Table A3.1 Terms of Reference Cross Reference Table

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
EXECUTIVE SUMMARY			
	The function of the executive summary is to 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 the use of jargon and esoteric terms. The executive summary should be written as a stand-alone document, able to be reproduced on request and distributed to interested parties who may not wish to read or purchase the EIS as a whole. The structure of the executive summary should follow that of the EIS, and focus strongly on the key issues and conclusions to enable the reader to obtain a clear understanding of the project and its potential adverse and beneficial environmental, social and economic impacts and the management measures to be implemented by the proponent to mitigate all residual impacts. The executive summary should include:	Executive Summary.	
	• The title of the project.	Executive Summary, Section 1.0.	
	• Name and contact details of the proponent, and a discussion of previous projects undertaken by the proponents and their commitment to effective environmental management.	Executive Summary, Section 1.2.	
	• A concise statement of the aims and objectives of the project.	Executive Summary, Section 1.1.	
	• The legal framework, decision-making authorities and advisory agencies.	Executive Summary, Section 2.1. Executive Summary, Section 2.2.	
	• An outline of the background and need for the project, including the consequences of not proceeding with the project.	Executive Summary, Section 3.1. Executive Summary, Section 3.3.	
	• A description of alternative options considered and reasons for the selection of the proposed development option.	Executive Summary, Section 3.2.	
	• A brief description of the project (pre-construction, construction and operational activities) and the existing environment, utilising visual aids where appropriate.	Executive Summary, sections 4.2 and 4.3.	
	• An outline of the principal environmental impacts predicted and the proposed environmental management strategies (including waste minimisation and management), mitigation measures and environmental offsets and commitments to minimise the significance of these impacts.	Executive Summary, sections 5.1 and 5.3.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
EXECUTIVE SUMMARY			
	• Detailed maps of the proposed project location.	Figures 1.1, 1.2, 6.1, 6.10, 6.11, 6.12, 6.14, 7.1, 7.4, and 8.5.	
GLOSSARY OF TERMS			
	A glossary of technical terms, acronyms and abbreviations should be provided.	Chapter 38, Glossary	
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 also define the audience to whom it is directed, and contain an overview of the structure of the document.	Chapter 1 Introduction, Section 1.5.	
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, role and responsibilities and environmental record, including the proponent's environmental policy.	Chapter 1 Introduction, Section 1.1.	
1.2	**Project Description** This section should provide a brief description of the key elements of the project, particularly the feed gas transmission pipeline, the LNG plant and ancillary facilities, and associated infrastructure. The location of the project and its infrastructure requirements should be described and mapped. Detailed descriptions of the project should follow in section 2.	Chapter 1 Introduction, Section 1.2.	
1.3	**Project Rationale** This section should provide a statement of the objectives of the project, and	Chapter 1 Introduction, Section 1.3.	
	A brief outline of the events leading up to the project's formulation,	Chapter 1 Introduction, sections 1.2.4 and 1.4.1.	
	Envisaged time scale for implementation and project life,	Chapter 1 Introduction, Section 1.2.3.	
	Anticipated establishment costs and actions already undertaken within the project area.	Chapter 1 Introduction, Section 1.2.4.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
1. INTRODUCTION			
1.3	The rationale for the project should be described, with particular reference made to the economic and social benefits, including employment and flow-on business development, which the project may generate. The status of the project should be discussed in a regional, state and national context.	Chapter 1 Introduction, Section 1.3.1. Chapter 3 Project Rationale. Chapter 5 Assessment of Alternatives, Section 5.6. Chapter 26 Social, Section 26.5. Chapter 27 Economics, Section 27.4.	
	The interdependencies of the various project components should be explained, together with any infrastructure requirements that may affect the viability of the project.	Chapter 1 Introduction, Section 1.1.1 and 1.4. Chapter 3 Project Rationale, sections 3.2.2 and 3.2.3.	
	Section 4 deals with social values, impacts and their management and section 5 deals with economic impacts and their management. This section should summarise the short and long-term: • Economic costs and benefits of the project to businesses and the wider community, including direct and indirect employment and local business involvement.	Chapter 1 Introduction, Section 1.3.1. Chapter 5 Assessment of Alternatives, Section 5.6. Chapter 26 Social, sections 26.3 and 26.5. Chapter 27 Economics, Section 27.3 and 27.4.	Appendix 20, Social Impact Assessment. Appendix 21, Economic Impact Assessment
	• Any increased demands on local and regional community services and facilities.	Chapter 26 Social, sections 26.5.7 and 26.5.9.	Appendix 20, Social Impact Assessment.
	• Direct social costs and benefits, including community disruption, related land use changes, employment, skills development and any workforce accommodation issues.	Chapter 1 Introduction, Section 1.3.1. Chapter 26 Social, Section 26.5.	Appendix 20, Social Impact Assessment.
	• Any increased demand for natural resources as a result of the project.	Chapter 1 Introduction, Section 1.3.1. Chapter 27 Economics, Section 27.4.6.	Appendix 20, Social Impact Assessment. Appendix 22, Implications for Domestic Gas Markets.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
1. INTRODUCTION			
1.4	**Relationship to other Projects** This section should also describe how the project relates to any other 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. In particular, mention should be made of any expansion of facilities at the Port of Gladstone and the relationship between the project and other LNG export projects planned for the Gladstone region.	Chapter 1 Introduction, sections 1.2.1 and 1.4.	
	Consequential impacts as defined under the EPBC Act, and projects which will be considered as part of cumulative impact assessment (section 7) should be identified and their relevance discussed.	Chapter 32 Cumulative Impacts.	
1.5	**Alternatives to the Project** This section should describe feasible alternatives including conceptual, technological and locality alternatives to the project, and a discussion of the consequences of not proceeding with the project. Alternatives should be discussed in sufficient detail to enable an understanding of the reasons for preferring certain options and courses of action and rejecting others. The comparative environmental impacts of each alternative should be summarised where relevant.	Chapter 3 Project Rationale. Chapter 5 Assessment of Alternatives. Chapter 33 Sustainable Development, Section 33.1.1.	
	The reasons for selecting the preferred options should be outlined and include technical, commercial, social and environmental aspects where relevant. In particular, compliance with government policy and with the principles and objectives of ecologically sustainable development should be included in this discussion.	Chapter 3 Project Rationale. Chapter 5 Assessment of Alternatives. Chapter 33 Sustainable Development, Section 33.1.1.	
1.6	**Co-location opportunities** The proponent should identify any third party proposals to develop infrastructure within the vicinity of the proponent's project investigation corridors. 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. DIP can, at the proponent's request, assist with the facilitation of meetings with proponents of other linear infrastructure or common user infrastructure in the project area. However, it is not the responsibility of DIP to provide the third party information to the proponent.	Chapter 5 Assessment of Alternatives, Section 5.5.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
1. INTRODUCTION			
1.6	In particular the EIS should assess the co-location of the project pipeline with other pipelines crossing the Narrows of Port Curtis (see also 2.2.4).	Chapter 5 Assessment of Alternatives, Section 5.5.	
	It is inappropriate for this EIS to evaluate the environmental impacts of other infrastructure not directly required for this project. However, the EIS should describe the implications of locating other forms of linear infrastructure within or near proposed project corridors. Where co-location may be likely, the EIS should consider opportunities to coordinate or enhance any of the impact mitigation strategies proposed for the project through cooperation with other proponents in the locality. In particular, the potential implications of any infrastructure co-location on corridor widths and alignment should be described	Chapter 4 Consultation and Communication, Section 4.2.4. Chapter 5 Assessment of Alternatives, Section 5.5. Chapter 26 Social, Section 26.6.3.	
1.7	**The Environmental Impact Assessment Process**		
1.7.1	***Methodology of the EIS*** This section should outline the stages of the EIS process under the SDPWO Act, including information on the relevant stages of the approvals process, Commonwealth referrals, statutory and public consultation requirements, any associated licence or permit application processes and any interdependencies that exist between approvals (details of specific approvals should be presented under section 1.9). The information in this section is required to ensure:	Chapter 1 Introduction, Section 1.5. Chapter 2 Project Approvals, Section 2.2.	
	• Stakeholders are informed of the EIS process to be followed.	Chapter 1 Introduction, Section 1.5.	Appendix 30, Consultation Report.
	• Stakeholders understand the relationships between the EIS and other associated approvals.	Chapter 1 Introduction, Section 1.5. Chapter 2 Project Approvals, Section 2.2.	Appendix 30, Consultation Report.
	• Stakeholders are aware of any opportunities for input and participation.	Chapter 1 Introduction, Section 1.5. Chapter 2 Project Approvals, Section 2.2.	Appendix 30, Consultation Report.
	• Relevant legislation is addressed.	Chapter 2, Project Approvals. Attachment 1, Relevant Legislation, Policies and Approvals.	
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. The purpose of the EIS is to:	Chapter 1 Introduction, Section 1.5.2.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
1. INTRODUCTION			
	• Provide public information on the need for and likely effects of the project on the natural, social and economic environment	Impact assessment chapters 10 to 31.	
	• Identify relevant environmental values, impacts (both beneficial and adverse) on environmental values and propose mitigation measures, based on acceptable standards.	Impact assessment chapters 10 to 31.	
	• Demonstrate how unavoidable environmental impacts can be managed through the protection and enhancement of the environmental values.	Impact assessment chapters 10 to 31.	
	The role of the EIS in providing information for the formulation of the environmental management plan (EM Plan) for the project should be discussed. Discussion of options and alternatives is a key aspect of the EIS.	Chapter 1 Introduction, Section 1.5.2. Chapter 5 Assessment of Alternatives.	
1.7.3	***Submissions*** The reader should be informed as to how and when public submissions on the EIS will be addressed and taken into account in the decision-making process. The EIS should inform the reader on how to make submissions and what form the submissions should take (refer Part C).	Chapter 1 Introduction, Sections 1.5.7 and 1.5.8.	
1.8	**Public Consultation process** An appropriate public consultation program is an important component of the EIS process. The public consultation program 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 and other consultation mechanisms to encourage and facilitate active public consultation.	Chapter 4 Consultation and Communication, sections 4.2 and 4.3.	Appendix 30, Consultation Report.
	The public consultation process should identify broad issues of concern to local and regional communities and interest groups and address issues from project planning through to construction, commissioning and project operations. A consultation plan should be prepared during the initial phase of the EIS process. This should identify:	Chapter 4 Consultation and Communication, Section 4.4. Chapter 26 Social, Section 26.3.	Appendix 20 Social Impact Assessment. Appendix 30, Consultation Report.
	• The types of activities to be undertaken.	Chapter 4 Consultation and Communication, Section 4.3.	Appendix 30, Consultation Report.
	• Timing.	Chapter 4 Consultation and Communication, Section 4.3.	Appendix 30, Consultation Report.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
1. INTRODUCTION			
1.8	• The types of activities to be undertaken.	Chapter 4 Consultation and Communication, Section 4.3.	Appendix 30, Consultation Report.
	• Timing.	Chapter 4 Consultation and Communication, Section 4.3.	Appendix 30, Consultation Report.
	• Target the stakeholder/community representatives.	Chapter 4 Consultation and Communication, Section 4.2.	Appendix 30, Consultation Report.
	• Integration with other EIS activities and the project development process.	Chapter 4 Consultation and Communication, Section 4.4.	Appendix 30, Consultation Report.
	• Consultation responsibilities.	Chapter 4 Consultation and Communication, Section 4.1.	Appendix 30, Consultation Report.
	• Communication protocols.	Chapter 4 Consultation and Communication, Section 4.3.	Appendix 30, Consultation Report.
	• Reporting and feedback arrangements.	Chapter 4 Consultation and Communication, Section 4.3.3.	Appendix 30, Consultation Report.
	This section should outline the results of consultation to: • identify stakeholders and how their involvement was facilitated.	Chapter 4 Consultation and Communication, sections 4.2 and 4.3.	Appendix 30, Consultation Report.
	• Identify appropriate current and future consultation strategies and programs, including during the construction and operational phases of the project.	Chapter 4 Consultation and Communication, Section 4.5.	Appendix 30, Consultation Report.
	• 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.	Chapter 4 Consultation and Communication, Section 4.3.	Appendix 30, Consultation Report.
	Detailed results of the consultation process should be provided as a consultation report and presented as an appendix to the EIS. A summary of the key processes and outcomes should be provided in this section.	Chapter 4 Consultation and Communication.	Appendix 30, Consultation Report.
1.9	**Project Approvals** This section should identify and explain the legislation and policies controlling the approvals process and should identify all the approvals, permits and licences that will need to be obtained for the development of the proposed project including those on strategic port land and state development area land and environmental authorities for all parts of the project.	Chapter 2 Project Approvals. Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 28, Land Use and Planning Technical Report.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
1. INTRODUCTION			
1.9	Key pieces of legislation that will need to be addressed in terms of implications for project approval include: *Australian Government* **Aboriginal and Torres Strait Islander Heritage Protection Act 1984**	Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	Civil Aviation Regulations 1988 and Civil Aviation Safety Regulations 1988	Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 15, Plume Rise Impact Assessment.
	Environment Protection and Biodiversity Conservation Act 1999	Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 9, Terrestrial Ecology Impact Assessment.
	Environment Protection (Sea Dumping) Act 1981	Attachment 1, Relevant Legislation, Policies and Approvals.	
	Native Title Act 1993	Chapter 2 Project Approvals, Section 2.3. Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	Aboriginal Cultural Heritage Act 2003	Chapter 2 Project Approvals, Section 2.3. Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	Nature Conservation (Wildlife Management) Regulation	Attachment 1, Relevant Legislation, Policies and Approvals.	
	Coastal Protection and Management Act 1995	Attachment 1, Relevant Legislation, Policies and Approvals.	
	Dangerous Goods Safety Management Act 2001	Chapter 2 Project Approvals, Section 2.1.6. Attachment 1, Relevant Legislation, Policies and Approvals.	
	Environmental Protection Act 1994	Chapter 2 Project Approvals, Section 2.1.4. Attachment 1, Relevant Legislation, Policies and Approvals.	
	Environmental Protection (Air) Policy 2008	Chapter 21 Air Quality, Section 21.1.3. Attachment 1, Relevant Legislation, Policies and Approvals.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
1. INTRODUCTION			
1.9	**Environmental Protection (Noise) Policy 2008**	Chapter 22 Noise and Vibration, Section 22.1.2. Attachment 1, Relevant Legislation, Policies and Approvals.	
	Environmental Protection (Waste Management) Policy 2000	Chapter 31 Waste Management, Section 31.1.2. Attachment 1, Relevant Legislation, Policies and Approvals.	
	Environmental Protection Regulation 2008	Attachment 1, Relevant Legislation, Policies and Approvals.	
	Environmental Protection (Waste Management) Regulation 2000	Chapter 31 Waste Management, Section 31.1.2. Attachment 1, Relevant Legislation, Policies and Approvals.	
	Environmental Protection (Water) Policy 2009	Chapter 13 Surface Water, Section 13.1.2. Chapter 16 Marine Water Quality and Sediment, Section 16.1.2. Attachment 1, Relevant Legislation, Policies and Approvals.	
	Explosives Act 1999	Attachment 1, Relevant Legislation, Policies and Approvals.	
	Fisheries Act 1994	Chapter 18 Freshwater Ecology, Section 18.1.2. Chapter 19 Marine and Estuarine Ecology, Section 19.1.2. Attachment 1, Relevant Legislation, Policies and Approvals.	
	Forestry Act 1959	Attachment 1, Relevant Legislation, Policies and Approvals.	
	Sustainable Planning Act 2009 (formerly Integrated Planning Act) Integrated Planning Act 1997	Attachment 1, Relevant Legislation, Policies and Approvals. Chapter 28 Traffic and Transport, Section 28.1.1.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
1. INTRODUCTION			
1.9	**Land Act 1994**	Attachment 1, Relevant Legislation, Policies and Approvals.	
	Land Protection (Pest and Stock Route Management) Act 2000	Chapter 17 Terrestrial Ecology, Section 17.1.1. Attachment 1, Relevant Legislation, Policies and Approvals.	
	Local Government Act 1993	Attachment 1, Relevant Legislation, Policies and Approvals.	
	Marine Parks Act 2004	Attachment 1, Relevant Legislation, Policies and Approvals. Chapter 19 Marine and Estuarine Ecology, Section 19.1.4.	
	Marine Parks Regulation 2006	Chapter 19 Marine and Estuarine Ecology, Section 19.1.4. Attachment 1, Relevant Legislation, Policies and Approvals.	
	Nature Conservation Act 1992	Chapter 17 Terrestrial Ecology, Section 17.1.1. Attachment 1, Relevant Legislation, Policies and Approvals.	
	Nature Conservation (Koala) Conservation Plan 2006	Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 9, Terrestrial Ecology Impact Assessment.
	Nature Conservation (Protected Plants) Conservation Plan 2000	Attachment 1, Relevant Legislation, Policies and Approvals.	
	Nature Conservation (Wildlife) Regulation 2006	Chapter 17 Terrestrial Ecology, Section 17.1.1. Attachment 1, Relevant Legislation, Policies and Approvals.	
	Petroleum and Gas (Production and Safety) Act 2004	Chapter 2 Project Approvals, Section 2.1.1. Attachment 1, Relevant Legislation, Policies and Approvals.	
	Queensland Heritage Act 1992	Attachment 1, Relevant Legislation, Policies and Approvals.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
1. INTRODUCTION			
1.9	**Soil Conservation Act 1986**	Attachment 1, Relevant Legislation, Policies and Approvals.	
	State Development and Public Works Organisation Act 1971	Chapter 2 Project Approvals, Section 2.1.1. Attachment 1, Relevant Legislation, Policies and Approvals.	
	State Planning Policy 1/92: Development and the Conservation of Agricultural Land.	Chapter 30 Land Use Planning, Section 30.1.2. Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 28, Land Use and Planning Technical Report.
	State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils	Chapter 30 Land Use Planning, Section 30.1.2. Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 4, Acid Sulfate Soil Impact Assessment.
	State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide	Chapter 30 Land Use Planning, Section 30.1.2. Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 28, Land Use and Planning Technical Report.
	Transport Infrastructure Act 1994	Chapter 28 Traffic and Transport, Section 28.1.1. Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 23, Traffic and Transport Impact Assessment.
	Transport Planning and Coordination Act 1994	Chapter 28 Traffic and Transport, Section 28.1.1. Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 23, Traffic and Transport Impact Assessment.
	Transport Operations (Road Use Management) Act 1995	Chapter 28 Traffic and Transport, Section 28.1.2, Road Network. Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 23, Traffic and Transport Impact Assessment.
	Transport Operations (Marine Safety) Act 1994	Chapter 28 Traffic and Transport, Section 28.1.5. Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 23, Traffic and Transport Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
1. INTRODUCTION			
1.9	**Transport Operations (Marine Pollution) Act 1995**	Chapter 28 Traffic and Transport, Section 28.1.5. Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 23, Traffic and Transport Impact Assessment.
	Vegetation Management Act 1999	Chapter 17 Terrestrial Ecology, Section 17.1.1. Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 9 Terrestrial Ecology Impact Assessment.
	Water Act 2000	Chapter 13 Surface Water Hydrology and Water Quality, Section 13.1.1. Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
1.9.2	***Planning Processes and Standards*** This section should discuss the project's consistency with existing land uses or long-term policy framework for the area (e.g. as reflected in local and regional plans) and with legislation, standards, codes or guidelines available to monitor and control operations on site. This section should refer to all relevant Queensland and regional planning policies. This information is required to demonstrate how the proposal conforms to state, regional and local plans for the area. In particular, the relevant planning schemes for the Gladstone State Development Area, the Gladstone Port Western Basin Master Plan and the Curtis Coast Regional Coastal Management Plan and the Central Queensland Regional Growth Management Framework should be discussed.	Chapter 30 Land Use and Planning, Section 30.4.1. Attachment 1, Relevant Legislation, Policies and Approvals.	Appendix 28, Land Use and Planning Technical Report.
	Accredited Process for Controlled actions under Australian Government Legislation On the 21 July 2009, the proponent lodged two separate referrals with the Department of the Environment, Water, Heritage and the Arts for the following components of the project: 2009/5007 – LNG plant and ancillary facilities 2009/5008 – Gas transmission plant	Chapter 2 Project Approvals, Section 2.2. Attachment 4, Matters of National Environmental Significance.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
1. INTRODUCTION			
1.9.2	**EPBC 2009/5007 and EPBC 2009/5008** • World heritage (section 12 and section 15A) • National heritage places (section 15B and section 15C) • Listed threatened species and communities (section 18 and section 18A) • Listed migratory species (section 20 and section 20A) 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. The EIS should address potential impacts on the matters of national environmental significance (MNES) that were identified when the project was determined to be a controlled action. Section 8 outlines the requirements in relation to this matter.	Chapter 2 Project Approvals, Section 2.2. Attachment 4, Matters of National Environmental Significance.	
	Accredited Process for Controlled actions under Australian Government Legislation On the 21 July 2009, the proponent lodged two separate referrals with the Department of the Environment, Water, Heritage and the Arts for the following components of the project: 2009/5007 – LNG plant and ancillary facilities 2009/5008 – Gas transmission plant **EPBC 2009/5007 and EPBC 2009/5008** • World heritage (section 12 and section 15A) • National heritage places (section 15B and section 15C) • Listed threatened species and communities (section 18 and section 18A) • Listed migratory species (section 20 and section 20A) 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. The EIS should address potential impacts on the matters of national environmental significance (MNES) that were identified when the project was determined to be a controlled action. Section 8 outlines the requirements in relation to this matter.	Chapter 2 Project Approvals, Section 2.2. Attachment 4, Matters of National Environmental Significance;	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2. DESCRIPTION OF PROJECT The objective of this section is to describe the project (gas fields, pipeline, LNG plant, associated infrastructure, etc) through its lifetime of construction and operation and decommissioning (including rehabilitation). This information is required to allow assessment of all aspects of the project, including which approvals may be required and how they may be managed through the life of the project.			
2.1	Overview of Project The EIS should provide an overview of the project to put it into context. This section should include: • A description of the key components of the project through the use of text and design plans where applicable	Chapter 1 Introduction, Section 1.2. Chapter 2 Project Approvals, Section 2.2. Chapter 6 Project Description: LNG Plant, Section 6.1.1. Chapter 7 Project Description: Feed Gas Pipeline, Section 7.1. Chapter 8 Project Description: Dredging, Section 8.2.	
	• The expected cost and overall duration and timing of the project	Chapter 1 Introduction, Section 1.2.3. Chapter 5 Assessment of Alternatives, Section 5.6. Chapter 6 Project Description: LNG Plant, Section 6.9.1. Chapter 7 Project Description: Feed Gas Pipeline, Section 7.4.1. Chapter 27 Economics, Section 27.4.1.	Appendix 21, Economic Impact Assessment.
	• The employment benefits from the construction and operational phases of the project	Chapter 1 Introduction, Section 1.3.1. Chapter 27 Economics, Section 27.4.	Appendix 21, Economic Impact Assessment.
	• A summary of any environmental design features of the project.	Impact assessment chapters 10 to 31. Chapter 33 Sustainable Development, Section 33.2.3.	Appendices 1 to 30, technical assessments.
2.1.1	***Gas Transmission Pipeline*** This section should provide a description of the proposed development of the high pressure gas transmission pipeline linking Gladstone City Gate with the LNG plant and the layout and location of key components including:	Chapter 7, Project Description: Feed Gas Pipeline.	
	• The pipeline route selection and design process followed to select the preferred pipeline alignment	Chapter 7 Project Description: Feed Gas Pipeline, Sections 7.1 and 7.2.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
21.1.1	• A detailed description of pipeline construction and operation	Chapter 7 Project Description: Feed Gas Pipeline, Sections 7.6 and 7.9.	
	• A detailed description of pipeline materials, sources and transport to the pipeline easement	Chapter 7 Project Description: Feed Gas Pipeline, Sections 7.2.3 and 7.6.	
	• Indicative locations of construction camps and pipeline lay down areas	Chapter 1 Introduction, Section 1.2.2. Chapter 7 Project Description: Feed Gas Pipeline, Section 7.4.2.	
	• Disposal of wastes including hydrostatic test water	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.7.4. Chapter 16 Marine Water Quality and Sediment, Section 16.4.1.	Appendix 29, Waste Impact Assessment.
	• Infrastructure services	Chapter 28 Traffic and Transport, Section 28.3.6.	
	• Workforce and accommodation strategy.	Chapter 7 Feed Gas Pipeline, Section 7.4.2.	
2.1.2	***LNG Plant and Terminal Facilities*** This section should provide a description of the LNG plant and terminal facilities and provide the layout of key components including:	Chapter 6 Project description: LNG Plant.	
	• The site selection process and the attributes of the preferred site	Chapter 5 Assessment of Alternatives. Chapter 6 Project Description: LNG Plant, Section 6.1.3.	
	• Details of the construction and operation of the plant	Chapter 6 Project Description: LNG Plant, Sections 6.10, 6.11, 6.13 and 6.14.	
	• Plans indicating the layout of the plant and associated facilities	Chapter 1 Introduction, Section 1.2.	
	• An outline of plant processes, water balances, and waste generation	Chapter 6 Project Description: LNG Plant, Sections 6.2, 6.3.2, and 6.4.3. Chapter 31 Waste Management.	Appendix 29, Waste Impact Assessment
	• Jetty and wharf facilities including ship loading and unloading equipment	Chapter 6 Project Description: LNG Plant, Sections 6.5, 6.6 and 6.7.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.1.2	• Berths for tugs and other non-bulk carrier vessels	Chapter 6 Project Description: LNG Plant, Section 6.5.	
	• Ferry terminal.	Chapter 6 Project Description: LNG Plant, Section 6.6.	
	• Materials offloading facility.	Chapter 6 Project Description: LNG Plant, Section 6.7.	
	• Details of area to be dredged and dredged spoil disposal areas for berth pockets, turning basins and/or access channels, as required.	Chapter 8 Project Description: Dredging, Sections 8.2, 8.4 and 8.6.	
	• Details of capital and maintenance dredging equipment and methods.	Chapter 8 Project Description: Dredging, Sections 8.3, 8.4 and 8.5.	
	• Dower lines, workshops, offices and warehouses.	Chapter 1 Introduction, Section 1.2.2.	
	• Fuel and chemical storage facilities.	Chapter 6 Project Description: LNG Plant, Section 6.4.5.	
	• LPG storage.	Chapter 6 Project Description: LNG Plant, Section 6.4.5.	
	• Internal access roads.	Chapter 6 Project Description: LNG Plant, Section 6.10.2.	
	• Water desalination treatment facility.	Chapter 6 Project Description: LNG Plant, Section 6.3.2.	
	• Workforce and accommodation strategy.	Chapter 1 Introduction, Section 1.2. Chapter 6 Project Description: LNG Plant, Section 6.9.3.	
2.1.3	***Government Infrastructure*** This section should provide a description of facilities to be provided and activities to be undertaken by the Gladstone Ports Corporation (GPC) and other service providers as they directly apply to the project. This description applies to the marine facilities and infrastructure services that will not be provided by Shell Australia. It should be noted that these activities do not form part of the project:	Chapter 1 Introduction, Section 1.4.2.	
	• Extensions to main shipping channels	Chapter 8 Project Description: Dredging.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.1.2	• Details of the port facilities and strategic port land in the plant locality	Chapter 1 Introduction, Section 1.4.	
2.1.3	• Relationship to the GPC proposals for the development of the port	Chapter 1 Introduction, Section 1.4.2. Chapter 5 Assessment of Alternatives, Section 5.5.	
	• Water supply, power supply and telecommunications services.	Chapter 6 Project Description: LNG Plant, Section 6.3.	
2.2	**Location** The regional and local context of the project should be described and illustrated on maps at suitable scales and reference points. Real property descriptions of the project site should be provided	Chapter 1 Introduction. Chapter 12, Land Contamination and Acid Sulfate Soils, Table 12.1. Chapter 30 Land Use and Planning, Section 30.3.2.	
	Maps or figures showing the position of features or boundaries should use the GDA94 datum. The GDA94 datum should also be used in the text to describe the locations of any features (such as discharge points) or boundaries that may be relevant to subsequent approvals. Maps should show the indicative or proposed location of the project area, and in particular:	Chapter 1 Introduction, Section 1.2.	
	• The location and boundaries of land tenures, in place or proposed, to which the project area is or will be subject to (including tenures for facilities in marine waters)	Chapter 30 Land Use and Planning, Section 30.3.1.	
	• The location and boundaries of the project footprints showing all key aspects, including indicative sites of gas plants, water treatment plants, pipelines, port, power stations, watercourses, water storages, buildings, roads, bridges, construction camps, etc.	Chapter 1 Introduction, Section 1.2.	
	• Indicative sites of all proposed project transport infrastructure for inputs and outputs of the project	Chapter 28 Traffic and Transport, Section 28.3.1.	Appendix 23, Traffic and Transport Impact Assessment.
	• The identification of all site access points to, from and within the project on maps, to assist in the assessment of emergency planning.	Chapter 28 Traffic and Transport, Section 28.3.1.	Appendix 25, Preliminary Safety Management Study.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.2.1	***Regional context*** The regional context of the proposed project should be described and illustrated on maps at suitable scales. A map should be included at an appropriate scale that identifies the entire project footprint including the gas transmission pipeline corridor and LNG facility. The maps should show the project in relation to: • major infrastructure Including road and rail networks	Chapter 1 Introduction, Section 1.2. Chapter 28 Traffic and Transport, Section 28.3.	Appendix 23, Traffic and Transport Impact Assessment.
	• Physical features	Chapter 1 Introduction, Section 1.2.	Appendix 2, Geology, Landform and Soils Impact Assessment.
	• Boundaries of the GSDA.	Chapter 6 Project Description: LNG Plant, Section 6.1.3, Figure 6.2. Chapter 30 Land Use and Planning, Section 30.3.7.	Appendix 28, Land Use and Planning Technical Report.
2.2.2	***Local Context*** The location and boundaries for each component of the project should be illustrated and described in detail in the local context. Maps should show the precise location of the individual project areas, and in particular: • The project component footprint.	Chapter 1 Introduction, Section 1.2.	
	• The boundaries (existing and proposed) of petroleum pipeline licences and petroleum facility licences.	Chapter 30 Land Use and Planning, Section 30.3.5.	
	• Cadastral boundaries.	Chapter 12 Land Contamination and Acid Sulfate Soils, Section 12.3.3.	
	• Boundary of a state development area and local government area.	Chapter 6 Project Description: LNG Plant, Section 6.1.3, Figure 6.2. Chapter 30 Land Use and Planning, Section 30.3.6.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.2.2	• Any mining and petroleum exploration leases in the vicinity of the component site.	Chapter 30 Land Use and Planning, Section 30.3.4.	
	• Features of national and state environmental significance.	Attachment 4, Matters of National Environmental Significance.	
	• Existing and proposed infrastructure.	Chapter 6 Project Description: LNG Plant, Section 6.4.8.	
	• The location of proposed vegetation clearing, vegetation buffer areas and vegetation offset areas.	Chapter 17 Terrestrial Ecology, Sections 17.4 and 17.5.4.	Appendix 9, Terrestrial Ecology Impact Assessment.
	Consideration should be given to providing rectified air photo enlargements to illustrate components of the project in relation to the land and resource tenures and natural and built features of the area.	Chapter 6 Project Description: LNG Plant, Section 6.1 (Figures 6.1, 6.2, 6.3) Chapter 7 Project Description: Feed Gas Pipeline, Section 7.2 (Figure 7.1). Chapter 8 Project Description: Dredging, Section 8.4.2 (Figure 8.5).	
2.2.3	***Route Selection process for proposed transmission pipeline route*** This section should describe the route selection process used to identify the proposed route and any feasible alternatives. It should describe the decision-making process that led to the nomination of the proposed route, and describe the proposed route in a travelogue format, listing key features encountered by the proposed route from start to end and key issues to be addressed in the impact assessment. Route selection should identify options for crossing Port Curtis and specify construction methods intended for the crossing, with a view to minimising impacts on watercourses, fish passage, riparian lands and marine ecosystems	Chapter 7 Project Description: Feed Gas Pipeline, Sections 7.1 and 7.6.	
	Justification should be provided for selecting a route that traverses the conservation estate (e.g. national park, state forest, conservation park or nature refuge).		

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.2.4	***Gas Transmission Pipeline co-location opportunities*** Where pipeline co-location is intended by Shell Australia, the EIS should outline how coordination or enhancement of impact mitigation strategies proposed for the gas pipeline corridor will be achieved. The potential implications of any infrastructure co-location on common user infrastructure right of way (ROW) width and alignment, construction techniques, and public safety should be described.	Chapter 5 Assessment of Alternatives, Section 5.5. Chapter 7 Project Description: Feed Gas Pipeline, Section 7.3.	
2.3	**Construction** The extent and nature of the project's construction phase should be described including off-site works and services required for construction. Generally, matters to be described for each project component should include: • The type and methods of construction, the construction equipment to be used and the items to be transported onto the construction sites	Chapter 6 Project Description: LNG Plant, Section 6.9.1.	
	• General construction standards and site management procedures, including environmental and safety management	Chapter 6 Project Description: LNG Plant.	
	• Site access:	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.6.1.	
	– Provision of site access, power, telecommunications, water supply and other infrastructure	Chapter 6 Project Description: LNG Plant, Section 6.4.8.	
	– Requirements for construction facilities	Chapter 6 Project Description: LNG Plant, Section 6.9.	
	• Construction requirements, including source and quantities of construction inputs and materials, and method of transport of construction materials	Chapter 6 Project Description: LNG Plant.	
	• Extent of vegetation clearing required, including information on vegetation to be cleared that has significant conservation value (such as sensitive environmental areas and creek crossings), with a reference where in the EIS the impacts on such vegetation have been addressed	Chapter 17 Terrestrial Ecology, Section 17.4.	Appendix 9, Terrestrial Ecology Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.3	• An assessment of expected physical and chemical properties and quantities of soil/rock to be excavated	Chapter 6 Project Description: LNG Plant, Section 6.10. Chapter 11 Geology, Landform and Soils, Sections 11.3.1, 11.3.3 and 11.4.1. Chapter 12 Land Contamination and Acid Sulfate Soils, Section 12.5.2.	Appendix 2, Geology, Landform and Soil Impact Assessment.
	• Details of any potential disruption to flows of waterways during construction and any diversion works required	Chapter 6 Project Description: LNG Plant, Section 6.10. Chapter 13 Surface Water Hydrology and Water Quality, Section 13.4.3.	Appendix 5, Surface Water Impact Assessment.
	• Details of any potential disruption to groundwater flow and groundwater/surface water interaction during construction and any aquifer dewatering works required	Chapter 6 Project Description: LNG Plant, Section 6.10. Chapter 13 Surface Water Hydrology and Water Quality, Section 13.4. Chapter 14 Groundwater, Section 14.4.1.	Appendix 5, Surface Water Impact Assessment. Appendix 7, Groundwater Impact Assessment.
	• Extent that service corridors will be used during construction and maintenance	Chapter 6 Project Description: LNG Plant, Section 6.4.8.	
	• Relocation of existing infrastructure	Chapter 5, Assessment of Alternatives.	
	• Timetable for construction, particularly noting seasonal weather considerations	Chapter 1Introduction, Figure 1.3. Chapter 6 Project Description: LNG Plant, Section 6.9.1. Chapter 7 Project Description: Feed Gas Pipeline, Section 7.4. Chapter 8 Project Description: Dredging, Section 8.2.	
	• The hours of construction	Chapter 6 Project Description: LNG Plant, Section 6.9.1. Chapter 22 Noise and Vibration, Section 22.1.	
	• Emergency aid/medical facilities to be provided on site	Chapter 30 Hazard and Risk, Section 30.6.2.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.3	• The construction methods and containment/disposal of construction spoil	Chapter 6 Project Description: LNG Plant, Sections 6.10 and 6.11. Chapter 7 Project Description: Feed Gas Pipeline, Section 7.6.	
	• The nature and volume of solid and liquid wastes, and their storage, handling and disposal	Chapter 6 Project Description: LNG Plant, Section 6.10.1. Chapter 31 Waste Management, Sections 31.3 to 31.6.	Appendix 29, Waste Impact Assessment.
	• Clean up and restoration (rehabilitation) of areas used during construction including any accommodation facilities and storage areas.	Chapter 6 Project Description: LNG Plant, sections 6.9.3 and 6.12.	
	• Disposal of plant-matter left after clearing vegetation	Chapter 6 Project Description: LNG Plant, Section 6.10.1 Chapter 31 Waste Management, Section 31.5.	Appendix 29, Waste Impact Assessment.
	• Disposal/reuse of surplus excavated material and if this material can be coordinated with concurrent construction activities in the vicinity	Chapter 6 Project Description: LNG Plant, Section 6.10.1. Chapter 7 Project Description: Feedgas Pipeline, Section 7.5.3. Chapter 31 Waste Management, Section 31.5.	Appendix 29, Waste Impact Assessment.
2.3.1	***Feed gas transmission pipeline*** The overall construction program for this project component, and the extent and nature of the construction of the feed gas transmission pipeline from Gladstone City Gate to the LNG plant should be described. The description should include the proposed type and methods of construction, including specialised methods for crossing waterways and road, rail, and other service corridors (including restoration works), the construction equipment to be used and the items to be transported onto the construction site.	Chapter 7 Project Description: Feed Gas Pipeline, Sections 7.4, 7.5 and 7.6.	
	Any staging of the project should be described and illustrated showing site boundaries, development sequencing and proposed timeframes. The estimated numbers of people to be employed in the construction phase should also be provided with a brief description of where those people may be accommodated and/or how they will be transported to the site.	Chapter 7 Project Description: Feed Gas Pipeline, sections 7.4.1 and 7.4.2.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.3.1	Reference should be made to AS2885 and the *Australian Pipeline Industry Association Code of Environmental Practice*, which documents the approach that should be taken when determining the optimal route selection as well as engineering standards that must be applied to the construction.	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.2.	
2.3.1.1	*Pre-construction activities* A description of the pre-construction activities should be set out in this section, including any upgrading of existing infrastructure or construction of new infrastructure such as camps or dams. In addition, details should be provided from a whole-of-project perspective of the quantity of material required for ancillary construction activities and bedding materials for the pipeline from quarries, pits and extraction areas for sand and gravel. This section should also describe the proposed management of cleared trees (following removing of millable timber) in relation to waste management (i.e. vegetation – chipped or ground to assist in rehabilitation or soil stabilisation).	Chapter 6 Project Description: LNG Plant, Sections 6.9.2 and 6.10. Chapter 7 Project Description: Feed Gas Pipeline, Sections 7.4 and 7.6. Chapter 31 Waste Management, Section 31.6.	Appendix 29, Waste Impact Assessment.
2.3.1.2	*Feed Gas transmission pipeline parameters* This section should provide a detailed description of the proposed feed gas transmission pipeline including ancillary infrastructure. The pipeline should be described with reference to the following:	Chapter 7 Project Description: Feed Gas Pipeline.	
	• Maps of the preferred route location	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.1.	
	• Potential location and/or frequency of cathodic protection points, compressor stations, block valves (isolation points), including a description and layout of proposed facilities	Chapter 7 Project Description: Feed Gas Pipeline, sections 7.3 and 7.6.	
	• Expected pipeline design and installation specifications (e.g. pipe grade, design life, wall thickness, depth of cover, and other information as deemed relevant)	Chapter 7 Project Description: Feed Gas Pipeline, sections 7.4 and 7.6.	
	• Criteria for design and location of any temporary or permanent access crossings	Chapter 7 Project Description: Feed Gas Pipeline, section 7.5.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.3.1.2	• Corridor widths and access requirements along the route, including the long-term cleared corridor width as well as the width required for construction and location of new corridor access tracks. Corridor widths should be designed to corridor widths and access requirements along the route, including the long-term cleared corridor width as well as the width required for construction and location of new corridor access tracks. Corridor widths should be designed to minimise impacts on natural resources including potential loss of vegetation ad Good Quality Agricultural Land (GQAL)	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.6.1 and 7.6.11.	
	• Where the pipeline is located in a common user corridor, how construction will be managed given the potential proximity of other high pressure gas pipelines	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.6.	
	• Pipeline pressure testing activities and the treatment and disposal of test water	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.6.8.	
	• Proposed locations of temporary and permanent above-ground infrastructure	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.1.	
	• Locations of existing infrastructure that might be affected by construction and operation of the pipeline.	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.1.	
2.3.1.3	*Feed gas transmission pipeline coastal/marine works* The extent and nature of the project's feed gas transmission pipeline marine crossing coastal and marine areas should include: • discussion of the coordination of works with other pipeline crossing proponents	Other pipeline crossing proponents not crossing at this point.	
	• The type and methods of construction for the coastal/marine works, including pipe unloading methodology and proposed landing sites	Chapter 7 Project Description: Feed Gas Pipeline, Sections 7.5 and 7.6.	
	• Details of any temporary marine infrastructure (including dredging requirements)	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.5.	
	• The equipment to be used for the construction of the above and the method of construction	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.5.	
	• The launching area for marine equipment	Chapter 7 Project Description: Feed Gas Pipeline, Sections 7.5 and 7.6.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.3.1.3	• The volume of materials to be transported to the site	Chapter 28 Traffic and Transport, Section 28.5.1.	
	• The items to be transported to the site for construction	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.6.	
	• The expected length of the offshore construction phase, and staging of the project	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.4.1.	
	The methods proposed for the dredging associated with the pipeline crossing should be described and should include: • the type and method of dredging proposed	Chapter 8 Project Description: Dredging, Sections 8.2 and 8.3.	
	• The dredge equipment, including any marine flora and fauna protection measures proposed	Chapter 8 Project Description: Dredging, Section 8.4. Chapter 19 Marine and Estuarine Ecology, Section 19.5.2.	
	• The expected timing of the dredging	Chapter 8 Project Description: Dredging, Section 8.4.	
	• The amount of dredged material to be disposed of	Chapter 8 Project Description: Dredging, Section 8.4.	
	• Plans showing the location of dredging areas and disposal areas.	Chapter 8 Project Description: Dredging.	
	The disposal of dredged material should be described including: • The characteristics of the spoil disposal area(s)	Chapter 8 Project Description: Dredging, Sections 8.1 and 8.6.	
	• The physical and chemical qualities of the dredged material (in accordance with the National Ocean Disposal Guidelines for Dredged Material, 2002)	No ocean disposal proposed.	
	• Management of the dredged material disposal area(s) during disposal operations	Chapter 8 Project Description: Dredging, Sections 8.2 and 8.6.	
2.3.2	***LNG Plant and Terminal Facilities*** The extent and nature of the construction of the LNG facility should be described. The description should include the type and methods of construction, the equipment to be used and the items to be transported onto the construction site. Any staging of the project should be described and illustrated showing site boundaries, development sequencing and timeframes.	Chapter 6 Project Description: LNG Plant.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.3.2	The estimated numbers of people to be employed in the construction phase (including a labour histogram) should also be provided, with a brief description of where those people may be accommodated and/or how they will be transported to the site.	Chapter 6 Project Description: LNG Plant, Section 6.9.2. Chapter 28 Traffic and Transport, Section 28.4.1.	
2.3.2.1	*On-shore construction* The description of the extent and nature of the LNG plant's on-shore construction phase should include: • Type and methods of construction	Chapter 6 Project Description: LNG Plant, Section 6.9.1.	
	• The equipment to be used for plant construction	Chapter 6 Project Description: LNG Plant, Section 6.9.1.	
	• Details on the movement of people, equipment and materials by sea and land	Chapter 6 Project Description: LNG Plant, sections 6.6 and 6.13. Chapter 28, Traffic and Transport.	
	• The items of plant, materials and equipment to be transported to the site for construction, including delivery methods, storage areas, and quarantine requirements	Chapter 6 Project Description: LNG Plant, sections 6.2, 6.10 and 6.11.	
	• Nature and extent of surface earthworks and drainage structures	Chapter 6 Project Description: LNG Plant, Section 6.10.1.	
	• The expected length of the on-shore construction phase, and staging of the proposal, with illustration/s showing site boundaries	Chapter 1 Introduction, Figure 1.2. Chapter 6 Project Description: LNG Plant, Section 6.9.1.	
2.3.2.2	*Coastal/Marine Construction* The extent and nature of the LNG plant's coastal and marine construction phase and components should be described. For each component that includes off-shore activities (e.g. LNG facility jetty/wharf, berthing basin, construction dock) the description should include: • The type and methods of construction for the coastal/marine works, including module unloading methodology and proposed landing sites	Chapter 6 Project Description: LNG Plant, Section 6.5.2. Chapter 6 Project Description: LNG Plant, Section 6.6. Chapter 6 Project Description: LNG Plant, Section 6.11.3.	
	• Details of any temporary marine infrastructure such as buoys and beacons (including dredging requirements)	Chapter 6 Project Description: LNG Plant, sections 6.6 and 6.11.3.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.3.2.2	*Coastal/Marine Construction* The extent and nature of the LNG plant's coastal and marine construction phase and components should be described. For each component that includes off-shore activities (e.g. LNG facility jetty/wharf, berthing basin, construction dock) the description should include: • The type and methods of construction for the coastal/marine works, including module unloading methodology and proposed landing sites	Chapter 6 Project Description: LNG Plant, Section 6.5.2. Chapter 6 Project Description: LNG Plant, Section 6.6. Chapter 6 Project Description: LNG Plant, Section 6.11.3.	
	• Details of any temporary marine infrastructure such as buoys and beacons (including dredging requirements)	Chapter 6 Project Description: LNG Plant, Sections 6.6 and 6.11.3.	
	• The equipment to be used for the construction of the marine facilities and the method of construction	Chapter 6 Project Description: LNG Plant, Sections 6.6 and 6.11.3.	
	• The launching area for marine equipment	Chapter 6 Project Description: LNG Plant, Sections 6.6 and 6.11.3.	
	• The nature and volume of plant and materials to be transported to the site	Chapter 28 Traffic and Transport, Section 28.5.1.	
	• The expected length of the off-shore construction phase, and staging of the project. Drawings indicating the type, location and extent of the tidal works proposed (e.g. areas to be dredged, the jetty and wharf structures, and any works proposed to be attached to the jetty and wharf) are required.	Chapter 6 Project Description: LNG Plant, Section 6.9.1.	
2.3.2.3	*Dredging and Dredged Material Disposal* Where not included or addressed in the Western Basin Strategic Dredging and Disposal Project, the methods proposed for the dredging associated with the establishment of the construction dock, and the berth pocket associated with the jetty and wharf should be described and should include: • The type and method of dredging proposed and alternative methods of spoil disposal	Chapter 8 Project Description: Dredging, Section 8.3; Dredging Methods.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.3.2.3	• The dredge equipment, including any marine flora and fauna protection measures proposed	Chapter 8 Project Description: Dredging, Section 8.3; Dredging Methods. Chapter 19 Marine and Estuarine Ecology, Section 19.5.2.	
	• the expected timing of the dredging	Chapter 8 Project Description: Dredging, Section 8.4.	
	• the amount of dredged material to be disposed of	Chapter 8 Project Description: Dredging, Section 8.4.	
	• plans showing the location of dredging areas and disposal areas.	Chapter 8 Project Description: Dredging, sections 8.4 and 8.6, Figure 8.1.	
	The disposal of dredged material should be described including: • the characteristics of the spoil disposal area(s)	Chapter 8 Project Description: Dredging, sections 8.1 and 8.6.	
	• the physical and chemical qualities of the dredged material (in accordance with the National Assessment Guidelines for Dredging (DEWHA, 2009)	No ocean disposal proposed.	
	• management of the dredged material disposal area(s) during disposal operations	Chapter 8 Project Description: Dredging, Sections 8.2 and 8.6.	
2.4	**Operations** This section should describe the transmission pipeline and LNG facility operation and maintenance activities. Generally, the description should include, but not be limited to: • a description of plant and equipment to be employed	Chapter 6 Project Description: LNG Plant, Section 6.14.	
	• chemicals to be used	Chapter 6 Project Description: LNG Plant, Section 6.14.1.	
	• the progressive increase and expected project capacity	Chapter 6 Project Description: LNG Plant, Section 6.14.	
	• transport requirements (road, rail and shipping)	Chapter 6 Project Description: LNG Plant, Section 6.14.5. Chapter 28, Traffic and Transport; Section 28.4.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.4	• maintenance dredging and dredge material disposal	Chapter 8 Project Description: Dredging, Sections 8.5 and 8.6.	
	• hours of operation	Chapter 6 Project Description: LNG Plant, Section 6.14.2.	
	• the estimated number of people to be employed	Chapter 6 Project Description: LNG Plant, Section 6.14.2.	
	• security requirements	Chapter 6: Project Description: LNG Plant, Section 6.9, 6.10, 6.14. Chapter 7: Project Description: Feed Gas Pipeline, Section 7.5.3, 7.5.7, 7.5.8, Figure 7.4. Chapter 29 Hazard and Risk, Section 29.6.1.	Appendix 24, Confidential Information. Appendix 25, Preliminary Safety Management Study.
2.4.1	***Feed Gas Transmission Pipeline*** The EIS should describe the pipeline monitoring systems such as electronic surveillance systems (including cathodic protection), helicopter and ground patrols.	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.3.	
	The measures used to monitor and measure rehabilitation success should be discussed, and proposed ROW remediation activities described for areas where initial rehabilitation activities are not successful.	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.9.	
	Emergency and safety measures in place to manage a rupture in the integrity of the pipeline should be described.	Chapter 29 Hazard and Risk, Section 29.4.	
2.4.2 2.4.2.1	***LNG Plant and Terminal Facilities*** *LNG Plant* The discussion of plant components should include the following: • inlet feed gas metering	Chapter 6 Project Description: LNG Plant, Section 6.2.1.	
	• gas treating facilities (removal of impurities)	Chapter 6 Project Description: LNG Plant, Section 6.2.1.	
	• liquefaction (refrigeration)	Chapter 6 Project Description: LNG Plant, Section 6.2.2.	
	• product storage	Chapter 6 Project Description: LNG Plant, Sections 6.4.1 and 6.4.6.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.4.2 2.4.2.1	• product loading	Chapter 6 Project Description: LNG Plant, Sections 6.5.2 and 6.5.3.	
	• plant infrastructure and utilities (including desalinisation plant).	Chapter 6 Project Description: LNG Plant, Sections 6.3.2 and 6.14.	
	Concept and layout plans should be provided highlighting proposed buildings, structures, plant and equipment. The nature, sources, location and quantities of materials to be handled, including the storage of raw materials, should be described. Indicative process flow-sheets should be provided showing material balances for the LNG plant, and the anticipated rates of inputs, along with similar data on products, wastes, emissions, and recycle streams.	Chapter 6 Project Description: LNG Plant, Section 6.2.2.	
	The process for the liquefaction of CSG should be described and should address CO2 removal, water removal, liquefaction and nitrogen removal.	Chapter 6 Project Description: LNG Plan. Section 2.2 and figures 6.5 and 6.6. Chapter 29 Hazard and Risk, Section 29.4.1.	
	The proposed methods and facilities to be used for LPG and LNG storage and transfer of product should be described and shown on plans at an appropriate scale.	Chapter 6 Project Description: LNG Plant, Sections 6.4.1 and 6.10.3.	
	This section should include a discussion of any environmental design features of these facilities, including bunding of storage facilities, collection and recycling of product boil-off. The frequency and management of planned and unplanned unit/plant shutdown events, and the management of desalinisation plant wastes should be discussed.	Chapter 6 Project Description: LNG Plant, Sections 6.4.1 and 6.14. Chapter 31 Waste Management, Section 31.5.1.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

2.4.2.2	*Terminal Facilities* The Shell Australia shipping terminal is likely to consist of wharfs, jetties, gas loading equipment, and an adjacent berthing basin. The long-term operation of the terminal should be described and include: • a description of the operations of the terminal	Chapter 6 Project Description: LNG Plant, Section 6.14.5.	
	• the expected shipping frequency	Chapter 6 Project Description: LNG Plant, Section 6.14.5.	
	• gas loading facility and ship capacities and dimensions	Chapter 6 Project Description: LNG Plant, Section 6.14.5.	
	• tug support operations	Chapter 6 Project Description: LNG Plant, Sections 6.13.2 and 6.14.5.	
	• refuelling arrangements	Chapter 6 Project Description: LNG Plant, Section 6.4.5.	
	• expected ship access, navigational and anchorage arrangements	Chapter 6 Project Description: LNG Plant, Section 6.5.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.4.2.2	• maintenance dredging operations	Chapter 8 Project Description: Dredging, Section 8.5.	
	• environmental management measures incorporated in the operation of the LNG terminal.	Impact assessment chapters 10 to 31.	
	The facilities to be used for loading product to ship should be shown on plans at an appropriate scale.	Chapter 6 Project Description: LNG Plant, Figure 6.10.	
2.5	**Associated Infrastructure** This section should detail requirements for new infrastructure or the upgrading/ relocating of existing infrastructure to service the project. Matters to be considered (where applicable) include workforce accommodation, transportation, water supply, energy supply, telecommunications, stormwater and sewerage.	Chapter 26 Social, Section 26.6.	
2.5.1	***Workforce and Accommodation*** This section should outline the project's workforce numbers and accommodation strategy for the workforce in each location. It should describe the number of personnel and their dependants to be accommodated at each of the project component localities for all project stages, and should outline the numbers and type of accommodation required. The locations and size of all accommodation requirements for both temporary and permanent accommodation should be described for both the construction and operational phases of the project.	Chapter 6 Project Description: LNG Plant, Sections 6.9.2 and 6.9.3. Chapter 26 Social, Section 26.4.2.	
	Given that other major projects are planned to be constructed within a similar timeframe to the project, the project's accommodation proposals should demonstrate that they will provide sufficient housing to not impact upon the current scarce accommodation resources in the region. These proposals should also outline re-use options for accommodation facilities and how such facilities may benefit the respective communities.	Chapter 6 Project Description: LNG Plant, Section 6.9.3.	
	This section should also identify the location and size of temporary construction workforce accommodation to be provided at any and all of the project sites. The layout of typical construction camps and a description of facilities should be provided. All statutory approvals required for establishment and operation of such camps should be outlined.	Chapter 6 Project Description: LNG Plant, Section 6.9.3.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.5.1	Further details of workforce skills base along with workforce recruitment and accommodation impacts should be addressed in section 4.1.	Chapter 26 Social, Sections 26.4, 26.5.4 and 26.6.4.	
2.5.2	***Transport*** This sub-section should describe arrangements for the transport of plant, equipment, construction material, products, wastes and personnel during both the construction phase and operational phases of the project.	Chapter 6 Project Description: LNG Plant. Chapter 28 Traffic and Transport. Chapter 31 Waste Management.	Appendix 23, Traffic and Transport Impact Assessment. Appendix 29, Waste Impact Assessment.
	The description should address the use of existing local and regional facilities and requirements for the construction, upgrading or relocation of any transport related infrastructure (e.g. road, airstrips, barge and ferry facilities etc.). Full details of expected transport volumes, modes and routes should be provided in section 3.9.	Chapter 28 Traffic and Transport, Sections 28.3 and 28.5.	Appendix 23, Traffic and Transport Impact Assessment.
	The expected mode and frequency of travel for workers to and from the work site should be provided, and the journey to work road routes identified. Where road upgrades are required to accommodate the additional volume of traffic, these should be described.	Chapter 28 Traffic and Transport, Sections 28.3, 28.4.1 and 28.5.1.	Appendix 23, Traffic and Transport Impact Assessment.
2.5.3	***Water supply and storage*** The EIS should provide information on expected water usage by the project, including the quality and quantity of all water supplied to project sites. In particular, the proposed and optional sources of water supply should be described (e.g. artesian and non-artesian bores, any surface storage, municipal water supply pipelines). Estimated rates of supply from each source (average and maximum rates) should be given. Any proposed water conservation and management measures should be described.	Chapter 6 Project Description: LNG Plant, Section 6.3.2.	
	Determination of potable water demand should be made for the project, including the temporary demands during the construction period. Details should be provided of the capacity of any existing town water supply to meet such requirements. If potable water storage and treatment is proposed on site, then this should be described.	Chapter 6 Project Description: LNG Plant, Section 6.3.2.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.5.3	Specific details should be presented of the LNG plant's water needs. The discussion should detail proposed water sources (e.g. seawater desalination) and further treatment required to meet specific needs, such as for process water, potable water and demineralised water. A water balance for the LNG site should be provided. Opportunities for water re-use should be identified.	Chapter 6 Project Description: LNG Plant, Section 6.3.2.	
2.5.4	***Stormwater Drainage*** A description should be provided of the proposed stormwater drainage system and the proposed disposal and/or re-use arrangements. Each element of the project needs to be addressed. Further details should be provided in section 3.4.	Chapter 6 Project Description: LNG Plant, Section 6.4.3. Chapter 13 Surface Water Hydrology and Water Quality, Sections 13.5 and 13.7.	
2.5.5	***Sewerage*** This section should describe, in general terms, the sewerage infrastructure required to service each project component. Volume estimates of existing and likely industrial and domestic effluent that will be produced should be outlined and the proposed method of disposal identified. This should include the expected physical and chemical characteristics of such effluent. Further details should be provided in section 3.8.	Chapter 6 Project Description: LNG Plant, Sections 6.4.8 and 6.9.3. Chapter 31 Waste Management, Sections 31.6.4 and 31.5.1.	Appendix 29, Waste Impact Assessment.
2.5.6	***Energy*** The EIS should describe all external energy requirements, including electricity, LPG, and/or solid and liquid fuel requirements for the construction and operation of the project. The locations of any power easements should be shown on an appropriate plan.	Chapter 6 Project Description: LNG Plant, sections 6.3.1 and 6.9.3.	
	Energy conservation measures forming part of the project's design or operating procedures should be briefly described in the context of any Australian, state and local government policies.	Chapter 20 Greenhouse Gas, Sections 20.1.1 and 20.5.	
2.5.7	***Telecommunications*** The EIS should describe the telecommunications proposed for the project and any impacts on existing telecommunications infrastructure (such as optical cables, microwave towers, etc). Infrastructure owners need to be identified. As telecommunication devices may affect some aids to navigation infrastructure and/or services, the proponent should liaise with the Regional Harbour Master (Gladstone).	Chapter 30 Land Use and Planning, Sections 30.3.6 and 30.4.6.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
2.DESCRIPTION OF PROJECT			
2.6 2.6.1	**Decommissioning and Rehabilitation** ***Gas Transmission Pipeline*** Details should be provided on how the pipeline and ancillary equipment, including buildings and structures, would be removed or made safe if left in-situ.	Chapter 7 Project Description: Feed Gas Pipeline, Section 7.10.	Appendix 29, Waste Impact Assessment.
2.6.2	***LNG Plant and Terminal Facilities*** The means of decommissioning the LNG facility, both from the construction and operational phases, in terms of the removal or making safe of plant, equipment, structures and buildings should be described, and the methods proposed for the rehabilitation of the affected areas should be given. Final rehabilitation of the site should be discussed in terms of ongoing land use suitability, management of any residual contaminated land and any other land management issues.	Chapter 6 Project Description: LNG Plant, Section 6.15.	
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
	The functions of this section of the EIS are to: • describe the existing environmental values of the area which may be affected by the project. Environmental values should be described by reference to background information and studies, which should be included as appendices to the EIS.	Impact assessment chapters 10 to 31.	
	• describe the potential adverse and beneficial impacts of the project on the identified environmental values. Any likely environmental harm to the environmental values should be described.	Impact assessment chapters 10 to 31.	
	• describe any cumulative impacts on the environmental values caused by the project in combination with other known existing or planned sources of impact.	Chapter 32 Cumulative Impacts.	
	• present objectives, standards and measurable indicators that protect the identified environmental values.	Impact assessment chapters 10 to 31.	
	• describe the control strategies, proposed actions and technologies to be implemented for managing impacts to achieve the stated objectives and standards. Where relevant, alternative techniques to control and manage impacts should be discussed.	Impact assessment chapters 10 to 31. Attachment 6, Environmental Management Plan.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
	• describe any residual environmental impacts and why they cannot be avoided. Discuss potential offsets in accordance with Queensland Government specific-issue offsets policies.	Impact assessment chapters 10 to 31.	
	This section should detail the environmental protection measures incorporated in the planning, construction, operations, decommissioning, rehabilitation and associated works for each component of the project. Measures should prevent, or where prevention is not possible, minimise environmental harm and maximise socio-economic and environmental benefits of the project. Preferred measures should be identified and described in more detail than other alternatives.	Impact assessment chapters 10 to 31. Attachment 6, Environmental Management Plan.	
	This section should address all elements of the environment, such as land, freshwater, marine waters, coast, air, noise, nature conservation, cultural heritage, social and community, economy, waste, health and safety, hazards and risk, in a way that is comprehensive and clear.	Impact assessment chapters 10 to 31.	
	It is recommended that the EIS follow the heading structure shown herein. The mitigation measures, monitoring programs etc., identified in this section of the EIS should be used to develop the EM Plan for the project (see section 9).		
3.1 3.1.1	**Climate and Climate Change Adaptation** This section should describe the rainfall patterns (including magnitude and seasonal variability of rainfall), air temperatures, humidity, wind (direction and speed) and any other special factors (e.g. temperature inversions) that may affect management of the project. Historic weather patterns in the project area and seasonal conditions (e.g. cyclones, thunderstorms, floods and storms) that may influence timing and/or construction methods should be discussed, including how this would be managed. Extremes of climate (e.g. droughts, floods, etc) should be discussed with particular reference to water management at the project site.	Chapter 10 Climate and Climate Change Adaption, sections 10.3.1, 10.3.2, 10.3.3, 10.3.4, 10.3.2, 10.3.5, 10.3.6, 10.3.6.	Appendix 1, Climate and Climate Change Adaption.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.1.1	The potential impacts due to climatic factors should be addressed in the relevant sections of the EIS. The impacts of rainfall on soil erosion should be addressed in section 3.2. The impacts of storm events on the capacity of waste containment systems (e.g. site bunding/stormwater management) should be addressed in section 3.4 with regard to contamination of waterways and in section 3.8 with regard to the design of the waste containment systems. The impacts of winds, rain, humidity and temperature inversions on air quality should be addressed in section 3.6.	Chapter 10 Climate and Climate Change Adaption, Section 10.4. Chapter 13 Surface Water Hydrology and Water Quality, sections 13.3.1 and 13.4.1. Chapter 31 Waste Management, sections 31.3.2 and 31.6.4. Chapter 21 Air Quality, Section 21.4.	
3.1.2	***Climate Change Adaptation*** Climate change, through alterations to weather patterns and rising sea level, has the potential to impact in the future on developments designed now. Consequently, the EIS should provide an assessment of the project's vulnerabilities to climate change and describe possible adaptation strategies for the activity including: • a risk assessment of how changing patterns of rainfall and hydrology, temperature, extreme weather and sea level (where appropriate) may affect the viability and environmental management of the project	Chapter 10 Climate and Climate Change Adaption, sections 10.4.1 to 10.4.3.	Appendix 1, Climate and Climate Change Adaption.
	• the preferred and alternative adaptation strategies to be implemented; and	Chapter 10 Climate and Climate Change Adaption, Section 10.5.	Appendix 1, Climate and Climate Change Adaption.
	• commitments to undertake any existing or proposed government and/or petroleum industry programs on climate change.	Chapter 20 Greenhouse Gas, Section 20.5.	Appendix 13, Greenhouse Gas Impact Assessment.
	It is recognised that predictions of climate change and its effects have inherent uncertainties, and that a balance must be found between the costs of preparing for climate change and the uncertainty of outcomes. However, the proponent should incorporate a strategy for adaptation to climate change in their EIS and project design where possible.	Chapter 10 Climate and Climate Change Adaption, Section 10.5.	Appendix 1, Climate and Climate Change Adaption.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.2	**Land** This section should describe the existing environmental values of the land area that may be affected by the project. It should also define and describe the objectives and practical measures for protecting or enhancing land-based environmental values, describe how nominated quantitative standards and indicators may be achieved, and how the achievement of the objectives would be monitored, audited and managed.	Chapter 11 Geology Soils and Landforms. Chapter 12 Land Contamination and Acid Sulfate Soils. Chapter 23 Landscape and Visual. Chapter 30 Land Use and Planning.	Appendix 2, Geology, Landform and Soils Impact Assessment, Section 5.1 and 8.4
	Schedules of disturbance should be described and discussed for all aspects of the project in accordance with the DERM guideline Financial assurance for petroleum activities. Information should be provided demonstrating that the financial assurance estimates will be adequate for worst-case scenarios (including maximum possible areas of disturbance, maximum proportion of problem soil areas and maximum proportion of environmentally sensitive areas).	Attachment 6, Environmental Management Plan, Section 1.8.	
3.2.1.1	***Topography, Geomorphology and Geology*** Topographical maps should be provided locating the project in both regional and local contexts using the Geocentric Datum of Australia (GDA94). The topography of the project sites should be detailed with contours at suitable increments, shown with respect to Australian Height Datum. Commentary on the maps should be provided highlighting the significant topographical features.	Chapter 11 Geology, Landform and Soils, Section 11.3.2.	Appendix 2, Geology, Landform and Soils Impact Assessment, Figure 4.4.
	The EIS should provide a description, map and a series of cross-sections of the geology of the project area, with particular reference to the physical and chemical properties of surface and sub-surface materials and geological structures within the proposed areas of disturbance.	Chapter 11 Geology, Landform and Soils, Section 11.3.1.	Appendix 2, Geology, Landform and Soils Impact Assessment, Section 4.1, Figure 4.1 and 4.2.
	Geological properties of all project sites which may influence stability, occupational health and safety, rehabilitation programs, or the quality of wastewater leaving any area disturbed by the project should be described.	Chapter 11 Geology, Landform and Soils, Section 11.3.4.	Appendix 2, Geology, Landform and Soils Impact Assessment, Section 4.1.4, Section 6 and Section 6.8.
	This section should also consider any mineral resources that may be impacted or sterilised by the project.	Chapter 11 Geology, Landform and Soils, Section 11.4.1.	Appendix 2, Geology, Landform and Soils Impact Assessment, Section 6.9.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.2.1.2	*Potential Impacts Mitigation Measures* This section of the EIS should provide information on potential impacts to the land resources, and proposed mitigation and management methods. In particular information should be provided on: • the need for rock, sand and gravel for construction materials, including any new or expanded quarry and screening operations required to service the project	Chapter 11 Geology, Landform and Soils, Section 11.4.2.	Appendix 2, Geology, Landform and Soils Impact Assessment, sections 7.6.1, 6.9, 7.2, 8.1.3, and 8.1.8.
	• the environmental consequences of the excavation and removal of materials and soils from any borrow pits.	Chapter 11 Geology, Landform and Soils, sections 11.1.1 and 11.4.2.	Appendix 2, Geology, Landform and Soils Impact Assessment, Section 8.1.8.
	Details should be provided of measures to be undertaken to mitigate or avoid the identified impacts.	Chapter 11 Geology, Landform and Soils, Section 11.5.1.	Appendix 2, Geology, Landform and Soils Impact Assessment, Section 8.1.
3.2.2 3.2.2.1	***Soils*** *Description of Environmental Values* A soil survey of the areas to be disturbed by the project should be conducted at a suitable scale, with particular reference to the physical and chemical properties of the materials that influence erosion potential, storm water run-off quality, rehabilitation and agricultural productivity of the land. Information should also be provided on soil stability, suitability for construction of proposed facilities and any approved soil conservation plans. An appraisal of the depth and quality of useable soil should be undertaken.	Chapter 11 Geology, Landform and Soils, sections 11.3.3 and 11.3.4.	Appendix 2, Geology, Landform and Soils Impact Assessment, Section 4.3.
	Soil profiles should be mapped at a suitable scale and described according to the Australian Soil and Land Survey Field Handbook (McDonald et al, 2009) and Australian Soil Classification (Isbell, 2002). Information should be presented according to the standards required in the Planning Guidelines: The Identification of Good Quality Agricultural Land (DPI & DHLGP, 1993), and the State Planning Policy 1/92: Development and the Conservation of Agricultural Land (DME, 1995).	Chapter 11 Geology, Landform and Soils, sections 11.3.3 and 11.3.4.	Appendix 2, Geology, Landform and Soils Impact Assessment, Figure 4.7, Figure 5.1.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.2.2 3.2.2.1	The requirement for soils mapping in terms of area and mapping scale should follow the Queensland Department of Mines and Energy: Technical Guidelines for Environmental Management of Exploration and Mining in Queensland (1995). These guidelines recommend that disturbed areas be mapped more intensively than non-disturbed areas and provide guidance on acceptable mapping scale and site intensity.	Chapter 11 Geology, Landform and Soils, Section 11.3.4.	Appendix 2, Geology, Landform and Soils Impact Assessment, Section 3.4 Appendix 4, Acid Sulfate Soil Impact Assessment, Section 6.
	Acid sulfate soil (ASS) investigations are required to meet State Planning Policy 2/02, Planning and Managing Development involving ASS where the proposed development would trigger one of the criterion listed in section 2.3 of that policy. All investigations should be conducted in accordance with the SPP2/02 guideline and the guidelines for Sampling and Analysis of Lowland Acid Sulfate Soils in Queensland 1998. Where disturbance to ASS is unavoidable, an ASS Management Plan should be prepared in accordance with the Queensland Acid Sulfate Soil Technical Manual–Soil Management Guidelines.	Chapter 12 Land Contamination and Acid Sulfate Soils, sections 12.3 and 12.6.	Appendix 2, Geology, Landform and Soils Impact Assessment. Appendix 4, Acid Sulfate Soil Impact Assessment.
3.2.2.2	*Potential Impacts and mitigation measures* Possible erosion rates and management techniques should be described for all permanent and temporary landforms. The erosion potential (wind and water) and erosion management techniques should be outlined for each soil type identified. An erosion-monitoring program, including rehabilitation measures for erosion problems identified during monitoring, should also be outlined. Mitigation strategies should be developed to achieve acceptable soil loss rates, levels of sediment in rainfall runoff and wind-generated dust concentrations.	Chapter 11 Geology, Landform and Soils, sections 11.5.1 and 11.7.	Appendix 2, Geology, Landform and Soils Impact Assessment, Section 6.1.
3.2.2.2	The EIS should include an assessment of likely erosion effects for all disturbed areas such as: • areas cleared of vegetation	Chapter 11 Geology, Landform and Soils, sections 11.5.1 and 11.7.	Appendix 2, Geology, Landform and Soils Impact Assessment, Section 5.2.3.
	• dams, banks and creek crossings		
	• gas pipeline corridor		
	• the LNG plant area and surrounding buildings		
	• access roads or other transport corridors		
	• areas under rehabilitation.		

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.2.2.2	Methods proposed to prevent or control erosion should be specified and should be developed with regard to preventing soil loss in order to maintain land capability / suitability and preventing significant degradation of local waterways by suspended solids.	Chapter 11 Geology, Landform and Soils, Section 11.5.1.	
3.2.3 3.2.3.1	***Land Use and Tenure*** *Description of environmental Values* The EIS should identify the following, with the aid of maps: • land tenure (including reserves, tenure of special interest such as protected areas and forest reserves, roads, railways, and stock routes)	Chapter 26 Social, Section 26.3. Chapter 30 Land Use and Planning, Section 30.3.1.	Appendix 28, Land Use and Planning Technical Report, Figure 4.1.
	• land use (urban, residential, industrial, agricultural, GQAL, forestry, recreational, mining exploration tenures, mining leases, mining claims, mineral development licences, extractive industry permits, petroleum authorities, state development areas).	Chapter 26 Social, Section 26.3. Chapter 30 Land Use and Planning, Section 30.3.2	Appendix 2, Geology, Landform and Soils Impact Assessment, Figures 4.2 and 4.3. Appendix 28, Land Use and Planning Technical Report.
	• areas covered by applications for native title determination, with a description of Native Title Representative Bodies (NTRB) boundaries	Chapter 26 Social, Section 26.3. Chapter 30 Land Use and Planning, Section 30.3.4.	Appendix 28, Land Use and Planning Technical Report.
	• information on any known occurrences of economic mineralisation and extractive resources, petroleum and gas deposits within the project area and the potential impact of the project on these operations and associated tenements (e.g. Stuart Shale Oil)	Chapter 26 Social, Section 26.3. Chapter 30 Land Use and Planning, Section 30.3.5.	Appendix 28, Land Use and Planning Technical Report.
	• location of gas and major water pipelines, power lines, telecommunication cables, roads, railways, bridges, airports, airstrips, helipads and any other infrastructure	Chapter 26 Social, Section 26.3. Chapter 30 Land Use and Planning, Section 30.3.6.	Appendix 28, Land Use and Planning Technical Report.
	• the distance of the project component from residential and recreational facilities, or other potentially non-compatible land uses	Chapter 26 Social, Section 26.3. Chapter 30 Land Use and Planning, Section 30.3.7.	Appendix 28, Land Use and Planning Technical Report.
	• port uses need to be placed into context of the GPC Land Use Plan (1995), and any subsequent version	Chapter 30 Land Use and Planning, Section 30.3.2.	Appendix 28, Land Use and Planning Technical Report.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.2.3 3.2.3.1	• recreational and commercial fishing activities and values undertaken in proximity to the site and offshore area should be described	Chapter 26 Social, Section 26.3. Chapter 30 Land Use and Planning, Section 30.3.8.	Appendix 28, Land Use and Planning Technical Report.
	• location of existing dwellings and the zoning of all affected lands according to any existing town or strategic plan, planning schemes, port land use plan and State Development Area development scheme.	Chapter 26 Social, Section 26.3. Chapter 30 Land Use and Planning, Section 30.3.7.	Appendix 28, Land Use and Planning Technical Report.
	In particular, the EIS should indicate if the land affected by the proposal is, or is likely, to become part of the protected area estate, or is subject to any treaty. The following should be identified and mapped - national parks, marine parks (State and Commonwealth), conservation parks, nature refuges (conservation agreements) declared fish habitat areas, wilderness areas, areas of state significance (scenic coastal landscapes), areas of state significance (natural resources), coastal wetlands, aquatic reserves, heritage/historic areas or items, national estates, world heritage listings and sites covered by international treaties or agreements (e.g. Ramsar, JAMBA, CAMBA), areas of cultural significance and scientific reserves.	Chapter 17 Terrestrial Ecology, Section 17.3.2. Chapter 30 Land Use and Planning, Figure 30.6.	Appendix 2, Geology, Landform and Soils Impact Assessment. Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 28, Land Use and Planning Technical Report.
	MNES under the Commonwealth's EPBC Act should be described in section 8 and mapped where possible.	Attachment 4, Matters of National Environmental Significance.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 28, Land Use and Planning Technical Report.
3.2.3.2	*Potential Impacts and Mitigations* The potential for the construction and operation of the project to change existing land uses of the project sites and adjacent areas should be detailed. Consideration should be given to impacts arising from property disruption and severance, construction and maintenance	Chapter 30 Land Use and Planning, Section 30.4.1.	Appendix 28, Land Use and Planning Technical Report.
	The potential environmental harm to adjacent areas currently used for agriculture, urban development, recreation, tourism or other business, and the constraints on land uses should be described. Incompatible land uses (existing and proposed) should be identified and measures to avoid unacceptable impacts defined.	Chapter 26 Social, Section 26.5. Chapter 30 Land Use and Planning, Section 30.4.2.	Appendix 28, Land Use and Planning Technical Report.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.2.3.2	*Potential Impacts and Mitigations* The potential for the construction and operation of the project to change existing land uses of the project sites and adjacent areas should be detailed. Consideration should be given to impacts arising from property disruption and severance, construction and maintenance	Chapter 30 Land Use and Planning, Section 30.4.1.	Appendix 28, Land Use and Planning Technical Report.
	The potential environmental harm to adjacent areas currently used for agriculture, urban development, recreation, tourism or other business, and the constraints on land uses should be described. Incompatible land uses (existing and proposed) should be identified and measures to avoid unacceptable impacts defined.	Chapter 26 Social, Section 26.5. Chapter 30 Land Use and Planning, Section 30.4.2.	Appendix 28, Land Use and Planning Technical Report.
	In particular, the discussion should: • assess the compatibility of the proposal with surrounding land uses (e.g. mining, residences, agriculture)	Chapter 26 Social, Section 26.5. Chapter 30 Land Use and Planning, Section 30.4.2.	Appendix 28, Land Use and Planning Technical Report.
	• describe possible impacts on surrounding land uses and human activities, including impacts to tidal lands (addressing loss of access to land and waterways and tidal lands)	Chapter 26 Social, Section 26.5. Chapter 30 Land Use and Planning, Section 30.4.2.	Appendix 28, Land Use and Planning Technical Report.
	• describe fragmentation of sites, increase of fire risk and impacts on residential and industrial uses	Chapter 29 Hazard and Risk, Section 29.4. Chapter 30 Land Use and Planning, Section 30.4.2.	Appendix 28, Land Use and Planning Technical Report.
	• describe strategy and progress in relation to making of native title agreements, including NTRBs, consultant selection, traditional owner involvement and related statutory processes	Chapter 26 Social, Section 26.5. Chapter 30 Land Use and Planning, Section 30.4.4.	Appendix 28, Land Use and Planning Technical Report.
	• outline the potential issues involved in proximity of the project to electric power transmission lines and electrified rail lines, both at crossing points, where lines run parallel, and where construction and maintenance machinery is used in the vicinity of other infrastructure corridors	Chapter 30 Land Use and Planning, Section 30.4.5.	Appendix 28, Land Use and Planning Technical Report.
	• identify if millable timber or quarry resources exist on the pipeline route and LNG plant site and conduct an assessment of the commercial value of these resources.	Chapter 30 Land Use and Planning, Section 30.4.6.	Appendix 28, Land Use and Planning Technical Report.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.2.3.2	*Potential Impacts and Mitigations* The potential for the construction and operation of the project to change existing land uses of the project sites and adjacent areas should be detailed. Consideration should be given to impacts arising from property disruption and severance, construction and maintenance	Chapter 30 Land Use and Planning, Section 30.4.1.	Appendix 28, Land Use and Planning Technical Report.
	The potential environmental harm to adjacent areas currently used for agriculture, urban development, recreation, tourism or other business, and the constraints on land uses should be described. Incompatible land uses (existing and proposed) should be identified and measures to avoid unacceptable impacts defined.	Chapter 26 Social, Section 26.5. Chapter 30 Land Use and Planning, Section 30.4.2.	Appendix 28, Land Use and Planning Technical Report.
	In particular, the discussion should: • assess the compatibility of the proposal with surrounding land uses (e.g. mining, residences, agriculture)	Chapter 26 Social, Section 26.5. Chapter 30 Land Use and Planning, Section 30.4.2.	Appendix 28, Land Use and Planning Technical Report.
	• describe possible impacts on surrounding land uses and human activities, including impacts to tidal lands (addressing loss of access to land and waterways and tidal lands)	Chapter 26 Social, Section 26.5. Chapter 30 Land Use and Planning, Section 30.4.2.	Appendix 28, Land Use and Planning Technical Report.
	• describe fragmentation of sites, increase of fire risk and impacts on residential and industrial uses	Chapter 29 Hazard and Risk, Section 29.4. Chapter 30 Land Use and Planning, Section 30.4.2.	Appendix 28, Land Use and Planning Technical Report.
	• describe strategy and progress in relation to making of native title agreements, including NTRBs, consultant selection, traditional owner involvement and related statutory processes	Chapter 26 Social, Section 26.5. Chapter 30 Land Use and Planning, Section 30.4.4.	Appendix 28, Land Use and Planning Technical Report.
	• outline the potential issues involved in proximity of the project to electric power transmission lines and electrified rail lines, both at crossing points, where lines run parallel, and where construction and maintenance machinery is used in the vicinity of other infrastructure corridors	Chapter 30 Land Use and Planning, Section 30.4.5.	Appendix 28, Land Use and Planning Technical Report.
	• identify if millable timber or quarry resources exist on the pipeline route and LNG plant site and conduct an assessment of the commercial value of these resources.	Chapter 30 Land Use and Planning, Section 30.4.6.	Appendix 28, Land Use and Planning Technical Report.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.2.4 3.2.4.1	***Landscape Character and Visual Amenity*** *Description of Environmental Values* This section should describe the existing character of the landscape that will be affected by the project. Information should be presented in the form of maps, sections, elevations and photographs, and should include:	Chapter 23 Landscape and Visual, Section 23.3.	Appendix 17, Landscape and Visual Impact Assessment.
	• image and townscape objectives identified in any town planning scheme or strategic plan relevant to the project area	Chapter 23 Landscape and Visual, Section 23.1.	Appendix 17, Landscape and Visual Impact Assessment.
	• major views, existing viewing outlooks, ridgelines and other features contributing to the amenity of the area	Chapter 23 Landscape and Visual, Section 23.3.	Appendix 17, Landscape and Visual Impact Assessment.
	• focal points, landmarks (built form or topography), gateways associated with project site and immediate surrounding areas, waterways, and other features contributing to the visual quality of the area and the project site	Chapter 23 Landscape and Visual, Section 23.3.	Appendix 17, Landscape and Visual Impact Assessment.
	• character of the local and surrounding areas including character of built form (scale, form, materials and colours) and vegetation (natural and cultural vegetation) directional signage and land use	Chapter 23 Landscape and Visual, Section 23.3.	Appendix 17, Landscape and Visual Impact Assessment.
	• identification of the areas that have the capacity to absorb land use changes without detriment to the existing visual quality and landscape character	Chapter 23 Landscape and Visual, Section 23.4.1.	Appendix 17, Landscape and Visual Impact Assessment.
	• the value of existing vegetation as a visual screen.	Chapter 23 Landscape and Visual, Section 23.3.2.	Appendix 17, Landscape and Visual Impact Assessment.
3.2.4.2	*Potential Impacts and mitigation measures* The potential impacts of the project upon the landscape character of the site and the surrounding area should be described.	Chapter 23 Landscape and Visual, Section 23.4.1.	Appendix 17, Landscape and Visual Impact Assessment.
	Particular mention should be made of any changes to the broad-scale topography and vegetation character of the area. Measures to be undertaken to mitigate or avoid the identified impacts should be detailed and illustrated.	Chapter 23 Landscape and Visual, Sections 23.4 and 23.5.	Appendix 17, Landscape and Visual Impact Assessment.
	This section should analyse and discuss the visual impact of the project on particular panoramas and outlooks, when viewed from public places.	Chapter 23 Landscape and Visual, Section 23.4.2, Sensitive Visual Receptors.	Appendix 17, Landscape and Visual Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.2.4.2	This section should analyse and discuss the visual impact of the project on particular panoramas and outlooks, when viewed from public places.	Chapter 23 Landscape and Visual, Section 23.4.2, Sensitive Visual Receptors.	Appendix 17, Landscape and Visual Impact Assessment.
	The assessment is to address the visual impacts of the project structures and associated infrastructure, using appropriate simulation. Sketches, diagrams, computer imaging and photos are to be used where possible to portray the near views and far views of the completed structures and their surroundings from visually sensitive locations.	Chapter 23 Landscape and Visual, Section 23.4.2.	Appendix 17, Landscape and Visual Impact Assessment.
	Special consideration is to be given to public roads, public thoroughfares, and places of residence or work, which are within the line-of-sight of the project.	Chapter 23 Landscape and Visual, Section 23.4.2.	Appendix 17, Landscape and Visual Impact Assessment.
	The design and colour of any major structures, buildings and all proposed visual screens should be described, and their role in the minimisation of the visual impacts of the project should be outlined.	Chapter 23 Landscape and Visual, Section 23.5.6.	Appendix 17, Landscape and Visual Impact Assessment.
	The obstruction of sunlight due to the construction of buildings or alteration of landforms should be considered, as well as major illumination or reflection impacts on adjacent properties or roads.	Chapter 23 Landscape and Visual, Section 23.4.2.	Appendix 17, Landscape and Visual Impact Assessment.
	An assessment should be undertaken of potential impacts of light sources within the project site and its immediate surroundings. Of particular interest would be:	Chapter 23 Landscape and Visual, Section 23.4.3.	Appendix 17, Landscape and Visual Impact Assessment.
	• visual aspect at night in relation to the location of the project in rural settings		Appendix 17, Landscape and Visual Impact Assessment.
	• impacts of the lighting of the LNG facilities on navigation of vessels in Gladstone harbour	Chapter 28 Traffic and Transport, Section 28.4.5.	Appendix 17, Landscape and Visual Impact Assessment.
	• potential impact of increased vehicular and rail movements at night	Chapter 23 Landscape and Visual, Section 23.4.3.	Appendix 17, Landscape and Visual Impact Assessment.
	• proximity of light sources to significant receptor areas such as fauna habitats, residential and business establishments.	Chapter 17 Terrestrial Ecology. Chapter 19 Marine and Estuarine Ecology. Chapter 23 Landscape and Visual, Section 23.4.3.	Appendix 17, Landscape and Visual Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.2.5 3.2.5.1	***Land Contamination*** *Description of Environmental Values* This section should discuss known land contamination within the project areas by existing and past uses, and identify the nature and concentration of any contaminants.	Chapter 12 Land Contamination and Acid Sulfate Soils, sections 12.3 and 12.4.	Appendix 3, Preliminary Site Investigation. Appendix 4, Acid Sulfate Soil Impact Assessment.
	This discussion should identify land used for a notifiable activity as listed in Schedule 2 of the EP Act, and land listed on the Queensland Environmental Management Register or the Queensland Contaminated Land Register.	Chapter 12 Land Contamination and Acid Sulfate Soils, Section 12.4, Tables 12.5 and 12.6.	Appendix 3, Preliminary Site Investigation. Appendix 4, Acid Sulfate Soil Impact Assessment.
	A preliminary site investigation (PSI) of the project sites consistent with the EPA's Draft Guidelines for the Assessment and Management of Contaminated Land in Queensland should be undertaken to determine background contamination levels. The results of the PSI summarised in the EIS and provided in an appendix.	Chapter 12 Land Contamination and Acid Sulfate Soils, Section 12.4.	Appendix 3, Preliminary Site Investigation. Appendix 4, Acid Sulfate Soil Impact Assessment.
	If the results of the PSI indicate potential or actual contamination, a detailed site investigation progressively managed in accordance with the stages outlined in Appendix 5 of the Draft Guidelines for the Assessment and Management of Contaminated Land in Queensland should be undertaken.	Chapter 12 Land Contamination and Acid Sulfate Soils, Section 12.4.	Appendix 3, Preliminary Site Investigation. Appendix 4, Acid Sulfate Soil Impact Assessment.
	The following information should be provided in the EIS: • maps illustrating the extent and location of any areas listed on the Environmental Management Register or Contaminated Land Register under the EP Act	Chapter 12 Land Contamination and Acid Sulfate Soils, section 12.3.1 and 12.3.3 and Figure 12.5.	Appendix 3, Preliminary Site Investigation. Appendix 4, Acid Sulfate Soil Impact Assessment.
	• any potentially contaminated sites not on the registers which may need remediation	Chapter 12 Land Contamination and Acid Sulfate Soils, Section 12.4.3, Table 12.5.	Appendix 4, Acid Sulfate Soil Impact Assessment.
	• a description of the nature and extent of contamination at each site and a remediation plan and validation sampling.	Chapter 12 Land Contamination and Acid Sulfate Soils, sections 12.4 and 12.6.	Appendix 4, Acid Sulfate Soil Impact Assessment.
3.2.5 3.2.5.1	The EIS should address management of any existing or potentially contaminated land in addition to preventing and managing land contamination resulting from project activities. Proponents should consult with the Contaminated Land Section of DERM regarding study proposals.	Chapter 12 Land Contamination and Acid Sulfate Soils, Section 12.6.	Appendix 4, Acid Sulfate Soil Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.2.5.2	*Potential impacts and mitigation measures* The EIS should describe the possible contamination of land resulting from project actions including spillage, waste, acid generation from exposed sulphuric material, spills at chemical and fuel storage areas, and storage /spillage of associated water or waste from treated water at the CSG fields.	Chapter 12 Land Contamination and Acid Sulfate Soils, Section 12.5. Chapter 31 Waste Management, sections 31.3 31.5 and 31.6.	Appendix 4, Acid Sulfate Soil Impact Assessment, sections 1 and 5. Appendix 29, Waste Impact Assessment.
	The means of preventing land contamination (within the meaning of the EP Act) should be addressed and the strategies and methods proposed for preventing, recording, containing and remediating any contaminated land outlined.	Chapter 12 Land Contamination and Acid Sulfate Soils, Section 12.6.	Appendix 4, Acid Sulfate Soil Impact Assessment, sections 1 and 5. Appendix 29, Waste Impact Assessment.
	The EIS should discuss the management of any contaminated land and potential for contamination from construction, commissioning and operation, in accordance with EPA's Draft Guidelines for the Assessment and Management of Contaminated Land in Queensland (1998) and the National Environment Protection (Assessment of Site Contamination) Measure 1999.	Chapter 12 Land Contamination and Acid Sulfate Soils, Section 12.6.	Appendix 4, Acid Sulfate Soil Impact Assessment.
3.2.6 3.2.6.1	***Land Disturbance*** *Potential Impacts and Mitigation Measures* The EIS should contain strategies aimed at minimising the amount of land disturbed at any one time. The strategic approach to progressive rehabilitation should be described. The consistency of the approach with relevant guidelines should be provided.	Chapter 11 Geology, Landform and Soils, Section 11.5.1. Chapter 12 Land Contamination and Acid Sulfate Soils, Section 12.6.	Appendix 2, Geology, Landform and Soils Impact Assessment. Appendix 4, Acid Sulfate Soil Impact Assessment.
	The methods to be used for the project, including backfilling, covering, re-contouring, topsoil handling and revegetation, should be described. Consideration should be given to the use of threatened plant species during any landscaping and revegetation.	Chapter 6 Project Description: LNG Plant, Section 6.15. Chapter 11 Geology, Landform and Soils, Section 11.5. Chapter 12 Land Contamination and Acid Sulfate Soils, Section 12.6. Chapter 17 Terrestrial Ecology, Section 17.5.2. Attachment 5 Environmental Management Plan.	Appendix 2, Geology, Landform and Soils Impact Assessment, Section 6.1.2. Appendix 4, Acid Sulfate Soil Impact Assessment. Appendix 9, Terrestrial Ecology Impact Assessment.
	Any proposals to divert creeks during construction and their reinstatement should be outlined	Chapter 6 Project Description: LNG Plant, Section 6.10.1. Chapter 13 Surface Water Hydrology and Water Quality, sections 13.4.3 and 13.5.1.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.2.6 3.2.6.1	A description of topsoil management should consider transport, storage and replacement of topsoil to disturbed areas. The topsoil management should also outline how GQAL soils will be utilised The minimisation of 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 materials.	Chapter 11 Geology, Landform and Soils, Section 11.5.1. Chapter 6 Project Description: LNG Plant, Section 6.10.1. Chapter 11 Geology, Landform and Soils, Section 11.5.1.	
3.3	***Nature Conservation*** This section should describe the existing environmental values for nature conservation that may be affected by the project in terms of: • integrity of ecological processes, including habitats of least concern, near threatened, rare, vulnerable and endangered species and ecological communities	Chapter 17 Terrestrial Ecology, Section 17.3.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• conservation of resources	Chapter 17 Terrestrial Ecology, Section 17.3.10.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• biological diversity, including habitats of rare and threatened species	Chapter 17 Terrestrial Ecology, Section 17.3.2. Attachment 4, Matters of National Environmental Significance.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• integrity of landscapes and places including wilderness and similar natural places	Chapter 17 Terrestrial Ecology, Section 17.3.1.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• aquatic, terrestrial and marine ecosystems.	Chapter 17 Terrestrial Ecology, Section 17.3.8. Chapter 19 Marine and Estuarine Ecology, Section 19.3.	Appendix 9, Terrestrial Ecology Impact Assessment.
	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.	Chapter 17 Terrestrial Ecology, Section 17.2.	Appendix 9, Terrestrial Ecology Impact Assessment.
	The section should also outline the proposed strategies to avoid, or minimise and mitigate impacts on the identified values within the project's footprint.	Chapter 17 Terrestrial Ecology, Section 17.5.	Appendix 9, Terrestrial Ecology Impact Assessment.
	Key flora and fauna indicators should be identified for future ongoing monitoring.	Chapter 17 Terrestrial Ecology, sections 17.2 and 17.7.	Appendix 9, Terrestrial Ecology Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

	EIS Term of Reference	EIS Chapter	Technical Study
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.3.1 3.3.1.1	***Sensitive Environmental Areas*** *Description of Environmental Values* The EIS should identify areas that are environmentally sensitive in proximity to the project. Environmentally sensitive areas should also include areas classified as having international, national, state, regional or local biodiversity significance, or flagged as important for their integrated biodiversity values. Consideration should be given to national parks, conservation parks, declared fish habitat areas, wilderness areas, aquatic reserves, nature refuges, heritage/historic areas or items relating to biodiversity, national estates, world heritage listings and sites covered by international treaties or agreements (e.g. Ramsar, Japan-Australia Migratory Bird Agreement, China-Australia Migratory Bird Agreement, Republic of Korea-Australia Migratory Bird Agreement), areas of cultural significance relating to biodiversity and scientific reserves.	Chapter 17 Terrestrial Ecology, Section 17.3.2.	Appendix 9, Terrestrial Ecology Impact Assessment.
	DERM has produced a number of Biodiversity Planning Assessments that determine the biodiversity significance of terrestrial locations including areas within the footprint of, and in proximity to, the project. These should also be utilised during identification of sensitive environmental areas and the identified used values considered.	Chapter 17 Terrestrial Ecology, Sections 17.3.2 and 17.3.8.	Appendix 9, Terrestrial Ecology Impact Assessment.
	MNES identified above are to be discussed in section 8.	Chapter 17 Terrestrial Ecology, Section 17.3.1.	Appendix 9, Terrestrial Ecology Impact Assessment.
	The proximity of the project to any environmentally sensitive areas should be shown on a map of suitable scale. As well as the above characteristics, areas that would be regarded as sensitive with respect to flora and fauna have one or more of the following features:	Chapter 17 Terrestrial Ecology, Section 17.3.2.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• important habitats of species listed under the Nature Conservation Act 1992 and/or the EPBC Act as 'presumed extinct', 'critically endangered', 'endangered', 'vulnerable' or 'rare'	Chapter 17 Terrestrial Ecology, Section 17.3.2.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• regional ecosystems recognised by the EPA as 'endangered' or 'of concern' or 'not of concern' but where permits are no longer granted due to being at threshold levels, and/or ecosystems listed as 'presumed extinct', 'critically endangered', 'endangered' or 'vulnerable' under the EPBC Act.	Chapter 17 Terrestrial Ecology, Section 17.3.3.	Appendix 9, Terrestrial Ecology Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.3.1.1	• ecosystems that provide important ecological functions, such as riparian vegetation, important buffer to a protected area, refuge or important habitat corridor between areas	Chapter 17 Terrestrial Ecology, Section 17.3.8.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• protected areas which have been proclaimed under the Nature Conservation Act 1992 or are under consideration for proclamation.	Chapter 17 Terrestrial Ecology, Section 17.3.8.	Appendix 9, Terrestrial Ecology Impact Assessment.
3.3.1.2	***Potential Impacts and Mitigation Measures***		
	This section should discuss the following: • the impact of the project on species, communities and habitats of local, regional, national or international significance.	Chapter 17 Terrestrial Ecology, sections 17.4.2 and 17.4.4.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• proposals to mitigate impacts (e.g. timing of works, minimise width of disturbance, proposed rehabilitation of in-stream and floodplain disturbances).	Chapter 17 Terrestrial Ecology, Section 17.5.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• planned rehabilitation of vegetation communities and any relevant previous experience/experiments rehabilitating these communities.	Chapter 17 Terrestrial Ecology, sections 17.5 and 17.7.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• offsets relating to residual impacts with regard to the Queensland Government Environmental Offsets Policy (QGEOP) 2008 as well as the draft policy statement on the use of environmental offsets under the EPBC Act. The Queensland Government offsets policy provides for specific-issue offset policies, as follows: – Policy for Vegetation Management Offsets (NRW, 2007) – Mitigation and Compensation for Works or Activities Causing Marine Fish Habitat Loss (DPI&F, 2002) – draft Policy for Biodiversity Offsets (consultation draft, EPA, 2008) Any departure from no net loss of ecological values should be described.	Chapter 17 Terrestrial Ecology, sections 17.5.4 and 17.6. Chapter 19 Marine and Estuarine Ecology, Section 19.5.1.	Appendix 9, Terrestrial Ecology Impact Assessment.
	Potential impacts and associated mitigation measures should be discussed further under section 3.3.2 Terrestrial flora, and section 3.4 Water resources.	Chapter 17 Terrestrial Ecology Chapter 13 Surface Water and Hydrology	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.3.2 3.3.2.1	***Terrestrial Flora*** *Description of Environmental Values*	Chapter 17 Terrestrial Ecology, Section 17.3.	Appendix 9, Terrestrial Ecology Impact Assessment.
	The terrestrial vegetation communities within the affected project areas should be described at an appropriate scale with mapping produced from aerial photographs and ground truthing, showing the following:	Chapter 17 Terrestrial Ecology, Section 17.3.3.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• location and extent of vegetation types including recognised regional ecosystem type descriptions and any areas of national, state or regional significance	Chapter 17 Terrestrial Ecology, Section 17.3.3.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• location of vegetation types of conservation significance	Chapter 17 Terrestrial Ecology, Section 17.3.3.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• vegetation map unit descriptions, including their relationship to regional ecosystems. Sensitive or important vegetation types should be highlighted and their value as habitat for fauna and conservation of specific rare floral and faunal assemblages or community types discussed	Chapter 17 Terrestrial Ecology, Sections 17.3.3 and 17.3.8.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• the current extent (bioregional and catchment) of protected vegetation types of conservation significance within protected areas (e.g. national parks, conservation parks, resource reserves, nature refuges)	Chapter 17 Terrestrial Ecology, Sections 17.3.2 and 17.3.3.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• any plant communities of cultural, commercial or recreational significance	Chapter 17 Terrestrial Ecology, Section 17.3.5.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• the distribution and abundance of significant exotic and weed species.	Chapter 17 Terrestrial Ecology, Section 17.3.6.	Appendix 9, Terrestrial Ecology Impact Assessment.
	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. The assessment should also include a description of vegetation (including re-growth and restored areas in addition to remnant vegetation) to indicate any areas of state, regional or local significance.	Chapter 17 Terrestrial Ecology, Section 17.3.3.	Appendix 9, Terrestrial Ecology Impact Assessment.
	The description should also include, where relevant, MNES identified within the EPBC Act. MNES identified above should be fully discussed in section 8.	Chapter 17 Terrestrial Ecology, Section 17.3.2. Attachment 4, Matters of National Environmental Significance.	Appendix 9, Terrestrial Ecology Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.3.2 3.3.2.1	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, as follows:	Chapter 17 Terrestrial Ecology, Section 17.3.4.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• all data should be collected in accordance with the requirements of the Queensland Herbarium CORVEG database		
	• appropriate minimum site sizes should be selected, observing recognised sampling approaches and to provide an adequate sample of surveyed communities		
	• a list of species present at each site should be recorded		
	• the relative abundance and community structure of plant species present should be recorded	Chapter 17 Terrestrial Ecology, sections 17.3.4, 17.3.6 and 17.3.10.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• any plant species of conservation, cultural, commercial or recreational significance should be identified		
	• vegetation mapping and data should be submitted to the Queensland Herbarium to assist the updating of the CORVEG database		
	• 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 and entry into the HERBRECS database.		
	The existence of rare or threatened species should be specifically addressed under sensitive areas.		
	Any special landscape values of natural vegetation communities should be described.		
	Existing information on plant species may be used instead of new survey work provided that the data are derived from surveys consistent with the above methodology and describe existing conditions. Methodology used for flora surveys should be specified in the appendices to the report. Any existing information should be revised and comments provided on whether the areas are degraded, cleared or affected in ways that would affect their environmental value.		Appendix 9, Terrestrial Ecology Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.3.2.2	The occurrence of pest plants (weeds), particularly declared plants under the Land Protection (Pest and Stock Route Management) Act 2002 should be shown on a map at an appropriate scale.	Chapter 17 Terrestrial Ecology, Section 17.3.6	Appendix 10, Pest Management Plan.
	The use of Biosecurity Queensland's Annual Pest Distribution Survey data and predictive pest maps available on the DEEDI website should be utilised in conjunction with Queensland Herbarium naturalised flora data to source the occurrence of pest plants in the project area.		Appendix 10, Pest Management Plan.
	Potential impacts and mitigation measures This section should discuss all foreseen direct and indirect effects on terrestrial flora and the potential level of environmental impact identified. Action plans for protecting rare or threatened species and vegetation types identified as having high conservation value should be described and any obligations imposed by Queensland or Australian government biodiversity protection legislation or policy should be discussed.	Chapter 17 Terrestrial Ecology, Section 17.4.1.	Appendix 9, Terrestrial Ecology Impact Assessment.
	Project construction and operational activities involving clearing, salvaging or removal of vegetation should be described, and indirect impacts on vegetation not cleared should be assessed.	Chapter 17 Terrestrial Ecology, Section 17.4.3.	Appendix 9, Terrestrial Ecology Impact Assessment.
	The number of hectares of remnant vegetation proposed to be cleared (by conservation status and regional ecosystem type) for each project component should be identified. The proposed clearing should examine the effects of the proposed clearing on the long-term sustainability of these ecosystems at a regional level. This should also include the identification of potential offset areas consistent with Queensland offsets and the draft EPBC offsets policy to compensate for any loss of vegetation.	Chapter 17 Terrestrial Ecology, Section 17.4.3.	Appendix 9, Terrestrial Ecology Impact Assessment.
	With regard to the project areas, this section should include: • the significance of impacts at a local, catchment, bioregional, state, national or international level	Chapter 17 Terrestrial Ecology, Section 17.4.3.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• impact on any plants of potential or recognised environmental or economic significance	Chapter 17 Terrestrial Ecology, Section 17.4.3.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• a discussion of the ability of identified stands of vegetation to withstand any increased pressure resulting from the project and measures proposed to mitigate impacts	Chapter 17 Terrestrial Ecology, Section 17.4.3.	Appendix 9, Terrestrial Ecology Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

	EIS Term of Reference	EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.3.2.2	• a description of the methods proposed to ensure rapid rehabilitation of disturbed areas. This description should include the species chosen for revegetation which should be consistent with the surrounding vegetation associations. Details of any post construction monitoring programs and the benchmarks to be used for review of monitoring results should be included. Consideration should be given to the establishment of reference sites (at least two for each ecosystem type being rehabilitated) to provide benchmarking for rehabilitation activities	Chapter 17 Terrestrial Ecology, Sections 17.5.2 and 17.7. Attachment 6, Draft EMP, Chapter 5.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• a discussion on the potential for the introduction and/or spread of weeds or plant disease, including:	Chapter 17 Terrestrial Ecology, Sections 17.4.1, 17.5 and 17.7.	Appendix 10, Pest Management Plan.
	– identification of the origin of construction materials, machinery and equipment		
	– vehicle inspection regime, which addresses the need for vehicle and machinery wash-down and any other hygiene protocols, including the requirement that all vehicles and equipment must be cleaned before starting the job and that these wash down areas contain water/soil away from creeks and gullies		
	– staff/operator education programs		
	– determination of the potential for the introduction of, or facilitation of, exotic, non-indigenous and noxious plants		
	• a draft weed management plan in an EM Plan format. This plan should be developed and finalised in consultation with Biosecurity Officers from DEEDI land and local government environmental officers, to cover construction, rehabilitation and operation periods	Chapter 17 Terrestrial Ecology, Sections 17.4.1, 17.5 and 17.7.	Appendix 10, Pest Management Plan.
	• weed management strategies are required for managing weed species already present at the project site and ensuring no new declared plants are introduced to the area. Reference should be made to the local government authority's pest management plan when determining control strategies. The strategies for managing weeds should be discussed in the main body of the EIS and provided in a working form in a Pest Management Plan as part of the overall EM plan for the project.	Chapter 17 Terrestrial Ecology, Sections 17.4.1, 17.5 and 17.7.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.3.2.2	• a biosecurity management plan for biosecurity mitigation measures where the project accesses primary production areas (plant communities of commercial significance).	N/A	
	The above assessment should include, where relevant, MNES identified under the EPBC Act. MNES identified above are to be discussed in section 8.	Chapter 17 Terrestrial Ecology, Section 17.4.2. Attachment 4, Matters of National Environmental Significance.	Appendix 9, Terrestrial Ecology Impact Assessment.
3.3.3 3.3.3.1	***Terrestrial Fauna*** *Description of Environmental Values*		
	The terrestrial, and riparian fauna occurring in the areas affected by the project should be described, noting the broad distribution patterns in relation to vegetation, topography and substrate. Wildlife corridors and refuges should be identified and mapped.	Chapter 17 Terrestrial Ecology, sections 17.3.7 and 17.3.8.	Appendix 9, Terrestrial Ecology Impact Assessment.
	The description of the fauna present or likely to be present in the area should include: • species diversity (i.e. a species list) and indicative abundance of animals, including amphibians, birds, reptiles, and mammals (including bats)		
	• any species that are poorly known but suspected of being rare or potentially threatened		
	• habitat requirements and sensitivity to changes, including movement corridors and barriers to movement		
	• existence of any rare, threatened or otherwise noteworthy species/communities in the project areas, including a discussion of the range, habitat, breeding, recruitment, feeding and movement requirements, and the current level of protection (e.g. any requirements of protected area management plans)	Chapter 17 Terrestrial Ecology, sections 17.3.7, 17.3.8 and 17.3.9.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• use of the area by migratory and nomadic birds, in particular areas for breeding or significant congregations		
	• the existence of feral or exotic animals, including maps of major pest infestations.		

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.3.3.1	The EIS should contain results from surveys for species listed as threatened or migratory under the EPBC Act. Surveys should be conducted at the appropriate time of the year when the species is known to be present on the site, so that identification and location of these species is optimal. MNES identified here are to be discussed in section 8.		
	The methodology used for fauna surveys should be specified in the appendices to the report. The EIS should indicate how well any affected significant communities and species are represented and protected elsewhere in the region where the project occurs. Relevant site data should be provided to the DERM in a format compatible with the DERM WildNet database for listed threatened species.	Chapter 17 Terrestrial Ecology, Section 17.2.	Appendix 9, Terrestrial Ecology Impact Assessment.
	The use of Biosecurity Queensland's Annual Pest Distribution Survey data and predictive pest maps available on the DEEDI website, together with local government area pest management plans, should be utilised to source the occurrence of pest animals in the project area.	Chapter 17 Terrestrial Ecology, Section 17.3.9.	Appendix 10, Pest Management Plan.
3.3.3.2	***Potential Impacts and Mitigation Measures***	Chapter 17 Terrestrial Ecology, Section 17.5.	Appendix 9, Terrestrial Ecology Impact Assessment.
	This section should discuss all foreseen direct and indirect effects on terrestrial fauna.	Chapter 17 Terrestrial Ecology, Section 17.4.	Appendix 9, Terrestrial Ecology Impact Assessment.
	Strategies for protecting rare or threatened species should be described and any obligations imposed by Queensland threatened species legislation or policy should be discussed. Australian Government threatened species legislation should be discussed in section 8.	Chapter 17 Terrestrial Ecology, Section 17.5.	Appendix 9, Terrestrial Ecology Impact Assessment.
	Any recovery plans for potentially affected threatened species should be outlined, and strategies for complying with objectives and management practices should be described. Measures to mitigate the impact on habitat or the inhibition of normal movement, breeding or feeding patterns, and change to food chains should be described. Any provision for buffer zones and movement corridors, or special provisions for migratory or nomadic animals should be discussed.	Chapter 17 Terrestrial Ecology, Section 17.5.	Appendix 9, Terrestrial Ecology Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.3.3.2	With regard to terrestrial and riparian fauna, the assessment of potential impacts should consider: • impacts the project may have on terrestrial fauna, relevant wildlife habitat and other fauna conservation values, including:	Chapter 17 Terrestrial Ecology, Section 17.4.	Appendix 9, Terrestrial Ecology Impact Assessment.
	– direct and indirect impacts due to loss of range/habitat, food supply, nest sites, breeding/recruiting potential or movement corridors	Chapter 17 Terrestrial Ecology, Section 17.4.	Appendix 9, Terrestrial Ecology Impact Assessment.
	– impacts on rare and threatened or otherwise noteworthy animal species	Chapter 17 Terrestrial Ecology, Section 17.4.	Appendix 9, Terrestrial Ecology Impact Assessment.
	– identification of the conservation importance of identified populations at the regional, state and national levels	Chapter 17 Terrestrial Ecology, sections 17.3.7 and 17.3.8.	Appendix 9, Terrestrial Ecology Impact Assessment.
	– cumulative effects of direct and indirect impacts	Chapter 32 Cumulative Impacts.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• measures to minimise wildlife capture and mortality during construction and operation	Chapter 17 Terrestrial Ecology, Section 17.5.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• 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 the injuries		
	• methods for minimising the introduction of feral animals, and other exotic fauna such as declared pest ant species (fire ants and yellow crazy ants)	Chapter 17 Terrestrial Ecology, Section 17.5.2.	Appendix 10, Pest Management Plan.
	• a review of control measures to prevent increases in local populations and spread of biting insect species of pest and health significance associated with construction and operational activities and disposal of construction and operational wastes.		
	• a pest animal management plan in an EM Plan format. This plan should be developed and finalised in consultation with Biosecurity Officers from DEEDI and local government environmental officers, to cover construction, rehabilitation and operation periods		
	• a biosecurity management plan for biosecurity mitigation measures where the project accesses primary production areas.		

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.3.3.2	These would also include, where relevant, MNES identified under the EPBC Act. The MNES are to be discussed in section 8.	Chapter 17 Terrestrial Ecology, Section 17.5. Attachment 4, Matters of National Environmental Significance.	Appendix 9, Terrestrial Ecology Impact Assessment.
3.3.4 3.3.4.1	***Freshwater Aquatic Flora and Fauna*** *Description of Environmental Values*	Chapter 18 Freshwater Ecology, Section 18.3.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	The aquatic flora and fauna occurring in the areas affected by the project should be described, noting the patterns and distribution in the waterways. A description of the habitat requirements and the sensitivity of aquatic flora and fauna species to changes in flow regime, water levels and water quality in the project areas should be provided.	Chapter 18 Freshwater Ecology, Section 18.3.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	The discussion of the fauna and flora present or likely to be present in the area should include: • fish species, mammals, reptiles, amphibians and aquatic invertebrates occurring in the waterways within the project area, including any feral and exotic fauna species	Chapter 18 Freshwater Ecology, Section 18.3. Chapter 19 Marine and Estuarine Ecology, Section 19.3.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	• aquatic (waterway) macrophytes including native and exotic/weed species	Chapter 18 Freshwater Ecology, Section 18.3.2.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	• wetlands listed by DERM as areas of national, state or regional significance, and their values and importance	Chapter 18 Freshwater Ecology, Section 18.3.1.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	• a description of terrestrial species that are ecologically associated with wetlands or waterways and are likely to be affected by the project	Chapter 17 Terrestrial Ecology, Section 17.3. Chapter 18 Freshwater Ecology, Section 18.3. Chapter 19 Marine and Estuarine Ecology, Section 19.1.3.	Appendix 9, Terrestrial Ecology Impact Assessment.
	• aquatic habitats, substrates and stream types.	Chapter 18 Freshwater Ecology, Section 18.3.1.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	• description of mitigation measures to minimise aquatic habitat modification and associated impacts on aquatic flora and fauna.	Chapter 18 Freshwater Ecology, Section 18.5.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.3.4.1	These would also include, where relevant, MNES identified under the EPBC Act. The MNES are to be discussed in section 8.	Attachment 4, Matters of National Environmental Significance.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
3.3.4.2	***Potential Impacts and Mitigation Measures*** This section should discuss all foreseen direct and indirect effects on aquatic flora and fauna, including strategies for protecting rare or threatened species and any obligations, legislation or policies imposed by the Queensland and Australian governments. The discussion should include:	Chapter 18 Freshwater Ecology, Section 18.4.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	• measures to minimise wildlife injury and mortality during construction and operation	Chapter 18 Freshwater Ecology, Section 18.5.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	• details of the methodologies that would be used to avoid injuries to 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	Chapter 18 Freshwater Ecology, Section 18.5.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	• details of measures to be used to maintain fish passage in creeks that would be affected	Chapter 18 Freshwater Ecology, Section 18.5.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	• potential impacts on groundwater dependant ecosystems, with options to avoid or mitigate these impacts, and details of proposed monitoring for each identified groundwater dependant ecosystems	Chapter 14 Groundwater, sections 14.4 and 14.7. Chapter 18 Freshwater Ecology, sections 18.4.1 and 18.7.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	• review of control measures to prevent increases in local populations and spread of biting insect species of pest and health significance associated with construction activities and disposal of construction wastes	Chapter 18 Freshwater Ecology, Section 18.5. Chapter 29, Hazard and Risk, Section 29.4.1.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	• description of mitigation measures to prevent the creation of new mosquito and biting midge breeding sites, particularly during construction	Chapter 18 Freshwater Ecology, Section 18.5.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	• description of the potential for and mitigation measures to prevent the introduction, transfer or facilitation of exotic, non-indigenous and noxious plants and water borne insect pests.	Chapter 18 Freshwater Ecology, Section 18.5.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.3.5 3.3.5.1	***Marine Flora and Fauna*** *Description of Environmental Values* Marine flora and fauna occurring in the areas affected by the proposal should be described noting the patterns and distribution in Port Curtis. The description of the fauna and flora present in the areas should include: • fish species, mammals, reptiles and crustaceans occurring in marine waters, including pest species	Chapter 19 Marine and Estuarine Ecology, Section 19.3.3.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• marine plants, including seagrass, saltmarsh and mangroves	Chapter 19 Marine and Estuarine Ecology, Section 19.3.2.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• benthic, rocky shore and reef habitats	Chapter 19 Marine and Estuarine Ecology, Section 19.3.1.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• habitat for commercial and recreational fisheries	Chapter 19 Marine and Estuarine Ecology, Section 19.3.3.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• particular reference habitat of any rare or threatened species	Chapter 19 Marine and Estuarine Ecology, Section 19.3.2.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• proximity to declared Fish Habitat Areas	Chapter 19 Marine and Estuarine Ecology, Section 19.3.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• presence of marine mammals and marine turtle foraging areas and nesting areas in the vicinity of the proposed port	Chapter 19 Marine and Estuarine Ecology, Section 19.3.3.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• sea floor habitat and benthic macro invertebrate communities in the vicinity of the spoil ground	Chapter 19 Marine and Estuarine Ecology, Section 19.3.2.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• where relevant, MNES identified under the EPBC Act.	Chapter 19 Marine and Estuarine Ecology, sections 19.1.4 and 19.3.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.3.5.2	***Potential impacts and mitigation measures*** The potential impacts of the project on benthic habitat and marine fauna and flora, including sea grass beds, marine plants, other fish habitats and other rare or threatened species should be assessed. The EIS should also discuss the potential for damage to these ecosystems (including dependent faunal species).	Chapter 19 Marine and Estuarine Ecology, sections 19.4.1 and 19.4.2.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	Mitigation methods to reduce impacts on identified environmental values should be outlined. Restoration of the disturbed area (especially where marine plants have been removed) should also be outlined.	Chapter 19 Marine and Estuarine Ecology, Section 19.5.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
3.3.5.2	Vectors for an introduction of a marine pest, possible impacts of a marine pest incursion and proposed mitigation measures should be discussed together with on-going monitoring for marine pests in the port and proposed response arrangements if a marine pest incursion occurs.	Chapter 19 Marine and Estuarine Ecology, sections 19.4.4, 19.5.4 and 19.6.3.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	Assessments should include, where relevant, MNES identified under the EPBC Act. The MNES are to be discussed in section 8.	Attachment 4, Matters of National Environmental Significance.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
3.4	**Water Resources** The definition of waters in the Environmental Protection (Water) Policy 1997 (EPP Water) includes the bed and banks of waters, so this section should address impacts on benthic sediments as well as the water column.	Chapter 13 Surface Water Hydrology and Water Quality, section 13.1.1 and 13.1.2.	Appendix 5, Surface Water Impact Assessment. Appendix 6, Stormwater Quality impact Assessment.
	Where a licence or permit will be required under the Water Act 2000 to take or interfere with the flow of water, this section of the EIS should describe the amount of water to be taken and the details of the works to be constructed, and impacts of the works.	Chapter 13, Surface Water Hydrology and Water Quality, Section 13.1.1.	
3.4.1 3.4.1.1	***Surface water and watercourses*** *Description of Environmental Values* The EIS should describe the environmental values of the surface waterways of the affected area in terms of: • values identified in the EPP (Water) and Australian and New Zealand Environment and Conservation Council, State of the Environment Reporting Taskforce 2000 (ANZECC 2000)	Chapter 13 Surface Water Hydrology and Water Quality, Section 13.3.	Appendix 5, Surface Water Impact Assessment, Section 4.5. Appendix 6, Stormwater Quality impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.4.1 3.4.1.1	• sustainability, including both quality and quantity	Chapter 13 Surface Water Hydrology and Water Quality, Section 13.3.	Appendix 5, Surface Water Impact Assessment. Appendix 6, Stormwater Quality impact Assessment.
	• physical integrity, fluvial processes and morphology of watercourses, including riparian zone vegetation and form	Chapter 13 Surface Water Hydrology and Water Quality, Section 13.3.	Appendix 5, Surface Water Impact Assessment. Appendix 9, Terrestrial Ecology Impact Assessment, Section 4.
	• any water resource plans, land and water management plans, declared or proposed wild river areas relevant to the affected catchment.	Chapter 13 Surface Water Hydrology and Water Quality, sections 13.1.2 and 13.3.	Appendix 5, Surface Water Impact Assessment.
	A description should be given of the surface watercourses and their quality and quantity in the area affected by the project with an outline of the significance of these waters to the river catchment system in which they occur.	Chapter 13 Surface Water Hydrology and Water Quality, sections 13.3.3 and 13.3.4.	Appendix 5, Surface Water Impact Assessment, Section 4.3.5.. Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	Details provided should include a description of existing surface drainage patterns and existing and historical flow regimes in major streams and wetlands and a description of present and potential water uses downstream of the areas affected by the project.	Chapter 13 Surface Water Hydrology and Water Quality, sections 13.3.3 and 13.3.4.	Appendix 5, Surface Water Impact Assessment.
	Details should be provided on the likelihood of flooding, history of flooding (including extent, levels and frequency). Flood studies should include a range of annual exceedance probabilities for affected waterways, based on observed data if available, or use appropriate modelling techniques and conservative assumptions if there are no suitable observations. The flood modelling should include local flooding due to short duration events from contributing catchments on site, as well as larger scale regional flooding including waterways downstream.	Chapter 13 Surface Water Hydrology and Water Quality, sections 13.3.3, 13.3.4 and 13.5.1.	Appendix 5, Surface Water Impact Assessment.
	The EIS should provide a description, with photographic evidence where appropriate, of the geomorphic condition of any watercourses likely to be affected by project works and operations. The results of this description should form the basis for the planning and subsequent monitoring of rehabilitation of the affected watercourses.	Chapter 13 Surface Water Hydrology and Water Quality, sections 13.3.3 and 13.3.4.	Appendix 5, Surface Water Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.4.1 3.4.1.1	An assessment is required of existing water quality in surface waters and wetlands likely to be affected by the proposal. The basis for this assessment should be a monitoring program, with sampling stations located upstream and downstream of the project areas. The water quality monitoring should capture seasonal variations or variations with flow where applicable. A relevant range of physical, chemical and biological parameters should be measured to provide a baseline for affected creek or wetland systems.	Chapter 13 Surface Water Hydrology and Water Quality, sections 13.3.3 and 13.3.4. Chapter 16 Marine Water Quality and Sediment, Section 16.7.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
3.4.1.2	***Potential Impacts and Mitigation Measures*** The water management systems for all project elements should be described, addressing surface water quality, quantity, drainage patterns and sediment movements.	Chapter 6 Project Description: LNG Plant, Section 6.4.3. Chapter 13 Surface Water Hydrology and Water Quality, sections 13.3.3,13.3.4 and 13.4.	Appendix 5, Surface Water Impact Assessment. Appendix 6, Stormwater Quality impact Assessment.
	The beneficial (environmental, production and recreational) use of nearby surface water should be discussed. An analysis of potential impacts on affected creeks should be carried out. This analysis should identify any likely inundation and duration, as this may affect emergency vehicle access.	Chapter 13 Surface Water Hydrology and Water Quality, sections 13.3.3, 13.3.4 and 13.4.	Appendix 5, Surface Water Impact Assessment.
	Monitoring programs should be described which will assess the effectiveness of management strategies for protecting water quality during the construction, operation and decommissioning of the project. Monitoring programs should also be designed to evaluate changes in the physical integrity and geomorphic processes associated with changed flow regimes in affected watercourses.	Chapter 13 Surface Water Hydrology and Water Quality, Section 13.7.3.	Appendix 5, Surface Water Impact Assessment. Appendix 6, Stormwater Quality impact Assessment, Section 5.3.
	Where on-site storage of water sourced from waste water treatment plants is proposed, the EIS should detail how this water would be managed to ensure environmental harm and human health risk is avoided. The EIS should also describe the design features of any such storage to effectively contain saline water and other harmful constituents.	Chapter 6 Project Description: LNG Plant. Chapter 16, Marine Water Quality and Sediment, sections 16.2.2, 16.4 and 16.5. Chapter 31 Waste Management.	Appendix 5, Surface Water Impact Assessment. Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.4.1.2	Key water management strategy objectives include: • maintenance of sufficient quantity and quality of surface waters to protect existing beneficial downstream uses of those waters (including maintenance of in-stream biota)	Chapter 13 Surface Water Hydrology and Water Quality, sections 13.4 and 13.5.	Appendix 5, Surface Water Impact Assessment. Appendix 6, Stormwater Quality impact Assessment.
	• maintenance or replication of the existing geomorphic conditions of local watercourses	Chapter 13 Surface Water Hydrology and Water Quality, sections 13.5 and 13.7.	Appendix 5, Surface Water Impact Assessment.
	• minimisation of impacts on flooding levels and frequencies both upstream and downstream of the project.	Chapter 13 Surface Water Hydrology and Water Quality, Section 13.5.	Appendix 5, Surface Water Impact Assessment.
	The EIS should include a risk assessment for uncontrolled emissions to water due to system or catastrophic failure, implications of such emissions for human health and natural ecosystems, and strategies to prevent, minimise and contain impacts.	Chapter 13 Surface Water Hydrology and Water Quality, Section 13.4, Figure 13.4. Chapter 14 Groundwater, Section 14.4. Chapter 16 Marine Water Quality and Sediment, sections 16.2.1, 16.4 and 16.5. Chapter 29 Hazard and Risk, Section 29.4. Chapter 31 Waste Management, sections 31.3 and 31.6.	Appendix 6, Stormwater Quality impact Assessment. Appendix 29, Waste Impact Assessment, Section 2.3.4.
	The EIS should describe the proposed project component stormwater drainage systems and the proposed disposal arrangements, including any off-site services and downstream impacts.	Chapter 13 Surface Water Hydrology and Water Quality, sections 13.5 and 13.7.	Appendix 5, Surface Water Impact Assessment. Appendix 29, Waste Impact Assessment.
	Where dams, weirs, or ponds are proposed, the EIS should investigate the effects of predictable climatic extremes (droughts, floods) upon the structural integrity of the containing walls, and the quality of water contained, and flows and quality of water discharged.	Chapter 10 Climate and Climate Change Adaption, Sections 10.4.1, 10.4.3 and 10.5.	N/A
	A dam failure impact assessment should be carried out for any proposed dams that, due to their size, trigger the need for such an assessment under the Water Act 2000. Any dams that are likely to be referrable under the Water Act 2000 should be noted and emergency response procedures incorporated into the project's environmental management plan (EM Plan).	N/A	N/A

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

	EIS Term of Reference	EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.4.1.2	The need, or otherwise, for licensing of any dams (including referable dams) or creek diversions, under the Water Act 2000, or the Fisheries Act 1994, or the construction or raising of any waterway barrier works under the Fisheries Act 1994, should be discussed. The process for water allocation and water discharge should be established in consultation with DERM. Consideration should also be given to any water allocation and management plans.	Chapter 2 Project Approvals. Chapter 13 Surface Water Hydrology and Water Quality, Section 13.1.2. Attachment 1: Relevant Policy, Legislation and Approvals, Table A1.1.	Appendix 5, Surface Water Impact Assessment. Appendix 28, Land Use and Planning Technical Report.
	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 Australian and New Zealand Guidelines for Fresh and Marine Water Quality and the Queensland Water Quality Guidelines (DERM, 2009).	Chapter 13 Surface Water Hydrology and Water Quality, Section 13.3.5, Table 13.8.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	Risks from potentially contaminated surface water flow, particularly during flood events should be assessed.	Chapter 13 Surface Water Hydrology and Water Quality, Section 13.4, Table 13.10.	Appendix 11, Freshwater Ecology and Water Quality Impact Assessment.
	Options for flood mitigation and the effectiveness of mitigation measures should be discussed with particular reference to sediment, salinity and other emissions of a hazardous or toxic nature to human health, flora or fauna.	Chapter 13 Surface Water Hydrology and Water Quality, Section 13.5. Chapter 29 Hazard and Risk, Section 29.4, Key Findings.	Appendix 5, Surface Water Impact Assessment.
	Groundwater *Description of Environmental Values* The EIS should review the quality, quantity and significance of artesian and non-artesian groundwater resources within the project area.	Chapter 14 Groundwater, Section 14.3.	Appendix 7, Groundwater Impact Assessment.
	The environmental values of the underground waters of the affected area should be described in terms of: • values identified in the EPP (Water)	Chapter 14 Groundwater, Section 14.3.	Appendix 7, Groundwater Impact Assessment.
	• sustainability, including both quality and quantity	Chapter 14 Groundwater, Section 14.3.	Appendix 7, Groundwater Impact Assessment.
	• physical integrity, fluvial processes and morphology of groundwater resources.	Chapter 14 Groundwater, Section 14.3.	Appendix 7, Groundwater Impact Assessment.
	This section should include reference to: • Nature of the aquifer(s):	Chapter 14 Groundwater, Section 14.3, Table 14.3.	Appendix 7, Groundwater Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.4.2 3.4.2.1	– geology/stratigraphy – such as confined, unconfined	Chapter 14 Groundwater, Section 14.3.	Appendix 7, Groundwater Impact Assessment.
	– aquifer type—such as confined, unconfined	Chapter 14 Groundwater, Section 14.3.	Appendix 7, Groundwater Impact Assessment.
	– depth to and thickness of the aquifers.	Chapter 14 Groundwater, Section 14.3.	Appendix 7, Groundwater Impact Assessment.
	• hydrology of the aquifer(s):	Chapter 14 Groundwater, Section 14.3.	Appendix 7, Groundwater Impact Assessment.
	– depth to water level and seasonal changes in levels	Chapter 14 Groundwater, Section 14.3.	Appendix 7, Groundwater Impact Assessment.
	– groundwater flow directions (defined from water level contours)	Chapter 14 Groundwater, Section 14.3.	Appendix 7, Groundwater Impact Assessment.
	– interaction with surface water	Chapter 14 Groundwater, Section 14.3, Table 14.4.	Appendix 7, Groundwater Impact Assessment.
	– interaction with sea/salt water	Chapter 14 Groundwater, sections 14.3.1 and 14.4.1, Figure 14.1.	Appendix 7, Groundwater Impact Assessment.
	– possible sources of recharge	Chapter 14 Groundwater, Section 14.3.2.	Appendix 7, Groundwater Impact Assessment.
	– vulnerability to pollution	Chapter 14 Groundwater, Section 14.3.4, Figure 14.3.	Appendix 7, Groundwater Impact Assessment.
	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.	Chapter 14 Groundwater, Section 14.3.3.	Appendix 7, Groundwater Impact Assessment.
	The review should include a survey of existing groundwater supply facilities (bores, wells, or excavations). The information to be gathered for analysis should include:	Chapter 14 Groundwater, Section 14.3.	Appendix 7, Groundwater Impact Assessment.
	• location and type of facilities	Chapter 14 Groundwater, Section 14.3.3.	Appendix 7, Groundwater Impact Assessment. Tables 4.1 to 4.4.
	• pumping parameters	Chapter 14 Groundwater, Section 14.3.	Appendix 7, Groundwater Impact Assessment, Section 4.5.4.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.4.2 3.4.2.1	• draw down and recharge at normal pumping rates	Chapter 14 Groundwater, Section 14.3.	Appendix 7, Groundwater Impact Assessment.
	• seasonal variations (if records exist) of groundwater levels.	Chapter 14 Groundwater, Section 14.3.	Appendix 7, Groundwater Impact Assessment.
3.4.2.2	***Potential impacts and mitigation measures*** A network of observation points which would satisfactorily monitor groundwater resources both before and after commencement of operations should be developed.	Chapter 14 Groundwater, Section 14.7.	Appendix 7, Groundwater Impact Assessment.
	The EIS should include an assessment of the potential environmental impact caused by the project (and its associated project components) to local groundwater resources, including the potential for groundwater induced salinity.	Chapter 14 Groundwater, sections 14.4 and 14.6.	Appendix 7, Groundwater Impact Assessment.
	The impact assessment should define the extent of the area within which groundwater resources are likely to be affected by the proposed operations and the significance of the project to groundwater depletion or recharge, and propose management options available to monitor and mitigate these effects. The response of the groundwater resource to the progression and finally cessation of the project should be described.	Chapter 14 Groundwater, sections 14.4 to 14.6.	Appendix 7, Groundwater Impact Assessment.
	Any potential for the project to impact on groundwater dependent ecosystems should be assessed and described. Avoidance and mitigation measures should be described.	Chapter 14 Groundwater, sections 14.4 and 14.5.	Appendix 7, Groundwater Impact Assessment, Section 4.6.
	An assessment of the potential to contaminate groundwater resources and measures to prevent, mitigate and remediate such contamination should be discussed.	Chapter 14 Groundwater, sections 14.4 to 14.6. Chapter 31 Waste Management, sections 31.3 and 31.6.	Appendix 7, Groundwater Impact Assessment.
3.5	***Coastal Environmental*** This section should describe the existing coastal environment, which may be affected by the project in the context of coastal values identified in State of the Coastal Zone Reports and environmental values as defined by the EP Act and environmental protection policies.	Chapter 15 Coastal Processes, sections 15.2.2 and 15.3.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	This section should also identify actions associated with the project that are assessable development within the coastal zone and will require assessment under the provisions of the Coastal Protection and Management Act 1995.	Chapter 15 Coastal Processes, sections 15.1.2, 15.2.2 and 15.4.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.5.1 3.5.1.1	***Marine Water and Sediment*** *Description of Environmental Values* Information should be provided on water quality in the sea and in estuaries below the limit of tidal influence, including salinity, heavy metals, pH, turbidity, and oil in water. The interaction of freshwater flow with marine waters and its significance in relation to marine flora and fauna in and adjacent to the project area, should be discussed.	Chapter 16 Marine Water Quality and Sediment	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	Environmental values of the coastal seas of the affected area should be described, as relevant, in terms of: • values identified in the EPP (Water)	Chapter 16 Marine Water Quality and Sediment, Section 16.2.2.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	• the State Coastal Management Plan (EPA, 2002) and the Curtis Coast Regional Coastal Management Plan (EPA, 2003)		
	• the Great Barrier Reef World Heritage Area.		
	An assessment of physical and chemical characteristics of sediments should be provided for:		
	• the area to be dredged; or	Chapter 16 Marine Water Quality and Sediment, Section 16.3.3.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	• if offshore disposal is proposed, the disposal location for dredged material		
	• the littoral and marine zone adjacent to the project area.		

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.5.1.1	Any contaminants and implications for management of the dredged material should be described. The description of sediment characteristics should be based on the results of sediment sampling and analysis conducted as per a sampling and analysis plan (SAP) approved under the Environment Protection (Sea Dumping) Act 1981.	Chapter 16 Marine Water Quality and Sediment, sections 16.2.2, 16.3.3, 16.4, 16.5 and 16.7.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	The chemical and physical characteristics of the material to be dredged, the spoil ground and control sites should be summarised. If the material is to be disposed in an offshore area, a statement as to the suitability of the sediment for unconfined ocean disposal should be made using the framework within the National Assessment Guidelines for Dredging (DEWHA, 2009).	Chapter 16 Marine Water Quality and Sediment, Section 16.3.3.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
3.5.1.2	***Potential Impacts and Mitigation Measures*** This section should define and describe water quality objectives and practical measures for protecting coastal environmental values, to describe how nominated quantitative standards and indicators may be achieved, and how the achievement of the water quality objectives would be monitored, audited and managed.	Chapter 16 Marine Water Quality and Sediment, sections 16.2.2, 16.5 and 16.7.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	This section should also describe the water quality objectives used (including how they were developed), and how predicted activities will meet these objectives (refer to the Queensland Water Quality Guidelines, DERM, 2009, and the Australian and New Zealand Guidelines for Fresh and Marine Water Quality, ANZECC & ARMCANZ, 2000).	Chapter 16 Marine Water Quality and Sediment, sections 16.2.2, 16.5 and 16.7.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	The potential environmental harm caused by the project on coastal resources and processes should be described in the context of controlling such effects. The State Planning Policy—Planning and Managing Development involving Acid Sulfate Soils 2002 should be addressed as should the State Coastal Management Plan 2001 and the Department of Employment, Economic Development and Innovation Guidelines for Marine Areas.	Chapter 16 Marine Water Quality and Sediment, sections 16.2.2, 16.2.3, 16.4, 16.5 and 16.7.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	The role of buffer zones in sustaining fisheries resources through maintaining connectivity between coastal and riparian vegetation and estuarine and freshwater reaches of catchments should be discussed.	Chapter 18 Freshwater Ecology, sections 18.4.1, 18.4.3 and 18.5.1	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.5.1.2	Impacts on water quality due to increased water turbidity and nutrients from the sediment due to dredging and sea disposal of material, if required, should be addressed and strategies developed to address potential impacts.	Chapter 16 Marine Water Quality and Sediment, sections 16.4 and 16.5.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	The potential impacts of sediment quality on the marine environment should be discussed. This assessment should be guided by the suitability of the sediment for ocean disposal as determined by the framework outlined in the National Assessment Guidelines for Dredging (DEWHA, 2009).	Chapter 16 Marine Water Quality and Sediment, sections 16.1, 16.4, 16.5 and 16.7.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	In addition to the above considerations, the following guidelines and standards should be considered: • EPP (Water), and any recent or proposed amendments that incorporate recommendations of the National Environment Protection Measures	Chapter 16 Marine Water Quality and Sediment, Section 16.1	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	• ANZECC Australian Water Quality Guidelines for Fresh and Marine Waters (2000)	Chapter 16 Marine Water Quality and Sediment, Section 16.1	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	• amelioration or mitigation measures to address each activity identified to impact on local and regional water quality	Chapter 16 Marine Water Quality and Sediment, Section 16.5.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	• any monitoring of water quality recommended during the dredging activities to ensure environmental values are protected.	Chapter 16 Marine Water Quality and Sediment, Section 16.5 and 16.7.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
3.5.2.1	**Coastal Processes** **Description of Environmental Values** This section should describe the physical processes of the adjacent marine environment, including but not limited to currents, tides and storm surges.	Chapter 15 Coastal Processes, Section 15.3.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	The environmental values of the coastal resources of the project area should be described in terms of the physical integrity and morphology of landforms created or modified by coastal processes. Assessment should be based on hydrodynamic investigations and include a description of sediment dynamics at any off-shore disposal ground based on the influence of tides, waves, currents and turbidity.	Chapter 15 Coastal Processes, Sections 15.2.2, 15.3 and 15.4. Chapter 16 Marine Water Quality and Sediment, Section 16.3.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.5.2.1	The relationship of these processes to marine flora and fauna and biological processes within the study area should also be discussed. The relationship between currents, wave actions and extreme events (such as cyclones) and how they influence coastal processes should be discussed.	Chapter 15 Coastal Processes, sections 15.2.2 and 15.3 Chapter 19 Marine Ecology, Section 19.5.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
3.5.2.2	***Potential Impacts and Mitigation Measures*** The impacts of development of the new berth area on hydrodynamic processes within the harbour should be described. In particular, impacts on siltation and any implications for marine flora and fauna and/or biological processes should be discussed, including generation and migration of turbid plumes.	Chapter 15 Coastal Processes, Section 15.4. Chapter 19 Marine and Estuarine Ecology, Section 19.4.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
3.5.2.2	Information on currents in the harbour should be used to predict impacts, including an assessment of these impacts on marine environmental values. The EIS should discuss strategies to mitigate potential project impacts on coastal processes.	Chapter 15 Coastal Processes, sections 15.4 and 15.5.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	Consideration should be given to the intended size of vessels proposed to access the facility, and associated dredging of access channels. Details should be provided of the capacity and lifespan of existing (including existing approved) reclamation areas to deal with capital and future maintenance dredging to the full extent of development proposed. The potential impacts associated with the frequency of maintenance dredging requirements should be discussed.	Chapter 6 Project Description: LNG Plant, sections 6.14.5 and 6.13. Chapter 8 Project Description: Dredging, sections 8.5 and 8.6. Chapter 15 Coastal Processes, sections 15.2.2, 15.4, 15.5 and 15.7 Chapter 19 Marine and Estuarine Ecology, Section 19.4.2. Chapter 28 Traffic and Transport, Section 28.4.5.	Appendix 8, Coastal Processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
3.6 3.6.1	**Air Quality** ***Description of Environmental Values*** This section of the EIS 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 (EPP (Air)).	Chapter 21 Air Quality, sections 21.1 to 21.3.	Appendix 14, Air Quality Impact Assessment.
	Ambient air quality conditions should be described for any sensitive locations (such as residences) likely to be affected by project emissions. These descriptions should include any baseline monitoring results for particulate matter and gaseous and odorous compounds. In particular, the background levels and sources of suspended particulates, sulphur oxides, nitrogen oxides and any other major constituent of the existing air environment that may be affected by the proposal should be discussed.	Chapter 21 Air Quality, sections 21.2.1 and 21.3.	Appendix 14, Air Quality Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.6 3.6.1	Sufficient data on local meteorology and ambient levels of pollutants should be collected to provide a baseline for later studies or for the modelling of air quality environmental impact assessment within the affected air sheds. The meteorological parameters should include air temperature, wind speed and direction, atmospheric stability, mixing depth and other parameters necessary for input to meteorological and air quality models.	Chapter 21 Air Quality, sections 21.2.1 and 21.3.	Appendix 14, Air Quality Impact Assessment.
	The environmental values of the air sheds for affected areas should be described in terms of the EPP (Air).	Chapter 21 Air Quality, Section 21.2.2.	Appendix 14, Air Quality Impact Assessment.
3.6.2	***Potential Impacts and Mitigation Measures*** The air quality status of the relevant air sheds should be described and their ability to accept additional pollutant loads generated by the project assessed	Chapter 21 Air Quality, sections 21.3 and 21.4.	
	The following air quality issues and their mitigation should be considered: • nature and quantity of air emissions expected to be generated by project component construction and operational activities	Chapter 21 Air Quality, sections 21.2.2 and 21.4.	Appendix 14, Air Quality Impact Assessment.
	• impacts of dust generation from construction activities (including blasting, excavation and extraction), especially in areas where construction activities are adjacent to existing road networks or are in close proximity to sensitive receivers	Chapter 21 Air Quality, Section 21.4.1.	Appendix 14, Air Quality Impact Assessment.
	• identification of climatic patterns that could affect dust and pollutant generation and movement	Chapter 21 Air Quality, Section 21.3.	Appendix 14, Air Quality Impact Assessment.
	• impacts on terrestrial flora and fauna	Chapter 17 Terrestrial Ecology, Section 17.4.1. Chapter 21 Air Quality, Section 21.4.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 14, Air Quality Impact Assessment.
	• predicted changes to existing air quality from vehicle emissions and dust generation along haulage routes (internal and external to construction sites)	Chapter 21 Air Quality, Section 21.4.1.	Appendix 14, Air Quality Impact Assessment.
	• impacts on air quality from gaseous emissions including greenhouse gas emissions and ozone depleting substances.	Chapter 21 Air Quality, Section 21.4.	Appendix 13, Greenhouse Gas Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.6.2	This section should define and describe the objectives and practical measures for protecting or enhancing environmental values for air, describe how nominated quantitative standards and indicators may be achieved, and how the achievement of the objectives will be monitored, audited and managed. Information should be submitted on the use of any new technologies proposed to reduce air emissions from all emission sources, where appropriate.	Chapter 21 Air Quality, sections 21.5 and 21.7.	Appendix 14, Air Quality Impact Assessment.
3.6.2.1	*LNG Plant and Gas Treatment Plants* The objectives for air emissions should be stated in respect of relevant standards (stack and ground level concentrations), relevant emission guidelines, and any relevant legislation, and the emissions modelled using a recognised atmospheric dispersion model. The potential for interaction between the emissions from the plants, and emissions in the air shed, and the likely environmental harm from any such interaction, should also be detailed.	Chapter 21 Air Quality, sections 21.1, 21.2 and 21.4.	Appendix 14, Air Quality Impact Assessment.
	Where appropriate, the predicted ground level concentrations in nearby areas should be provided. These predictions should be made for both normal and expected maximum emission conditions and the worst case meteorological conditions should be identified and modelled where necessary. Ground level predictions should be made at any receptor believed to be sensitive to the effects of predicted emissions. The techniques used to obtain the predictions should be referenced, and key assumptions and data sets explained.	Chapter 21 Air Quality, sections 21.2 to 21.4.	Appendix 14, Air Quality Impact Assessment.
	With respect to the LNG plant, consideration should also be given to referencing of current DERM and Queensland Health studies being undertaken on the Gladstone air shed and the community reference group on the Clean and Healthy Air for Gladstone Project.	Chapter 21 Air Quality, Sections 21.3 and 21.4.	Appendix 14, Air Quality Impact Assessment.
	The assessment of the LNG plant's impact on air quality should include the following matters: • an accurate description of the activities carried out on the site and the surrounding environment	Chapter 6 Project Description: LNG Plant, Sections 6.2 to 6.5. Chapter 21 Air Quality, Section 21.4.	Appendix 14, Air Quality Impact Assessment.
	• conceptual block flow diagrams clearly showing all unit operations to be carried out on the premises, detailed discussion of all unit operations, and detailed lists of all process inputs and outputs	Chapter 6 Project Description: LNG Plant, Sections 6.2 to 6.5. Chapter 21 Air Quality, Section 21.4.	Appendix 14, Air Quality Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.6.2.1	• a description of pollution control equipment and pollution control techniques to be employed on the premises and the features of the plant that would be designed to suppress or minimise emissions, including dusts and odours and compare the proposed technologies against the best available control technologies	Chapter 21 Air Quality, Section 21.5.	Appendix 14, Air Quality Impact Assessment.
	• a description of the backup measures to be incorporated that will act in the event of failure of primary measures to minimise the likelihood of plant upsets and adverse air impacts	Chapter 21 Air Quality, sections 21.5 and 21.7.	Appendix 14, Air Quality Impact Assessment.
	• an air emission inventory of the proposed plant for all potential point, line, area and volume sources including fugitive emissions of dusts and odours. The inventory should provide emission concentrations at standard temperature and pressure, and provide the mass emission rate, exit velocity, volume flow rate and temperature at exit. The estimation of emission rates should be based on actual measurements on samples taken from similar facilities, either full-scale facilities operating elsewhere, or experimental or demonstration-scale facilities. Where this is not possible, use published emission factors and/or data supplied by manufacturers of process and control equipment.	Chapter 21 Air Quality, Section 21.4.2.	Appendix 14, Air Quality Impact Assessment.
	• a comparison of the predicted level of emissions with the best practice national source emission standards.	Chapter 21 Air Quality, sections 21.1, 21.2 and 21.4.	Appendix 14, Air Quality Impact Assessment.
	• air dispersion model estimates of the likely air emission impacts on the surrounding environment. Ground level concentrations at the nearest sensitive receptors based on 1-hour average for maximum (99.9 percentile) and 99.5 percentile values. Results of the dispersion modelling must be presented as concentration contour plots and frequency contour plots. The predicted average ground level concentrations should be made for both normal and expected maximum emission conditions and the worst-case meteorological conditions.	Chapter 21 Air Quality, Section 21.4.	Appendix 14, Air Quality Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.6.2.1	• an evaluation of the cumulative impacts on the receiving environment considering the project in conjunction with existing and known future emission sources within the region. The evaluation should describe air shed management and the contribution of the plants to air shed capacity in view of existing and known future users of the air shed for assimilation and dispersion of emissions.	Chapter 21 Air Quality, Section 21.2.2.	Appendix 14, Air Quality Impact Assessment.
	• an odour impact assessment using the criteria described in the Queensland EPA Guideline of Odour Impact Assessment from Developments.	Chapter 21 Air Quality, Section 21.4.2.	Appendix 14, Air Quality Impact Assessment.
3.6.2.2	*Air Quality Modelling Requirements* The averaging period for ground level concentrations of pollutants that are modelled should be consistent with the relevant averaging periods for air quality indicators and goals in the EPP (Air) and the National Environmental Protection Measure (NEPM) Air.	Chapter 21 Air Quality, sections 21.1 and 21.4.	Appendix 14, Air Quality Impact Assessment.
	The modelling of air quality concentrations at the 'most exposed existing or likely future off-site sensitive receptors' must be compared with the appropriate national and international ambient air quality standards including the EPP (Air) and the National Environmental Protection Council (Ambient Air Quality) Measure.	Chapter 21 Air Quality, sections 21.1 and 21.4.	Appendix 14, Air Quality Impact Assessment.
	For the assessment of chemical species not listed in EPP (Air), the design criteria prescribed by the Victorian Government State Environment Protection Policy (Air Quality Management, 2001), based on odour or toxicity classification, could be utilised, or an alternative proposed and approved.	Chapter 21 Air Quality, Section 21.1.	Appendix 14, Air Quality Impact Assessment.
	The human health risk associated with emissions from the facility of all hazardous or toxic pollutants should be assessed whether they are or are not covered by the National Environmental Protection Council (Ambient Air Quality) Measure or the EPP (Air).	Chapter 21 Air Quality, sections 21.1, 21.2 and 21.4.	Appendix 14, Air Quality Impact Assessment.
	The limitations and accuracy of the applied atmospheric dispersion models should be discussed. The air quality modelling results should be discussed in light of the limitations and accuracy of the applied models.	Chapter 21 Air Quality, Section 21.2.1.	Appendix 14, Air Quality Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.6.3	***Greenhouse Gas Emissions and Abatement*** This sub-section of the EIS should: • provide an inventory of projected annual emissions for each relevant greenhouse gas, with total emissions expressed in 'CO2 equivalent' terms	Chapter 20 Greenhouse Gas, Section 20.4, Table 20.2.	Appendix 13, Greenhouse Gas Impact Assessment.
	• estimate emissions from upstream activities associated with the proposed project, including fossil fuel based electricity consumed	Chapter 20 Greenhouse Gas, sections 20.2.2, 20.2.4 and 20.4, Table 20.3.	Appendix 13, Greenhouse Gas Impact Assessment.
	• briefly describe the method(s) by which estimates were made. The emissions may be estimated using the methodology contained in the National Greenhouse Accounts Factors, Department of Climate Change (January 2008).	Chapter 20 Greenhouse Gas, Section 20.2.2.	Appendix 13, Greenhouse Gas Impact Assessment.
	• identify the contribution of the range of GHG mitigation measures incorporated in the plant design. These measures could include the addition of waste heat recovery, additional vapour recovery from ship loading, the use of high efficiency gas turbines and/or compressors, and the use of low BTU fuel.	Chapter 20 Greenhouse Gas, sections 20.5.1 and 20.5.2.	Appendix 13, Greenhouse Gas Impact Assessment.
	Greenhouse gas abatement issues should be described and discussed and include: • measures (alternatives and preferred) to avoid and/or minimise greenhouse gas emissions directly resulting from activities of the project, including such activities as transportation of products and consumables, and energy use by the project	Chapter 20 Greenhouse Gas, Section 20.5.	Appendix 13, Greenhouse Gas Impact Assessment.
	• an assessment of how the preferred measures minimise emissions and achieve energy efficiency	Chapter 20 Greenhouse Gas, Section 20.5.	Appendix 13, Greenhouse Gas Impact Assessment.
	• a comparison between preferred measures for emission controls and energy consumption with best practice environmental management in the relevant sector of industry	Chapter 20 Greenhouse Gas, Section 20.5.	Appendix 13, Greenhouse Gas Impact Assessment.
	• a description of any opportunities for further offsetting greenhouse gas emissions through indirect means.	Chapter 20 Greenhouse Gas, sections 20.5.3 and 20.5.4.	Appendix 13, Greenhouse Gas Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.6.3	The environmental management plan in the EIS should include a specific module to address greenhouse gas abatement. This module should include consideration of the following:	Attachment 6, Environmental Management Plan.	Appendix 13, Greenhouse Gas Impact Assessment.
	• project commitments to the abatement of greenhouse gas emissions with details of the intended objectives, measures and performance standards to avoid, minimise and control emissions	Chapter 20 Greenhouse Gas, Section 20.5. Attachment 6, Environmental Management Plan.	Appendix 13, Greenhouse Gas Impact Assessment.
	• project commitments to energy management, including undertaking periodic energy audits with a view to progressively improving energy efficiency, in accordance with legislation	Chapter 20 Greenhouse Gas, Section 20.5. Attachment 6, Environmental Management Plan.	Appendix 13, Greenhouse Gas Impact Assessment.
	• a process for regular review of new technologies to identify opportunities to reduce emissions and use energy efficiently, consistent with best practice environmental management	Chapter 20 Greenhouse Gas, Section 20.5. Attachment 6, Environmental Management Plan.	Appendix 13, Greenhouse Gas Impact Assessment.
	• voluntary initiatives such as projects undertaken as a component of the national Greenhouse Challenge Plus program, or research into reducing the lifecycle and embodied energy carbon intensity of the project's processes or products	Chapter 20 Greenhouse Gas, Section 20.5. Attachment 6, Environmental Management Plan.	Appendix 13, Greenhouse Gas Impact Assessment.
	• opportunities for offsetting greenhouse emissions, including, if appropriate, carbon sequestration and renewable energy uses	Chapter 20 Greenhouse Gas, Section 20.5. Attachment 6, Environmental Management Plan.	Appendix 13, Greenhouse Gas Impact Assessment.
	• project commitments to monitor, audit and report on greenhouse emissions from all relevant activities and the success of offset measures.	Chapter 20 Greenhouse Gas, Section 20.5. Attachment 6, Environmental Management Plan.	Appendix 13, Greenhouse Gas Impact Assessment.
3.7 3.7.1	**Noise and Vibration** ***Description of Environmental Values*** This section should describe the existing environmental values that may be affected by noise and vibration arising from project activities.	Chapter 22 Noise and Vibration, sections 22.3.1 and 22.3.2.	Appendix 16, Noise and Vibration Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.7 3.7.1	Where a proposed activity could adversely impact on a sensitive receptor, baseline noise monitoring should be undertaken. Noise sensitive places are defined in the Environmental Protection (Noise) Policy 2008 (EPP(Noise)). Background noise levels should be measured in accordance with EPA's (now DERM) guidelines on the measurement of noise and should take into account seasonal variations. The locations of sensitive sites should be identified on a map at a suitable scale.	Chapter 22 Noise and Vibration, Section 22.2.2.	Appendix 16, Noise and Vibration Impact Assessment.
	Sufficient data should be gathered to provide a baseline for later studies. The daily variation of background noise levels at nearby sensitive sites should be monitored and reported in the EIS, with particular regard given to detailing variations at different periods of the night. Monitoring methods should adhere to accepted best practice methodologies, relevant EPA guidelines and Australian standards, and any relevant requirements of the EPP (Noise).	Chapter 22 Noise and Vibration, sections 22.1 and 22.3.1.	Appendix 16, Noise and Vibration Impact Assessment.
	Comment should be provided on any current activities near the project area that may cause a background level of ground vibration (for example: major roads, quarrying activities, etc.).	Chapter 22 Noise and Vibration, Section 22.3.2.	Appendix 16, Noise and Vibration Impact Assessment.
	The results of any baseline monitoring of noise and vibration in the proposed vicinity of the project should be described.	Chapter 22 Noise and Vibration, sections 22.3.1 and 22.3.2.	Appendix 16, Noise and Vibration Impact Assessment.
3.7.2	***Potential Impacts and Mitigation Measures*** The potential environmental harm of noise and vibration at all potentially sensitive places, in particular, any place of work or residence should be quantified in terms of objectives, standards and indicators to be achieved and measurable indicators. Particular consideration should be given to emissions of low-frequency noise that is, noise with components below 200 Hz.	Chapter 22 Noise and Vibration, sections 22.1, 22.2.2, 22.2.3, 23.4.1 and 23.6.	Appendix 16, Noise and Vibration Impact Assessment.
	The need or otherwise for noise modelling should take into account the distance of relevant project sources of noise from neighbouring sensitive receptors such as residential and commercial developments believed to be sensitive to the effects of noise. Noise from the various components of the project should be modelled, where appropriate, using a suitable acoustic model covering the construction and operational phases.	Chapter 22 Noise and Vibration, Section 22.2.2.	Appendix 16, Noise and Vibration Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.7.2	Proposed measures for the minimisation or elimination of impacts should be provided, including details and illustrations of any screening, lining, enclosing or bunding. A discussion should be provided of timing schedules for construction and operations with respect to minimising environmental nuisance and harm from noise. This description should also include temporary sensitive places.	Chapter 22 Noise and Vibration, Section 22.5.1.	Appendix 16, Noise and Vibration Impact Assessment.
	Information should be supplied on blasting which may cause ground vibration or fly rock on, or adjacent to, the site with particular attention given to places of work, residence, recreation, worship and general amenity. The magnitude, duration and frequency of any vibration should be discussed. A discussion should be provided of measures to prevent or minimise environmental nuisance and harm. Blasting noise and vibration limits are provided in section 440ZB of the Environmental Protection Act 1994. Reference should also be made to the EPA Guideline: Noise and vibration from blasting.	Chapter 22 Noise and Vibration, sections 22.1.2 and 22.5.2.	Appendix 16, Noise and Vibration Impact Assessment.
	The assessment should also address off-site noise and vibration impacts that could arise due to increased road or other transportation directly resulting from the project. Potential noise impacts on terrestrial animals and avifauna, particularly migratory species should also be considered.	Chapter 22 Noise and Vibration, Section 22.4.2. Chapter 17 Terrestrial Ecology, Section 17.4.1.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 16, Noise and Vibration Impact Assessment.
	Any potential for ground vibration effects on underground pipelines and telecommunication lines should be examined.	Chapter 22 Noise and Vibration, Section 22.4.2.	Appendix 16, Noise and Vibration Impact Assessment.
3.8 3.8.1	**Waste** ***Waste Generation*** This section should provide technical details of waste generation, treatment, minimisation and management. Sources of waste associated with the construction, operation and decommissioning of the project should be identified and described including:	Chapter 7 Project Description: LNG Plant. Chapter 9 Project Description: Dredging. Chapter 31 Waste Management.	Appendix 29, Waste Impact Assessment.
	• the type and indicative amount of wastes produced, including an estimated inventory of solid and liquid (including wastewater, brine and sewage) wastes generated by each stage and component of the project	Chapter 31 Waste Management, sections 31.3 and 31.4.	Appendix 29, Waste Impact Assessment.
	• volumes and chemical analysis of wastewater generated by the treatment of associated water for beneficial use	Not applicable to this project – no associated water.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.8.1	• collection, handling, transport and fate of wastes including storage	Chapter 6 Project Description: LNG Plant, Section 6.4.7. Chapter 8 Project Description: Dredging. Chapter 31 Waste Management, Section 31.6.	Appendix 29, Waste Impact Assessment.
	• market demand for recyclable waste (where appropriate)	Chapter 31 Waste Management, section 31.6.	Appendix 29, Waste Impact Assessment.
	• opportunities for waste avoidance, reuse within the project, and minimisation techniques	Chapter 6 Project Description: LNG Plant, Section 6.4.7. Chapter 8 Project Description: Dredging. Chapter 31 Waste Management, Section 31.6.	Appendix 29, Waste Impact Assessment.
	• location, site suitability, dimensions, source and volume of any landfill, including method of construction.	N/A	Appendix 29, Waste Impact Assessment.
3.8.2	***Waste Management*** The EIS should provide details of waste management methods, 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. The proposals for waste avoidance, reuse, recycling, treatment and disposal should be described having regard for best practice waste management strategies and the Environmental Protection (Waste) Policy 2000.	Chapter 6 Project Description: LNG Plant, Section 6.4.7. Chapter 8 Project Description: Dredging. Chapter 31 Waste Management, sections 31.3 and 31.6.	Appendix 29, Waste Impact Assessment.
	This section should assess the potential impacts generated by wastes during the construction, operational and decommissioning stages of the project. This information should include: • descriptions of processes, equipment and facilities to be incorporated into the overall project specifically for the purpose of avoiding waste generation, separation of wastewater from solid waste, reusing or recycling wastes, or on-site treatment methods for wastes to lessen their effect on the natural environment	Chapter 6 Project Description: LNG Plant, Section 6.4.7. Chapter 8 Project Description: Dredging. Chapter 31 Waste Management, Section 31.6.	Appendix 29, Waste Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.8.2	• proposed means for management of wastes produced under circumstances other than as a result of normal project development, including wastes generated during modification (e.g. run-off, chemical cleaning before commissioning), unusual conditions when the facilities are operating (e.g. start-up, maintenance, shut-down) and domestic sewage and refuse	Chapter 31 Waste Management, Section 31.6.	Appendix 29, Waste Impact Assessment.
	• council waste facilities within the project development areas and their ability to handle expected waste generation	Chapter 31 Waste Management, Section 31.5.	Appendix 29, Waste Impact Assessment.
	• methods to prevent seepage and contamination of groundwater from waste stockpiles	Chapter 15 Groundwater. Chapter 31 Waste Management, Section 31.6.	Appendix 29, Waste Impact Assessment.
	• methods to avoid stormwater contamination by raw materials, wastes or products and present the means of containing, recycling, reusing, treating and disposing of stormwater, having regard for the requirements of the EPP (Water)	Chapter 6 Project Description: LNG Plant, Section 6.4.3. Chapter 13 Surface Water Hydrology and Water Quality, Section 13.5. Chapter 31 Waste Management, Section 31.6.	Appendix 6, Stormwater Quality Impact Assessment, Appendix 29, Waste Impact Assessment.
	• risk assessment and monitoring procedures for individual sites in relation to the above points.	Chapter 12 Acid Sulfate Soils and Land Contamination. Chapter 13 Surface Water Hydrology and Water Quality. Chapter 14 Groundwater.	Appendix 29, Waste Impact Assessment.
	Stormwater management should also address: • nominated stormwater discharge points and discharge criteria	Chapter 6 Project Description: LNG Plant, Section 6.4.3. Chapter 13 Surface Water Hydrology and Water Quality.	
	• design criteria, diversions, volume and capacity of any retention ponds, process tanks or bunded areas, as well as those reasonable and practicable measures proposed to prevent the likely release of contaminated stormwater to any drain or waters	Chapter 6 Project Description: LNG Plant, Section 6.4.3. Chapter 13 Surface Water Hydrology and Water Quality.	Appendix 6, Stormwater Quality Impact Assessment, Appendix 29, Waste Impact Assessment.
	• potential impacts during extreme rainfall events	Chapter 13 Surface Water Hydrology and Water Quality, Section13.4.	Appendix 6, Stormwater Quality Impact Assessment, Appendix 29, Waste Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.8.2	• information on the collection, treatment and disposal of contaminated stormwater runoff from plant and associated materials handling facilities	Chapter 6 Project Description: LNG Plant, Section 6.4.3. Chapter 13 Surface Water Hydrology and Water Quality.	Appendix 6, Stormwater Quality Impact Assessment, Appendix 29, Waste Impact Assessment.
	• details of expected contaminants (e.g. chemical composition, particulates, metals, effluent temperature and pH) in controlled discharges of proposed wastewater and stormwater management systems	Chapter 6 Project Description: LNG Plant, Section 6.4.3. Chapter 13 Surface Water Hydrology and Water Quality.	Appendix 6, Stormwater Quality Impact Assessment, Appendix 29, Waste Impact Assessment.
	• impacts of discharges on potential receiving waters, particularly effects on the downstream environment of stormwater releases (i.e. water-salt balance)	Chapter 13 Surface Water Hydrology and Water Quality. Chapter 16 Marine Water Quality and Sediment.	Appendix 8, Coastal processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
	• an outline the expected disposal strategies, where solid or liquid wastes are to be disposed of off-site.	Chapter 6 Project Description: LNG Plant, sections 6.4.3 and 6.4.7. Chapter 8 Project Description: Dredging. Chapter 31 Waste Management, Section 31.6.	Appendix 29, Waste Impact Assessment.
	Details of discharge wastewater into Gladstone harbour should identify any potential contaminants likely to impact on approvals for disposal of material from maintenance dredging operations.	Chapter 2 Project Approvals. Chapter 6 Project Description: LNG Plant, Section 6.4.3. Chapter 8 Project Description: Dredging. Chapter 16 Marine Water Quality and Sediment.	Appendix 8, Coastal processes, Marine Water Quality, Hydrodynamics and Legislation Assessment.
3.9	**Transport** The assessment of transport impacts should be presented as separate sub-sections of the EIS, for each project-affected mode (road, rail, air and sea) as relevant. The assessment should provide sufficient information to allow an independent evaluation of how existing transport infrastructure will be affected by project transport at both the local and regional levels.	Chapter 28 Traffic and Transport.	Appendix 23, Traffic and Transport Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.9.1	***Existing Transport Infrastructure*** Describe the current road and rail networks and intersections of the surrounding region and specify current traffic volumes. The current rail operations occurring during the project construction phase should also be described. This description should identify whether they comprise 24 hours a day/ seven days a week, and the number and types of services per day (e.g. coal, general freight, passenger services). Maps should be provided at an appropriate scale and level of detail.	Chapter 28 Traffic and Transport, sections 28.3.1, 28.3.2, 28.4.1 and 28.4.2.	Appendix 23, Traffic and Transport Impact Assessment.
3.9.2	***Transport Tasks and Routes*** The EIS should specify the nature and quantitative estimates of: • any proposed changes to transport-related infrastructure required by the project. This includes modifications to roads for access works and realignments, rail lines (including level crossings and services) and air and sea port facilities. The EIS should also identify where the construction of project-related plant and utilities may impact on the jurisdiction of any transport authority.	Chapter 28 Traffic and Transport, Section 28.4.1, Table 28.16.	Appendix 23, Traffic and Transport Impact Assessment.
	• expected volumes/tonnage of transported raw materials, wastes, and hazardous goods for all phases of the project	Chapter 28 Traffic and Transport, Section 28.4.	Appendix 23, Traffic and Transport Impact Assessment.
	• how the identified goods and materials will be moved through the transport network (volume/tonnage, composition, trip timing and routes)	Chapter 28 Traffic and Transport, Section 28.4.	Appendix 23, Traffic and Transport Impact Assessment.
	• workforce journey-to-work traffic generated by all project activities. This data should identify traffic mode, volume, composition, timing and routes	Chapter 28 Traffic and Transport, Section 28.4.	Appendix 23, Traffic and Transport Impact Assessment.
	• likely heavy and oversize/indivisible loads (volume, composition, timing and routes) highlighting any vulnerable bridges and structures along the proposed routes.	Chapter 28 Traffic and Transport, Section 28.4.	Appendix 23, Traffic and Transport Impact Assessment.
	Potential Impacts and Mitigation Measures The impact assessment should include: • details of the assessment methodology adopted with a summary of the consultation undertaken with the relevant transport authorities (Department Transport and Main Roads (DTMR), QR Limited and local government)	Chapter 28 Traffic and Transport, sections 28.2 and 28.2.7.	Appendix 23, Traffic and Transport Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.9.2	• details of all base data assumptions, including the current condition of the affected network and its performance	Chapter 28 Traffic and Transport, Section 28.3.	Appendix 23, Traffic and Transport Impact Assessment.
	• road and rail safety issues, in particular safety for other transport users and safe access to the construction sites	Chapter 28 Traffic and Transport, sections 28.4.1 and 28.4.2.	Appendix 23, Traffic and Transport Impact Assessment.
	• road use resulting in reduced life of roads/pavements requiring additional or accelerated rehabilitation and maintenance	Chapter 28 Traffic and Transport, Section 28.5.1	Appendix 23, Traffic and Transport Impact Assessment.
	• seasonal considerations such as potential for transport impacts during wet weather	Chapter 28 Traffic and Transport, sections 28.4.1 and 28.4.5.	Appendix 23, Traffic and Transport Impact Assessment.
	• reduced efficiency of traffic flows along road sections and at intersections along key routes, including estimates of possible interruptions to transport operations	Chapter 28 Traffic and Transport, Section 28.4.1.	Appendix 23, Traffic and Transport Impact Assessment.
	• reduced efficiency of rail operations including estimates of possible interruptions to rail operations.	Chapter 28 Traffic and Transport, Section 28.4.2.	Appendix 23, Traffic and Transport Impact Assessment.
	• details of any impacts on the natural environment within the jurisdiction of an affected transport authority (for example road and rail corridors)	Chapter 28 Traffic and Transport, Section 28.4.1.	Appendix 23, Traffic and Transport Impact Assessment.
	• details on the nature and likelihood of product-spill during transport where relevant.	Chapter 29 Hazard and Risk. Chapter 31 Waste Management, Section 31.6.6.	Appendix 23, Traffic and Transport Impact Assessment.
	Potential Impacts and Mitigation Measures The description and analysis should address the capacity of existing facilities to support the requirements and any additional requirements for the construction, upgrading or relocation of any transport related infrastructure required by the project directly and as a result of potential cumulative impacts. The analysis should also address any requirements for new or changed services in road reserves.	Chapter 28 Traffic and Transport, sections 28.3.1 and 28.4.1.	Appendix 23, Traffic and Transport Impact Assessment.
	The assessment of road impacts should address the issues outlined in the DMR publication Guidelines for Assessment of Road Impacts of Development (2006). Reference should be made to other DTMR planning documents and relevant legislation.	Chapter 28 Traffic and Transport, Section 28.1.	Appendix 23, Traffic and Transport Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.9.2	This section should also address how transport elements and impacts of the project, taking into account publicly published or DIP advised future demand growth, (including the potential impact of other major infrastructure and industrial projects in the nearby area) relate DTMR's existing transport strategies for the Central Queensland area and the future infrastructure needs of this area as presented in State Government documents, including Statements of Intent for Road Link Development and Gladstone Integrated Regional Transport Plan 2001-2030;	Chapter 28 Traffic and Transport, sections 28.3.1, 28.3.3 and 28.4.1.	Appendix 23, Traffic and Transport Impact Assessment.
	The EIS should also discuss the results of consultation with the relevant district and regional officers of DTMR and local government regarding the potential impacts of the project on the road network.	Chapter 28 Traffic and Transport, Section 28.2.7.	Appendix 23, Traffic and Transport Impact Assessment.
	In particular, the assessment should describe: • impacts (from either transport or project operations) on the safety, efficiency and condition of road operations and assets	Chapter 28 Traffic and Transport, Section 28.4.1.	Appendix 23, Traffic and Transport Impact Assessment.
	• impacts on overland water-flows and their interaction with the road network	Chapter 13 Surface Water Hydrology and Water Quality, Sections 13.4.1 and 13.4.3.	Appendix 5, Surface Water Impact Assessment.
	• impact of driver fatigue for workers travelling to and from regional centres and key destinations	Chapter 28 Traffic and Transport, Section 28.4.1.	Appendix 23, Traffic and Transport Impact Assessment.
3.9.3.1	• impacts on any existing public transport networks (assets and services).	Chapter 28 Traffic and Transport, Section 28.4.1.	Appendix 23, Traffic and Transport Impact Assessment.
3.9.3.2	*Rail impacts* The assessment of rail impacts should consider: • project impacts on the amenity and health of adjacent land users as a result of dust, noise and vibration	Chapter 28 Traffic and Transport, Section 28.4.2.	Appendix 16, Noise and Vibration Impact Assessment
	• impacts on transport and services, should the project generate large trip movements.	Chapter 28 Traffic and Transport, Section 28.4.2.	Appendix 23, Traffic and Transport Impact Assessment.
3.9.4	***Proposed Infrastructure Alterations*** The EIS should detail proposed alterations to road and rail infrastructure occasioned by the project. This includes road realignments, grade separated crossings, level crossings, road upgrades and resurfacing, bridges, access roads, and associated civil works.	Chapter 28 Traffic and Transport, sections 28.3.1, 28.4.1, 28.4.2 and 28.5.1.	Appendix 23, Traffic and Transport Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.9.4	Special reference should be made to any relationship between road works undertaken as part of the project and works proposed in DTMR's Roads Implementation Program where details of such works are provided by the DIP to the proponent or otherwise published. Any proposed new infrastructure provision or requirements to mitigate impacts of development on State-controlled roads should be in accordance with DTMR's Road Planning and Design Manual.	Chapter 28 Traffic and Transport, sections 28.4.1 and 28.5.1.	Appendix 23, Traffic and Transport Impact Assessment.
	The EIS should also discuss the results of consultation with the relevant district and regional officers of DTMR and local government regarding the potential impacts of the project on the road network and proposed infrastructure alterations.	Chapter 28 Traffic and Transport, Section 28.2.7.	Appendix 23, Traffic and Transport Impact Assessment.
	This consultation should also discuss developing an integrated approach with this and other existing or planned projects (whether publicly published or advised by DIP) known to the proponent.	Chapter 28 Traffic and Transport, Section 28.2.7. Chapter 4 Communication and Consultation, Section 4.2.4.	Appendix 23, Traffic and Transport Impact Assessment.
3.9.5	***Road Management Planning*** A traffic analysis should be presented to indicate the impacts or improvements to traffic flows and capacity both during construction and after completion. Particular attention should be paid to: • requirements for access to road/rail corridors during construction, including emergency access • methods to be adopted to ensure safety and avoid obstruction to other road/rail users during construction • proposed traffic management arrangements and plans • capacity and safety improvements as a result of road infrastructure alterations.	Chapter 28 Traffic and Transport, sections 28.4.1, 28.4.2 and 28.5.1.	Appendix 23, Traffic and Transport Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.9.5	This section should also address how transport elements and impacts of the project, taking into account publicly published or DIP advised future demand growth, (including the potential impact of other major infrastructure and industrial projects in the nearby area) relate to DTMR's existing transport strategies for the Central Queensland area and the future infrastructure needs of this area as presented in State Government documents, including Statements of Intent for Road Link Development and Gladstone Integrated Regional Transport Plan 2001-2030 and Capricornia Integrated Regional Transport Plan 2004-2030. It is also necessary to make reference to publicly published or DIP advised planning schemes of the relevant local governments.	Chapter 28 Traffic and Transport, sections 28.4.1, 28.4.2 and 28.5.1.	Appendix 23, Traffic and Transport Impact Assessment.
	This section should outline: • strategies to minimise the effects of project transport on existing and future public road or rail corridors	Chapter 28 Traffic and Transport, Section 28.5.1.	Appendix 23, Traffic and Transport Impact Assessment.
	• procedures for assessing and agreeing on the scope of required infrastructure alterations with road/rail corridor managers, including any associated works, such as sourcing water and gravel	Chapter 28 Traffic and Transport, Section 28.5.1.	Appendix 23, Traffic and Transport Impact Assessment.
	• steps to be taken to prevent access from public roads/rail corridors to the project sites	Chapter 28 Traffic and Transport, Section 28.5.1.	Appendix 23, Traffic and Transport Impact Assessment.
	• strategies to maintain safe access to public road/rail reserves to allow road/rail/pipeline maintenance activities	Chapter 28 Traffic and Transport, Section 28.5.1.	Appendix 23, Traffic and Transport Impact Assessment.
	• process for decommissioning of any temporary access to road/rail reserves—for example, stockpile sites.	Chapter 28 Traffic and Transport, Section 28.5.1.	Appendix 23, Traffic and Transport Impact Assessment.
	Findings of studies and transport infrastructure impact assessments should be an input into preparing a draft road-use management plan. Conditions of approval for transport management impacts should also be detailed in the EM Plan (see section 7.0).	Chapter 28 Traffic and Transport, Section 28.5.1. Attachment 6, Environmental Management Plan.	Appendix 23, Traffic and Transport Impact Assessment.
3.9.6	***Shipping*** The Regional Harbour Master Gladstone should be consulted regarding maritime issues relating to the movement and loading of LNG tankers and any barge operations. The EIS should discuss the results of the consultation.	Chapter 28 Traffic and Transport, Section 28.2.6.	Appendix 24, Confidential Information.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.9.6	Describe current vessels utilising the port and in the Commonwealth Marine Area, their size, shipping movements, anchorages, access to/from the port and navigational arrangements.	Chapter 28 Traffic and Transport, Section 28.3.5.	Appendix 24, Confidential Information.
	In relation to shipping of LNG, details of the number of ships utilising Gladstone Ports Corporation (GPC) port facilities and their size and frequency should be documented. In particular, changes to any of the following are to be described:	Chapter 28 Traffic and Transport, Section 28.4.5, Shipping.	Appendix 24, Confidential Information.
	• berthing/departure requirements including weather constraints		
	• security zones around the vessels both in berth and in transit, together with impacts on other maritime operations		
	• interaction with other vessels		
	• scheduling of vessel movement		
	• channel configuration, including swing basins		
	• towage requirements, including provision of escort tugs (if necessary) and having the use of LNG vessel dedicated escort tugs		
	• pilot requirements		
	• parameters of vessels to be used		
	• arrival and departure conditions of the vessels		
	• anchorage arrangements		
	• access to and from the port, shipping routes to be used by vessels beyond the port in Commonwealth marine waters. These should be indicated in relationship to the GBRMP and to the main shipping channels		
	• any other navigational arrangements		
	• any additional servicing of vessels.		
	In regard to increased shipping volumes, the following should be specifically addressed: • potential for introduction of exotic organisms from increased shipping rates	Chapter 19 Marine and Estuarine Ecology, Section 19.4.4.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.9.6	• ballast water management arrangements - including Australian Quarantine and Inspection Service (AQIS) mandatory arrangements and agency contingency planning	Chapter 19 Marine and Estuarine Ecology, Section 19.5.4.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• management of ship waste, in particular quarantine waste, domestic garbage, oil and sewage	Chapter 19 Marine and Estuarine Ecology, Section 19.5.4.	
	• potential risk of spills and their management	Chapter 19 Marine and Estuarine Ecology, Section 19.4.5.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• potential foreshore damaged caused by LNG tanker and tug activities	Chapter 19 Marine and Estuarine Ecology, Section 19.4.5.	
	• potential for increased vessel strike to marine species	Chapter 19 Marine and Estuarine Ecology, Section 19.4.2.	Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• potential impacts on existing shipping activity from both LNG ship movements and if the project should generate a significant degree of public or private ferry or barge movements in the port	Chapter 19 Marine and Estuarine Ecology, Section 19.4.5.	
	• routes of ships in transit through port waters and the aligned infrastructure such as navigational aids.	Chapter 19 Marine and Estuarine Ecology, Section 19.4.5.	
	Additional marine transport issues that should be considered include the potential of the proposal to impact on recreational craft.	Chapter 19 Marine and Estuarine Ecology, Section 19.4.5.	
3.9.7	***Air Services*** The air services and their current capacity serving the Gladstone region should be described. Projections should be made of the requirements of the project for air transport to and from Gladstone, and the services required to supply these projections. An assessment is required of the infrastructure needed to support the projected level of air services.	Chapter 28 Traffic and Transport, sections 28.3.3 and 28.4.3.	Appendix 23, Traffic and Transport Impact Assessment
3.10 3.10.1	**Indigenous Cultural Heritage** ***Description of Indigenous Cultural Heritage Values*** This section should describe the known Aboriginal cultural heritage values including significant Aboriginal areas that may be affected by the project.	Chapter 24 Indigenous Cultural Heritage, Section 24.3.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

	EIS Term of Reference	EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.10.1	The section should also describe how, in conjunction with the appropriate Aboriginal people, the Aboriginal cultural heritage values were ascertained. This might include, for example, the results of any Aboriginal cultural heritage survey undertaken, the DERM Aboriginal Cultural Heritage Register and Database and any existing literature relating to Aboriginal cultural heritage in the project area.	Chapter 24 Indigenous Cultural Heritage, Section 24.2.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
3.10.2	***Potential Impacts and Mitigation Measures*** This section should define and describe the practical measures for protecting Aboriginal cultural heritage values including describing the strategies to be applied for Aboriginal cultural heritage management, and how the achievement of the strategies will be undertaken.	Chapter 24 Indigenous Cultural Heritage, Section 24.5.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	To the extent practicable, significant Aboriginal areas should be avoided by the project. The EIS should provide an assessment of likely effects on Aboriginal cultural heritage values of the project, including but not limited to the following:	Chapter 24 Indigenous Cultural Heritage, Sections 24.4 and 24.5.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	• description of the Aboriginal cultural heritage values likely to be affected by the project including any national significance	Chapter 24 Indigenous Cultural Heritage, Section 24.3.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	• recommended means of mitigating any negative impact on Aboriginal cultural heritage values by appropriate management strategies.	Chapter 24 Indigenous Cultural Heritage, sections 24.3 to 24.5.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	As a minimum, impact assessment, management and protection strategies should satisfy statutory responsibilities.	Chapter 24 Indigenous Cultural Heritage, Section 24.5.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	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.	Chapter 24 Indigenous Cultural Heritage, Section 24.5.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	If an NT agreement is not finalised or, a CHMP has not been approved, by the time of submission of the EIS to the CG then the following should be provided:	See below.	See below.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.10.2	• subject to any confidentiality restrictions, an outline of the proposed management and protection strategies for Aboriginal cultural heritage within the proposed CHMP or NT agreement, including outlining the position of the relevant parties and the status of negotiations	Chapter 24 Indigenous Cultural Heritage, Section 24.5.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	• details of the proposed steps and timeframes for finalising the CHMP or NT agreement.	Chapter 24 Indigenous Cultural Heritage, Section 24.5.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	An NT agreement or CHMP should be negotiated between the proponent and the appropriate native title/ Aboriginal parties and should address and include the following (subject to contrary agreement between the parties):	Chapter 24 Indigenous Cultural Heritage, Section 24.5.	
	• a process for including Aboriginal people associated with the development areas in protection and management of Aboriginal cultural heritage	Chapter 24 Indigenous Cultural Heritage, Section 24.5.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	• processes for mitigation, management and protection of identified Aboriginal cultural heritage in the project areas, including associated infrastructure developments, during both the construction and operational phases of the project	Chapter 24 Indigenous Cultural Heritage, Section 24.5.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	• provisions for the management of the accidental discovery of Aboriginal cultural heritage, including human remains	Chapter 24 Indigenous Cultural Heritage, Section 24.5.2.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	• a clear recording process to be developed to assist initial management and recording of accidental discoveries	Chapter 24 Indigenous Cultural Heritage, Section 24.5.3.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	• a cultural heritage induction for project staff	Chapter 24 Indigenous Cultural Heritage, Section 24.5.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	• the development of a cultural heritage awareness program	Chapter 24 Indigenous Cultural Heritage, Section 24.5.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
	• a conflict resolution process.	Chapter 24 Indigenous Cultural Heritage, Section 24.5.	Appendix 18, Indigenous Cultural Heritage Impact Assessment.
3.11 3.11.1	**Non-Indigenous Cultural Heritage** ***Description of Non-Indigenous Cultural Heritage Values*** The EIS should describe the existing environmental values for non-indigenous cultural heritage that may be affected by the project activities. The non-indigenous cultural heritage survey should: • refer to:	Chapter 25 Non-Indigenous Cultural Heritage, Section 25.2.1.	Appendix 19, Non-Indigenous Cultural Heritage Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.11 3.11.1	– the Australian Heritage Places Inventory	Chapter 25 Non-Indigenous Cultural Heritage, Section 25.2.1.	Appendix 19, Non-Indigenous Cultural Heritage Impact Assessment.
	– the DERM Queensland Heritage Register and other information regarding places of potential non-indigenous cultural heritage significance		
	– local government heritage register		
	– any existing literature relating to the affected areas		
	• refer to consultations and negotiations with the local community and historical societies about:	Chapter 25 Non-Indigenous Cultural Heritage, Section 25.2.1.	Appendix 19, Non-Indigenous Cultural Heritage Impact Assessment.
	– places of non-indigenous cultural heritage significance		
	– the significance of any non-indigenous cultural heritage places located or identified ·		
	• include locations of culturally significant sites likely to be impacted by the project	Chapter 25 Non-Indigenous Cultural Heritage, sections 25.3.2 and 25.3.3.	Appendix 19, Non-Indigenous Cultural Heritage Impact Assessment.
	• provide a constraints' analysis of the proposed development area to identify and record non-indigenous cultural heritage places	Chapter 25 Non-Indigenous Cultural Heritage, Section 25.3.4.	Appendix 19, Non-Indigenous Cultural Heritage Impact Assessment.
	• provide the location of any mining areas with historical significance	Chapter 25 Non-Indigenous Cultural Heritage, Section 25.3.3.	Appendix 19, Non-Indigenous Cultural Heritage Impact Assessment.
	• provide a report of work done which includes background research, relevant environmental data and methodology, as well as results of field surveys, significance assessment and conclusions and management recommendations (having due regard for any confidentiality requirements specified by community representatives).	N/A	Appendix 19, Non-Indigenous Cultural Heritage Impact Assessment.
3.11.2	***Potential Impacts and Mitigation Measures*** 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: • description of the significance of items or places of conservation or non-indigenous cultural heritage value likely to be affected by the project and their values at a local, regional and national level	Chapter 25 Non-Indigenous Cultural Heritage, Section 25.3.3.	Appendix 19, Non-Indigenous Cultural Heritage Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
3. ENVIRONMENTAL VALUES AND MANAGEMENT OF IMPACTS			
3.11.2	• recommended means of mitigating any negative impacts on non-indigenous cultural heritage values and enhancing any positive impacts	Chapter 25 Non-Indigenous Cultural Heritage, Section 25.5.	Appendix 19, Non-Indigenous Cultural Heritage Impact Assessment.
	• where relevant, negotiations with Queensland Heritage Council and DERM regarding management of places of historic heritage significance, taking account also of community interests and concerns	Chapter 25 Non-Indigenous Cultural Heritage, Section 25.5.	Appendix 19, Non-Indigenous Cultural Heritage Impact Assessment.
	• documented management strategies in accordance with the outcomes of negotiations with Queensland Heritage Council, DERM and the community.	Chapter 25 Non-Indigenous Cultural Heritage, Section 25.5.	Appendix 19, Non-Indigenous Cultural Heritage Impact Assessment.
	As a minimum, investigations, 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. MNES are to be discussed in section 8.	Chapter 25 Non-Indigenous Cultural Heritage, sections 25.2.1, 25.3.3, 25.4 and 25.5.	Appendix 19, Non-Indigenous Cultural Heritage Impact Assessment.
4.1	**Social** The social impact assessment (SIA) should be conducted in consultation with the DIP Social Impact 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.	Chapter 26 Social.	Appendix 20, Social Impact Assessment.
4.1.1	***Social and Cultural Area*** 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: ·	Chapter 26 Social, Section 26.3.	Appendix 20, Social Impact Assessment.
	• the location and types of physical and social infrastructure, settlement and land use patterns		
	• the potential for social and cultural impacts to occur		
	• the location of other relevant proposals or projects		
	• 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)		
	• Indigenous social and cultural characteristics such as native title rights and interests and cultural heritage.		

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
4. SOCIAL VALUES			
4.1.2	***Community Engagement*** 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 and respond to issues and concerns regarding social impacts.	Chapter 26 Social, Section 26.2.3.	Appendix 20, Social Impact Assessment.
	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.	Chapter 26 Social, Section 26.2.3.	Appendix 20, Social Impact Assessment.
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.	Chapter 26 Social, Section 26.3	Appendix 20, Social Impact Assessment.
	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:		
	• major population trends/changes that may be occurring irrespective of the project.		
	• total population (the total enumerated population for the social and cultural area and the full time equivalent (FTE) transient population), 18 years and older		
	• estimates of population growth and population forecasts resulting from the proposal		

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
4. SOCIAL VALUES			
4.1.3	• family structures	Chapter 26 Social, Section 26.3.	Appendix 20, Social Impact Assessment.
	• age and gender distributions		
	• education, including schooling levels		
	• health and wellbeing measures		
	• cultural and ethnic characteristics		
	• the Indigenous population including age and gender		
	• income including personal and household		
	• labour force by occupation and industry		
	• 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		
	• 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		
	• disability prevalence		
	• the social and economic index for areas, index of disadvantage—score and relative ranking		
	• crime, including domestic violence		
	• any other indicators determined through the community engagement process as relevant.		
	The social baseline study should take account of current social issues such as:		
	• the social infrastructure including community and civic facilities, services and networks (for definition see South East Queensland Plan 2005-2026 Implementation Guidelines No. 5: www.dip.qld.gov.au/resources/guideline/Implementationguideline5.pdf)		

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
4. SOCIAL VALUES			
4.1.3	• settlement patterns including the names, locations, size, history and cultural aspects of settlement in the social and cultural area	Chapter 26 Social, Section 26.3.	Appendix 20, Social Impact Assessment.
	• the identity, values, lifestyles, vitality, characteristics and aspirations of communities in the social and cultural area, including Indigenous communities		
	• land use and land ownership patterns including:		
	– rural properties, farms, croplands and grazing areas including on-farm activities near the proposed activities		
	– the number of properties directly affected by the project		
	– 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.		
	• use of the social and cultural area for forestry, fishing, recreation, business and industry, tourism, aquaculture, and Indigenous cultural use of flora and fauna.		
4.1.4	***Workforce Profile*** The SIA should include a profile of the workforce which describes: • 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	Chapter 6 Project Description LNG Plant sections 6.9.3 and figures 6.14 and 6.15. Chapter 26 Social, Section 26.4. Attachment 1: Relevant Legislation, Policies and Approvals.	Appendix 20, Social Impact Assessment.
	• 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		
	• 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.		

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

	EIS Term of Reference	EIS Chapter	Technical Study
4. SOCIAL VALUES			
4.1.4	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 and people with a disability.	Chapter 6 Project Description LNG Plant sections 6.9.3 and figures 6.14 and 6.15. Chapter 26 Social, Section 26.4. Attachment 1: Relevant Legislation, Policies and Approvals.	Appendix 20, Social Impact Assessment.
	If re-locatable camp sites 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. The duration and any variations in workforce numbers within the proposed camp should also 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.		
	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.	Chapter 9 Impact Assessment Method Section 9.2 and Figure 9.6. Chapter 26 Social, Section 26.4. Chapter 32 Cumulative Impacts, Section 32.3.3 and figures 32.1 and 32.2.	Appendix 20, Social Impact Assessment.
4.1.5	***Potential Impacts*** This section of the SIA should assess and describe the type, level and significance of 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. Further it should:	Chapter 26 Social, Section 26.5.	Appendix 20, Social Impact Assessment.
	• describe and summarise outcomes of community engagement processes including the likely response of the affected communities, including Indigenous people		
	• 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		
	• 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:		

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

	EIS Term of Reference	EIS Chapter	Technical Study (If Applicable)
4. SOCIAL VALUES			
4.1.5	– 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	Chapter 26 Social, Section 26.5.	Appendix 20, Social Impact Assessment.
	– Indigenous people including cultural property issues		
	– 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. In relation to the source 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		
	– the needs of vulnerable groups including women, children and young people, the aged and people with a disability		
	– comment on how much service revenue and work from the project would be likely to flow to the project's social and cultural area		
	– 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 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 construction period.	Chapter 32 Cumulative Impacts.	Appendix 20, Social Impact Assessment.
4.1.6	***Mitigation Measures and Management Strategies*** For identified social impacts, social impact mitigation strategies and measures should be presented to address:	Chapter 26 Social, Section 26.6.	Appendix 20, Social Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
4. SOCIAL VALUES			
4.1.6	• 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	Chapter 26 Social, Section 26.6.	Appendix 20, Social Impact Assessment.
	• 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		
	• 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		
	• the adequate provision of education, training and employment for women, people with a disability, and Indigenous peoples.		
	The proponent should describe any consultation about acceptance of proposed mitigation strategies and how practical management and monitoring regimes are proposed to be implemented.		
	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:		
	• assignment of accountability and resources		
	• updates on activities and commitments		
	• mechanisms to respond to public enquiries and complaints		
	• mechanisms to resolve disputes with stakeholders		
	• periodic evaluation of the effectiveness of community engagement processes	Chapter 26 Social, Section 26.6 and 26.8. Attachment 7 Social Impact Management Plan, Chapter 4 and 5.	Appendix 20, Social Impact Assessment.
	• practical mechanisms to monitor and adjust mitigation strategies and action plans		
	• action plans to implement mitigation strategies and measures.		

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
4. SOCIAL VALUES			
4.2 4.2.1	**Health and Safety** ***Description of Environmental Values*** This section should describe the existing community values for public health and safety that may be affected by the project. Populations likely to be affected by air emissions including odours should be identified and described. Particular attention should be paid to those sections of the population, such as children and the elderly	Chapter 21 Air Quality, Section 21.4. Chapter 26 Social, sections 26.3.4, 26.3.5, 26.5.3 and 26.5.13.	Appendix 27, Health Impact Assessment
4.2.2	***Potential Impacts and Mitigation Measures*** 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.	Chapter 26 Social, Sections 26.6 and 26.8. Attachment 7, Social Impact Management Plan.	Appendix 20, Social Impact Assessment. Appendix 27 Health Impact Assessment.
	The EIS should assess the effects on the project workforce of occupational health and safety risks and the impacts on the community in terms of health, safety, and quality of life from project operations and emissions. Any impacts on the health and safety of the community, workforce, suppliers and other stakeholders should be detailed in terms of health, safety, quality of life for factors such as lighting, air emissions, odour, dust, noise and vibration, and water quality.	Chapter 21 Air Quality, Section 21.4. Chapter 22 Noise and Vibration, Section 22.4. Chapter 23 Landscape and Visual, Section 23.4.3. Chapter 26 Social, Section 26.5.	Appendix 14, Air Quality Impact Assessment. Appendix 16, Noise and Vibration Impact Assessment. Appendix 17, Landscape and Visual Impact Assessment. Appendix 20, Social Impact Assessment. Appendix 27 Health Impact Assessment.
	Maps should be provided showing the locations of sensitive receptors, such as, but not necessarily limited to, kindergartens, schools, hospitals, aged care facilities, residential areas, and centres of work (e.g. office buildings, factories and workshops). The EIS, illustrated by the maps, should discuss how planned discharges from the project could impact on public health in the short and long term, and should include an assessment of the cumulative impacts on public health values caused by the project, either in isolation or by combination with other known existing or planned sources of contamination.	Chapter 30 Land Use and Planning, Section 30.3.6. Chapter 26 Social, Section 26.5 Chapter 32 Cumulative Impacts, Section 32.3.2.	Appendix 20, Social Impact Assessment. Appendix 27 Health Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
4. SOCIAL VALUES			
4.2.2	The EIS should address the project's potential for providing disease vectors. Measures to control mosquito and biting midge breeding should be described. Any use of recycled water should be assessed for its potential to cause infection by the transmission of bacteria and/or viruses by contact, dispersion of aerosols, and ingestion (e.g. via use on food crops). Similarly, the use of recycled water should be assessed for its potential to cause harm to health via the food chain due to contaminants such as heavy metals and persistent organic chemicals. Practical monitoring regimes should also be recommended in this section.	Chapter 18 Freshwater Ecology, Sections 18.4.6 and 18.5.1. Chapter 29 Hazard and Risk, Section 29.4.2.	Appendix 10, Pest Management Plan. Appendix 27, Health Impact Assessment.
5. STATE AND LOCAL ECONOMIES AND MANAGEMENT OF IMPACTS			
5.1 5.1.1	**Economy** ***Description of Affected Local and Regional Economies*** This section should describe the existing economy(s) in which the project is located, and the economies materially impacted by the project. In particular, the following information should be provided: • definition of the economy in which the project is to be located	Chapter 27 Economics, Section 27.3.	Appendix 21, Economic Impact Assessment.
	• description of the economy including:		
	– gross regional product or other appropriate measure of annual economic production		
	– population		
	– labour force statistics		
	– infrastructure		
	• description of the regional economy's key industries and their contribution to regional economic income		
	• description of the key regional markets relevant to the project:	Chapter 27 Economics, Section 27.3.5.	Appendix 21, Economic Impact Assessment.
	– labour market	Chapter 27 Economics, sections 27.3.4 and 27.3.5.	Appendix 21, Economic Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
5. STATE AND LOCAL ECONOMIES AND MANAGEMENT OF IMPACTS			
5.1.1	– housing and land markets	Chapter 27 Economics, Section 27.3.5.	Appendix 21, Economic Impact Assessment.
	– construction services and building inputs market	Chapter 27 Economics, Section 27.3.5.	Appendix 21, Economic Impact Assessment.
	• description of the region's key industries and their current input costs (wage rates, building costs, housing rent, etc)	Chapter 27 Economics, sections 27.3.2, 27.3.4 and 27.3.5.	Appendix 21, Economic Impact Assessment.
	• discussion of land values in the region by type of use.	Chapter 27 Economics, Section 27.3.5.	Appendix 21, Economic Impact Assessment.
5.1.2	***Potential Impacts and Mitigation Measures*** The potential impacts should consider regional, state and national perspectives as appropriate to the scale of the project. The analysis should include the direct economic impacts on industry and the community including: • property values	Chapter 26 Social, Section 26.5. Chapter 27 Economics, Section 27.4.	Appendix 21, Economic Impact Assessment.
	• industry output		
	• employment		
	• Factor incomes.		
	The general economic benefits/ impacts from the project should be described, including:		
	• the relative significance of this proposal in the local and regional economic context		
	• the extent to which local and other Australian goods and services will be used	Chapter 27 Economics, Section 27.4.6.	Appendix 21, Economic Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
5. STATE AND LOCAL ECONOMIES AND MANAGEMENT OF IMPACTS			
5.1.2	• the short and long-term beneficial (e.g. job creation) and adverse (e.g. competition with local small business) impacts that are likely to result from the development	Chapter 27 Economics, Section 27.4.3.	Appendix 21, Economic Impact Assessment.
	• the potential needs for skills training in the new LNG industry	Chapter 27 Economics, Section 27.5.1.	Appendix 21, Economic Impact Assessment.
	• the need for any additional infrastructure provision by government to support the project	Chapter 27 Economics, Section 27.4.6.	Appendix 21, Economic Impact Assessment.
	• implications for future development in the locality (including constraints on surrounding land uses and existing industry)	Chapter 27 Economics, Section 27.4.8.	Appendix 21, Economic Impact Assessment.
	• the potential impact of the project on the domestic gas market and domestic gas prices, including the ability of the power generation sector to meet government emission targets and gas-power level targets.	Chapter 27 Economics, Section 27.4.7.	Appendix 21, Economic Impact Assessment.
	Any new skills and training to be introduced in relation to the project should be identified. Adequate provision should be made for apprenticeship and worker training schemes. The EIS should indicate the occupational skill groups required and potential skill shortages anticipated.	Chapter 27 Economics, sections 27.5.1, 27.3.4 and 27.4.9.	Appendix 21, Economic Impact Assessment.
	The economic assessment should outline strategies to mitigate disruption to the local economy during construction and operation to address:	Chapter 27 Economics, Section 27.5.	Appendix 21, Economic Impact Assessment.
	• all potential changes to industry practices likely to occur during construction and operation of the project	Chapter 27 Economics, sections 27.4.2 and 27.4.3.	Appendix 21, Economic Impact Assessment.
	• all potential impacts on households (travel time, noise etc) likely to occur during construction and operation of the project	Chapter 22 Noise and Vibration, Section 22.4. Chapter 27 Economics, Section 27.4. Chapter 28 Traffic and Transport, Section 28.4. Attachment 7, Social Impact Management Plan.	Appendix 21, Economic Impact Assessment.
	• the estimated cost of these changes, if material	Chapter 27 Economics, Section 27.4.	Appendix 21, Economic Impact Assessment.
	• the measures to be taken to minimise disruption or alleviate cost impacts of the project.	Chapter 27 Economics, Section 27.5.	Appendix 21, Economic Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
5. STATE AND LOCAL ECONOMIES AND MANAGEMENT OF IMPACTS			
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).	Chapter 33 Sustainable Development.	
	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.	Chapter 32 Cumulative Impacts. Chapter 33 Sustainable Development, Section 33.2.2.	
	This information is required to demonstrate that sustainable development aspects have been considered and incorporated during the scoping and planning of the project.	Chapter 33 Sustainable Development**.**	
6. HAZARD AND RISK			
6.1	**Hazard and Risk** This section of the EIS should describe the potential hazards and risks that may be associated with the project and should incorporate all known hazards, which may include: • identification of potential hazards, accidents, spillages and abnormal events occurring during all stages of the project, including possible frequency of occurrence	Chapter 29 Hazard and Risk, Section 29.4.	Appendix 15, Plume Rise Impact Assessment. Appendix 25 Preliminary Safety Management Study. Appendix 27, Health Impact Assessment. Appendix 29, Waste Impact Assessment.
	• indication of cumulative risk levels to surrounding land uses	Chapter 29 Hazard and Risk, Section 29.5 Chapter 32 Cumulative Impacts, Section 33.3.	
	• identification of all hazardous substances to be used, stored, processed or produced and the rate of usage	Chapter 29 Hazard and Risk, Section 29.4.2.	Appendix 25 Preliminary Safety Management Study.
6.1	• potential wildlife hazards such as snakes and disease vectors.	Chapter 29 Hazard and Risk, Section 29.4.2.	Appendix 25 Preliminary Safety Management Study.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
6. HAZARD AND RISK			
6.1	The EIS should deal with on-site risks. External risks to the project should also be considered. External risks from natural hazards could be determined on the basis of Australia/New Zealand Standard on Risk Management AS/NZS 4360:2004. The study should assess risks during the construction, operational and decommissioning phases of the project. These risks should be assessed in quantitative terms where possible. Possible hazards, accidents, and abnormal events that may arise for the project, both during construction and in operation should be described, including:	Chapter 29 Hazard and Risk, Section 29.4.	
	• accidental release of hazardous goods or other materials	Chapter 29 Hazard and Risk, Section 29.4.	Appendix 25 Preliminary Safety Management Study
	• fires associated with incidents arising from the project activities	Chapter 29 Hazard and Risk, Section 29.4.	Appendix 25 Preliminary Safety Management Study.
	• vehicle and other transport-related accidents	Chapter 29 Hazard and Risk, Section 29.4.	Appendix 25 Preliminary Safety Management Study. Appendix 23, Traffic and Transport Impact Assessment.
	• vulnerability of the project area to bushfire, flooding, cyclones, seismic events and other natural disasters.	Chapter 29 Hazard and Risk, Section 29.4.	Appendix 25 Preliminary Safety Management Study.
	Analysis of the consequences of each of these events on safety and environmental damage in the project area should be conducted, including direct harm to the environment as a result of project hazards. The analysis should examine the likelihood of these consequences being experienced, both individually and collectively. In regard to the on-site handling and storage of explosive raw material, consultation is encouraged with Emergency Management Queensland, Chemical Hazards and Emergency Management Services Unit.	Chapter 29 Hazard and Risk, sections 29.4 and 29.6.	Appendix 25 Preliminary Safety Management Study Appendix 27, Health Impact Assessment. Appendix 29, Waste Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
6. HAZARD AND RISK			
6.1	Details should be provided on the safeguards that would be employed or installed to reduce the likelihood and severity of hazards, consequences and risks to persons, fauna and environmentally sensitive sites within and adjacent to the project areas.	Chapter 29 Hazard and Risk, Section 29.4.	Appendix 15, Plume Rise Impact Assessment. Appendix 25 Preliminary Safety Management Study. Appendix 27, Health Impact Assessment. Appendix 29, Waste Impact Assessment.
	The EIS should identify all legislation, standards and codes of practice in relation to the transport, storage and handling of hazardous materials and in particular dangerous cargoes in port areas.	Chapter 29 Hazard and Risk, Section 29.2.	Appendix 25 Preliminary Safety Management Study. Appendix 27, Health Impact Assessment. Appendix 29, Waste Impact Assessment.
6.1.1	***Feed Gas Pipeline*** A risk assessment in accordance with Australia/New Zealand Standard AS/NZS 2885 Gas and Liquid Petroleum Pipelines should be conducted on the gas transmission pipeline from Gladstone City Gate to the LNG plant on Curtis Island. The results of the location analysis and threat analysis and calculation of 'measurement lengths' should be presented together with management strategies which will be employed to deliver the safety principles of the standard that require risks to be reduced to as low as reasonably practical, low or negligible.	Chapter 29 Hazard and Risk, Section 29.4.1.	Appendix 25 Preliminary Safety Management Study.
6.1.2	***LNG Plant and LNG Transport*** The LNG plant is considered to be a major hazard facility in terms of the Dangerous Goods Safety Management Act 2001. The study should assess risks associated with the LNG plant and the shipment of LNG, during the construction, operational and decommissioning stages. These risks should be assessed in quantitative terms where possible, and should involve a preliminary hazard identification exercise to identify the nature and scale of hazards which might occur. This exercise should consider the following matters:	Chapter 29 Hazard and Risk, sections 29.4.2 and 30.4.3.	Appendix 25 Preliminary Safety Management Study.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
6. HAZARD AND RISK			
6.1.2	• terrorist attack, specifically addressing Queensland counter terrorism and critical infrastructure policies	Chapter 29 Hazard and Risk, sections 29.4.2 and 29.4.3.	Appendix 25 Preliminary Safety Management Study
	• the emergency management plan is to include a maritime security plan which meets Commonwealth's security requirements	Chapter 29 Hazard and Risk, Section 29.6.	Appendix 25 Preliminary Safety Management Study.
	• construction accidents	Chapter 29 Hazard and Risk, Section 29.4.2.	Appendix 25 Preliminary Safety Management Study.
	• pipeline, processing unit or storage vessel rupture or loss of containment, and explosions and fires associated with such incidents	Chapter 29 Hazard and Risk, Section 29.4.2.	Appendix 25 Preliminary Safety Management Study.
	• the release of liquid gaseous or particulate pollutants or any other hazardous material used, produced or stored on the site	Chapter 29 Hazard and Risk, Section 29.4.2.	Appendix 25 Preliminary Safety Management Study. Appendix 29, Waste Impact Assessment.
	• impact of LNG flare on the aviation industry	Chapter 29 Hazard and Risk, Section 29.4.2.	Appendix 15, Plume Rise Impact Assessment. Appendix 25 Preliminary Safety Management Study
	• marine collision	Chapter 19, Marine and Estuarine Ecology, Section 19.4.5. Chapter 29 Hazard and Risk, Section 29.4.3.	Appendix 25 Preliminary Safety Management Study. Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• spills of materials during ship loading and unloading	Chapter 19, Marine and Estuarine Ecology Section 19.4.5. Chapter 29 Hazard and Risk Section 29.4.3.	Appendix 25 Preliminary Safety Management Study. Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• the potential for breaching of an LNG or LPG vessel's hull and the resulting breach size and spill rate	Chapter 29 Hazard and Risk Section 29.4.3.	Appendix 25 Preliminary Safety Management Study. Appendix 12, Marine and Estuarine Ecology Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
6. HAZARD AND RISK			
6.1.2	• the extent of thermal dispersion and resulting hazard/ignition zones following an LNG or LPG spillage (e.g. 35 kWm2 and 5 kWm2 analysis)	Chapter 29 Hazard and Risk, Section 29.4.2.	Appendix 25 Preliminary Safety Management Study.
	• natural events such as cyclones, earthquakes, bushfires and local flooding.	Chapter 29 Hazard and Risk, Section 29.4.2.	Appendix 25 Preliminary Safety Management Study.
	In particular, risk assessments of marine operational activities (when LNG and LPG vessels are at berth, during loading and during vessel movements within the port limits) should be undertaken to determine if operational activities associated with these vessels are likely to impact on other operational activities within the port.	Chapter 29 Hazard and Risk, Section 29.4.3.	Appendix 25 Preliminary Safety Management Study. Appendix 23, Traffic and Transport Impact Assessment.
	A set of representative incident scenarios should be selected. This set should include credible event scenarios (e.g. a catastrophic failure of a processing unit and the consequential explosion zone). This will require an evaluation of the likelihood of each scenario occurring in order to calculate the level of risk in surrounding areas due to the presence of the facility.	Chapter 29 Hazard and Risk, Section 29.4.2.	Appendix 25 Preliminary Safety Management Study.
	The risk analysis should include fatality and serious injury consequences, and present individual fatality risk contours at 0.5, 1, 5, 10, and 50 x 10-6 per year and injury risk contours at 10 and 50 x 10-6 per year. Risk contours should be presented on a suitably scaled location map.	Chapter 29 Hazard and Risk, Section 29.4.2.	Appendix 25 Preliminary Safety Management Study.
6.1.3	***Cumulative Risk*** The risk analysis is to address the potential impacts that may occur on the normal on-site day-to-day activities during the construction and/or operation of the facilities. Furthermore, the project must determine the level of change that may result on the risk contours of other relevant existing or proposed industrial facilities located in the area as a result of the proposed project. Individual risk criteria should be used to limit risks to individual workers and members of the public. Societal risk criteria should be used to limit risk to the affected population as a whole.	Chapter 29 Hazard and Risk, Section 29.4.2.	Appendix 25 Preliminary Safety Management Study.
	Any changes to operating or storage procedures that would reduce the possibility of these events occurring, or reduce the severity of the events should they occur, are to be identified and adopted where appropriate. Draft risk management plans are to be presented for construction and operational phases of the project.	Chapter 29 Hazard and Risk, sections 29.4.2 and 29.6. Attachment 6, Environmental Management Plan.	Appendix 25 Preliminary Safety Management Study.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
6. HAZARD AND RISK			
6.1.3	The acceptability of the risk on-site and to surrounding land uses should be assessed by referring to nationally-adopted risk criteria presented in the New South Wales Department of Urban Affairs and Planning's Hazardous Industry Planning Advisory Paper No. 4 Risk Criteria for Land Use Safety Planning. Details of the methodology and results of each step described above should be presented in the EIS.	Chapter 29 Hazard and Risk, sections 29.4.2 and 29.3.	Appendix 25 Preliminary Safety Management Study.
6.2	***Emergency Management Plan*** Preliminary information should be presented on the design and operation of proposed safety/contingency systems to address significant emergency issues delineated in the risk assessment, together with at least the following areas of emergency:	Chapter 29 Hazard and Risk, Section 29.6.	Appendix 25 Preliminary Safety Management Study.
	• terrorist attack		
	• marine collision minimisation		
	• fire prevention/protection		
	• leak detection/minimisation		
	• release of contaminants		
	• emergency shutdown systems and procedures.		
	An outline of the proposed emergency management procedures should be provided for the range of situations identified in the above risk assessment where there are measurable risks. This should include an overview of the objectives and management principles to be adopted for the preparation of a detailed emergency plan (including emergency response and recovery/cleanup procedures) in consultation with the relevant emergency services. Planning should include reference to State Planning Policy 1/03, Mitigating the Adverse Impacts of Flood, Bushfire and Landslide.		
	In particular, the following should be presented: • outline of contingency plans to deal with hydrocarbon (e.g. diesel, lubricating oils) spills during construction, operation and maintenance of the project	Chapter 29 Hazard and Risk, sections 29.6 and 29.6.	Appendix 25 Preliminary Safety Management Study.
	• outline of contingency plans to account for natural disasters such as storms, flooding and fires during the construction, operation and maintenance phases	Chapter 29 Hazard and Risk, sections 29.6 and 29.6.	Appendix 25 Preliminary Safety Management Study.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
6. HAZARD AND RISK			
6.2	• outline of emergency planning and response procedures that have been determined in consultation with state and regional emergency service providers	Chapter 29 Hazard and Risk, Section 29.6.	Appendix 25 Preliminary Safety Management Study.
	• outline of plans for involvement of the relevant state agencies (such as the Department of Community Safety, which includes the Queensland Ambulance Service, Queensland Fire and Rescue Service and Emergency Management Queensland) in relation to emergency medical response and transport, and first aid matters.	Chapter 29 Hazard and Risk, Section 29.6.	Appendix 25 Preliminary Safety Management Study.
7. CUMULATIVE IMPACTS			
	The purpose of this section is to provide a summary of the cumulative impacts from the project which should have regard to both geographic location and environmental values.	Chapter 32 Cumulative Impacts.	Appendix 5, Surface Water Impact Assessment. Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 28, Land Use and Planning Technical Report. Appendix 29, Waste Impact Assessment.
	Cumulative impacts should take into consideration the effects of other known, existing or proposed project(s) where details of such projects have been provided to the proponent by the DIP or which are otherwise published to the greatest extent possible. In particular, the likelihood of cumulative impacts arising from possible shared gas transmission pipeline easements and adjoining or nearby LNG plant proposals should be addressed, where adequate information is available. With respect to Gladstone in particular, the cumulative social and economic impacts arising from large project workforces associated with proposed industrial projects being constructed in overlapping timeframes should be addressed.	Chapter 32 Cumulative Impacts, Section 32.3.	Appendix 5, Surface Water Impact Assessment. Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 29, Waste Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
7. CUMULATIVE IMPACTS			
	The requirements of any relevant state planning policies, environmental protection policies, national environmental protection measures, statutory policies, water resource planning and any other relevant plans should also be addressed.	Chapter 32 Cumulative Impacts, Section 32.1.	Appendix 5, Surface Water Impact Assessment. Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 29, Waste Impact Assessment.
	The methodology used to determine the cumulative impacts of the project should be discussed, including (to the extent possible) qualitative and quantitative criteria.	Chapter 9 Impact Assessment Method, Section 9.6. Chapter 32 Cumulative Impacts, Section 32.2. Also individual impact assessment chapters.	Appendices 1-29 (all specialist studies were required to assess cumulative impacts).
8. MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE			
	The controlling provisions under the EPBC Act have been determined as: Sections 12 and 15A (World Heritage properties) Sections 15B and 15C (National Heritage place) Sections 18 and 18A (Listed threatened species and communities) Sections 20 and 20A (Listed migratory species). This section should bring together assessments of impacts on Matters of National Environmental Significance (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.	Attachment 4, Matters of National Environmental Significance.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	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.	Attachment 4, Matters of National Environmental Significance.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
8. MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE			
	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.	Attachment 4, Matters of National Environmental Significance.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment
	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 provided. Any positive impacts should also be identified and evaluated.	Attachment 4, Matters of National Environmental Significance, Section 6.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment
	If environmental offsets are required, in accordance with the EPBC Draft Environmental Offsets Policy Statement (August 2007), then an offset strategy should be proposed.	Attachment 4, Matters of National Environmental Significance, Section 7.2.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment
	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.	Attachment 6, Environmental Management Plan.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment
8.1	**Impacts on World Heritage Properties and National Heritage Places** The EIS should provide: • a description of the values of the Great Barrier Reef World Heritage Area (GBRWHA) and National Heritage places that are likely to be impacted by the project, including but not restricted to the significant regional habitat for listed threatened and migratory marine species. ·	Attachment 4, Matters of National Environmental Significance, Section 5.1.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• a description of the potential direct and indirect impacts on the values of each area, place, site or reserve, resulting from: – modification, destruction, fragmentation, isolation or disturbance of an important, sensitive or substantial area of habitat	Attachment 4, Matters of National Environmental Significance, Section 6.1.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment.

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
8. MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE			
8.1	– A substantial change in water quality (including temperature) and hydrological regime which may adversely impact on biodiversity, ecological integrity, social amenity or human health.	Attachment 4, Matters of National Environmental Significance, Section 6.1.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	– persistent organic chemicals, heavy metals, or other potentially harmful chemicals accumulating in the marine environment such that biodiversity, ecological integrity, social amenity or human health may be adversely affected.		
	– a description of the impacts on other users of the area.		
	• a discussion of the extent to which identified impacts can be forecast or predicted and managed.		
	• a description of any mitigation measures proposed to reduce the impact on the values and environments of each area, place, site or reserve.		
	Impact on a Listed Threatened Species and Ecological Communities The EIS should provide a description of EPBC Act listed threatened species and ecological communities likely to occur in the project study area.		
8.2	The EIS should consider and assess the impacts to identified listed threatened species and communities 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. Impacts may result from:	Attachment 4, Matters of National Environmental Significance, sections 5.2 and 5.3.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• a decrease in the size of a population or a long term adverse affect on an ecological community		
	• a reduction in the area of occupancy of the species or extent of occurrence of the ecological community		
	• fragmentation an existing population or ecological community		
	• disturbance or destruction of habitat critical to the survival of the species or ecological community		
	• disruption of the breeding cycle of a population		

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study
8. MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE			
8.2	• modification, destruction, removal, isolate or reduction of the availability or quality of habitat to the extent that the species is likely to decline	Attachment 4, Matters of National Environmental Significance, sections 5.2 and 5.3.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• modification or destruction of abiotic (non-living) factors (such as water, nutrients, or soil) necessary for the ecological community's survival		
	• the introduction of invasive species that are harmful to the species or ecological community becoming established		
	• interference with the recovery of the species or ecological community		
	• actions which may be inconsistent with a recovery plan.		
	Any positive impacts should also be identified and evaluated.		
	A description of any mitigation measures proposed to reduce the impact on the listed threatened species and ecological communities should be discussed.		
	Impact on a Listed Migratory Species The EIS should provide a description of the EPBC Act listed migratory species, distribution, life history, habitats etc likely to occur in the project study area.	Attachment 4, Matters of National Environmental Significance, sections 6.2 and 6.3.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment.
8.3	The EIS should consider and assess the impacts to the identified listed migratory species that may be impacted by 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. Impacts may result from:	Attachment 4, Matters of National Environmental Significance, Section 5.4.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• the destruction, isolation or modification of habitat important to a migratory species	Attachment 4, Matters of National Environmental Significance, Section 6.4.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	• the introduction of invasive species in an important habitat that would be harmful to a migratory species		
	• the disruption of the lifecycle (breeding, feeding, migration, or resting behaviour) of an ecologically important proportion of the population of a migratory species		
	• interference with the recovery of the species or ecological community		

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
8. MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE			
8.3	• actions which may be inconsistent with a recovery plan.	Attachment 4, Matters of National Environmental Significance, Section 6.4.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	Any positive impacts should also be identified and evaluated.		
	A description of any mitigation measures proposed to reduce the impact on migratory species should be discussed.		
8.4	**Format of MNES Section** 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 adopt the following outline: 1.Introduction, including title of EPBC Referral and numbers, and brief description of the project	Attachment 4 Matters of National Environmental Significance, Section 6.4.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	2. Description of proposed action (as it would impact on MNES)	Attachment 4 Matters of National Environmental Significance, Section 1.0.	
	3. 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)	Attachment 4 Matters of National Environmental Significance, Section 5.0.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment. Appendix 17, landscape and Visual Impact Assessment. Appendix 18, Indigenous Cultural Heritage Impact Assessment. Appendix 19, Non-Indigenous Cultural Heritage Impact Assessment.
	4.Assessment of impacts on MNES and mitigation measures (in accordance with available guidelines and species recovery plans)	Attachment 4 Matters of National Environmental Significance, Section 6.0.	Appendix 9, Terrestrial Ecology Impact Assessment. Appendix 12, Marine and Estuarine Ecology Impact Assessment.
	5. 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	Attachment 4 Matters of National Environmental Significance, Section 7.0. Attachment 6, Environmental Management Plan.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
8. MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE			
8.4	6. 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.	Attachment 4, Matters of National Environmental Significance, Sections 4.0 and 8.0.	
	7. Environmental record of person proposing to take the action (proponent) – 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 person has applied for a permit; if the proponent is a corporation; details of the corporation	Attachment 4, Matters of National Environmental Significance, Section 8.0.	
	8. Conclusions	Attachment 4, Matters of National Environmental Significance, Section 10.0.	
	9. References and linkages to relevant sections of the EIS.	Attachment 4, Matters of National Environmental Significance, Section 11.0.	
9. ENVIRONMENTAL MANAGEMENT PLAN			
	This section of the EIS should detail the EM Plan developed for the project. The EM Plan should be developed from, and be consistent with, the preceding information in the EIS and meet the statutory requirements for EM Plans under S310D of the EP Act and be consistent with the EPA Guideline: Preparing an environmental management plan (EM Plan) for level 1 petroleum activities (2007) or as subsequently updated.	Attachment 6, Environmental Management Plan.	Appendix 28, Land Use and Planning Technical Report.
	An EM Plan should provide control actions in accordance with agreed performance criteria for specified acceptable levels of environmental harm.	Attachment 6 Environmental Management Plan, Section 4.0.	
	In addition, the EM Plan should identify: • potential impacts on environmental values	Attachment 6 Environmental Management Plan, Section 4.0.	
	• mitigation strategies	Attachment 6 Environmental Management Plan, Section 4.0.	
	• relevant monitoring	Attachment 6 Environmental Management Plan, Sections 3.5 and 4.0.	
	• appropriate indicators and performance criteria	Attachment 6 Environmental Management Plan, Section 4.0.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
9. ENVIRONMENTAL MANAGEMENT PLAN			
	• reporting requirements	Attachment 6 Environmental Management Plan, sections 3.5 and 4.0.	
	• appropriate corrective actions, should an undesirable impact or unforeseen level of impact occur	Attachment 6 Environmental Management Plan, Section 3.8.	
	• the recording of and response to complaints.	Attachment 6 Environmental Management Plan, Section 3.9.	
	The aim of the EM Plan is to provide: • commitments by the proponent to practical and achievable strategies and design standards (performance specifications) for the management of the project to ensure that environmental requirements are specified and complied with an integrated plan for comprehensive monitoring and control of impacts	Attachment 6 Environmental Management Plan, Section 4.0.	
	• local, state and federal government authorities, stakeholders and the proponent with a common focus for approvals conditions and compliance with policies and conditions	Attachment 6 Environmental Management Plan.	
	• the community with evidence that the environmental management of the project is acceptable.	Attachment 6 Environmental Management Plan.	
	The recommended structure of the EM Plan is: Element/issue - Aspect of construction or operation to be managed (as it affects environmental values) Operational policy - Operational policy or management objective that applies to the element Performance criteria - Measurable performance criteria (outcomes) for each element of the operation Implementation strategy - Strategies, tasks or action program (to nominated operational design standards) that would be implemented to achieve the performance criteria Monitoring - Monitoring requirements to measure actual performance (i.e. specified limits to pre-selected indicators of change) Auditing - Auditing requirements to demonstrate implementation of agreed construction and operation environmental management strategies and compliance with agreed performance criteria	Attachment 6 Environmental Management Plan.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
9. ENVIRONMENTAL MANAGEMENT PLAN			
	Reporting - Format, timing and responsibility for reporting and auditing of monitoring results Corrective action - Action (options) to be implemented in case a performance requirement is not reached and the person(s) responsible for action (including staff authority and responsibility management structure)	Attachment 6 Environmental Management Plan.	
	An EM Plan should commit to manage, enhance or protect identified environmental values. The commitments should contain the following components for performance criteria and implementation strategies: • environmental protection objectives for enhancing or protecting each relevant value	Attachment 6 Environmental Management Plan, Section 4.0.	
	• indicators to be measured to demonstrate the extent to which the environmental protection objective is achieved	Attachment 6 Environmental Management Plan, Section 4.0.	
	• environmental protection standards (a numerical target or value for the indicator), which defines the achievement of the objective	Attachment 6 Environmental Management Plan, Section 4.0.	
	• an action program to ensure the environmental protection commitments are achieved and implemented. This will include strategies in relation to:	Attachment 6 Environmental Management Plan, sections 3.0 and 4.0.	
	– communication	Attachment 6 Environmental Management Plan, sections 3.3 and 4.0.	
	– continuous improvement	Attachment 6 Environmental Management Plan, Section 3.8.	
	– environmental auditing	Attachment 6 Environmental Management Plan, sections 3.8 and 4.0.	
	– monitoring	Attachment 6 Environmental Management Plan, sections 3.5 and 4.0.	
	– reporting	Attachment 6 Environmental Management Plan, sections 3.5 and 4.0.	
	– staff training	Attachment 6 Environmental Management Plan, Section 3.4.	

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
9. ENVIRONMENTAL MANAGEMENT PLAN			
	– a decommissioning program for land proposed to be disturbed under each relevant aspect of the project.	Attachment 6 Environmental Management Plan, Section 5.0.	
10. CONCLUSIONS AND RECOMMENDATIONS			
	The EIS should make conclusions and recommendations with respect to the project based on the studies presented, the EM Plan and conformity of the project with legislative and policy requirements.	Chapter 35 Conclusions and Recommendations.	
11. REFERENCES			
	All references consulted should be presented in the EIS in a recognised format.	Chapter 36 References.	
12. RECOMMENDED APPENDICES			
12.1	**Final TOR for this EIS** A copy of the final TOR should be included in the EIS.	Attachment 2 Terms of Reference.	
12.2	**TOR Cross-reference Table** 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.	Attachment 3 Terms of Reference Cross-Reference Table.	
12.3	**Development Approvals** A list of the development approvals required by the project should be presented.	Attachment 1 Relevant Legislation, Policies and Approvals.	Appendix 28, Land Use and Planning Technical Report.
12.4	**Summary Consultation Report** A summary consultation report should be provided which lists the advisory agencies consulted, and the individuals and groups of stakeholders consulted.	N/A.	Appendix 30, Consultation Report.
	The EIS should summarise the results of the community consultation program, providing a summary of the issues raised, and the means by which the issues were addressed. The discussion should include the methodology used in the community consultation program including criteria for identifying stakeholders and the communication methods used.	Chapter 4 Consultation and Communication, sections 4.4, 4.2 and 4.3.	Appendix 30, Consultation Report.
	Information about identifying affected parties (as defined by the EPBC Act) and interested and/or affected persons (as defined by the EP Act) should be included	Chapter 4 Consultation and Communication, Section 4.2.	Appendix 20, Social Impact Assessment. Appendix 30 Consultation Report

Table A3.1 Terms of Reference Cross Reference Table (cont'd)

EIS Term of Reference		EIS Chapter	Technical Study (If Applicable)
12. RECOMMENDED APPENDICES			
12.5	**Study Team** The qualifications and experience of the study team and specialist sub-consultants should be provided.	Chapter 35 Study Team.	N/A
12.6	**Glossary of Terms** A glossary of technical terms and acronyms should be provided.	Chapter 37 Glossary of Terms.	N/A
12.7	**Specialist Studies** All specialist studies undertaken as part of the EIS should be reported as appendices to the EIS.	N/A.	Appendices 1 to 30.
12.8	**Corporate Environmental Policy** The proponents should attach a copy of their corporate environmental policies and planning framework documents.	Attachment 5 Arrow Energy Policies.	N/A
12.9	**List of Proponent Commitments** A list of all commitments made by the proponent(s) in the EIS should be provided together with a reference to the relevant section in the report.	Attachment 8 Table of Commitments.	Appendices 1 to 30.