inventory</li> <li>— the Queensland Heritage Register and other information regarding places of potential non-</li> </ul> </li> </ul>	Volume 1 Section 19.1	Volume 1 Section 19.2.3.1	Volume 1 Section 19.2.3.1

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>Indigenous cultural heritage significance</p> <ul style="list-style-type: none"> <li>— any local government heritage register</li> <li>— any existing literature relating to the heritage of the affected areas</li> <li>• Liaison with relevant community groups/organisations (e.g. local historical societies) concerning:                     <ul style="list-style-type: none"> <li>— places of non-Indigenous cultural heritage significance</li> <li>— opinion regarding significance of any cultural heritage places located or identified</li> </ul> </li> <li>• Locations of culturally and historically significant sites, shown on maps, that are likely to be impacted by the project</li> <li>• A constraints' analysis of the proposed development area to identify and record non-Indigenous cultural heritage places.</li> </ul>	Volume 1 Section 19.2.1 Volume 1 Section 19.2.3.2 Volume 1 Section 19.2.3.2.1 Volume 1 Section 19.2.3.2.2 Volume 1 Section 19.2.4 Volume 1 Section 19 Figures 19-1 and 19-2 Volume 1 Section 19.2.2
3.11.2	Potential impacts and mitigation measures	<p>The proponent should provide an assessment of any likely effects on sites of non-Indigenous cultural heritage values, including but not limited to the following:</p> <ul style="list-style-type: none"> <li>• Description of the significance of artefacts, items or places of conservation or non-Indigenous</li> </ul>	Volume 1 Section 19.3 Volume 1 Section

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>cultural heritage value likely to be affected by the project and their values at a local, regional, state and national level</p> <ul style="list-style-type: none"> <li>• Recommended means of mitigating any negative impacts on non-Indigenous cultural heritage values and enhancing any positive impacts</li> <li>• Strategies to manage places of historic heritage significance, taking account also of community interests and concerns.</li> </ul>	19.2.5 Volume 1 Section 19.3.1 Volume 1 Section 19.3. Volume 1 Section 19.3.2 Volume 1 Section 19.3.2.2 Volume 1 Section 19.3.2.3
		As a minimum, investigation, consultation, impact assessment, management and protection strategies should satisfy statutory responsibilities and duties of care, including those under the EPBC Act and Queensland Heritage Act 1992.	Volume 1 Section 19 - compliant
<b>4.</b>	<b>SOCIAL VALUES AND MANAGEMENT OF IMPACTS</b>		
4.1	Description of existing social values	The social impact assessment (SIA) should be conducted in consultation with the DIP Social Impact Assessment Unit. Matters to be considered include the social and cultural area, community engagement, a social baseline study, a workforce profile, potential impacts and mitigation measures and management strategies.	Volume 2 Appendix T, Section 1.3, 4, 6.1, 6.2, 7, 8 and 11

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
4.1.1	Social and cultural values	<p>The SIA should define the project's social and cultural area of influence, including the local, district, regional and state level as relevant, taking into account:</p> <ul style="list-style-type: none"> <li>• The potential for social and cultural impacts to occur</li> <li>• The location of other relevant proposals or projects</li> <li>• The location and types of physical and social infrastructure, settlement and land use patterns</li> <li>• The social values that might be affected by the project (e.g. including integrity of social conditions, visual amenity and liveability, social harmony and wellbeing, and sense of community)</li> <li>• Indigenous social and cultural characteristics such as native title rights and interests and cultural heritage.</li> </ul>	Volume 2 Appendix T, Section 3.1 and 3.2, Figure 6.3 Volume 2 Appendix T, Section 5.1.5, 5.2.2, 5.3.3 and 7 Table 9-1 Volume 2 Appendix T, Section 4.5 and 4.11 Volume 2 Appendix T, Table 7-3, Table 7-5 and Table 7-9 Volume 2 Appendix T, Section 7.1.1
4.1.2	Community	Consistent with national and international good practice the proponent should engage at the earliest practical stage with likely affected parties to discuss and explain the project, and to identify	Volume 2 Appendix T, Section 2.10 and

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
	engagement	and respond to issues and concerns regarding social impacts.	Figure 2-1
		This section of the SIA should detail the community engagement processes used to conduct open and transparent dialogue with stakeholders. This dialogue should include the project's planning and design stages and future operations including affected local and state authorities. Engagement processes will involve consideration of social and cultural factors, customs and values, and relevant consideration of linkages between environmental, economic, and social impact issues.	Volume 2 Appendix T, Section 2.10
4.1.3	Social baseline study	A targeted baseline study of the people residing in the project's social and cultural area is required to identify the project's critical 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.	Volume 2 Appendix T, Section 4
		<p>The social baseline study should describe and analyse a range of demographic and social statistics determined relevant to the project's social and cultural area including:</p> <ul style="list-style-type: none"> <li>• Major population trends/changes that may be occurring irrespective of the project</li> <li>• Total population (the total enumerated population for the social and cultural area and the full time equivalent (FTE) transient population), 18 years and older</li> <li>• Estimates of population growth and population forecasts resulting from the proposal</li> <li>• Family structures</li> </ul>	

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• Age and gender distributions</li> <li>• Education, including schooling levels</li> <li>• Health and wellbeing measures</li> <li>• Cultural and ethnic characteristics</li> <li>• The Indigenous population including age and gender</li> <li>• Income including personal and household</li> <li>• Labour force by occupation and industry</li> <li>• Housing costs (monthly housing repayments (percent of dwellings in each category)), and weekly rent (percent dwellings in each category), housing tenure type and landlord type, household and family type</li> <li>• 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</li> <li>• Disability prevalence</li> <li>• The social and economic index for areas, index of disadvantage—score and relative ranking</li> <li>• Crime, including domestic violence</li> <li>• Any other indicators determined through the community engagement process as relevant.</li> </ul>	Volume 2 Appendix T, Section 4.2, 4.3, 4.5, 4.6, 4.9 and 7.2

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>The social baseline study should take account of current social issues such as:</p> <ul style="list-style-type: none"> <li>• The social infrastructure including community and civic facilities, services and networks (for definition see South East Queensland Plan 2005-2026 Implementation Guideline No. 5: <a href="http://www.dip.qld.gov.au/resources/guideline/Implementationguideline5.pdf">www.dip.qld.gov.au/resources/guideline/Implementationguideline5.pdf</a>). Maps illustrating the identified social infrastructure in the area effected by the project should be included</li> <li>• Settlement patterns including the names, locations, size, history and cultural aspects of settlement in the social and cultural area</li> <li>• The identity, values, lifestyles, vitality, characteristics and aspirations of communities in the social and cultural area, including Indigenous communities.</li> <li>• Land use and land ownership patterns including: <ul style="list-style-type: none"> <li>— rural properties, farms, croplands and grazing areas including on-farm activities near the proposed activities</li> <li>— the number of properties directly affected by the project</li> <li>— 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.</li> </ul> </li> <li>• Use of the social and cultural area for forestry, fishing, recreation, business and industry, tourism, aquaculture, and Indigenous cultural use of flora and fauna.</li> </ul>	Volume 2 Appendix T, Section 7.5.1 and 7.5.2 Volume 2 Appendix T, Section 4.1.1 and 4.1.2 Volume 2 Appendix T, Section 3.1 and 3.2 Volume 2 Appendix T, Section 4.1.1 and 4.1.2

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
4.1.4	Workforce profile	<p>The SIA should include a profile of the workforce which describes:</p> <ul style="list-style-type: none"> <li>• The number of personnel to be employed, the skills base of the required workforce and the likely sources (i.e. local, regional or overseas) for the workforce during the construction and operational phases for each component of the project</li> <li>• The estimated number of people to be employed during construction and operation, and arrangements for their transport to and from the project areas, including proposed use of regional or charter air services</li> <li>• Estimates should be provided according to occupational groupings and variations in the workforce numbers for the duration of the project and show anticipated peaks in worker numbers during the construction period.</li> </ul>	Volume 2 Appendix T, Section 6.1 and 6.2,
		<p>The SIA should provide an outline of recruitment schedules and policies for recruitment of workers, addressing recruitment of local and non-local workers including Indigenous workers, people with a disability and people from culturally and linguistically diverse backgrounds.</p>	Volume 2 Appendix T, Section 6.1.2 and 6.2.1
		<p>If re-locatable camp sites and permanent operational villages are to be used to accommodate the workforce, details on the number, size, location (shown on a map), management, proximity to the construction site, and typical facilities for these sites should be provided. Information should outline any local government or other regulatory approvals required for establishment and operation of such camps, including building, health and safety and waste disposal purposes.</p>	Volume 2 Appendix T, Section 6.1.4 and Section 6.2.5
		<p>The section should provide information in relation to the location of other major projects or proposals under study within the social and cultural area together with workforce numbers.</p>	Volume 2 Appendix T, Section 9.1 and

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
			9.2
4.2	Potential Impacts	<p>This section of the SIA should 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 it should:</p> <ul style="list-style-type: none"> <li>• Describe and summarise outcomes of community engagement processes including the likely response of the affected communities, including Indigenous people</li> <li>• Include sufficient data to enable affected local and state authorities to make informed decisions about the projects 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</li> <li>• 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. Considering the following: <ul style="list-style-type: none"> <li>— Key population/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</li> <li>— The needs of vulnerable groups including women, children and young people, the aged and people with a disability</li> <li>— Indigenous peoples including cultural property issues</li> </ul> </li> </ul>	Volume 2 Appendix T, Section 7 Volume 2 Appendix T Section 7 Volume 2 Appendix T, Section 7.5.1 and 7.5.2 Volume 2 Appendix T, Section 10

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>— Local, regional and state labour markets, with regard to the source of the workforce. This information is to be presented according to occupational groupings of the workforce. Information is required as to whether the proponent, and/or contractors, is likely to employ locally or through other means and whether there are initiatives for local employment business opportunities</li> <li>— Proposed new skills and training related to the project including the occupational skill groups required and potential skill shortages anticipated</li> <li>— Comment on how much service revenue and work from the project would be likely to flow to the project's social and cultural area</li> <li>— Impacts of construction and operational workforces, their families, and associated contractors on housing and accommodation availability and affordability, land use and land availability. The capability of the existing housing and rental accommodation, to meet any additional demands created by the project is to be discussed including direct impacts on Indigenous people. The social impacts on fly-in / fly-out workforce arrangements should also be assessed.</li> </ul>	
		<p>The SIA will include an evaluation of 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 resource development projects in the area which are publicly known or communicated by DIP, if they overlap the proposed project in the same time frame as its</p>	Volume 2, Appendix T, Section 10

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		construction period.	
4.2.1	Mitigation measures and management strategies	<p>For identified social impacts, social impact mitigation strategies and measures should be presented to address:</p> <ul style="list-style-type: none"> <li>• 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</li> <li>• Housing and accommodation issues, in consultation with relevant local authorities and state government agencies, with proposals for accommodating the project workforce and their families that avoid, mitigate or offset any short and medium term adverse effects on housing affordability and availability, including the rental market, in the social and cultural area. If relocatable camp sites and permanent operational villages are to be used to accommodate the workforce, management of health and safety issues associated with these accommodation types should be addressed in consultation with relevant local authorities and state government agencies.</li> <li>• The 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</li> <li>• The adequate provision of education, training and employment for women, people with a disability, and Indigenous peoples.</li> </ul>	Volume 2 Appendix T, Section 11 Volume 2 Appendix T, Section 11.2.1, Volume 2 Appendix T, Section 11.2.1, Volume 2 Appendix T, Section 11.2.1 Volume 2 Appendix T, Section 11.2.1
		The proponent should describe any consultation about acceptance of proposed mitigation strategies and how practical management and monitoring regimes are proposed to be	Volume 2 Appendix

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference	
		implemented.	T, Section 11	
		<p>A draft social impact management plan should be presented that promotes an active and ongoing role for impacted communities and local authorities through the project life cycle. The draft plan should cover:</p> <ul style="list-style-type: none"> <li>• Assignment of accountability and resources</li> <li>• Updates on activities and commitments</li> <li>• Mechanisms to respond to public enquiries and complaints</li> <li>• Mechanisms to resolve disputes with stakeholders</li> <li>• Periodic evaluation of the effectiveness of community engagement processes</li> <li>• Practical mechanisms to monitor and adjust mitigation strategies and action plans</li> <li>• Action plans to implement mitigation strategies and measures.</li> </ul>	Volume 2, Appendix T, Section 11.2	
5.	ECONOMIES AND MANAGEMENT OF IMPACTS			
5.1	Economy			
5.1.1	Description of affected local and regional economies	<p>This section should describe the existing economy in which the project is located and the economies materially impacted by the project. It should include:</p> <ul style="list-style-type: none"> <li>• A map illustrating the local and regional economies (local government areas) that could be potentially affected by the project</li> </ul>	Volume 2 Appendix V Section 3.1 to 3.5	Volume 1, Section 23.2 and Volume 2 Appendix V Section

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• Gross regional product or other appropriate measure of annual economic production</li> <li>• Population</li> <li>• Labour force statistics</li> <li>• Economic indicators</li> <li>• The regional economy's key industries and their contribution to regional economic income</li> <li>• The key regional markets relevant to the project:           <ul style="list-style-type: none"> <li>— Labour market</li> <li>— Housing and land markets</li> <li>— Construction services and building inputs market</li> <li>— Regional competitive advantage and expected future growth.</li> </ul> </li> </ul>	4.1, 4.2 and Figure 1-1
		<p>With regard to the region's key industries and factor prices, provide information on:</p> <ul style="list-style-type: none"> <li>• Current input costs (wage rates, building costs, housing rent etc)</li> <li>• Land values in the region by type of use.</li> </ul>	Volume 1, Section 23.2 and Volume 2 Appendix V Section 2, 4.1 and 4.2
5.1.2	Potential impacts and mitigation measures	The potential impacts should consider local, regional, state and national perspectives as appropriate to the scale of the project	Volume 1, Section 23.2 and Volume 2 Appendix V Section 5.1

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>The analysis should describe both the potential and direct economic impacts including estimated costs, if material, on industry and the community, assessing the following:</p> <ul style="list-style-type: none"> <li>• Property values</li> <li>• Industry output</li> <li>• Employment</li> <li>• The indirect impacts likely to flow to other industries and economies from the development of the project. This should also consider the implications of the project for future development.</li> <li>• The distributional effects of the proposal including proposals to mitigate any negative impact on disadvantaged groups.</li> </ul>	Volume 1, Section 23.2 and Volume 2 Appendix V Section 5.1
5.1.2.1	Strategies for local participation	<p>The assessment of economic impacts should outline strategies for local participation, including:</p> <ul style="list-style-type: none"> <li>• Strategies for assessing the cost effectiveness of sourcing local inputs from the regional economy during the construction, operation and rehabilitation of the project</li> <li>• 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</li> <li>• Strategies responding to relevant government policy, relating to:           <ul style="list-style-type: none"> <li>— The level of training provided for construction contracts on Queensland Government building and construction contracts, with regard to the Queensland Government Building and</li> </ul> </li> </ul>	Volume 1, Section 23.3.6 and Volume 2 Appendix V Section 5.5

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>Construction Contracts Structured Training Policy (the 10 per cent policy)</p> <ul style="list-style-type: none"> <li>— Indigenous employment opportunities, with regard to the Indigenous Employment Policy for Queensland Government Building and Civil Construction Projects (the 20 per cent policy)</li> <li>— The use of locally sourced goods and services, with regard to the Local Industry Policy (Department of State Development, 1999).</li> </ul>	
5.2	Sustainable development	The EIS should provide a comparative analysis of how the project conforms to the objectives for 'sustainable development'—see the National Strategy for Ecologically Sustainable Development (1992), available from the Australian Government Publishing Service.	Volume 1 Section 25.1 and 25.2
		This analysis should 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.	Volume 1 Section 25 Table 25-1
		This information is required to demonstrate that sustainable development aspects have been considered and incorporated during the scoping and planning of the project.	Volume 1 Section 25 Table 25-1
6.	HAZARD AND RISK		
6.1	Hazard and risk assessment	<p>This section of the EIS should 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:</p> <ul style="list-style-type: none"> <li>• Identification of potential hazards, accidents, spillages and abnormal events which may occur during all stages of the project, including possible frequency of occurrence</li> </ul>	Volume 1 Section 24 Volume 1 Section 24.2 and Volume 2 Appendix U

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• Identification of all hazardous substances to be used, stored, processed or produced and the rate of usage</li> <li>• Potential wildlife hazards, natural events and implications related to climate change.</li> </ul>	Volume 1 Section 24.2.4.4 and Volume 2 Appendix U Volume 1 Sections 24.3.4.1 & 24.3.6 and Volume 2 Appendix U
		<p>A preliminary risk assessment for all components of the project shall be undertaken as part of the EIS process in accordance with Australia/New Zealand AS/NZS 4360:2004 Risk Management. With respect to risk assessment:</p> <ul style="list-style-type: none"> <li>• The EIS should deal comprehensively with external and on-site risks including transport</li> <li>• The study should assess risks during the construction, operational and decommissioning phases of the project</li> <li>• Analysis of the consequences of each hazard on safety in the project area should be conducted, examining the likelihood of both individual and collective consequences, involving injuries and fatalities to workers and to the public</li> <li>• Quantitative levels of risks should be presented from the above analysis.</li> </ul>	Volume 1 Section 24.2 and 24.3 Volume 1 Section 24.2 and Tables 24-6 and 24-7 Volume 1 Section 24.1.2 and Volume 2, Appendix U. Volume 1 Section 24.2.3.1, Table 24-1 and Volume 2 Appendix U Volume 1 Section 24.2.3.1, Table 24-1 and Volume 2

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
			Appendix U
		<p>In regard to fires, in consultation with emergency services agencies, the EIS should outline strategies to manage the provision of:</p> <ul style="list-style-type: none"> <li>• Fire management systems to ensure the retention on site of fire water or other fire suppressants used to combat emergency incidents</li> <li>• Building fire safety measures for any construction or permanent accommodation</li> <li>• Details of any emergency response plans and bushfire mitigation plans under the SPP 1/03</li> <li>• On-site fire fighting equipment provided and the level of training of staff who will be tasked with emergency management activities</li> <li>• Detailed maps showing the plant outline, potential hazardous material stores, incident control points, fire fighting equipment, etc</li> <li>• An outline of any dangerous goods stores associated with the plant operations, including fuel storage and emergency response plans.</li> </ul>	Volume 1 Section 24.3 and Table 24-12
		Details should be provided 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).	Volume 1 Section 24.3.4
		A comparison of assessed and mitigated risks with acceptable risk criteria for land uses in and adjacent to the project area(s) should be presented.	Volume 1 Section 24.2.4.2

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		A risk management plan should be presented.	Volume 1 Section 24.3
6.2	Health and Safety		
6.2.1	Description of public health and safety community values	This section should 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 and water.	Volume 1 Section 22.2
6.2.2	Potential impact and mitigation measures	<p>This section should 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 impacts management, and how the achievement of the objectives will be monitored, audited and managed.</p> <p>The EIS should assess the cumulative effects on public health values as well as occupational health and safety impacts on the community and workforce from project operations and emissions. Practical monitoring regimes should be recommended in this section.</p>	Volume 1 Section 22.3 Volume 1 Section 22.3.3
6.3	Emergency management plan	<p>The development of emergency planning and response procedures is to be determined in consultation with state and regional emergency service providers.</p>	Volume 1, Section 24 and Volume 2, Appendix U
		An outline of the proposed integrated emergency management planning procedures is to be provided (including evacuation plans, if required) for the range of situations identified in the risk assessment developed throughout section 6 , including strategies to deal with natural disasters	Volume 1, Section 24 and Volume 2, Appendix U

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		during operation and construction.	
7.	CUMULATIVE IMPACTS		
		This section is to provide a summary of the project's cumulative impacts and a description of these cumulative impacts both in isolation and in combination with those of existing or proposed project(s) publicly known or advised by DIP to be in the region, to the greatest extent practicable. Cumulative impacts should be assessed with respect to both geographic location and environmental values. The methodology used to determine the cumulative impacts of the project should be presented, detailing the range of variables considered, including where applicable, relevant baseline or other criteria upon which the incremental aspects of the project have been assessed.	Volume 1 Section 27 Volume 2 Appendix X
8.	Environmental Management Plan		
		This section should detail the environmental management plans (EMP) for both the construction and operation phases of the project. The EMP should be developed from, and be consistent with, the information in the EIS. The sections of the EMP must address discrete project elements and must provide life-of-proposal control strategies. The EMP must be capable of being read as a stand-alone document without reference to other parts of the EIS.	Volume 1 Section 28 Volume 2 Appendix W
		The EMP included within the EIS should comply with section 203 of the Environmental Protection Act 1994.	Volume 2 Appendix W
		The EMP must comprise the following components for performance criteria and implementation strategies:	Volume 2 Appendix W.

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• The proponent's commitments to acceptable levels of environmental performance, including environmental objectives, performance standards and associated measurable indicators, performance monitoring and reporting</li> <li>• Impact prevention or mitigation actions to implement the commitments</li> <li>• Corrective actions to rectify any deviation from performance standards</li> <li>• An action program to ensure the environmental protection commitments are achieved and implemented. This will include strategies in relation to:                             <ul style="list-style-type: none"> <li>— Continuous improvement</li> <li>— Environmental auditing</li> <li>— Monitoring</li> <li>— Reporting</li> <li>— Staff training</li> <li>— A rehabilitation program for land proposed to be disturbed under each relevant aspect of the proposal.</li> </ul> </li> </ul>	Volume 2 Appendix W.3
		<p>The recommended structure of each element of the EMP is:</p> <p>Element/Issue:</p> <p>Aspect of construction or operation to be managed (as it affects environmental values).</p>	Statement

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>Operational policy:</p> <p>The operational policy or management objective that applies to the element.</p> <p>Performance criteria:</p> <p>Measurable performance criteria (outcomes) for each element of the operation.</p> <p>Implementation strategy:</p> <p>The strategies, tasks or action program (to nominated operational design standards) that would be implemented to achieve the performance criteria.</p> <p>Monitoring:</p> <p>The monitoring requirements to measure actual performance (e.g. specified limits to pre-selected indicators of change).</p> <p>Auditing:</p> <p>The auditing requirements to demonstrate implementation of agreed construction and operation environmental management strategies and compliance with agreed performance criteria.</p> <p>Reporting:</p> <p>Format, timing and responsibility for reporting and auditing of monitoring results.</p> <p>Corrective action:</p> <p>The action (options) to be implemented in case a performance requirement is not reached and the</p>	

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		person(s) responsible for action (including staff authority and responsibility management structure).	
		Through the EMP, the EIS' commitments to environmental performance can be used as regulatory controls via conditions to comply with those commitments. Therefore, the EMP is a relevant document for project approvals, environmental authorities and permits, and may be referenced by them.	Statement
9.	MATTERS OF NATIONAL IMPORTANCE		
		This section should bring together assessments of impacts on MNES in other chapters (e.g. water resources, flora and fauna, cultural heritage, cumulative impacts) and produce a stand-alone assessment in a format suited for assessment under the EPBC Act.	
		The controlling provisions under the EPBC Act have been determined as: <ul style="list-style-type: none"> <li>• Sections 18 and 18A (Listed threatened species and communities)</li> <li>• Sections 20 and 20A (Listed migratory species).</li> </ul>	Volume 2 Appendix H
		The project should initially be assessed in its own right followed by an assessment of the cumulative impacts related to all known proposed major industrial developments in the project component study areas with respect to each controlling provision, and relevant identified consequential actions.	Volume 2 Appendix X
		Predictions of the extent of threat (risk), impact and the benefits of any mitigation measures proposed, should be based on sound science and quantified where possible. All sources of information relied upon should be referenced and an estimate of the reliability of predictions	All Sections

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		provided. Any positive impacts should also be identified and evaluated.	
		If environmental offsets are required, in accordance with the EPBC Draft Environmental Offsets Policy Statement (August 2007), then an offset strategy should be proposed.	Volume 2 Appendix H
		The extent of any new field work, modelling or testing should be commensurate with risk and should be such that when used in conjunction with existing information, provides sufficient confidence in predictions that well informed decisions can be made. Obligations under and implications of any species recovery plans must be specifically addressed.	All Sections
9.1	Impact on a listed threatened species and ecological community	This section should include a description of the listed threatened species and ecological communities identified below (including EPBC Act status, distribution, life history, habitats etc.).	Volume 2 Appendix H
		<p>The EIS should consider and assess the impacts to the listed threatened species and ecological communities and any others that are found to be or may potentially be present in areas that may be impacted by the project. The EIS should identify which component of the project is of relevance to each species or community or if the threat of impact relates to consequential actions, resulting from:</p> <ul style="list-style-type: none"> <li>• Decrease in the size of a population or a long term adverse affect on an ecological community</li> <li>• Reduction in the area of occupancy of the species or extent of occurrence of the ecological community</li> <li>• Fragmentation of an existing population or ecological community</li> <li>• Disturbance or destruction of habitat critical to the survival of the species or ecological</li> </ul>	Volume 1 Sections 9 and 10 and Volume 2, Appendices M1, M2 and M3

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>community</p> <ul style="list-style-type: none"> <li>• Disruption of the breeding cycle of a population</li> <li>• Modification, destruction, removal, isolate or reduction of the availability or quality of habitat to the extent that the species is likely to decline</li> <li>• Modification or destruction of abiotic (non-living) factors (such as water, nutrients or soil) necessary for the ecological community's survival</li> <li>• The introduction of invasive species that are harmful to the species or ecological community becoming established</li> <li>• Interference with the recovery of the species or ecological community</li> <li>• Action which may be inconsistent with a recovery plan.</li> </ul>	
		Any positive impacts should also be identified and evaluated.	All Sections
		A description of any mitigation measures proposed to reduce the impact on the listed threatened species and ecological communities and the anticipated benefit of proposed mitigation measures should be discussed within the EIS.	Volume 1 Sections 9 and 10 and Volume 2, Appendices M1, 2 and 3
9.2	Impact on a listed migratory species	A description of the listed migratory species identified below (including EPBC Act status, distribution, life history, habitats etc.).	Volume 2 Appendix H
		The EIS should consider and assess the impacts to the listed migratory species identified below and any others that are found to be or may potentially be present in areas that may be impacted by	Volume 2 Appendix H

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<p>the project. The EIS should identify which component of the project is of relevance to each species or if the threat of impact relates to consequential actions, resulting from:</p> <ul style="list-style-type: none"> <li>• The destruction, isolation or modification of habitat important to a migratory species</li> <li>• The introduction of invasive species in an important habitat that would be harmful to a migratory species</li> <li>• The disruption of the lifecycle (breeding, feeding, migration, or resting behaviour) of an ecologically important proportion of the population of a migratory species</li> <li>• Interference with the recovery of the species or ecological community</li> <li>• Action which may be inconsistent with a recovery plan.</li> </ul>	
		Any positive impacts should also be identified and evaluated	Volume 2 Appendix H
		A description of any mitigation measures proposed to reduce the impact on migratory species and the anticipated benefit of proposed mitigation measures should be discussed within the EIS.	Volume 2 Appendix H
9.3	Format of matters of national environmental significance section	<p>This section of the EIS report should be a stand-alone section and should exclusively and fully address the issues relevant to the EPBC Act controlling provisions. It should outline:</p> <ul style="list-style-type: none"> <li>• Introduction, including title of EPBC referral and numbers, and brief description of the project</li> <li>• Description of proposed action (as it would impact on MNES)</li> <li>• Description of the affected environment and values relevant to the controlling provisions (i.e. describe the features of the environment that are MNES protected under the EPBC Act)</li> </ul>	Volume 2 Appendix H

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		<ul style="list-style-type: none"> <li>• Assessment of impacts on MNES and mitigation measures (in accordance with available guidelines and species recovery plans)</li> <li>• An outline of environmental management plan that sets out the framework for continuing management, mitigation and monitoring for the relevant impacts of the action and the name of the agency responsible for endorsing or approving each mitigation measure or monitoring programme</li> <li>• Other approvals and conditions (e.g. permits for vegetation clearing, local, state planning schemes or plan or policy and a description of any approval that has been obtained from a state or Commonwealth agency or authority)</li> <li>• Environmental record of HPPL—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 proponent and for an action for which the proponent has applied for a permit</li> <li>• Conclusions and recommendations</li> <li>• References and linkages to relevant sections of the EIS.</li> </ul>	
<b>10.</b>	<b>CONCLUSIONS AND RECOMMENDATIONS</b>		
		The EIS should make conclusions and recommendations with respect to the project based on the studies presented, the EMP and conformity of the project with legislative and policy requirements	All Studies, All Sections.
<b>11.</b>	<b>REFERENCES</b>		

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		All references consulted should be presented in the EIS in a recognised format.	Volume 1 Section 31
12.	APPENDICES		
12.1	Final EIS TOR	A copy of the final EIS TOR	Volume 2 Appendix A
12.2	TOR cross-reference	A cross reference table should be provided 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.	Volume 2 Appendix B
12.3	Project approvals	Required project approvals should be listed.	Volume 2 Appendix E
12.4	Consultation report	<p>This report should include:</p> <ul style="list-style-type: none"> <li>• The methodology used in the public consultation plan including criteria for identifying stakeholders and the communication methods used (the consultation plan)</li> <li>• A list of stakeholders identified, including the Australian, Queensland and local government agencies, and/or the affected parties (as defined by the EP Act) should be provided</li> <li>• A summary of the issues raised by stakeholders and the means by which the issues have been addressed, should be provided</li> <li>• Plans for ongoing consultation should be outlined and included in the EMP.</li> </ul>	Volume 1 Section 21
12.5	Study team	The relevant qualifications and experience of the key study team members and specialist sub-consultants should be provided.	Volume 2 Appendix D
12.6	Glossary of terms	The relevant qualifications and experience of the key study team members and specialist sub-	Volume 2 Appendix C

Terms of Reference Section Number	Section Heading	Description	Environmental Impact Statement Cross-Reference
		consultants should be provided.	
12.7	Specialist studies	<p>All reports generated on specialist studies undertaken as part of the EIS are to be included as appendices. These may include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Air pollution, noise and vibration</li> <li>• Groundwater and surface water hydrology</li> <li>• Geology and geomorphology</li> <li>• Economic studies and/or cost-benefit analysis</li> <li>• Cultural heritage</li> <li>• Hazard and risk studies</li> <li>• Land use and land capability studies.</li> </ul>	Volume 1 Sections 3 to 30
12.8	Corporate environmental policy	The proponent should attach a copy of its corporate environmental policy and planning framework document.	Volume 2 Appendix F
12.9	List of proponent commitments	A list of all commitments made by the proponent in the EIS should be provided together with a reference to the relevant section in the report.	Volume 2, Appendix G