FLANAGAN CONSULTING GROUP
Trusted Advisor to Northern Australia

Ports North

CAIRNS SHIPPING DEVELOPMENT PROJECT

Revised Draft Environmental Impact Statement

APPENDIX C: Terms of Reference / Guideline Cross Reference Table

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Revised Draft Environmental Impact Statement

Queensland Terms of Reference Checklist

Queensland Terms of Reference		TOR	CHAPTER
1	Executive Summary	The executive summary should convey the most important and perred aspects and options relating to the project in a concise and readable form. It should use plain English, avoid jargon, be written as a stand-alone document and be structured to follow the EIS. It should be easy to reproduce and distribute on request to those who may not wish to read or purchase the whole EIS. The executive summary should include	Executive Summary
1	Executive Summary	· project title	Executive Summary
1	Executive Summary	· proponent's name and contact details	Executive Summary
1	Executive Summary	· a discussion of any relevant projects previously undertaken by the proponent, if applicable, and the proponent's commitment to effective environmental management	Executive Summary
1	Executive Summary	· a concise statement of the aims and objectives of the project	Executive Summary
1	Executive Summary	· the legal framework for the project, decision-making authorities and advisory agencies	Executive Summary
1	Executive Summary	· an outline of the background and need for the project, including the consequences of not proceeding with the project	Executive Summary
1	Executive Summary	· an outline of the alternative options considered and reasons for selecting the proposed development option	Executive Summary
1	Executive Summary	· a brief description of the project (pre-construction, construction, operational activities and decommissioning) and the existing environment, using visual aids where appropriate	Executive Summary
1	Executive Summary	· an outline of the principal environmental impacts predicted and the proposed environmental management strategies, commitments and rehabilitation strategies to minimise the significance of these impacts	Executive Summary
1	Executive Summary	· a discussion of the cumulative impacts in relation to social, economic and environmental factors of associated infrastructure projects proposed within the region	Executive Summary
1	Executive Summary	· detailed maps of the proposed project location and any other critical figures.	Executive Summary
2	Glossary of Terms	Provide a glossary of technical terms, acronyms, abbreviations and erences.	Provided at the beginning of the EIS
3	Introduction	Clearly explain the function of the EIS, why it has been prepared and what it sets out to achieve. Include an overview of the structure of the document.	Chapter A1 Introduction A1.1, A1.4
3.1	Project Proponent	Describe the proponent's experience, including:	ChapterA1 Introduction A1.6; Appendix D
3.1	Project Proponent	· the nature and extent of business activities	ChapterA1 Introduction A1.6; Appendix D
3.1	Project Proponent	experience and qualifications	ChapterA1 Introduction A1.6; Appendix D
3.1	Project Proponent	environmental record, including a list of any breach of relevant environmental laws during the previous ten years	ChapterA1 Introduction A1.4 A1.6; Appendix D
3.1	Project Proponent	the proponent's environmental, health, safety and community policies.	ChapterA1 Introduction A1.4 A1.6; Appendix D
3.2	Project description	Briefly describe the key elements of the project with illustrations or maps. Summarise any major associated infrastructure requirements. Provide detailed project descriptions in the relevant sections	Chapter A1 Introduction A1.1; Project Description A3.1 to A3.4
3.3	Project rationale	Describe the specific objectives and justification for the project, including its strategic, economic, environmental and social implications, technical feasibility and commercial drivers. Discuss the status of the project in a regional, state and national context. Explain the project's compatibility with relevant policy, planning and regulatory frameworks.	Chapters A1 Introduction A1.1, A1.2; Project Description A3.1 to A3.4;B1.4 Land B1.2; A4 Legislation and Approvals
3.4	Relationship to other projects	Describe how the project relates to other major projects (of which the proponent should reasonably be aware) that have been or are being undertaken, or that have been proposed or approved in the area potentially affected by the project As a result of this assessment, there may be opportunities to co-locate existing or proposed infrastructure, enabling efficiency gains and mitigating environmental and property impacts. Where co-location may be likely, outline opportunities to coordinate or enhance impact mitigation strategies. Discuss the opportunities in sufficient detail to enable the reader to understand the reasons for perring certain options or courses of action and rejecting others.	Chapter A1 Introduction A1.2; Chapter B Cumulative Impacts B18.3

Queensland Terms of Reference		TOR	CHAPTER
3.5	Project Alternatives	Describe feasible alternatives including conceptual, technological and locality alternatives to the proposed project and the consequences of not proceeding with the project (including any impacts that would be avoided). Detail the criteria used to determine the alternatives and provide sufficient detail to convey why certain options or courses of action are perred and why others are rejected (including the 'no action' option). Discuss the interdependencies of project components, particularly in regard to how any infrastructure requirements relate to the viability of the project. This information is required to assess why the scope of the project is as it is and to ensure that the environmentally sustainable design principles and sustainable development aspects were considered and incorporated during the project's scoping phase.	Chapter A1 Project Description A1.3; Chapter A2 Project Background A2.4 to A2.8
3.6	The environmental impact assessment process		
3.6.1	Methodology of the EIS	Provide an outline of the environmental impact assessment process, including the role of the EIS in the Coordinator-General's decision making process. Include information on relevant stages of EIS development, statutory and public consultation requirements and any interdependencies that exist between approvals sought. The information in this section is required to ensure:	Chapter A1 Introduction, A1.1, A1.5,A1.6; A1.7
3.6.1	Methodology of the EIS	· relevant legislation is addressed	Chapter A1 Introduction, A1.5, A1.6; Legislation and Approvals A4
3.6.1	Methodology of the EIS	· readers are informed of the process to be followed	Chapter A1 Introduction, A1.5, A1.6; Legislation and Approvals A4
3.6.1	Methodology of the EIS	· stakeholders are aware of any opportunities for input and participation.	Chapter A1 Introduction, A1.1, A1.5,A1.6; A1.7
3.6.2	Objectives of the EIS	Provide a statement of the objectives of the environmental impact assessment process. The structure of the EIS can then be outlined and used to explain how the EIS will meet its objectives. The purpose of the EIS is to:	
3.6.2	Objectives of the EIS	· provide public information on the need for the project, alternatives to it, assess options and make informed decisions for its implementation	Chapter A1 Introduction A1.2, A1.3; Each Chapter B Technical Chapter includes a section on Impact Assessment and Mitigation and Management; Chapter C contains Environmental Management Plan C1 and Dredge Management Plan C2
3.6.2	Objectives of the EIS	· present the likely effects of the project on the natural, social and economic environment	Chapter A1 Introduction A1.2, A1.3; Each Chapter B Technical Chapter includes a section on Impact Assessment and Mitigation and Management; Chapter C contains Environmental Management Plan C1 and Dredge Management Plan C2
3.6.2	Objectives of the EIS	· demonstrate how environmental impacts can be avoided, managed or mitigated and the offsets for any residual impacts	Chapter A1 Introduction A1.2, A1.3; Each Chapter B Technical Chapter includes a section on Impact Assessment and Mitigation and Management; Chapter C contains Environmental Management Plan C1 and Dredge Management Plan C2
3.6.2	Objectives of the EIS	· provide information to formulate the project's environmental management plan (EMP).	Chapter A1 Introduction A1.2, A1.3; Each Chapter B Technical Chapter includes a section on Impact Assessment and Mitigation and Management; Chapter C contains Environmental Management Plan C1 and Dredge Management Plan C2

Queensland Terms of Reference		TOR	CHAPTER
3.6.3	Submissions	Inform the reader how and when properly made public submissions on the EIS will be addressed and taken into account in the decision-making process. Indicate points in subsequent approval processes for the project (for example, 'material change of use' (MCU) applications under the Sustainable Planning Act 2009 (SPA) where submitters may have appeal rights. The EIS project manager can assist with preparing information on the submissions process.	Chapter A1 Introduction A1.9
3.7.1	Overview	The public consultation process should provide opportunities for community involvement and education. It may include interviews with individuals, public communication activities, interest group meetings, printed material and other mechanisms to encourage and facilitate active public consultation. The public consultation processes (community engagement) for all Chapters of the EIS should be integrated. Consultation with advisory agencies should be the principal forum for identifying legislation, regulations, policies and guidelines relevant to the project and EIS process.	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.2	Consultation plan	Develop and implement a comprehensive and inclusive consultation plan with the stakeholder groups identified in section 3.2 of Preparing an EIS: Guideline for proponents. The consultation plan should identify broad issues of concern to local and regional community and interest groups and address issues from project planning through commencement, project operations and decommissioning. The consultation plan should identify:	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.2	Consultation plan	· the stakeholders to be targeted	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.2	Consultation plan	· the types of consultation and communication activities to be undertaken	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.2	Consultation plan	· timing of activities	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.2	Consultation plan	· how consultation activities will be integrated with other EIS activities and the project development process	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.2	Consultation plan	· consultation responsibilities	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.2	Consultation plan	· communication protocols	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.2	Consultation plan	· reporting and feedback arrangements	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.2	Consultation plan	· how results of consultation will be considered by the proponent and integrated into the EIS process.	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.3	Public consultation report	Include, as an appendix, a public consultation report detailing how the public consultation plan was implemented, and the results. It must include:	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.3	Public consultation report	· a list of stakeholders identified, including the Australian and Queensland governments, local government agencies, and/or the affected Chapteries (as defined by the Environmental Protection Act 1994 (EP Act))	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report

Queensland Terms of Reference		TOR	CHAPTER
3.7.3	Public consultation report	· criteria for identifying stakeholders and methods used to communicate with them	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.3	Public consultation report	· details of the activities conducted to date and the future consultation strategies and programs, including those during the operational phase of the project (also outlined and included in the EMP)	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.3	Public consultation report	· a summary of the issues raised by stakeholders and the means by which the issues have been addressed	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.3	Public consultation report	· details of how consultation involvement and outcomes were integrated into the EIS process	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.7.3	Public consultation report	· details of how consultation outcomes will be integrated into future site activities (including opportunities for engagement and provision for feedback and action if necessary).	Chapter A1 Introduction A1.9; Chapter B Socio Economic B9. 2.4; Appendix E Stakeholder and Community Engagement Report
3.8	Project approvals		NA
3.8.1	Legislation and approvals	List and describe Australian, state and local legislation, approvals and plans relevant to the planning, approval, construction and operation of the project.	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals; Chapter B14 Transport B14.5
3.8.1	Legislation and approvals	Commonwealth legislation Relevant Commonwealth legislation may include, but is not limited to:	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· EPBC Act	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Environmental Protection (Sea Dumping) Act 1981 (EPSD Act)	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Great Barrier Reef Marine Park Act 1975 (GBRMP Act)	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Historic Shipwrecks Act 1976	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Maritime Transport and Offshore Facilities Security Act 2003	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals; Chapter B14 Transport B14.5
3.8.1	Legislation and approvals	· Navigation Act 1912	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Native Title Act 1993.	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	Queensland legislation Relevant Queensland legislation may include, but is not limited to:	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Aboriginal Cultural Heritage Act 2003 (ACH Act)	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Coastal Protection and Management Act 1995 (Coastal Act)	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· EP Act and Regulation	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Fire and Rescue Service Act 1990	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Fisheries Act 1994	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals

Queensland Terms of Reference		TOR	CHAPTER
3.8.1	Legislation and approvals	· Land Act 1994	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Local Industry Policy Act 2012	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Marine Parks Act 2004	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Nature Conservation Act 1992 (NC Act)	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Queensland Heritage Act 1992	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· SPA	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· SDPWO Act	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Transport Infrastructure Act 1994 (TI Act)	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Transport Operations (Marine Pollution) Act 1995	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals; Chapter B14 Transport B14.5
3.8.1	Legislation and approvals	· Transport Operations (Marine Safety) Act 1994	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Transport Operations (Road Use Management) Act 1995 (TORUM Act)	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Vegetation Management Act 1999 (VM Act)	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Waste Reduction and Recycling Act 2011	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Water Act 2000	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· Work Health and Safety Act 2011	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	Australian Government approvals Identify and outline Australian Government approvals required including, but not limited to:	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· approval, under sections 131(1) and 133 of the EPBC Act, of the proposed action for each of the applicable controlling provisions	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· approval to dredge within the boundary of the Great Barrier Reef Marine Park under the GBRMP Act (Great Barrier Reef Marine Park Authority)	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· sea dumping permit to dispose of dredge material at sea within the GBRMP under the EPSD Act	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· marine park permit to dispose of dredge material within the GBRMP under the GBRMP Act (Great Barrier Reef Marine Park Authority).	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	Queensland approvals Key Queensland approvals required, and to be considered in the EIS process, include:	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· development permit for tidal works—Coastal Act	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· allocation of quarry material or dredge management plan (if other than marine disposal of dredge material is proposed)—Coastal Act	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals

Queensland Terms of Reference		TOR	CHAPTER
3.8.1	Legislation and approvals	· development permit for operational work within a coastal management district, that is: – disposal of dredged spoil or other solid waste material in tidal water—Coastal Act – reclaiming land under tidal water—Coastal Act	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· development permit for operational work that is the removal, destruction or damage of a marine plant—Fisheries Act	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· development permit for operational work that completely or Chapterly within a declared fish habitat area—Fisheries Act	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· marine park permit to widen the access channel within the General Use Zone of the Great Barrier Reef Coast Marine Park (State)—Marine Parks Act	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	· development approval for a material change of use of a premises for an environmentally relevant activity (ERA) and associated registration certificate: – ERA16: Extractive and screening activities (dredging)—EP Act	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.1	Legislation and approvals	Identify the relevant approval agency for each of the approvals required.	Chapter A1 Introduction A1.1, A1.5, A1.6; A4 Legislation and Approvals
3.8.2	Relevant plans	Outline the project's consistency with the existing national, state, regional and local planning framework that applies to the project location. er to all relevant statutory and non-statutory plans, planning policies, guidelines, strategies and agreements. The key plans and policies are listed under the relevant sections of this TOR. These include but are not limited to the following:	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Far North Queensland Regional Plan 2009–31 (Department of Infrastructure and Planning 2009)	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· CairnsPlan	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Cairns Port Authority Land Use Plan (LUP), under the TI Act	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· environmental protection policies (EPPs, subordinate to the EP Act), including: – EPP (Noise) 2008 – EPP (Air) 2008 – EPP (Water) 2009 – EPP (Waste Management) 2000	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· State planning policies and their supporting guideline, including: – State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils (Department of Natural Resources and Mines & Development of Local Government and Planning 2002a) – State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide (Department of Local Government and Planning and Department of Emergency Services 2003) – State Planning Policy 4/11: Protecting Wetlands of High Ecological Significance in Great Barrier Reef Catchments (Department of Environment and Resource Management 2011c) – Temporary State Planning Policy 2/12: Planning for Prosperity (Department of State Development, Infrastructure and planning)	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Queensland Coastal Plan State Planning Policy: Coastal Management (Department of Environment and Resource Management 2011f), and Draft Coastal Protection State Planning Regulatory Provision (Department of State Development, Infrastructure and Planning 2012)	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· fish habitat policies, administered by the Department of Agriculture, Fisheries and Forestry (DAFF)	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Queensland Biosecurity Strategy 2009–14 (Department of Primary Industries and Fisheries 2008)	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Queensland Skills Plan 2008 (Department of Education, Training and the Arts 2008)	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Queensland Local Industry Policy (Department of Employment, Economic Development and Innovation 2010)	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Queensland Biodiversity Offset Policy (version 1) (Department of Environment and Resource Management 2011b)	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· State Planning Policy 4/11: Protecting Wetlands of High Ecological Significance in Great Barrier Reef Catchments (Department of Environment and Resource Management 2011c).	Legislation and Approvals Chapter A4; and relevant technical chapters

Queensland Terms of Reference		TOR	CHAPTER
3.8.2	Relevant plans	With specific relevance to maritime safety and operations, the following policies, guidelines and standards should be erenced:	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Maritime Safety Queensland Regulation 2002	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Maritime Transport and Offshore Facilities Security Act 2003	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Transport Operations (Marine Pollution) Act 1995	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Transport Operations (Marine Safety) Act 1994	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Transport Operations (Maritime Safety) Regulation 2004	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Australian Maritime Safety Authority marine orders	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Queensland Coastal Contingency Action Plan (QCCAP)	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Standards for Hydrographic Surveys within Queensland Waters	Legislation and Approvals Chapter A4; and relevant technical chapters
3.8.2	Relevant plans	· Transport Operations (Marine Pollution) Regulation 2008.	Legislation and Approvals Chapter A4; and relevant technical chapters
38.3	Environmentally relevant activities	Briefly describe each environmentally relevant activity (ERA) under the EP Act and associated activities that are to be carried out in connection with the project. Present a detailed description of each ERA in Section 5, Environmental values and management of impacts. Provide details of the impact on land, water, air, noise and any other identified environmental values, as well as a detailed description of the waste generated from each ERA and its quantity, characteristics, handling, storage, management and intended treatment and disposal.	Legislation and Approvals Chapter A4; and relevant technical chapters; Chapter C Construction Environmental Management Plan C1; Dredge Management Plan C2
4	Project description	Describe the project through its lifetime of pre-construction, construction, operation and potentially decommissioning. The project description also allows further assessment of which approvals may be required and how they may be managed through the life of the project.	Project Description A3.1 to 3.4; Impact mitigation sections of relevant technical chapters; Chapter C Construction Environmental Management Plan C1; Dredge Management Plan C2
4.1	Overview of Project	Provide an overview of the project to put it into context. Include:	Introduction A1.1, Executive Summary
4.1	Overview of Project	· a rationale explaining the selection of the perred operating scenario, including details such as cost, environmental impacts, and the development operational efficiencies of each option	Executive Summary; Project Description A3.1, A3.2, A3.3, A3.4
4.1	Overview of Project	· a description of the key components of the project including the use of text and design plans where applicable	Executive Summary; ; Project Description A3.1, A3.2, A3.3, A3.4
4.1	Overview of Project	· a summary of any environmental design features of the project	Executive Summary; Project Background A2.5 to A2.8, A4; Project Description A3.1, A3.2, A3.3, A3.4
4.1	Overview of Project	· the expected cost, timing, and overall duration of the project, including details of and justification for, any staging of the development	Executive Summary; Project Background A2.5 to A2.8, A4; Project Description A3.1, A3.2, A3.3, A3.4
4.1.1	Shipping Entrance Channel Dredging	Describe, map and illustrate the location, area, depth and volume of dredging required for the project, including currently dredged and approved areas for dredging in relation to the proposed dredging	Chapter A3 Project Description A3.1 to A3.4
4.1.1	Shipping Entrance Channel Dredging	Explain the provisions of any previous sea dumping permits for port operations relevant to the project including dates, volumes and existing spoil ground location, capacity and environmental values	Chapter A3 Project Description A3.1 to A3.4
4.1.1	Shipping Entrance Channel Dredging	Provide details of the dredging methods including:	Chapter A3 Project Description A3.1 to A3.4

Queensland Terms of Reference		TOR	CHAPTER
4.1.1	Shipping Entrance Channel Dredging	· the type and design of dredge vessel and equipment to be used, including number and type of vessels and reasons for the proposed selection of equipment including additional or reduced contribution to sediment plume generation according to vessel type being used as compared to alternative vessel types	Chapter A3 Project Description A3.1 to A3.4
4.1.1	Shipping Entrance Channel Dredging	· the expected duration, timing and operation hours of dredging campaigns (including the reasons for any staging)	Chapter A3 Project Description A3.1 to A3.4
4.1.1	Shipping Entrance Channel Dredging	· expected dredge and support vessel movement paths and frequency	Chapter A3 Project Description A3.1 to A3.4
4.1.1	Shipping Entrance Channel Dredging	· measures to be used to minimise risk of introducing exotic species on dredging equipment	Chapter A3 Project Description A3.1 to A3.4; Construction Environmental Management Plan C1; Dredge Management Plan C2
4.1.1	Shipping Entrance Channel Dredging	· whether, where and how any blasting may be required, including scale, frequency and duration of the blasting and proposed management measures	No blasting proposed.
4.1.1	Shipping Entrance Channel Dredging	· operational management of dredging and dredge spoil handling, particularly in relation to sediment plume generation according to vessel type being used, impacts on water quality and marine mega fauna (including turtles, dolphins, sharks and dugongs)	Chapter A3 Project Description A3.1 to A3.4; Marine Water Quality B5.6, A5.5; Marine Ecology B7.4, 7.5; Construction Environmental Management Plan C1; Dredge Management Plan C2
4.1.2	Dredge spoil disposal	Provide details of the grading and composition of likely dredged materials, including potential contaminants as required for testing completed in accordance with the *National Assessment Guidelines for Dredging (NAGD) (Commonwealth of Australia 2009)*	Project Description A3.2, A3.3, A3.4; Marine Sediment Quality B4.3, B4.4
4.1.2	Dredge spoil disposal	Describe proposed disposal options for both capital and maintenance dredge spoil including:	Project Description A3.2, A3.3, A3.4; Marine Sediment Quality B4.3, B4.4
4.1.2	Dredge spoil disposal	· disposal site locations, characteristics, dimensions and capacity (including initial and final bathymetry for unconfined sea disposal sites	Project Description A3.2, A3.3, A3.4; Marine Sediment Quality B4.3, B4.4
4.1.2	Dredge spoil disposal	· stability of the disposal site options (retentive or dispersive, considering wave and current erosion) and any requirement for containment)	Project Description A3.2, A3.3, A3.4; Marine Sediment Quality B4.4, B4.5; Coastal Processes B3.2 to B3.4
4.1.2	Dredge spoil disposal	· disposal methods including provision for different dredging equipment, material characteristics, contaminants or acid sulphate soils where relevant	Project Description A3.2, A3.3, A3.4; Marine Sediment Quality B4.4, B4.5
4.1.2	Dredge spoil disposal Sea Disposal	Where sea disposal is considered, describe the selection of the perred spoil disposal site based on:	Project Description A3.2, A3.3, A3.4; Marine Sediment Quality B4.4, B4.5
4.1.2	Dredge spoil disposal	· relevant agreements, guidelines, policies	Project Description A3.2, A3.3, A3.4; Legislation and Approvals A4; Marine Sediment Quality B4.2; Coastal Processes B3.3
4.1.2	Dredge spoil disposal	· potential ecological impacts	Executive Summary; Project Description A3.2, A3.3, A3.4; Marine Sediment Quality B4.4; Marine Ecology B7.4; Terrestrial Ecology B8.3 to B8.6
4.1.2	Dredge spoil disposal	· characteristics of the spoil	Project Description A3.2, A3.3, A3.4; Marine Sediment Quality B4.3, B4.4
4.1.2	Dredge spoil disposal	· dredging technology constraints	Project Description A3.2, A3.3, A3.4; Project Background A3; Marine Sediment Quality B4.3, B4.4
4.1.2	Dredge spoil disposal	· economic benefits	Project Description A3.2, A3.3, A3.4; Project Background A3; Marine Sediment Quality B4.3, B4.4; Chapter B9.3 Appendix AQ
4.1.2	Dredge spoil disposal	· cost of alternatives	Project Description A3.2, A3.3, A3.4; Project Background A3; Marine Sediment Quality B4.3, B4.4
4.1.2	Dredge spoil disposal	· lifespan of current maintenance dredge spoil disposal site, impacts on lifespan of current site and lifespan of proposed site	Chapter A3 Project Description A3.3; Dredge Management Plan C2

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4.1.2	Dredge spoil disposal Land disposal options consideration	Provide descriptions of all feasible alternative land-based spoil disposal sites including:	Project Background Chapter A2.5- A2.8
4.1.2	Dredge spoil disposal	· equipment and pipeline routes to be used	Project Description Chapter A3.2 - 3.5 &Project Background Chapter A2.2- A2.5
4.1.2	Dredge spoil disposal	· location and nature of tail water discharge points	Project Description Chapter A3.2 - 3.5 &Project Background Chapter A2.2- A2.5
4.1.2	Dredge spoil disposal	· details of estimated commencement, completion, rate of progress and existing levels and proposed final levels of the land e.g. for filling land or reclamation work	Project Description Chapter A3.2 - 3.5 &Project Background Chapter A2.2- A2.5
4.1.2	Dredge spoil disposal	· typical cross-section of the land e.g., for filling land or reclamation work	Project Description Chapter A3.2 - 3.5 &Project Background Chapter A2.2- A2.5
4.1.2	Dredge spoil disposal	· where there is potential for impacts from sea erosion, method of protecting the seaward boundary of the land	Project Description Chapter A3.2 - 3.5 &Project Background Chapter A2.2- A2.5
4.1.2	Dredge spoil disposal	· construction details of any temporary or permanent treatment or dewatering structures including measures to contain or collect seepage waters	Project Description Chapter A3.2 - 3.5 &Project Background Chapter A2.2- A2.5
4.1.2	Dredge spoil disposal Reclamation for land disposal options consideration	Provide the following information in relation to any proposed disposal of dredge spoil to reclaim land below the limit of highest astronomical tide (HAT):	Project Description Chapter A3.2, A3.3
4.1.2	Dredge spoil disposal	· the boundary of land to be filled or reclaimed by metes and bounds, tied to real property boundary/Commonwealth/State land boundaries	Project Description Chapter A3.2, A3.3
4.1.2	Dredge spoil disposal	· the location of the limit of mean high water spring tide, HAT and lowest astronomical tide	Project Description Chapter A3.2, A3.3
4.1.2	Dredge spoil disposal	· existing levels of the land and proposed final levels relative to the Australian height datum (AHD)	Project Description Chapter A3.2, A3.3
4.1.2	Dredge spoil disposal	· method of containment of the dredge spoil and protection from erosion with certification of design by a registered professional engineer of Queensland (RPEQ)	Project Description Chapter A3.2, A3.3
4.1.2	Dredge spoil disposal Bund walls land disposal options consideration	Where breakwater and revetment walls or reclamation are proposed provide geotechnical and composition information on sediments that may be displaced, and the	Project Description Chapter A3.2, A3.3
4.1.2	Dredge spoil disposal	potential impact of sediment dispersion or displacement on water quality and marine ecosystems, including:	Marine Sediment Quality Chapter B4.3, B4.4; Marine Water Quality Chapter B5.5; Marine Ecology B7.4; Coastal Processes Chapter B3.3
4.1.2	Dredge spoil disposal	· bore logs at a frequency and depth, and with material characterisation sufficient to determine potential displacement of material and/or the need for excavation	Marine Sediment Quality Chapter B4.3, B4.4;
4.1.2	Dredge spoil disposal	· contaminant assessment of material potential displaced or excavated consistent with the NAGD	Marine Sediment Quality Chapter B4.3, B4.4; Marine Water Quality Chapter B5.5;
4.1.2	Dredge spoil disposal	· acid sulfate soil survey of material potentially displaced or excavated consistent with the Guidelines for Sampling and Analysis of Lowland Acid Sulfate Soils (ASS) in Queensland 1998 (Ahern et al. 1998)	Marine Sediment Quality Chapter B4.3, B4.4; Marine Water Quality Chapter B5.5;
4.2	Location	Describe, using maps at suitable scales, the regional and local context of the project and all associated infrastructure. Provide real property descriptions of the project. Maps should show the precise location of the project area, in particular the:	Introduction Chapter A1.1; Project Description A3.1, Land Chapter B1.3
4.2	Location	· location and boundaries of current or proposed land tenures that the project area is or will be subject to, and details of the ownership of that land	Introduction Chapter A1.1; Project Description A3.1, Land Chapter B1.3
4.2	Location	· location, boundaries, and area and size of the project footprint, including easement	Introduction Chapter A1.1; Project Description A3.1, Land Chapter B1.3
4.2	Location	· widths and access requirements	Introduction Chapter A1.1; Project Description A3.1, Land Chapter B1.3
4.2	Location	· location and size of any proposed buffers surrounding the project area (for construction and operation)	Introduction Chapter A1.1; Project Description A3.1, Land Chapter B1.3

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4.2	Location	· location of infrastructure relevant to the project, including but not limited to, the state-controlled road network, local roads and railways, and marine infrastructure	Introduction Chapter A1.1; Project Description A3.1, Land Chapter B1.3
4.2	Location	· location of natural features such as waterways (for example, rivers, streams, creeks, other water bodies and wetlands), shorelines, and significant or assessable	Introduction Chapter A1.1; Project Description A3.1, Land Chapter B1.3
4.2	Location	· vegetation	Chapter B8 Terrestrial Ecology B8.3, B8.4
4.2	Location	· location of any proposed site offices and accommodation sites	Project Indroduction Chapter A1.1; Project Description A3.1
4.2	Location	· State and Commonwealth marine parks and fish habitat reserve boundaries within or adjacent to the project site	Chapter B7 Marine Ecology Section B7.3; Chapter B2 Nature Conservation Values B2.3; Chapter B 19.3 EPBCA
4.2	Location	· extent of strategic port land and future strategic port land	Introduction Chapter A1.1; Project Description A3.1, Land Chapter B1.3.1; C4 Maritime Operations Plan
4.2	Location	· infrastructure relevant to approvals including discharge and monitoring locations	Chapter B5.3, B5.6 Marine Water Quality; C1 Construction Environmental Management Plan; C2 Dredge Management Plan
4.2	Location	· location of natural features including intertidal sand and mud banks, wetland areas including Port of Cairns and Trinity Inlet Wetland	C Chapter B7.3 Marine Ecology; C1 Construction Environmental Management Plan; C2 Dredge Management Plan
4.2	Location	· location of seagrass beds, mangrove vegetation, national heritage values, world heritage areas	Chapter B7.3 Marine Ecology; Chapter B2.3 Nature Conservation Areas; Chapter B19.11 to B19.15 EPBCA; C1 Construction Environmental Management Plan; C2 Dredge Management Plan
4.3	Port facilities and operation		
4.3.1	Port description	Provide concept and layout plans highlighting existing structures and proposed structures and plant equipment associated with the port. The description of the port and	Chapter A3.2, A3.1- A3.4 Project Description
4.3.1	Port description	the layout of key components should include, but is not limited to:	
4.3.1	Port description	· port boundaries	Chapter A3.2, A3.1- A3.4 Project Description
4.3.1	Port description	· jetty and wharf alignment	Chapter A3.2, A3.1- A3.4 Project Description
4.3.1	Port description	· offshore ship mooring locations	Chapter A3.2, A3.1- A3.4 Project Description
4.3.1	Port description	· location of navigational aids	Chapter A3.2, A3.1- A3.4 Project Description
4.3.1	Port description	· ship-sourced pollution management facilities	Chapter A3.2, A3.1- A3.4 Project Description
4.3.1	Port description	· any other associated facilities	Chapter A3.2, A3.1- A3.4 Project Description
4.3.2	Structures	Describe all structures, including:	Chapter A3.2, A3.1- A3.4 Project Description
4.3.2	Structures	· locations and dimensions of buildings, uelling and marine infrastructure associated with the port expansion	Chapter A3.2, A3.1- A3.4 Project Description
4.3.3	Structures	· location and extent of any proposed breakwater and revetment structures (if required) and the likely construction methodologies	Not proposed
4.3.3	Structures	· the design criteria and any modifications of structures that may be needed to accommodate climate change and sea level rise	Chapter A3 Project Description, A3.1 - A3.3; B16 Climate Change and Greenhouse Gases B16.4, B16.5,B16.6; B17.3, B17.5
4.3.3	Structures	Provide maps and figures detailing where permanent or temporary loss of tidal land is likely to occur as a result of building and structures	Chapter A3 Project Description A3.2, A3.3; Coastal Processes B3.2
4.3.3	Maritime operation	Describe the location and nature of processes and operations associated with the	Chapter A3, Project Description A3.1 to A3.4; C4, Maritime Operational Management Plan
4.3.3	Maritime operation	operation of the project, including:	Chapter A3 Project Description, A3.1 to A3.4
4.3.3	Maritime operation	· a general description of operations	Chapter A3 Project Description, A3.1 to A3.4

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4.3.3	Maritime operation	· the current and expected increased shipping numbers, sizes, frequency, speed, route and piloting requirements through the Port of Cairns and GBRMP for current and future port operations	Chapter A2 Project Background A2.5; B18 Cumulative Impact Assessment B18.3; Appendix H Cairns Cruise Shipping Development – Demand Study, 2016; C4, Maritime Operations Management Plan
4.3.3	Maritime operation	· hours of operation	Chapter A3 Project Description A3.2, A3.3 A3.4; Chapter C4 Maritime Operations Management Plan
4.3.3	Maritime operation	· expected access, navigational and anchorage arrangements	Chapter A3 Project Description A3.2, A3.3 A3.4; Chapter C4 Maritime Operations Management Plan
4.3.3	Maritime operation	· maintenance dredging operations, including frequency and erence to the planned spoil disposal locations	Chapter A3 Project Description A3.2, A3.3 A3.4; Chapter C4 Maritime Operations Management Plan
4.3.3	Maritime operation	· description of arrangements for maintenance of marine facilities, such as ship-sourced pollution management facilities including details of responsible Chapteries	Chapter A3 Project Description A3.2, A3.3 A3.4; Chapter C4 Maritime Operations Management Plan
4.3.3	Maritime operation	· details of predicted usage of marine facilities, including opportunities for recreational and public usage	Chapter A3 Project Description A3.2, A3.3 A3.4; Chapter C4 Maritime Operations Management Plan
4.3.3	Maritime operation	· detailed requirements of vessel operations, including pilotage, channel closures, quarantine and security arrangements	Chapter A3 Project Description A3.2, A3.3 A3.4; Chapter C4 Maritime Operations Management Plan
4.3.3	Maritime operation	Describe the impact of operations on offshore moorings during construction and operation of the proposal, the removal if any of the moorings and the nature of any	Chapter A3 Project Description A3.2, A3.3 A3.4; Chapter C4 Maritime Operations Management Plan
4.3.3	Maritime operation	impacts on existing recreational and commercial fishing boat owners	Chapter A3 Project Description A3.2, A3.3 A3.4; Chapter C4 Maritime Operations Management Plan; Chapter B9 Socio Economic B9.3.6 to B9.3.9
4.4	Construction phase	Provide a detailed staging plan and approximate timeframes for the project's construction activities	Chapter A3 Project Description A3.2, A3.3; Chapter C4 Maritime Operations Management Plan
4.4	Construction phase	Provide an estimate of the number and roles of persons to be employed during the construction phase of the project	Chapter A3 Project Description A3.2, A3.3 Operational Activities; Chapter C4 Maritime Operations Management Plan
4.4	Construction phase	Provide the following information on the pre-construction, construction and commissioning of the project, including detailed plans, drawings and maps	Chapter A3 Project Description A3.2, A3.3 Operational Activities; Chapter C4 Maritime Operations Management Plan
4.4	Construction phase	Describe all pre-construction activities, including nature, scale and timing of:	Chapter A3 Project Description A3.2, A3.3 Operational Activities; Chapter C4 Maritime Operations Management Plan
4.4	Construction phase	· any land acquisitions required, be it in full or as easements, leases	No Land acquisition required.
4.4	Construction phase	· any vegetation clearing including marine plants	Chapter B8 Terrestrial Ecology B8.4; B7 Marine Ecology B7.4; B2 Nature Conservation Areas B2.4; B19 EPBCA B19.4
4.4	Construction phase	· site access	Chapter A3 Project Description A3.2, A3.3 Operational Activities; Chapter C4 Maritime Operations Management Plan
4.4	Construction phase	· earthworks	Chapter A3 Project Description A3.2, A3.3 Operational Activities; Chapter C4 Maritime Operations Management Plan
4.4	Construction phase	· interference with watercourses and floodplain areas, including wetlands, salt marsh areas and mangroves and intertidal areas	Chapter B8 Terrestrial Ecology B8.7 and Chapter B2 Nature Conservation Areas B2.3
4.4	Construction phase	· site establishment requirements for construction facilities, including access measures, movement of materials and equipment, and expected size, source and control of any construction workforce accommodation, services (water, sewerage, communication, energy, waste disposal) and safety requirements	Chapter A3 Project Description A3.2, A3.3, A3.4; Chapter C4 Maritime Operations Management Plan; Chapter B14 Transport B14.4; Chapter B15 Waste B15.4
4.4	Construction phase	· temporary works	Chapter A3 Project Description A3.2 to A3.4

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4.4	Construction phase	· upgrade, relocation, realignment, deviation of or restricted access to roads and other infrastructure	Chapter A3 Project Description A3.2 to A3.4
4.4	Construction phase	· equipment to be used	Chapter A3 Project Description A3.2 to A3.4
4.4	Construction phase	· infrastructure for fuel, chemicals and hazardous materials	Chapter A3 Project Description A3.2 to A3.4
4.4.1	Program of works	Describe all the construction elements of the project, including:	Chapter A3 Project Description A3.2 to A3.4
4.4.1	Program of works	· an indicative construction timetable, including expected commissioning and start-up dates and hours of construction	Chapter A3 Project Description A3.2 to A3.4
4.4.1	Program of works	· major work programs for the construction phase, including an outline of construction methodologies	Chapter A3 Project Description A3.2 to A3.4
4.4.1	Program of works	· construction equipment to be used	Chapter A3 Project Description A3.2 to A3.4
4.4.1	Program of works	· construction inputs, handling and storage including an outline of potential locations for source of construction materials	Chapter A3 Project Description A3.2 to A3.4
4.4.1	Program of works	· major hazardous materials to be transported, stored and/or used on site, including environmental toxicity data and biodegradability	Chapter A3 Project Description A3.2 to A3.4; Chapter C1 Construction Environmental Mangement Plan C1
4.4.1	Program of works	· clean-up and restoration of areas used during construction and storage areas	Chapter A3 Project Description A3.2 to A3.4; Chapter C1 Construction Environmental Mangement Plan C1
4.4.2	Commissioning	Describe the commissioning process including any associated environmental impacts	Chapter A3 Project Description A3.2 to A3.4; Chapter C1 Construction Environmental Mangement Plan C1
4.5	Associated infrastructure	Detail, with the aid of concept and layout plans, requirements for new infrastructure or upgrading/relocating existing infrastructure to service the project. Consider infrastructure such as transportation (road/rail/air/ship), water supply and storage, energy supply, telecommunications, stormwater, waste disposal and sewerage	Chapter A3 Project Description A3.2 to A3.4; Chapter C1 Construction Environmental Mangement Plan C1
4.5	Associated infrastructure	Describe:	Chapter A3 Project Description A3.2 to A3.4; Chapter C1 Construction Environmental Mangement Plan C1
4.5	Associated infrastructure	· all infrastructure required to be constructed, upgraded, relocated or decommissioned for the construction and/or operation of the project, such as access roads, power supply, connection to sewerage or water supply	Chapter A3 Project Description A3.2 to A3.4; Chapter C1 Construction Environmental Mangement Plan C1
4.5	Associated infrastructure	· the design and construction standards to be met	Chapter A3 Project Description A3.2 to A3.4; Chapter C1 Construction Environmental Mangement Plan C1
4.5	Associated infrastructure	· alternative approaches or the opportunity to obtain materials from alternative sources	Chapter A3 Project Description A3.2 to A3.4; Chapter C1 Construction Environmental Mangement Plan C1
4.6	Decommissioning and rehabilitation	Present a plan for decommissioning and rehabilitating the site, should it ever be required	Chapter A3 Project Description A3.2 to A3.4; Chapter C1 Construction Environmental Mangement Plan C1
5	Environmental values and management of impacts	Detail the environmental protection and mitigation measures incorporated in the planning, construction, rehabilitation, commissioning, operation and decommissioning of all facets of the project. Measures should prevent, or if not possible, minimise environmental harm and maximise environmental benefits of the project. Identify and describe perred measures in more detail than other alternatives	Various chapters, but mostly in Part B Technical Chapters.
5	Environmental values and management of impacts	The objectives of the following subsections are to:	Various chapters, but mostly in Part B Technical Chapters.
5	Environmental values and management of impacts	· describe the existing environmental values of the area that may be affected by the project, using background information and/or new studies to support statements (include erence to all definitions of environmental values set out in relevant legislation, policies and plans)	Various chapters, but mostly in Part B Technical Chapters.
5	Environmental values and management of impacts	· describe the potential adverse and beneficial impacts of the project on the identified environmental values and the measures taken to avoid, minimise and/or mitigate those impacts	Various chapters, but mostly in Part B Technical Chapters.
5	Environmental values and management of impacts	· describe any cumulative impacts on environmental values caused by the project, either in isolation or in combination with other known existing or planned projects	Chapter B18.4, Cumulative Impacts
5	Environmental values and management of impacts	· present objectives, standards and measurable indicators that protect the identified environmental values	A1, Introduction, Part B (technical chapters) and Part C Management Plans

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5	Environmental values and management of impacts	· examine viable alternative strategies for managing impacts (present and compare these alternatives in view of the stated objectives and standards to be achieved)	Chapter A2 Project Background A2.3 to A2.8; Various technical Chapters (Chapter B)
5	Environmental values and management of impacts	· discuss the available techniques to control and manage impacts in relation to the nominated objectives	Chapter A2 Project Background A2.3 to A2.8; Various technical Chapters (Chapter B)
5	Environmental values and management of impacts	Where negative impacts of the project cannot be avoided or adequately minimised or mitigated, present proposals to offset impacts in accordance with the Queensland Government Environmental Offsets Policy (Environmental Protection Agency 2008b)	Chapter B18 Cumulative Impacts B18.4
5	Environmental values and management of impacts	The mitigation measures and monitoring programs, identified in this section of the EIS, should be used to develop the EMP(s) for the project. For more information, er to Section 11 (page 51).	Chapter C, Management Plans
5.1	Climate, natural hazards and climate change	Describe the climatic conditions that may affect management of the project. This includes a description of the vulnerability of the project area to seasonal conditions, extremes of climate (for example, cyclones) and natural or induced hazards.	Chapter B16. Climate Change and Greenhouse Gases 16.5 and Chapter B17 Hazard and Risk B17.4, B17.5
5.1	Climate, natural hazards and climate change	Provide a risk assessment (as Chapter of the requirements of Subsection 8.1 of this TOR) and management plan detailing these potential climatic threats to the construction, and operation of the project. Include the following:	Chapter B16. Climate Change and Greenhouse Gases 16.5 and Chapter B17 Hazard and Risk B17.4, B17.5
5.1	Climate, natural hazards and climate change	· a risk assessment of changing climate patterns that may affect the viability and environmental management of the project	Chapter B16. Climate Change and Greenhouse Gases 16.5 and Chapter B17 Hazard and Risk B17.4, B17.5
5.1	Climate, natural hazards and climate change	· the perred and alternative adaptation strategies to be implemented	Chapter B16. Climate Change and Greenhouse Gases 16.5 and Chapter B17 Hazard and Risk B17.4, B17.5
5.1	Climate, natural hazards and climate change	· commitments to working cooperatively, where practicable, with government, other industry and other sectors to address adaptation to climate change	Chapter B16. Climate Change and Greenhouse Gases 16.5 and Chapter B17 Hazard and Risk B17.4, B17.5
5.1	Climate, natural hazards and climate change	Address the most recent information on potential impacts of climatic factors in the appropriate sections of the EIS	Chapter B16. Climate Change and Greenhouse Gases 16.5 and Chapter B17 Hazard and Risk B17.4, B17.5
5.1	Climate, natural hazards and climate change	Specific storm surge requirements are addressed in Section 8.	Chapter B16. Climate Change and Greenhouse Gases 16.5 and Chapter B17 Hazard and Risk B17.4, B17.5
5.2	Land	Detail the existing land environment values for all areas associated with the project.	Chapter B1 Land 1.3
5.2	Land	Describe the potential for the construction and operation of the project to change existing and potential land uses of the project sites and adjacent areas.	Chapter B1 Land 1.4
5.2.1	Land use and tenure Description of environmental situation	Identify, with the aid of maps:	
5.2.2	Land use and tenure	· land tenure, including reserves, tenure of special interest (such as protected areas and forest reserves), existing and proposed gas infrastructure, water pipelines, powerlines and transport corridors, including local roads, state-controlled roads and rail corridors	Chapter B1 Land 1.2; Transport Ch14.2, 14.8, 14.9, 14.19, 14.11, 14.12, 14.13, 14.14
5.2.1	Land use and tenure	· existing land uses and facilities surrounding the project	Chapter B1 Land 1.2
5.2.1	Land use and tenure	· distance of the project from residential and recreational areas	Chapter B1 Land 1.2
5.2.1	Land use and tenure	· declared water storage catchments	Chapter B6 Water Resources 6.2 , 6.3,
5.2.1	Land use and tenure	· location of the project in relation to environmentally sensitive areas	Chapter B2.3 Existing Nature Conservation Values
5.2.1	Land Use and tenure	Resource entitlement compliance is required pursuant to Schedule 14, *Sustainable Planning Regulation 2009.*	Chapter B1 Land 1.2
5.2.1	Land use and tenure Potential impacts and mitigation measures	Describe the potential changes to existing and potential land uses due to the construction and operation of the project. In particular, describe the following:	Chapter B1 Land 1.2
5.2.1	Land use and tenure	· impacts on project site and adjacent land uses and human activities and strategies for mitigation, such as those required by:	Chapter B1 Land 1.2
5.2.1	Land use and tenure	– local government planning schemes	Chapter B1 Land 1.2
5.2.1	Land use and tenure	possible effect on town planning objectives and controls, including local government zoning and strategic plans	Chapter B1 Land 1.2
5.2.1	Land use and tenure	constraints to potential developments and possibilities of rezoning adjacent to the development area	Chapter B1 Land 1.2

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5.2.1	Land use and tenure	· management of the immediate environs of the project including construction buffer zones	Chapter A3 Project Description A3.1 to A3.4; Chapter C1 Construction Environmental Management Plan
5.2.1	Land use and tenure	· proposed land use changes in any areas of high conservation value and information on how easement widths and any vegetation clearance in sensitive environmental areas will be minimised	Chapter B1, Land B2.3 B2.8, Nature Conservation Areas B2.4; Chapter B8 Terrestrial Ecology B8.4
5.2.1	Land use and tenure	· potential issues involved in proximity and/or co-location of other current or proposed infrastructure services	Chapter A3 Project Description A3.1 to A3.4; Chapter B1 Land 1.2
5.2.1	Land use and tenure	· any land units requiring specific management measures	Chapter A3 Project Description A231 to A3.4; Chapter B1 Land 1.2; Chapter C1 Construction Environmental Management Plan
5.2.2	Scenic amenity and lighting Description of environmental values	Describe, in general terms, the existing character of the landscape and the general impression that would be obtained while travelling through and around it. Outline	Chapter B12 Landscape and Visual B12.3
5.2.2	Scenic amenity and lighting	existing landscape features, panoramas and views that have, or could be expected to have, value to the community. Include information such as maps and photographs, particularly where addressing the following issues:	Chapter B12 Landscape and Visual B12.3 and B12.4
5.2.2	Scenic amenity and lighting	· major views, view sheds, outlooks, and features contributing to the amenity of the area, including assessment from private residences	Chapter B12 Landscape and Visual B12.3
5.2.2	Scenic amenity and lighting	· focal points, landmarks, waterways and other features contributing to the visual quality of the area and the project site	Chapter B12 Landscape and Visual B12.3
5.2.2	Scenic amenity and lighting	· character of the local and surrounding areas including vegetation and land use	Chapter B12 Landscape and Visual B12.3
5.2.2	Scenic amenity and lighting	Include any relevant World Heritage and National Heritage values of the area	Chapter B12 Landscape and Visual B12.4; Chapter B19 EPBCA B19.6 to B19.19
5.2.2	Scenic amenity and lighting Potential impacts and mitigation measures	Describe the potential beneficial and adverse impacts of the project on landscape character and visual qualities of the site and the surrounding area. Explain what measures will be undertaken to avoid or mitigate the identified impacts.	Chapter B12 Landscape and Visual B12.4
5.2.2	Scenic amenity and lighting	Provide an assessment of all potential impacts of the project's lighting, during all stages, with particular erence to objectives to be achieved and management	Chapter B12 Landscape and Visual B12.4 and B12.5
5.2.2	Scenic amenity and lighting	methods and strategies to be implemented to avoid or mitigate, such as:	Chapter B12 Landscape and Visual B12.4 and B12.5
5.2.2	Scenic amenity and lighting	· the visual impact at night	Chapter B12 Landscape and Visual B12.4 and B12.5
5.2.2	Scenic amenity and lighting	· night operations/maintenance and effects of lighting on residents and terrestrial and marine fauna	Chapter B12 Landscape and Visual B12.4 and B12.5
5.2.2	Scenic amenity and lighting	· the potential impact of increased vehicular and marine traffic	Chapter B14 Transport B14.3 to B14.9; C3 CEMP; C4 MOMP
5.2.2	Scenic amenity and lighting	· changed habitat conditions for nocturnal fauna and associated impacts	Chapter B8.7, Terrestrial Ecology, B12.5 & 6, Landscape and Visual, ,
5.2.3	Topography, geology and soils Description of environmental values	Provide maps locating the project in state, regional and local contexts. The topography should be detailed with contours at suitable increments, shown with respect to AHD.	Chapter B1 Land 1.3.3
5.2.3	Topography, geology and soils	Include significant features of the landscape and topography, and accompanying comments on the maps.	Chapter B1 Land 1.3.3
5.2.3	Topography, geology and soils	Provide a description, map and a series of cross-sections of the geology of the project area relevant to the project components.	Chapter B1 Land 1.3.3

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5.2.3	Topography, geology and soils	Assess the potential for acid sulfate soils in accordance with:	Chapter B1 Land 1.3.3
5.2.3	Topography, geology and soils	· Queensland Acid Sulfate Soil Technical Manual (see	Chapter B1 Land 1.3.3
5.2.3	Topography, geology and soils	· www.derm.qld.gov.au/land/ass/products.html)	Chapter B1 Land 1.3.3
5.2.3	Topography, geology and soils	· Guidelines for Sampling and Analysis of Lowland Acid Sulfate Soils (ASS) in Queensland 1998 (Ahern et al. 1998)	Chapter B1 Land 1.3.3
5.2.3	Topography, geology and soils	· State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils (Department of Natural Resources and Mines & Department of Local	Chapter B1 Land 1.3.3
5.2.3	Topography, geology and soils	· Government and Planning 2002a)	Chapter B1 Land 1.3.3
5.2.3	Topography, geology and soils	· State Planning Policy 2/02 Guideline: Acid Sulfate Soils (Department of Natural Resources and Mines & Department of Local Government and Planning 2002b).	Chapter B1 Land 1.3.3
5.2.3	Topography, geology and soils	Provide geotechnical information on the soils' stability and suitability for construction of project facilities.	Chapter B1 Land 1.3.3
5.2.3	Topography, geology and soils	Where necessary identify any exemptions under the Strategic Cropping Land Act 2011 or State Planning Policy 1/12: Conservation of Strategic Cropping Land (Department of Environment and Resource Management 2012b) that apply to Strategic Port Land.	Chapter B1 Land B1.3.3; Chapter A4, Legislation and Approvals
5.2.3	Topography, geology and soils	Provide a map and description of:	
5.2.3	Topography, geology and soils	· the location of key tidal planes such as:	Chapter B3 Coastal Processes B3.2
5.2.3	Topography, geology and soils	– highest astronomical tide	Chapter B3 Coastal Processes B3.2
5.2.3	Topography, geology and soils	– mean high water spring tide	Chapter B3 Coastal Processes B3.2
5.2.3	Topography, geology and soils	– mean high water neap tide	Chapter B3 Coastal Processes B3.2
5.2.3	Topography, geology and soils	– mean sea level	Chapter B3 Coastal Processes B3.2
5.2.3	Topography, geology and soils	– mean low water neap tide	Chapter B3 Coastal Processes B3.2
5.2.3	Topography, geology and soils	– mean low water spring tide	Chapter B3 Coastal Processes B3.2
5.2.3	Topography, geology and soils	– lowest astronomical tide	Chapter B3 Coastal Processes B3.2
5.2.3	Topography, geology and soils	· the bathymetry of the project area and surrounds	Chapter B3 Coastal Processes B3.2
5.2.3	Topography, geology and soils	· relevant coastal geomorphology, characterised and supported by illustrative mapping.	Chapter B3 Coastal Processes B3.2
5.2.3	Topography, geology and soils Potential impacts and mitigation measures	Provide details of any potential impacts to the topography or geomorphology associated with the project and proposed mitigation measures, including:	Chapter B3 Coastal Processes B3.2
5.2.3	Topography, geology and soils	· a discussion of the project in the context of major topographic features and any measures taken to avoid or minimise impact to such.	Chapter B3 Coastal Processes B3.4 ,B3.5

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5.2.3	Topography, geology and soils	Identify any erosion management techniques to be used. Provide details of an erosion monitoring program (including rehabilitation measures for erosion problems identified during construction), and detail acceptable mitigation strategies. Summarise methods proposed to prevent or control erosion with regard to:	Chapter B6 Water Resources 6.5 ; C1 CEMP
5.2.3	Topography, geology and soils	· the Soil Erosion and Sediment Control—Engineering Guidelines for Queensland Construction Sites (Institution of Engineers Australia 1996)	Chapter C1 CEMP
5.2.3	Topography, geology and soils	· the Guideline: EPA Best Practice Urban Stormwater Management—Erosion and Sediment Control (Environmental Protection Agency 2008a)	Chapter C1 CEMP
5.2.3	Topography, geology and soils	· preventing soil loss in order to maintain land capability/suitability	Chapter C1 CEMP
5.2.3	Topography, geology and soils	· preventing degradation of local waterways.	Chapter C1 CEMP
5.2.3	Topography, geology and soils	Discuss the potential for acid generation from disturbance of acid sulfate soils during earthworks and construction, and propose measures to manage soils and mitigate impacts for all site earthworks and construction activities. Should action criteria be triggered by acid generating potential as a result of testing, provide a site-specific acid sulfate soils management plan prepared in accordance with: Queensland Acid Sulfate Soil Technical Manual (see www.derm.qld.gov.au/land/ass/products.html)	Chapter B1 Land B1.3.3; Chapter B4 Marine Sediment Quality B4.3, B4.4;C1 CEMP ; C2 Dredge Management Plan
5.2.3	Topography, geology and soils	· State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils (Department of Natural Resources and Mines & Department of Local Government and Planning 2002a)	Chapter B1 Land 1.3; C1 CEMP ; C2 Dredge Management Plan
5.2.3	Topography, geology and soils	· State Planning Policy 2/02 Guideline: Acid Sulfate Soils (Department of Natural Resources and Mines & Department of Local Government and Planning 2002b)	Chapter B1 Land 1.3; C1 CEMP ; C2 Dredge Management Plan
5.3	Coastal environment	Describe the existing coastal environment that may be affected by the project in the context of coastal values identified in the Queensland State of the Environment reports and environmental values as defined by the EP Act and environmental protection policies.	Chapter B2 Nature Conservation Values 2.3; A4 Legislation and Approvals
5.3	Coastal environment	Identify actions associated with the project that are assessable development within the coastal zone and will require assessment under the provisions of the Coastal Act.	Chapter B2 Nature Conservation Values 2.3; A4 Legislation and Approvals
5.3	Coastal environment	Assess the project's consistency with the relevant policies of the Draft Coastal Protection State Planning Regulatory Provision (Department of State Development, Infrastructure and Planning 2012).	Chapter B2 Nature Conservation Values 2.3; A4 Legislation and Approvals
5.3	Coastal environment	Describe any shipwrecks or potential to discover shipwrecks or articles from shipwrecks in the area.	Chapter B13 Cultural Heritage B13.3
5.3	Coastal environment	Note the Maritime Heritage Section of the Australian Government Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) is responsible for administering the Commonwealth Historic Shipwrecks Act 1976.	Chapter B13 Cultural Heritage B13.3
5.3	Coastal environment	It should be noted that the jurisdiction of the Historic Shipwrecks Act 1976 is not limited to Commonwealth marine areas, as defined by the EPBC Act, because the Historic Shipwrecks Act has jurisdiction within the coastal waters of the Australian states and territories, extending to the point of lowest astronomical tide.	Chapter B13 Cultural Heritage B13.3
5.3.1	Hydrodynamics and sedimentation Description of environmental values	Assess the physical and chemical characteristics of sediments within the marine zone adjacent to the project area.	Chapter B4 Marine Sediment Quality B4.3
5.3.1	Hydrodynamics and sedimentation	Describe the physical processes of coastal environment related to the project including:	Chapter B3 Coastal Processes B3.2
5.3.1	Hydrodynamics and sedimentation	· waves	Chapter B3 Coastal Processes B3.2
5.3.1	Hydrodynamics and sedimentation	· currents	Chapter B3 Coastal Processes B3.2
5.3.1	Hydrodynamics and sedimentation	· Tides	Chapter B3 Coastal Processes B3.2

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5.3.1	Hydrodynamics and sedimentation	· storm surges	Chapter B3 Coastal Processes B3.2
5.3.1	Hydrodynamics and sedimentation	· freshwater flows	Chapter B3 Coastal Processes B3.2
5.3.1	Hydrodynamics and sedimentation	· the key influencing factors of cyclones and other severe weather events and their interaction in relation to the assimilation and transport of pollutants entering marine waters from, or adjacent to, the project area.	Chapter B16 Climate Change and Greenhouse GasesB16.4, B16.6; Chapter B6 Water Resources B6.3; Chapter B5 Marine Water Quality B5.5; B 17 Hazard and Risk B17.3
5.3.1	Hydrodynamics and sedimentation	Describe the environmental values of the coastal resources of the affected area in terms of the physical integrity and morphology of landforms created or modified by coastal processes.	Chapter B3 Coastal Processes B3.2
5.3.1	Hydrodynamics and sedimentation	Describe the tidal hydrodynamics of the project area and the adjoining tidal waterways in terms of water levels (including flushing characteristics and wave processes) and current velocities and directions at different tidal states. Two and/or three-dimensional modelling should be undertaken. Provide details of water levels and flows associated with historical and predicted storm surges.	Chapter B3 Coastal Processes B3.2
5.3.1	Hydrodynamics and sedimentation	Describe the wave climate in the vicinity of the project area and the adjacent beaches including inter-annual variability and details of historical and predicted extreme wave conditions generated by tropical cyclones or other severe storm events.	Chapter B3 Coastal Processes B3.2
5.3.1	Hydrodynamics and sedimentation	Describe the hydrology of the area and the adjacent catchments of the rivers and the associated freshwater flows within the study area and the adjoining tidal waterways in terms of water levels and discharges and possible stratification.	Chapter B3 Coastal Processes B3.2
5.3.1	Hydrodynamics and sedimentation	Predict the likely changes to hydrodynamics (including water levels, currents, wave conditions and freshwater flows) and sedimentation in the project area due to climate change.	Chapter B3 Coastal Processes B3.2
5.3.1	Hydrodynamics and sedimentation	Describe the sediment transport dynamics, including sediment budgets, in the project area and adjacent coastline detailing all sinks and sources into and out of this region that influence sediment transport rates and pathways. This should include transport mechanisms during persistent and extreme conditions showing gross and net transport rates. All influencing coastal processes should be investigated through a combination of 1d, 2d and/or 3d numerical modelling.	Chapter B3 Coastal Processes B3.2
5.3.1	Hydrodynamics and sedimentation Potential impacts and mitigation measures	Describe the potential changes to the hydrodynamic processes and local sedimentation resulting from the construction and operation of the project. This should include:	Chapter B3 Coastal Processes B3.3
5.3.1	Hydrodynamics and sedimentation	· impacts on tidal flows and water levels, (including flood levels)	Chapter B3 Coastal Processes B3.3
5.3.1	Hydrodynamics and sedimentation	· changes to sediment transport patterns in the inlet, including the potential of the proposal to impact on bank erosion and/or bed degradation within the inlet, and to alter or hinder transport pathways	Chapter B3 Coastal Processes B3.3
5.3.1	Hydrodynamics and sedimentation	This assessment should also discuss the potential impacts associated with vulnerability of the project to storm tide flooding and the potential of the project to affect vulnerability to storm tide flooding on adjacent properties.	Chapter B3 Coastal Processes B3.3
5.3.1	Hydrodynamics and sedimentation	When assessing the hydrodynamics of the area and movement of sediment along the coast, consider coastal processes such as erosion and accretion at adjacent locations.	Chapter B3 Coastal Processes B3.3
5.3.1	Hydrodynamics and sedimentation	Detail the impacts of the existing dredged channel and deposition site on coastal processes and sediment transport dynamics, including siltation rates and the long term fate of material deposited in the spoil area.	Chapter B3 Coastal Processes B3.3
5.3.1	Hydrodynamics and sedimentation	All numerical modelling to be undertaken to describe the hydrodynamic and sedimentation aspects of the project area and adjacent coastline will be calibrated and validated against measured data within the project area.	Chapter B3 Coastal Processes B3.3
5.3.1	Hydrodynamics and sedimentation	Assess the siltation rates of the dredged channel material and long term fate of the deposition area including the likelihood of acid sulfate soils drifting onto the adjacent beaches.	Chapter B3 Coastal Processes B3.3

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5.3.1	Hydrodynamics and sedimentation	Describe the duration and extent of turbidity plumes from capital and maintenance dredging and deposition on the waterways and adjacent coastline. Describe this in relation to the background clarity of the receiving waters.	Chapter B3 Coastal Processes B3.3; Chapter B5, Marine Water Quality B5.5
5.3.2	Water quality Description of environmental values	Provide reliable baseline information and detailed historical data (where relevant) on water quality of local coastal waters and other water types (as defined in EPP (Water)) potentially affected by the proposed activity that incorporates the effects of seasonal and tidal variation and that is in accordance with Queensland Water Quality Guidelines (Department of Environment and Resource Management 2009a) and Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC Guidelines) (Australian and New Zealand Environment and Conservation Council & Agriculture and Resource Management Council of Australia and New Zealand 2000) methodologies.	Chapter B5 Marine Water Quality B5.4, and for additional analytes B4.3 Sediment Quality
5.3.2	Water quality	This information should include (but is not limited to) biological, physiochemical water quality parameters such as dissolved oxygen pH, dissolved and Chaptericulate nutrients and organic carbon, temperature, salinity, total suspended soils, turbidity, light attenuation (photosynthetically active radiation) sedimentation rates. It should also include baseline information on toxicants, such as oil in water, total and dissolved metals and metalloids, ammonia, and any other relevant contaminants, such as pesticides in catchments with moderate or high degree of agricultural activities.	Chapter B5 Marine Water Quality B5.4
5.3.2	Water quality Potential impacts and mitigation measures	Define and describe the water quality objectives and practical measures for protecting, mitigating or enhancing coastal environmental values. This includes how nominated quantitative standards and indicators may be achieved, and how the achievement of the water quality objectives will be monitored, audited and managed. The potential environmental harm caused by the project on coastal resources and processes shall be described in the context of controlling such effects. State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils (Department of Natural Resources and Mines & Department of Local Government and Planning 2002) should be addressed as should the Queensland Coastal Plan (Department of Environment and Resource Management 2012a).	Chapter B5 Marine Water Quality B5.2, B5.3, B5.5;A4 (legislation and approvals). C2 Dredge Management Plan
5.3.2	Water quality	Specific issues to be addressed include:	
5.3.2	Water quality	· the water quality objectives used (including how they were developed), and how predicted activities will meet these objectives—er to:	Chapter B5 Marine Water Quality B5.2, B5.3, B5.4
5.3.2	Water quality	– Queensland Water Quality Guidelines 2009 (Department of Environment and Resource Management 2009a)	Chapter B5 Marine Water Quality B5.2, B5.3, B5.4
5.3.2	Water quality	– ANZECC Guidelines (Australian and New Zealand Environment and Conservation Council & Agriculture and Resource Management Council of Australia and New Zealand 2000)	Chapter B5 Marine Water Quality B5.2, B5.3, B5.4
5.3.2	Water quality	· potential threats to the water quality and sediment quality of the coastal environment for the entire area that will be subject to increased levels of suspended sediments and sedimentation as identified through sediment plume modelling.	Chapter B5 Marine Water Quality B5.2, B5.3, B5.4
5.3.2	Water quality	For any land based disposal options for dredge spoil develop baseline water quality guideline values and investigate potential risks associated with surface and	Chapter B6 Water Resources B6.3; Construction Environmental Management Plan C1
5.3.2	Water quality	groundwater quality for likely discharge, runoff or seepage waters from any dredge spoil structures using the ANZECC Guidelines (Australian and New Zealand	Chapter B6 Water Resources B6.3; Construction Environmental Management Plan C1
5.3.2	Water quality	Environment and Conservation Council & Agriculture and Resource Management Council of Australia and New Zealand 2000).	Chapter B6 Water Resources B6.3; Construction Environmental Management Plan C1
5.3.2	Water quality	This assessment shall consider, at minimum:	
5.3.2	Water quality	· dredging and dredge material disposal, including disturbance of fine-grained sediments and contaminated material	Chapter B5 Marine Water Quality B5.5; Chapter B4 Marine Sediment Quality B4.3; Dredge Management Plan C1
5.3.2	Water quality	· potential accidental discharges of contaminants during construction and operation of the facility	Chapter B5 Marine Water Quality B5.5; Chapter B4 Marine Sediment Quality B4.3; Dredge Management Plan C1

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5.3.2	Water quality	· release of contaminants from marine structures and vessels, including potential for introducing marine pests	Chapter B5 Marine Water Quality B5.5; Chapter B4 Marine Sediment Quality B4.3; Dredge Management Plan C1
5.3.2	Water quality	· stormwater run-off from the facilities and associated infrastructure	Chapter B6 Water Resources B6.4; Chapter B17 Hazard and Risk B17.4
5.3.2	Water quality	· flooding of relevant river systems and other extreme events.	Chapter B6 Water Resources B6.4; Chapter B17 Hazard and Risk B17.4
5.3.2	Water quality	Describe strategies for protecting Ramsar wetlands; and discuss any obligations imposed by state or Commonwealth legislation or policy, or international treaty obligations (that is, JAMBA, CAMBA and ROKAMBA).	Chapter B2 Nature Conservation Values B2.3, B2.4 , B2.5; Marine Ecology B7.5; Chapter B8 Terrestrial Ecology B8.5; Chapter B19 EPBCA B19.5 to B19.11
5.3.3	Sediment quality and dredging	Provide baseline information on marine sediments and sediment quality in the area likely to be disturbed by dredging or vessel movements including contaminants (such as heavy metals, nutrients and pesticides), the presence of fines and/or indurated layers and acid sulfate potential. Present this information as a map of sediment types based on their physical and chemical properties and include depth profiles.	Chapter B4 Marine Sediment Quality B4.3
5.3.3	Sediment quality and dredging	Assessment of marine sediments should be undertaken in accordance with the National Assessment Guidelines for Dredging (Commonwealth of Australia 2009).	Chapter B4 Marine Sediment Quality B4.1.1, B4.2, B4.3 and
5.3.3	Sediment quality and dredging	Provide data on management and monitoring of current maintenance dredging in the project area including an analysis of residual impacts to water quality, turbidity, sedimentation to support the statement of potential impact of proposed capital and maintenance dredging for the project.	Chapter B4 Marine Sediment Quality B4.5 Chapter B5 Marine Water Quality B5.6
5.3.3	Sediment quality and dredging	Detail specific measures to maintain sediment quality to nominated quantitative standards within the project and surrounding areas, particularly where future maintenance dredging may be required.	Chapter A3.2 and A3.3Chapter B4 Marine Sediment Quality B4.5 Chapter B5 Marine Water Quality B5.6; Dredge Management Plan C2
5.3.3	Sediment quality and dredging	Comment on the choice of the disposal site in relation to coastal management outcomes, having regard to the nature of the spoil, cost of alternatives and potential impacts on coastal resources and their values.	Chapter A3.2 and A3.3Chapter B4 Marine Sediment Quality B4.5 Chapter B5 Marine Water Quality B5.6; Dredge Management Plan C2
5.3.3	Sediment quality and dredging	Describe provisions for dredge material disposal and associated impacts on sediment quality. Discuss disposal options for contaminated material, if required. This must include a description of the arrangements to be put in place for long-term (20 years) dredge material disposal including details of proposed material placement areas	Chapter A3.2 and A3.3Chapter B4 Marine Sediment Quality B4.5 Chapter B5 Marine Water Quality B565; Dredge Management Plan C2
5.4	Nature conservation	Detail the existing nature conservation values that may be affected by the proposal.	Chapter B2 Nature Conservation Values B2.3; Chapter B19 EPBCA B19.6 to B19.19
5.4	Nature conservation	Describe the environmental values in terms of:	
5.4	Nature conservation	· integrity of ecological processes, including habitat of endangered, vulnerable and near- threatened (EVNT) and special least-concern species	Chapter B2 Nature Conservation Values B2.3; Chapter B19 EPBCA B19.6 to B19.19
5.4	Nature conservation	· conservation of resources	Chapter B2 Nature Conservation Values B2.3; Chapter B19 EPBCA B19.6 to B19.19
5.4	Nature conservation	· biological diversity, including habitat of EVNT and special least-concern species	Chapter B2 Nature Conservation Values B2.3; Chapter B19 EPBCA B19.6 to B19.19
5.4	Nature conservation	· integrity of landscapes and places including wilderness and similar natural places	Chapter B2 Nature Conservation Values B2.3; Chapter B19 EPBCA B19.6 to B19.19
5.4	Nature conservation	· aquatic and terrestrial ecosystems	Chapter B2 Nature Conservation Values B2.3; Chapter B19 EPBCA B19.3; Chapter B8 Terrestrial Ecology B8.3; Chapter B7 Marine Ecology B7.3
5.4	Nature conservation	· seasonal variation in fauna and flora populations	Chapter B2 Nature Conservation Values B2.3; Chapter B19 EPBCA B19.11 to B19.15; Chapter B8 Terrestrial Ecology B8.3; Chapter B7 Marine Ecology B7.3

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5.4	Nature conservation	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 B2 Nature Conservation Values B2.3; Chapter B19 EPBCA B19.11 to B19.19; Chapter B8 Terrestrial Ecology B8.3; Chapter B7 Marine Ecology B7.3
5.4	Nature conservation	Provide flora and fauna assessments of any dredge spoil storage and/or treatment areas where native vegetation is to be disturbed.	Chapter B8 Terrestrial Ecology B8.3
5.4	Nature conservation	Where necessary, seek the involvement of the local Indigenous community in conducting field observations and survey activities, to identify the traditional and contemporary Indigenous uses of species.	Chapter B13 Cultural Heritage B13.2
5.4	Nature conservation	Also outline the proposed strategies to avoid, or minimise and mitigate, impacts on the identified values within the project's footprint.	Chapters B2, Nature Conservation B2.5; B7 Marine Ecology B7 B7.5; B8 Terrestrial Ecology B8.5, C1 CEMP; C2 Dredge Management Plan
5.4	Nature conservation	Identify key flora and fauna indicators for ongoing monitoring.	Chapters B2, Nature Conservation B2.5; B7 Marine Ecology B7 B7.5; B8 Terrestrial Ecology B8.5, C1 CEMP; C2 Dredge Management Plan
5.4.1	Sensitive environmental areas Description of environmental values	On a map of suitable scale, identify areas that are environmentally sensitive within the study area in proximity to the project. This should include areas classified as having national, state, regional or local biodiversity significance, or flagged as important for their integrated biodiversity values. er to Queensland legislation and policies on threatened species and ecological communities. The study area is the area that is potentially impacted by the development including sediment plume and tidal prism.	Chapter B2 Nature Conservation Values B2.3; Chapter B19 EPBCA B19.11 to B19.15
5.4.1	Sensitive environmental areas	Areas regarded as sensitive with respect to flora and fauna have one or more of the following features, and should be identified and mapped:	A general description of sensitive environmental areas as defined under legislation is provided in Chapter B2, Nature Conservation describes potential ecological values of the site. More detailed description of fauna and flora is provided in Chapter B7 (Marine Ecology) & B8 (Terrestrial Ecology). All three chapters should be read in conjunction.
5.4.1	Sensitive environmental areas	· important habitat of species listed under the NC Act	Chapter B8 Terrestrial Ecology B8.3
5.4.1	Sensitive environmental areas	· regional ecosystems (REs) listed as 'endangered' or 'of concern' under state legislation	Chapter B8 Terrestrial Ecology B8.3
5.4.1	Sensitive environmental areas	· good representative examples of remnant REs or REs that are described as having 'medium' or 'low' representation in the protected area estate as defined in the Regional Ecosystem Description Database (REDD) available at www.ehp.qld.gov.au	Chapter B8 Terrestrial Ecology B8.3
5.4.1	Sensitive environmental areas	· sites containing near-threatened or bio-regionally significant species or essential, viable habitat for near-threatened or bio-regionally significant species	Chapter B8 Terrestrial Ecology B8.3
5.4.1	Sensitive environmental areas	· areas or features identified as State significant biodiversity values, pursuant to the Queensland Biodiversity Offset Policy (version 1) (Department of Environment and Resource Management 2011b)	Chapter B2 Nature Conservation Values B2.3
5.4.1	Sensitive environmental areas	· sites recorded on the National Directory of Important Wetlands in Queensland (Blackman et al. 1999)	Chapter B2 Nature Conservation Values B2.3
5.4.1	Sensitive environmental areas	· sites adjacent to nesting beaches, feeding, resting or calving areas (for example, marine turtles, dugongs and cetaceans)	Chapter B7 Marine Ecology B7.3
5.4.1	Sensitive environmental areas	· sites containing common species that represent a distributional limit and are of scientific value or that contain feeding, breeding, resting areas for populations of species of special cultural significance	Chapter B2, Nature Conservation, B7.4, Marine Ecology, B7.3, Chapter B8 Terrestrial Ecology B8.3
5.4.1	Sensitive environmental areas	· sites of high biodiversity that are of a suitable size or with connectivity to corridors and protected areas to ensure survival in the longer term; such land may contain:	Chapter B8 Terrestrial Ecology B8.3

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5.4.1	Sensitive environmental areas	– natural vegetation in good condition or other habitat in good condition (for example, wetlands)	Chapter B8 Terrestrial Ecology B8.3
5.4.1	Sensitive environmental areas	– degraded vegetation or other habitat that still support high levels of biodiversity or act as an important corridor for maintaining high levels of biodiversity in the area	Chapter B8 Terrestrial Ecology B8.3
5.4.1	Sensitive environmental areas	· a site containing other special ecological values (for example, high habitat diversity and areas of high endemism)	Chapters B2, Nature Conservation; B7 Marine Ecology B7.3,B7.4 , B7.5; B8 Terrestrial Ecology B8.3, B8.4;
5.4.1	Sensitive environmental areas	· ecosystems that provide important ecological functions such as:	Chapter B2, Nature Conservation, B7.4, Marine Ecology, B8.4, B8.5 and B8.6, Terrestrial Ecology B8.3
5.4.1	Sensitive environmental areas	– wetlands of national, state and regional significance	Chapter B2 Nature Conservation Values B2.3; B8 Terrestrial Ecology B8.3
5.4.1	Sensitive environmental areas	– coral reefs	Chapter B7 Marine Ecology B7.3 and B7.4
5.4.1	Sensitive environmental areas	– riparian vegetation	Chapter B2, Nature Conservation, B2.3, Chapter B8 Terrestrial Ecology B8.3;
5.4.1	Sensitive environmental areas	– important buffer to a protected area or important habitat corridor between areas	Chapter B2, Nature Conservation, B2.3, Chapter B8 Terrestrial Ecology B8.3;
5.4.1	Sensitive environmental areas	· declared fish habitat areas and sites containing protected marine plants under the Fisheries Act	Chapter B2, Nature Conservation, B2.3, Chapter B8 Terrestrial Ecology B8.3; Chapter B7 Marine Ecology B7.3
5.4.1	Sensitive environmental areas	· sites of geomorphological significance	Chapter B3 Coastal Processes B3.2
5.4.1	Sensitive environmental areas	· areas of environmental significance as defined by the Queensland Coastal Plan (Department of Environment and Resource Management 2012a)	Chapter B2 Nature Conservation Areas B2.3; Chapter B3 Coastal Processes B3.2,A4 Legislation and Approvals
5.4.1	Sensitive environmental areas	· protected areas that have been proclaimed under the NC Act and Marine Parks Act, or are under consideration for proclamation	Chapter B2 Nature Conservation Values B2.3 ; Chapter B7 Marine Ecology B7.3
5.4.1	Sensitive environmental areas	· declared areas of major interest or critical habitat declared under the NC Act	Chapter B8 Terrestrial Ecology B8.3; Chapter B2 Nature Conservation Areas B2.3
5.4.1	Sensitive environmental areas	· declared areas of high nature conservation value or areas vulnerable to land degradation under the VM Act	Chapter B2 Nature Conservation Values B2.3; B8 Terrestrial Ecology B8.4, B8.5, B8.6
5.4.1	Sensitive environmental areas	· remnant vegetation listed under the VM Act as containing endangered and of-concern regional ecosystems where clearing is likely to result in land degradation and a loss of ecosystem function and biodiversity	Chapter B8 Terrestrial Ecology B8.3
5.4.1	Sensitive environmental areas	Identify the need to develop and implement a mitigation and management strategy for exotic marine pest species including baseline reports and monitoring programs. This should take into account the National System for the Prevention and Management of Marine Pest Incursions; Australian Marine Pest Monitoring Manual (Australian Government Department of Agriculture, Fisheries and Forestry 2010a) and Australian marine pest monitoring guidelines (Australian Government Department of Agriculture, Fisheries and Forestry 2010b) or latest editions.	B7 Marine Ecology B7.5 ; C2 (Dredge Management Plan), C4.6 (Maritime Operations Management Plan)
5.4.1	Sensitive environmental areas	Areas of special sensitivity include the marine environment and wetlands, wildlife breeding or roosting areas, any significant habitat or relevant bird flight paths for migratory species and habitat of threatened plants, animals and communities.	Chapter B8 Terrestrial Ecology B8.3
5.4.1	Sensitive environmental areas Potential impacts and mitigation measures	Discuss the impact of the project on species, communities and habitat of local, regional or state significance in sensitive environmental areas as identified above.	Chapter B8 Terrestrial Ecology B8.4
5.4.1	Sensitive environmental areas	Demonstrate how the project would comply with the following hierarchy:	

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5.4.1	Sensitive environmental areas	· avoiding impact on areas of remnant vegetation and other areas of conservation value including the habitat of listed species	Chapter B8 Terrestrial Ecology B8.5 and B7 Marine Ecology B7.5; C2.8 (Dredge Management Plan), C4.6 (Maritime Operations Management Plan)
5.4.1	Sensitive environmental areas	· mitigating impacts through rehabilitation and restoration including, where relevant, a discussion of any relevant previous experience or trials of the proposed rehabilitation	Chapters B7 Marine Ecology; Chapter C - Management Plans C1 and C2
5.4.1	Sensitive environmental areas	· replacing or offsetting the loss of conservation values, where impacts cannot be avoided or mitigated	
5.4.1	Sensitive environmental areas	Explain why the measures above may not apply in areas where loss would occur.	Chapters B2 Nature Conservation Areas B2.3, B2.4, B2.5; Cumulative Impacts Assessment B18.4, B18.5; B7 Marine Ecology B7.5;
5.4.1	Sensitive environmental areas	Discuss the boundaries of the areas impacted by the project within or adjacent to an ecological community, including details of footprint width. If the project area will impact upon an endangered ecological community, include reasons for the perred alignment and the viability of alternatives.	Chapter B2 Nature Conservation Values B2.3, B2.4,B2.5;B7 Marine Ecology B7.3, B7.4, B7.5; B8 Terrestrial Ecology B8.4, B8.5, B8.6; A1 Introduction A1.1; Project Background Chapter A2.5- A2.8; A3.2 - A3.4
5.4.1	Sensitive environmental areas	Describe strategies for protecting Ramsar wetlands and discuss any obligations imposed by state or Commonwealth legislation or policies, or international treaty obligations (that is, China–Australia Migratory Bird Agreement (CAMBA), Japan–Australia Migratory Bird Agreement (JAMBA), Republic of Korea–Australia Migratory Bird Agreement (ROKAMBA)).	Chapter B2 Nature Conservation Values B2.3, B2.4 and B2.5; B7 Marine Ecology; B8 Terrestrial Ecology B8.6;
5.4.1	Sensitive environmental areas	Provide details about the approvals that will be required under the NC Act and the VM Act for development made assessable under SPA. The EMP for the project should address the performance requirements of the relevant policies and regional vegetation management codes (er to www.derm.qld.gov.au/vegetation/regional_codes.html).	Chapter B2 Nature Conservation Values B2.4, A 4 Legislation and Approvals; B8 Terrestrial Ecology B8.5, B8.6; B18 Cumulaitve Impacts B18.4, B18.5; C1.CEMP
5.4.1	Sensitive environmental areas	Where relevant, this section should discuss environmental offset requirements in accordance with the Queensland Government Environmental Offsets Policy (Environmental Protection Agency 2008b) and take into account the applicable specific-issue offset policies, as follows:	Chapter B2 Nature Conservation Values B2.4, A 4 Legislation and Approvals; B8 Terrestrial Ecology B8.5, B8.6; B18 Cumulaitve Impacts B18.4, B18.5; C1.CEMP
5.4.1	Sensitive environmental areas	· State Policy for Vegetation Management (Department of Environment and Resource Management 2009b)	Chapter B2 Nature Conservation Values B2.4, A 4 Legislation and Approvals; B8 Terrestrial Ecology B8.5, B8.6; B18 Cumulaitve Impacts B18.4, B18.5; C1.CEMP
5.4.1	Sensitive environmental areas	· Policy for Vegetation Management Offsets (Department of Environment and Resource Management 2011a)	Chapter B2 Nature Conservation Values B2.4, A 4 Legislation and Approvals; B8 Terrestrial Ecology B8.5, B8.6; B18 Cumulaitve Impacts B18.4, B18.5; C1.CEMP
5.4.1	Sensitive environmental areas	· Queensland Biodiversity Offset Policy (Department of Environment and Resource Management 2011b)	Chapter B2 Nature Conservation Values B2.4, A 4 Legislation and Approvals; B8 Terrestrial Ecology B8.5, B8.6; B18 Cumulaitve Impacts B18.4, B18.5; C1.CEMP
5.4.1	Sensitive environmental areas	· Marine fish habitat offset policy (FHMOP 005.2) (Department of Agriculture, Fisheries and Forestry 2012)	Chapter B2 Nature Conservation Values B2.4, A 4 Legislation and Approvals; B8 Terrestrial Ecology B8.5, B8.6; B18 Cumulaitve Impacts B18.4, B18.5; C1.CEMP
5.4.1	Sensitive environmental areas	Describe any deChapterure from 'no net loss' of ecological values.	Chapter B2 Nature Conservation Values B2.4, A 4 Legislation and Approvals; B7MarineEcology B7.5, B7.6; B18 Cumulative Impacts B18.4, B18.5; Chapter B7 Marine Ecology B7.5, B7.6; C1.CEMP
5.4.2	Terrestrial fauna Description of environmetnal values	Describe any terrestrial and riparian fauna occurring in the areas affected by the proposal, noting the broad distribution patterns in relation to vegetation, topography and substrate. The description of the fauna present or likely to be present in the study area should include:	Chapter B8 Terrestrial Ecology B8.3
5.4.2	Terrestrial fauna	· species diversity (that is, a species list) and abundance of animals of recognised significance	Chapter B8 Terrestrial Ecology B8.3
5.4.2	Terrestrial fauna	· any species that are poorly known but suspected of being rare or threatened	Chapter B8 Terrestrial Ecology B8.3
5.4.2	Terrestrial fauna	· habitat requirements and sensitivity to changes, including movement corridors and barriers to movement	Chapter B8 Terrestrial Ecology B8.3

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5.4.2	Terrestrial fauna	· the existence of feral pest or introduced animals including those of economic or conservation significance	Chapter B8 Terrestrial Ecology B8.3
5.4.2	Terrestrial fauna	· existence (actual or likely) of any species and communities of conservation significance in the study area, including discussion of range, habitat, breeding, recruitment feeding and movement requirements, and current level of protection (for example, any requirements of protected area management plans or threatened species recovery plans)	Chapter B8 Terrestrial Ecology B8.3
5.4.2	Terrestrial fauna	· habitat requirements and sensitivity to changes, including movement corridors and barriers to movement	Chapter B8 Terrestrial Ecology B8.3
5.4.2	Terrestrial fauna	· an estimate of commonness or rarity for the listed or otherwise significant species	Chapter B8 Terrestrial Ecology B8.3
5.4.2	Terrestrial fauna	· use of the area by migratory fauna	Chapter B8 Terrestrial Ecology B8.3
5.4.2	Terrestrial fauna	· records in a form compatible with the Wildlife Online database.	Chapter B8 Terrestrial Ecology B8.3
5.4.2	Terrestrial fauna	Identify any species listed by the NC Act occurring in the project area. Identify any species listed by the 'Back on Track' species prioritisation methodology (er to:www.ehp.qld.gov.au/wildlife/prioritisation-framework/index.html).	Chapter B8 Terrestrial Ecology B8.3; Chapter B2 Nature Conservation Areas B2.3
5.4.2	Terrestrial fauna	Indicate how well any affected communities are represented and protected elsewhere in the bio-region where the project occurs. Specify the methodology used for fauna surveys. Provide relevant site data to DEHP in a format compatible with the Wildlife Online database for listed threatened species (er to:www.ehp.qld.gov.au/wildlife/wildlife- online/index.html).	Chapter B8 Terrestrial Ecology B8.2, B8.3; Chapter B2 Nature Conservation Areas B2.2, B2.3
5.4.2	Terrestrial fauna	Fauna survey methodology should be in accordance with the Terrestrial Vertebrate Fauna Survey Assessment Guidelines for Queensland (Eyre et al. 2012) (er to:	Chapter B8 Terrestrial Ecology B8.2, B8.3; Chapter B2 Nature Conservation Areas B2.2, B2.3
5.4.2	Terrestrial fauna	www.ehp.qld.gov.au/ecosystems/biodiversity/pdf/fauna_survey_guidelines	Chapter B8 Terrestrial Ecology B8.3; Chapter B2 Nature Conservation Areas B2.3
5.4.2	Terrestrial fauna Potential impacts and mitigation measures	Consider potential impacts on terrestrial fauna, relevant wildlife habitat and other fauna conservation values, including:	Chapter B8 Terrestrial Ecology B8.4; Chapter B2 Nature Conservation Areas B2.4
5.4.2	Terrestrial fauna	· impact and contribution by the project, to the entry, spread and establishment of pests (terrestrial and marine) not present in the project area24	Chapter B8 Terrestrial Ecology B8.4; Chapter B2 Nature Conservation Areas B2.4
5.4.2	Terrestrial fauna	· impacts due to loss of range/habitat, food supply, nest sites, breeding/recruiting potential or movement corridors or as a result of hydrological change	Chapter B8 Terrestrial Ecology B8.4; Chapter B2 Nature Conservation Areas B2.4
5.4.2	Terrestrial fauna	· impacts on native species, particularly species of conservation significance	Chapter B8 Terrestrial Ecology B8.4; Chapter B2 Nature Conservation Areas B2.4
5.4.2	Terrestrial fauna	· cumulative effects of direct and indirect impacts	Chapter B8 Terrestrial Ecology B8.4; Chapter B2 Nature Conservation Areas B2.4
5.4.2	Terrestrial fauna	· threatening processes leading to progressive loss	Chapter B8 Terrestrial Ecology B8.4; Chapter B2 Nature Conservation Areas B2.4
5.4.2	Terrestrial fauna	· a description of any foreseen impacts that increase the susceptibility of ecological communities and species to the impacts of climate change	Chapter B8 Terrestrial Ecology B8.4; Chapter B2 Nature Conservation Areas B2.4
5.4.2	Terrestrial fauna	Address any actions of the project or likely impacts that require an authority under the NC Act. Provide the following information on mitigation strategies:	Chapter B8 Terrestrial Ecology B8.4; Chapter B2 Nature Conservation Areas B2.4
5.4.2	Terrestrial fauna	· measures to avoid and mitigate the identified impacts. Any provision for buffer zones and movement corridors, nature reserves or special provisions for migratory animals should be discussed and coordinated with the outputs of the flora assessment	Chapter B8 Terrestrial Ecology B8.5,
5.4.2	Terrestrial fauna	· measures to stop the spread, encroachment or establishment of pests within the project area	Chapter B8 Terrestrial Ecology B8.5; C1 CEMP
5.4.2	Terrestrial fauna	· details of the methodologies that would be used to avoid injuring 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 B8.5, B8.6 Terrestrial Ecology, C1.7.2 (Construction Environmental Management Plan)
5.4.2	Terrestrial fauna	· strategies for complying with the objectives and management practices of relevant recovery plans	Chapter B8.5, B8.6 Terrestrial Ecology, C1.7.2 (Construction Environmental Management Plan)

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5.4.2	Terrestrial fauna	· measures to rehabilitate disturbed areas, which incorporate provision of nest hollows and ground litter, where appropriate	Chapter B8.5, B8.6 Terrestrial Ecology, C1.7.2 (Construction Environmental Management Plan)
5.4.2	Terrestrial fauna	Outline how these measures will be implemented in the EMP for the project	Chapter C1 CEMP
5.4.2	Terrestrial fauna	Address feral animal management strategies and practices. The study should develop strategies to ensure that the project does not contribute to increased encroachment of any feral animal species. er to the local government authority's pest management plan and any strategies and plans recommended for the project area by Biosecurity Queensland. Discuss the strategies in accordance with the provisions of the Land Protection (Pest and Stock Route Management) Act in the main body of the EIS and in the pest management plan within the EMP for the project.	Chapter B8 Terrestrial Ecology, B8.5 & B8.6, C1.7.2 (Construction Environmental Management Plan)
5.4.3	Aquatic Description of environmental values	Describe the aquatic flora and fauna present, or likely to be present, in the areas affected by the project. Include:	Chapter B7 Marine Ecology B7.3; B8 Terrestrial Ecology B8.3
5.4.3	Aquatic	· fish species, mammals, reptiles, amphibians, crustaceans and aquatic invertebrates occurring in the waterways within the affected area and any associated wetlands (as defined under section 5 of the Fisheries Act)	Chapter B7 Marine Ecology B7.3; B8 Terrestrial Ecology B8.3
5.4.3	Aquatic	· any rare or threatened aquatic and marine species	Chapter B7 Marine Ecology B7.3
5.4.3	Aquatic	· exotic and pest marine organisms	Chapter B7 Marine Ecology B7.3
5.4.3	Aquatic	· a description of the habitat requirements and the sensitivity of aquatic species to changes in flow regime, water levels and water quality in the project areas	Chapter B7 Marine Ecology B7.3
5.4.3	Aquatic	· aquatic plants, including native, exotic and weed species	Chapter B7 Marine Ecology B7.3
5.4.3	Aquatic	· aquatic substrate	Chapter B7 Marine Ecology B7.3
5.4.3	Aquatic	· habitat downstream of the project or potentially impacted due to currents in associated lacustrine and marine environments	Chapter B7 Marine Ecology B7.3; Chapter B8 Terrestrial Ecology B8.3
5.4.3	Aquatic	· stream type, including extent of tidal influence and common levels such as highest astronomical tide and mean high water springs	Chapter B7 Marine Ecology B7.3
5.4.3	Aquatic	· reef habitat and coral species	Chapter B7 Marine Ecology B7.3
5.4.3	Aquatic	· any other state significant biodiversity values identified in the Queensland Biodiversity Offset Policy (version 1) (Department of Environment and Resource Management 2011b) that are not described elsewhere.	Chapter B2 Nature Conservation B2.3, B2.4 , B2.5, B2.6; B18 Cumulative Impacts Assessment B18.4 - B18.6
5.4.3	Aquatic	Describe any wetlands listed by DEHP as areas of national, state or regional significance and detail their values and importance for aquatic flora and fauna species.	Chapter B7 Marine Ecology B7.3; B8 Terrestrial Ecology B8.3
5.4.3	Description of environmental values Flora	Define the nature and extent of existing marine features and marine vegetation (e.g. salt couch, seagrass and mangroves) within the proposed area of development and in the areas adjacent to the project.	Chapter B7 Marine Ecology B7.3; B8 Terrestrial Ecology B8.3
5.4.3	Flora	Conduct field assessments for potentially affected plant species, perably in both pre and post-wet season conditions taking into account potential impact processes, as follows:	Chapter B8 Terrestrial Ecology B8.2, B8.3, B8.4
5.4.3	Flora	· record site data in a form compatible with the Queensland Herbarium CORVEG database	Chapter B8 Terrestrial Ecology B8.2, B8.3, B8.4
5.4.3	Flora	· record a complete list of species present at each site, including those species defined and protected under the Fisheries Act	Chapter B8 Terrestrial Ecology B8.2, B8.3, B8.4
5.4.3	Flora	· record the relative abundance of plant species present	Chapter B8 Terrestrial Ecology B8.2, B8.3, B8.4
5.4.3	Flora	· identify any plant species of conservation, cultural, commercial or recreational significance	Chapter B8 Terrestrial Ecology B8.2, B8.3, B8.4
5.4.3	Flora	· submit specimens of species listed as protected plants under the Nature Conservation (Wildlife) Regulation 1994 (other than common species) to the Queensland Herbarium for identification and entry into the HERBRECS database	Chapter B8 Terrestrial Ecology B8.2, B8.3, B8.4
5.4.3	Fish habitat	Describe the nature and extent of fish habitat that have the potential to be impacted, including seagrass (permanent and ephemeral), macro-algae, mangrove and salt couch communities and sand bars/mudflats, mapped relative to existing features for erence.	Chapter B7 Marine Ecology B7.3
5.4.3	Fish habitat	Surveys for seagrass and algae should lect the seasonal variation in occurrence and density of these communities. The location and density of marine plants should be mapped at an appropriate scale.	Chapter B7 Marine Ecology B7.3

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5.4.3	Fish habitat	Show the location of any declared Fish Habitat Areas proximal to the proposed dredging site and marine infrastructure for transportation of fill	Chapter B7 Marine Ecology B7.3
5.4.3	Marine megafauna	Describe the turtle species that may use beaches near the proposed development area.	Chapter B7 Marine Ecology B7.3
5.4.3	Marine megafauna	Undertake a desktop review of information on the turtle communities of the study area, particularly the green, hawksbill, loggerhead, olive ridley and flatback turtles, paying specific attention to any anecdotal or recorded information on turtle populations frequenting the port area and any known nesting sites.	Chapter B7 Marine Ecology B7.3
5.4.3	Marine megafauna	er to studies of the turtle populations and consult the Department of National Parks, Recreation, Sport and Racing (DNPRSR) on historical data for the area, particularly on previously conducted nesting surveys.	Chapter B7 Marine Ecology B7.3
5.4.3	Marine megafauna	Consolidate available information on vessel strike data for the project area, and evaluate the proposed project (construction and ongoing operations) using a risk based methodology informed by data obtained on the populations of marine fauna.	Chapter B7 Marine Ecology B7.3
5.4.3	Marine megafauna	Use this information to develop recommendations on the most appropriate management measures to be adopted to minimise the risk of turtle injury or death. particular erence should be given to protecting turtles from boat strike.	Chapter B7 Marine Ecology B7.3; Dredge Management Plan C2
5.4.3	Benthic macro invertebrates	Describe the benthic macro invertebrate communities likely to be directly or indirectly impacted by the project should be characterised for the assessment of the potential impacts of proposed capital works. Consider the effect of ongoing maintenance activities, including dredging, on benthic fauna.	Chapter B7 Marine Ecology B7.3, B7.4, B7.5; B18Cumulative Imapcts B18.4, B18.6
5.4.3	Reef communities	Describe the reef communities that may be impacted by the proposed development.	Chapter B7 Marine Ecology B7.3, B7.4, B7.5; B18Cumulative Imapcts B18.4, B18.6
5.4.3	Reef communities Potential impacts and mitigation measures	Discuss the potential impacts of the project on the aquatic species and ecosystems and describe proposed mitigation actions, including:	Chapter B7 Marine Ecology B7.3, B7.4, B7.5; B18Cumulative Imapcts B18.4, B18.6
5.4.3	Reef communities	· potential impacts to flora and fauna communities from dredging works and transporting marine fill to the project site. This should include modelling of the potential impacts of the dredge plume (for example, increased turbidity) on seagrass and other aquatic species	Chapter B7 Marine Ecology B7.3, B7.4, B7.5; B18Cumulative Imapcts B18.4, B18.6
5.4.3	Reef communities	· potential impacts due to alterations to the long-term hydrodynamic processes of the coastal environments, with specific erence to impacts on riparian vegetation and other sensitive vegetation communities, including mangrove stands and seagrass meadows	Chapter B7 Marine Ecology B7.3, B7.4, B7.5; B18Cumulative Imapcts B18.4, B18.6
5.4.3	Reef communities	· investigate the projects potential impact on fish spawning periods	Chapter B7 Marine Ecology B7.3, B7.4, B7.5; B18Cumulative Imapcts B18.4, B18.6
5.4.3	Reef communities	· offsets proposed for unavoidable, permanent loss of fisheries habitat	Chapter B7 Marine Ecology B7.3, B7.4, B7.5; B18Cumulative Imapcts B18.4, B18.6
5.4.3	Reef communities	· methods to minimise the potential for introducing or spreading pest species within the project area and include the mitigation and management approaches within the biosecurity environmental management plan	Chapter B7 Marine Ecology B7.3, B7.4, B7.5; B18Cumulative Imapcts B18.4, B18.6
5.4.3	Reef communities	· monitoring aquatic biology health, productivity and biodiversity in areas subject to direct discharge	Chapter B7 Marine Ecology B7.3, B7.4, B7.5; B18Cumulative Imapcts B18.4, B18.6
5.4.3	Reef communities	· measures to be implemented to avoid or minimise ship strike and propeller strike during construction, commissioning and operation of the project	Chapter B7 Marine Ecology B7.3, B7.4, B7.5; B18Cumulative Imapcts B18.4, B18.6
5.4.3	Reef communities	· potential impacts from climate change and the project's potential to increase the susceptibility of aquatic ecological communities and species, for example, coral bleaching.	Chapter B18 Cumulative Impacts Assessment B18.4; B16.4
5.4.3	Reef communities	Address any actions of the project or likely impacts that require an authority under the relevant legislation, including the NC Act and/or the Fisheries Act. Outline how these measures will be implemented in the overall EMP for the project.	Chapters B2 Nature Conservation Areas B2.3 andB2.4 andA4 Legislation and Approvals and Chapter A1 Introduction A1.1 for key policy and legislative requirements

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5.4.3	Reef communities	Provide details of the management methods which would avoid or minimise impacts on birds, marine mammals, turtles and fish, including migrations and marine plant propagation. In particular, present a discussion of existence (actual or likely) of any species and communities of conservation significance in the study area, including discussion of range, habitat, breeding, recruitment feeding and movement requirements, and current level of protection (for example, any requirements of protected area management plans or threatened species recovery plans, including, but not restricted to direct erences to all relevant turtle species included in the Recovery Plan for Marine Turtles in Australia (Commonwealth of Australia 2003).	Chapter B7 Marine Ecology B7.4 and B7.5 and Chapter C2 Dredge Management Plan
5.4.3	Reef communities	Outline how these measures will be implemented in the EMP for the project.	Chapter C2 Dredge Management Plan
5.5	Water Resources		
5.5.1	Description of environmental values	Provide an overview of the quality and quantity of any water resources in the vicinity of the project area and the relevance to the project.	Chapter B6 Water Resources B6.3
5.5.2	Potential impacts and mitigation measures	Assess the project's potential impacts on water resource environmental values identified in the previous section. Define and describe the objectives and practical measures for protecting or enhancing water resource environmental values, to describe how nominated quantitative standards and indicators may be achieved, and how the achievement of objectives will be monitored, audited and managed. Include the following:	Chapter B6 Water Resources B6.4, B6.6
5.5.2	Water resources	· potential impacts on the flow and the quality of surface and groundwater from all phases of the project, with erence to their suitability for the current and potential downstream uses and discharge licences	Chapter B6 Water Resources B6.4, B6.6
5.5.2	Water resources	· an assessment of all likely impacts on groundwater depletion or recharge regimes	Chapter B6 Water Resources B6.4, B6.6
5.5.2	Water resources	· potential impacts of surface water flow on existing infrastructure, with erence to the EPP (Water) and the Water Act	Chapter B6 Water Resources B6.4, B6.6
5.5.2	Water resources	· chemical and physical properties of any wastewater (including stormwater at the point of discharge into natural surface waters), and the toxicity of effluent to flora and fauna	Chapter B6 Water Resources B6.4, B6.6; C1 Construction Environmental Management Plan; C2 Dredge Management Plan
5.5.2	Water resources	· potential impacts on other downstream receiving environments, if it is proposed to discharge water to a riverine system	Chapter B6 Water Resources B6.4, B6.6; C1 Construction Environmental Management Plan; C2 Dredge Management Plan
5.5.2	Water resources	· where disposal of dredge spoil to land is being considered, the use of the ANZECC Guidelines methodology is required to derive water quality trigger values and investigate surface and groundwater quality of the receiving environment that are likely to receive discharge, runoff or seepage waters from any dredge spoil	Chapter B6 Water Resources B6.4, B6.5; C1 Construction Environmental Management Plan; C2 Dredge Management Plan
5.5.2	Water resources	· storage/treatment or disposal area	Chapter B6 Water Resources B6.4, B6.6; C1 Construction Environmental Management Plan; C2 Dredge Management Plan
5.5.2	Water resources	· the results of a risk assessment for uncontrolled releases to water due to system or catastrophic failure, implications of such emissions for human health and natural ecosystems, and strategies to prevent, minimise and contain impacts	Chapter B6 Water Resources B6.4, B6.5 and B6.6; C1 Construction Environmental Management Plan; C2 Dredge Management Plan
5.5.2	Water resources	· an assessment of the potential to contaminate surface and groundwater resources and measures to prevent, mitigate and remediate such contamination	Chapter B6 Water Resources B6.4, B6.5 and B6.6; C1 Construction Environmental Management Plan; C2 Dredge Management Plan
5.5.2	Water resources	· details of a monitoring program for the groundwater resources, using existing deep bores, to establish the base line yield and water quality of the supply from those bores	Chapter B6 Water Resources B6.4, B6.5 and B6.6; C1 Construction Environmental Management Plan; C2 Dredge Management Plan
5.5.2	Water resources	· Provide details on how changes in water quality in Trinity Inlet, as a result of dredging will affect local aquaculture ventures.	Chapter B6 Water Resources B6.4, B6.5 and B6.6; C1 Construction Environmental Management Plan; C2 Dredge Management Plan

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5.5.2	Water resources	Strategies should be adequately detailed to demonstrate best practice management and that environmental values of receiving waters will be maintained to nominated water quality objectives. Describe the monitoring programs that will assess the effectiveness of management strategies for protecting water resources during the construction, operation and decommissioning of the project. Outline how these strategies are incorporated into appropriate sections of the EMP.	Chapter B6 Water Resources B6.4, B6.5; C1 Construction Environmental Management Plan; C2 Dredge Management Plan
5.6	Air Quality		
5.6.1	Description of environmental values	Describe the existing air quality that may be affected by the project in the context of environmental values as defined by the EP Act and Environmental Protection (Air) Policy 2008 (EPP (Air)).	Chapter B11 Air Quality B11.3
5.6.1	Description of environmental values	Discuss the existing local and regional air shed environment, including:	Chapter B11 Air Quality B11.3
5.6.1	Description of environmental values	· background levels and sources of Chaptericulates, gaseous and odorous compounds and any major constituent	Chapter B11 Air Quality B11.3
5.6.1	Description of environmental values	· pollutants (including greenhouse gases)	Chapter B11 Air Quality B11.3
5.6.1	Description of environmental values	· baseline monitoring results, sensitive receptors.	Chapter B11 Air Quality B11.3
5.6.2	Potential impacts and mitigation measures	Consider the following air quality issues and their mitigation:	Chapter B11 Air Quality B11.4
5.6.2	Potential impacts and mitigation measures	· an inventory of air emissions from the project expected during construction and operational activities (including source, nature and levels of emissions)	Chapter B11 Air Quality B11.4
5.6.2	Potential impacts and mitigation measures	· 'worst case' emissions that may occur during operation. If these emissions are significantly higher than those for normal operations, it will be necessary to separately evaluate the worst-case impact to determine whether the planned buffer distance between the facility and neighbouring sensitive receptors will be adequate	Chapter B11 Air Quality B11.4
5.6.2	Potential impacts and mitigation measures	· ground level predictions should be made at any site that includes the environmental values identified by the EPP (Air), including any sites that could be sensitive to the effects of predicted emissions	Chapter B11 Air Quality B11.4
5.6.2	Potential impacts and mitigation measures	· dust and odour generation from construction activities, especially in areas where construction activities are adjacent to existing road networks or are in close proximity to sensitive receivers	Chapter B11 Air Quality B11.4
5.6.2	Potential impacts and mitigation measures	· climatic patterns that could affect dust generation and movement	Chapter B11 Air Quality B11.4
5.6.2	Potential impacts and mitigation measures	· vehicle emissions and dust generation along major haulage routes both internal and external to the project site	Chapter B11 Air Quality B11.4
5.6.2	Potential impacts and mitigation measures	· human health risk associated with emissions from project activities of all hazardous or toxic pollutants	Chapter B11 Air Quality B11.4
5.6.2	Potential impacts and mitigation measures	· impacts on terrestrial flora and fauna	Chapter B11 Air Quality B11.4 and Chapter B8 Terrestrial Ecology B8.4
5.6.2	Potential impacts and mitigation measures	Detail the best practice mitigation measures together with proactive and predictive operational and maintenance strategies that could be used to prevent and mitigate impacts.	Chapter B11 Air Quality B11.5 and Chapter B8 Terrestrial Ecology B8.4
5.6.2	Potential impacts and mitigation measures	Discuss potential air quality impacts from emissions, with erence to the National Environmental Protection (Ambient Air Quality) Measure 2003 (Cwlth) and the EPP (Air). If an emission is not addressed in these legislative instruments, discuss the emission with erence to its risk to human health, including appropriate health-based guidelines/standards.	Chapter B11 Air Quality B11.4 and Chapter B8 Terrestrial Ecology B8.4
5.7	Geenhouse gas emissions		
5.7.1	Description of environmental situation	Provide an inventory of projected annual emissions for each relevant greenhouse gas, with total emissions expressed in 'CO2 equivalent' terms for the following categories:	Chapter B16 Climate Change & Greenhouse Gases B16.3
5.7.1	Description of environmental situation	· scope 1 emissions—means direct emissions of greenhouse gases from sources within the boundary of the facility and as a result of the facility's activities (including emission from vegetation clearing)	Chapter B16 Climate Change & Greenhouse Gases B16.3

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5.7.1	Description of environmental situation	· scope 2 emissions—means emissions of greenhouse gases from the production of electricity, heat or steam that the facility will consume, but that are physically produced by another facility.	Chapter B16 Climate Change & Greenhouse Gases B16.3
5.7.1	Description of environmental situation	Briefly describe method(s) by which estimates were made.	Chapter B16 Climate Change & Greenhouse Gases B16.2, B16.3
5.7.1	Description of environmental situation	Use the National Greenhouse Accounts (NGA) Factors (Commonwealth of Australia 2010c) as a erence source for emission estimates, supplemented by other sources where practicable and appropriate. As a requirement of the NGA factors, estimates should include the loss of carbon sink capacity of vegetation due to clearing and impoundment.	Chapter B16 Climate Change & Greenhouse Gases B16.2, B16.3
5.7.2	Potential impacts and mitigation measures	Discuss the potential for greenhouse gas abatement measures, including:	Chapter B16 Climate Change & Greenhouse Gases B16.4, B16.5; C1 Environmental Management Plan; C2 Dredge Management Plan
5.7.2	Potential impacts and mitigation measures	· the proposed measures (alternatives and perred) to avoid and/or minimise direct greenhouse gas emissions	Chapter B16 Climate Change & Greenhouse Gases B16.3, B16.5; C1 Environmental Management Plan; C2 Dredge Management Plan
5.7.2	Potential impacts and mitigation measures	· how the perred measures minimise emissions and achieve energy efficiency	Chapter B16 Climate Change & Greenhouse Gases B16.3, B16.5; C1 Environmental Management Plan; C2 Dredge Management Plan
5.7.2	Potential impacts and mitigation measures	· any opportunities to further offset greenhouse gas emissions through indirect means including sequestration and carbon trading.	Chapter B16 Climate Change & Greenhouse Gases B16.3, B16.5; C1 Environmental Management Plan; C2 Dredge Management Plan
5.8	Noise and Vibration		
5.8.1	Description of environmental values	Describe the existing noise and vibration environment that may be affected by the project in the context of the environmental values defined by the Environmental Protection (Noise) Policy 2008 (EPP (Noise)). er to the following documents:	Chapter B10 Noise and Vibration B10.2 and B10.3
5.8.1	Description of environmental values	· Noise Measurement Manual (Environment Protection Agency 2000)	Chapter B10 Noise and Vibration B10.2 and B10.3
5.8.1	Description of environmental values	· Guideline: Planning for Noise Control (Environmental Protection Agency 2004)	Chapter B10 Noise and Vibration B10.2 and B10.3
5.8.1	Description of environmental values	Identify sensitive noise receptors adjacent to all project components both in air and underwater (e.g. marine species sensitive to underwater noise) and estimate typical background noise and vibration levels based on surveys at representative sites. Discuss the potential sensitivity of such receptors and nominate performance indicators and standards.	Chapter B10 Noise and Vibration B10.4
5.8.2	Potential impacts and mitigation measures	Describe the impacts of noise and vibration both in air and underwater generated during the pre-construction, construction, operational and decommissioning phases of the project. Noise and vibration impact analysis should include:	Chapter B10 Noise and Vibration B10.4
5.8.2	Potential impacts and mitigation measures	· the levels of noise and vibration generated, including noise contours, assessed against current typical background levels, using modelling (such as Environmental Noise Model e.g., SoundPLAN) where appropriate	Chapter B10 Noise and Vibration B10.4
5.8.2	Potential impacts and mitigation measures	· impact of noise, including low frequency noise (noise with components below 200 Hz) and vibration at all potentially sensitive receivers (for example, residences, social and public infrastructure, such as health, recreational and educational facilities and marine life where impact of noise may have a significant biological significance) compared with the performance indicators and standards nominated above in Section 5.8.1	Chapter B10 Noise and Vibration B10.4
5.8.2	Potential impacts and mitigation measures	· impact on terrestrial, avian and aquatic fauna	Chapter B10 Noise and Vibration B10.4; Terrestrial Ecology Chapter B8.4
5.8.2	Potential impacts and mitigation measures	· proposals to minimise or eliminate these effects, including details of any screening, lining, enclosing or bunding of facilities, or timing schedules for construction and	Chapter B10 Noise and Vibration B10.4, B10.5; C1 Environmental Management Plan; C2 Dredge Management Plan

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5.8.2	Potential impacts and mitigation measures	· operations that would minimise environmental harm and environmental nuisance from noise and vibration both in air and/or underwater	Chapter B10 Noise and Vibration B10.4, B10.5; C1 Environmental Management Plan; C2 Dredge Management Plan
5.8.2	Potential impacts and mitigation measures	· options for air sensitive receptors that are otherwise unable to achieve a satisfactory internal noise level for the preservation of health and wellbeing as identified within the EPP (Noise).	Chapter B10 Noise and Vibration B10.4, B10.5; C1 Environmental Management Plan; C2 Dredge Management Plan
5.8.2	Potential impacts and mitigation measures	Provide details of any night-time work that may be undertaken. Specifically include:	Chapter B10 Noise and Vibration B10.4, B10.5; C1 Environmental Management Plan; C2 Dredge Management Plan
5.8.2	Potential impacts and mitigation measures	· the reasons why night-time work may be undertaken	Chapter B10 Noise and Vibration B10.4, B10.5; C1 Environmental Management Plan; C2 Dredge Management Plan
5.8.2	Potential impacts and mitigation measures	· the likely duration of work (if known)	Chapter B10 Noise and Vibration B10.4, B10.5; C1 Environmental Management Plan; C2 Dredge Management Plan
5.8.2	Potential impacts and mitigation measures	· the proposed hours of the work	Chapter B10 Noise and Vibration B10.4, B10.5; C1 Environmental Management Plan; C2 Dredge Management Plan
5.8.2	Potential impacts and mitigation measures	· the nature of the work to be undertaken	Chapter B10 Noise and Vibration B10.4, B10.5; C1 Environmental Management Plan; C2 Dredge Management Plan
5.8.2	Potential impacts and mitigation measures	· the likely impact on residents and the associated mitigation measures to be undertaken by the proponent	Chapter B10 Noise and Vibration B10.4, B10.5; C1 Environmental Management Plan; C2 Dredge Management Plan
5.8.2	Potential impacts and mitigation measures	· the methods that will be used to communicate with affected residents.	Chapter B10 Noise and Vibration B10.4, B10.5; C1 Environmental Management Plan; C2 Dredge Management Plan
5.9	Waste		
5.9.1	Waste generation	Identify and describe all sources, likely volumes and quality (where applicable) of waste associated with pre-construction, construction, operation and decommissioning of all aspects of the project. er to regulated waste listed in Schedule 7 of the Environmental Protection Regulation 2008 (Qld).	Chapter B15 Waste Management B15.3
5.9.1	Waste generation	Describe: · waste generated by delivery of material to site(s)	Chapters B15 Waste Management B15.3; B17 Hazard and Risk B17.4
5.9.1	Waste generation	· all chemical and mechanical processes conducted on the construction sites that produce waste	Chapters B15 Waste Management B15.3; B17 Hazard and Risk B17.4
5.9.1	Waste generation	· the amount and characteristics of solid and liquid waste produced on site by the project	Chapters B15 Waste Management B15.3; B17 Hazard and Risk B17.4
5.9.1	Waste generation	· hazardous materials to be stored and/or used on site, including environmental toxicity data and biodegradability.	Chapters B15 Waste Management B15.3; B17 Hazard and Risk B17.4
5.9.2	Waste management	Detail the proposed management of solid and liquid waste. Assess the potential impact of all waste generated during construction and operation, with regard for best practice	Chapters B15 Waste Management B15.5; B17 Hazard and Risk B17.4; C1 Construction Environmental Management Plan
5.9.2	Waste management	waste management strategies, the Environmental Protection (Waste Management) Policy 2000 and the Environmental Protection (Waste Management) Regulation 2000 (Qld).	Chapters B15 Waste Management B15.5; B17 Hazard and Risk B17.4; C1 Construction Environmental Management Plan
5.9.2	Waste management	Provide details on marine plant impacts on the land area designated for on-ground soil disposal if a land disposal option is chosen.	Chapters B15 Waste Management B15.5; B17 Hazard and Risk B17.4; C1 Construction Environmental Management Plan

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5.1	Transport	If a terrestrial location is required for a land based spoil ground/dredge material placement area, provide a detailed traffic impact assessment report for all modes of transport. The EIS should clearly identify and assess all impacts associated with a land based dredge material placement area for all modes of transport and identify effective mitigation strategies for these impacts.	Chapter B14 Transport B14.3- B14.9; C3 Vessel Transport Management Plan; C4. Maritime Operations Management Plan
5.1	Transport	Present the transport assessment in separate reports for each project-affected mode (road, rail, air and sea) as appropriate for each phase of the project. These assessment reports should provide sufficient information to allow an independent assessment of how existing transport infrastructure will be affected by project transport at the local and regional level.	Chapter B14 Transport ; C3 Vessel Transport Management Plan; C4. Maritime Operations Management Plan
5.10.1	Transport activities and routes	Describe the extent, condition and capacity of the existing transport infrastructure on which the project will depend.	Chapter B14 Transport Ch14.2, 14.8 and 14.9
5.10.2	Transport activities and routes	Provide a summary of all the freight tasks (inputs and outputs, including wastes) associated with all phases of the project. The summary will be in tabular form (or other suitable format) and include for each freight task:	Chapter B14 Transport B14.3, B14.4
5.10.2	Transport activities and routes	· tonnage/volume	Chapter B14 Transport B14.3 to B14.9
5.10.2	Transport activities and routes	· proposed transport methodologies (modes, vehicle types, payloads)	Chapter B14 Transport B14.3 to B14.9
5.10.2	Transport activities and routes	· estimates of the number of discrete trips required for reach task	Chapter B14 Transport B14.3 to B14.9
5.10.2	Transport activities and routes	· origins of inputs and destinations of outputs (including wastes)	Chapter B14 Transport B14.3 to B14.9
5.10.2	Transport activities and routes	· cross erence to the relevant section in the EIS where the task is fully described and/or assessed.	Chapter B14 Transport B14.3 to B14.9
5.10.2	Transport activities and routes	For each mode of transport and each phase of the project, provide traffic generation information on:	Chapter B14 Transport B14.3 to B14.9
5.10.2	Transport activities and routes	· existing background traffic including volumes, composition, peak traffic and peak times along the transport routes to and from the project	Chapter B14 Transport B14.3 to B14.9
5.10.2	Transport activities and routes	· background traffic growth for the transport routes for all stages of the project life	Chapter B14 Transport B14.3 to B14.9
5.10.2	Transport activities and routes	· the construction of any project-related plant and utilities within or impacting on the jurisdiction of any transport authority	Chapter B14 Transport B14.3 to B14.9
5.10.2	Transport activities and routes	· the stages, timing and duration of each stage/phase and how these impact on the transport-related infrastructure	Chapters B14 Transport B14.3 to B14.9; Chapter A3 Project Description A3.2, A3.3; Transport Ch14.2, Ch14.11 and Ch14.12
5.10.2	Transport activities and routes	· comparison of the traffic situation and road conditions with and without the project	Chapters B14 Transport B14.3 to B14.9; Chapter A3 Project Description A3.2, A3.3
5.10.2	Transport activities and routes	· expected volumes of project inputs and outputs of transported raw materials, plant, construction materials and operational equipment, waste, hazardous goods and finished products for all phases of the project	Chapters B14 Transport Ch14.3 to B14.9; Chapter A3 Project Description A3.2, A3.3
5.10.2	Transport activities and routes	· how identified project inputs and outputs will be moved through the local and regional transport network (including number and type of vehicles, mode, volume, composition, trip timing and routes)	Chapter B14 Transport Ch14.2, Ch14.11 and Ch14.12
5.10.2	Transport activities and routes	· traffic generated by workforce personnel including visitors (volume, composition, timing and routes)	Chapter B14 Transport B14.3 to B14.9
5.10.2	Transport activities and routes	· likely heavy, oversize and indivisible loads (volume, composition, timing and routes) highlighting any vulnerable bridges and structures along proposed routes.	Chapter B14 Transport B14.3 to B14.9
5.10.2	Transport activities and routes	Describe:	Chapter B14 Transport B14.3 to B14.9
5.10.2	Transport activities and routes	· access locations (existing and proposed) to state-controlled roads	Chapter B14 Transport B14.3 to B14.9

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5.10.2	Transport activities and routes	· locations of proposed road-crossing points of existing and proposed rail infrastructure associated with the project.	Chapter B14 Transport B14.3 to B14.9
5.10.2	Transport activities and routes	Presentation of data is to be in a format similar to A Road Management Information System (ARMIS).	Chapter B14 Transport B14.3 to B14.9
5.10.3	Potential impacts and mitigation measures	Impact assessment reports should include details of the adopted assessment methodology (for impacts on roads: the road impact assessment report in accordance with the Guidelines for Assessment of Road Impacts of Development) (Department of Main Roads 2006). Assessment of traffic impacts is to include the transport arrangements for permanent and temporary workforce associated with all phases of the project.	Chapter B14 Transport Ch14. 3 to B14.9
5.10.3	Potential impacts and mitigation measures	Assess project impacts on:	Chapter B14 Transport B14.3,B14.4
5.10.3	Potential impacts and mitigation measures	· local and state-controlled road networks, including key road and road/rail intersections, at project construction, operation and decommissioning stages. Any impact to level crossings should be assessed using the Australian Level Crossing Assessment Model (ALCAM)	Chapter B14 Transport B14.3,B14.4
5.10.3	Potential impacts and mitigation measures	· capacity, safety, local amenity, efficiency and condition of transport operations, services and assets from either transport or project operations, including an assessment of pavement life of the road network as a result of the project. er, where relevant, to the Queensland Road Safety Action Plan 2010–2011 (Department of Transport and Main Roads 2010)	Chapter B14 Transport Ch14.2, Ch14.9, Ch14.10, Ch14.12, Ch14.13
5.10.3	Potential impacts and mitigation measures	· possible interruptions to transport operations	Chapter B14 Transport Ch14.2 and Ch14.13
5.10.3	Potential impacts and mitigation measures	· the natural environment within the jurisdiction of an affected transport authority (for example, road and rail corridors)	Chapter B14 Transport Ch14.8 and Ch14.9; Various Part B Technical Chapters
5.10.3	Potential impacts and mitigation measures	· the nature and likelihood of product-spill to both land and marine environments during transport, if relevant	Chapter B14 Transport B14.3,B14.4
5.10.3	Potential impacts and mitigation measures	· any existing or proposed strategies for public passenger transport and active transport and address, where relevant, requirements of Chapter 2A of the Transport Planning and Coordination Act	NA
5.10.3	Potential impacts and mitigation measures	· access to transport for people with a disability	Chapter B14 Transport B14.2
5.10.3	Potential impacts and mitigation measures	· transport and handling of hazardous substances and dangerous goods	in future Contractors Mangement Plans
5.10.3	Potential impacts and mitigation measures	· the cumulative impact of this project adding to the impact of other known proposed or current major projects impacting on the road network.	Chapter B14 Transport B14.3,B14.4
5.10.4	Infrastructure alterations	Detail:	
5.10.4	Infrastructure alterations	· any proposed alterations or new transport-related infrastructure and services required by the project (as distinct from impact mitigation works)	Chapter B14 Transport Ch14.14
5.10.4	Infrastructure alterations	· construction of any project-related plant and utilities, within or impacting on the jurisdiction of any transport authority.	Chapter B14 Transport Ch14.2, Ch14.11 and Ch14.12
5.10.5	Transport impact management strategies	Discuss and recommend how identified impacts will be mitigated so as to maintain safety, efficiency and condition of each mode. These mitigation strategies are to be	Chapter B14 Transport B14.3,B14.4, B14.5
5.10.5	Transport impact management strategies	prepared in close consultation with relevant transport authorities (including local government), consider those authorities' works program and forward planning, and be in accordance with the relevant transport authorities' methodologies and design manuals.	Chapter B14 Transport
5.10.5	Transport impact management strategies	Findings of studies and transport infrastructure impact assessments should be an input into preparing a transport management plan.	Chapter B14 Transport B14.5; C1 CEMP
5.10.5	Road/Rail management plan	Outline:	
5.10.5	Road/Rail management plan	· procedures for assessing and agreeing on the scope of required mitigation works with road/rail corridor managers (for example, maintenance or upgrades), including any associated works, such as sourcing water and gravel	Chapter A3 Project Description A3.2, A3.3, and Chapter B14 Transport B14.5

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5.10.5	Road/Rail management plan	· strategies to minimise the effects of project transport on existing and future public road or rail corridors	Chapter A3 Project Description A3.2, A3.3, and Chapter B14 Transport Ch14.2, Ch14.11, Ch14.12, Ch14.13 and Ch14.14
5.10.5	Road/Rail management plan	· steps to be taken to prevent access from public roads/rail corridors to the project sites	Chapter A3 Project Description A3.2, A3.3, and Chapter B14 Transport B14.5
5.10.5	Road/Rail management plan	· strategies to maintain safe access to public road/rail reserves to allow road/rail/pipeline maintenance activities	Chapter A3 Project Description A3.2, A3.3, and Chapter B14 Transport B14.5
5.10.5	Road/Rail management plan	· process for decommissioning any temporary access to road/rail reserves, for example, stockpile sites	Chapter A3 Project Description A3.2, A3.3, and Chapter B14 Transport B14.5
5.10.5	Road/Rail management plan	Findings of studies and transport infrastructure impact assessments should be an input into preparing a draft road-use management plan. Conditions of approval for transport management impacts should also be detailed in the EMP.	Noted
5.10.5	Shipping management planning	Develop management plans in accordance with the Maritime Safety Queensland Guidelines for Major Development Proposals (Department of Transport and Main Roads 2010).	Noted
5.10.5	Shipping management planning	Consult the Regional Harbour Master on maritime issues relating to moving and loading tankers and any barge operations (for example, dredging). Discuss the results of the consultation in the EIS.	Chapters C2 Dredge Management Plan & C3 Vessel Transport Management Plan; C4 Maritime Operations Management Plan; Appendix E (Stakeholder and Community Engagement Report)
5.10.5	Shipping management planning	Describe current vessels using the port and in the Commonwealth Marine Area, their size, shipping movements, anchorages, access to/from the port and navigational arrangements.	Chapters A4 Project Description A3.2, A4.3; B18 Cumulative Impacts Assessment B18.3; & Appendix H. Cairns Cruise Shipping Development – Demand Study, 2016
5.10.5	Shipping management planning	In regard to increased shipping volumes, address the following:	Chapters C4 Maritime Operations Management Plan; B7 Marine Ecology B7.4
5.10.5	Shipping management planning	· potential for introduction of exotic organisms from increased shipping rates, including the Asian green mussel	Chapters C4 Maritime Operations Management Plan; B7 Marine Ecology B7.4
5.10.5	Shipping management planning	· ballast water management arrangements—including Australian Quarantine and Inspection Service mandatory arrangements and agency contingency planning	Chapters C4 Maritime Operations Management Plan; B7 Marine Ecology B7.4
5.10.5	Shipping management planning	· management of ship waste, in particular quarantine waste, domestic garbage, oil and sewage	Chapters B7 Marine Ecology B7.5; B15 Waste Management B15.5; C4 Maritime Operations Management Plan;
5.10.5	Shipping management planning	· risk of spills and their management	Chapters C4 Maritime Operations Management Plan; B7 Marine Ecology B7.5
5.10.5	Shipping management planning	· potential foreshore damage caused by tanker and tug activities	Chapters C4 Maritime Operations Management Plan; B7 Marine Ecology B7.5
5.10.5	Shipping management planning	· potential for increased vessel strike to marine species	Chapters C4 Maritime Operations Management Plan; B7 Marine Ecology B7.5
5.10.5	Shipping management planning	· potential impacts on existing shipping activity	Chapters C4 Maritime Operations Management Plan; B7 Marine Ecology B7.5
5.10.5	Shipping management planning	· routes of ships in transit through port waters and the aligned infrastructure such as navigational aids.	Chapters C4 Maritime Operations Management Plan; A4 Project Description A3.4.4
5.10.5	Shipping management planning	Additional marine transport issues that should be considered include the potential of the proposal to impact on recreational craft.	Chapter C2 Dredge Management Plan & C3, Vessel Traffic Management Plan & C4 Maritime Operations Management Plan
5.11	Indigenous cultural heritage		
5.11.1	Description of existing Indigenous cultural heritage values	Describe the existing Indigenous cultural heritage values that may be affected by the project and the environmental values of the cultural landscapes of the affected area in terms of the physical and cultural integrity of the landforms.	Chapter B13 Cultural Heritage B13.3

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5.11.1	Description of existing Indigenous cultural heritage values	Explain the significance of artefacts, items or places of Indigenous cultural heritage value likely to be affected by the project at a local, regional, state and national level.	Chapter B13 Cultural Heritage B13.3, B13.4
5.11.1	Description of existing Indigenous cultural heritage values	Also describe how, in conjunction with the appropriate Indigenous people, subject to confidentiality requirements, the cultural heritage values were ascertained. This could include:	Chapter B13 Cultural Heritage B13.2, B13.3, B13.4
5.11.1	Description of existing Indigenous cultural heritage values	· the results of any Aboriginal cultural heritage survey undertaken	Chapter B13 Cultural Heritage B13.2, B13.3, B13.4
5.11.1	Description of existing Indigenous cultural heritage values	· the DNRM Aboriginal Cultural Heritage Register and Database	Chapter B13 Cultural Heritage B13.2, B13.3, B13.4
5.11.1	Description of existing Indigenous cultural heritage values	· any existing literature relating to Indigenous cultural heritage in the project area.	Chapter B13 Cultural Heritage B13.2, B13.3, B13.4
5.11.2	Potential impacts and mitigation measures	To the greatest extent practicable, significant cultutal heritage areas should be avoided by the project. Provide an assessment of likely effects on sites of Indigenous cultural heritage values.	Chapter B13 Cultural Heritage B13.2, B13.3, B13.4
5.11.2	Potential impacts and mitigation measures	Define and describe the objectives and practical measures for protecting or enhancing Indigenous cultural heritage environmental values. Describe how nominated quantitative standards and indicators may be achieved for cultural heritage management, and describe how the achievement of the objectives will be monitored, assessed and managed.	Chapter B13 Cultural Heritage B13.2, B13.3, B13.4,B13.5
5.11.2	Potential impacts and mitigation measures	As a minimum, impact assessment, management and protection strategies should satisfy statutory responsibilities and duties of care.	Chapter B13 Cultural Heritage B13.2, B13.3, B13.4,B13.5; Chapter C1 CEMP
5.11.2	Native title agreement or cultural heritage management plan	During the EIS process, the proponent should initiate a native title agreement (NT agreement), as defined under the ACH Act, which includes management and protection strategies for Indigenous cultural heritage or a Cultural Heritage Management Plan (CHMP) under the ACH Act. An NT agreement or an approved CHMP in a form that complies with Chapter 7 of the ACH Act will ensure that the project meets the Aboriginal cultural heritage duty of care imposed by the ACH Act.	Chapter B13.5; A CHMP with Native Title bodies will be developed during the detailed design phase
5.11.2	Native title agreement or cultural heritage management plan	An NT agreement or CHMP should be negotiated between the proponent and the appropriate native title/Indigenous Chapteries and should include the following:	Chapter B13.5; A CHMP with Native Title bodies will be developed during the detailed design phase
5.11.2	Native title agreement or cultural heritage management plan	· a process for including Indigenous people associated with the development areas in protecting and managing Indigenous cultural heritage	Chapter B13.5; A CHMP with Native Title bodies will be developed during the detailed design phase; C1 Construction Environmental Management Plan
5.11.2	Native title agreement or cultural heritage management plan	· processes for mitigating, managing and protecting identified cultural heritage sites and objects in the project areas, including associated infrastructure developments,	Chapter B13.5; A CHMP with Native Title bodies will be developed during the detailed design phase; C1 Construction Environmental Management Plan
5.11.2	Native title agreement or cultural heritage management plan	· during both the construction and operational phases of the project	Chapter B13.5; A CHMP with Native Title bodies will be developed during the detailed design phase; C1 Construction Environmental Management Plan
5.11.2	Native title agreement or cultural heritage management plan	· provisions for managing the accidental discovery of cultural material, including burials	Chapter B13.5; A CHMP with Native Title bodies will be developed during the detailed design phase; C1 Construction Environmental Management Plan
5.11.2	Native title agreement or cultural heritage management plan	· a clear recording process to assist initial management and recording of accidental discoveries	Chapter B13.5; A CHMP with Native Title bodies will be developed during the detailed design phase; C1 Construction Environmental Management Plan
5.11.2	Native title agreement or cultural heritage management plan	· a cultural heritage induction for project staff	Chapter B13.5; A CHMP with Native Title bodies will be developed during the detailed design phase; C1 Construction Environmental Management Plan

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5.11.2	Native title agreement or cultural heritage management plan	· developing a cultural heritage awareness program to be incorporated into the contractor/employee manual and induction manual. This is to be in the form of a plain language, short document that is easy for contractors and staff 'on the ground' to understand	Chapter B13.5; A CHMP with Native Title bodies will be developed during the detailed design phase; C1 Construction Environmental Management Plan
5.11.2	Native title agreement or cultural heritage management plan	· a conflict resolution process.	Chapter B13.5; A CHMP with Native Title bodies will be developed during the detailed design phase; C1 Construction Environmental Management Plan
5.11.2	Native title agreement or cultural heritage management plan	If an NT agreement is not finalised or a CHMP has not been approved when the EIS is submitted to the Coordinator-General, the following must be provided:	Chapter B13.5; A CHMP with Native Title bodies will be developed during the detailed design phase; C1 Construction Environmental Management Plan
5.11.2	Native title agreement or cultural heritage management plan	· an outline of the draft CHMP or draft plan within the NT agreement that addresses management and protection strategies for cultural heritage, subject to any confidentiality provisions, outlining the position of the relevant Chapteries	Chapter B13.5; A CHMP with Native Title bodies will be developed during the detailed design phase; C1 Construction Environmental Management Plan
5.11.2	Native title agreement or cultural heritage management plan	· details of the proposed steps and timeframes for finalising the CHMP or NT agreement.	Chapter B13.5; A CHMP with Native Title bodies will be developed during the detailed design phase; C1 Construction Environmental Management Plan
5.11.3	Native title	Identify areas covered by applications for native title claims or native title determinations, providing boundary descriptions of native title representative body(ies), and whether it is necessary to notify the representative body(ies) or if there is evidence that native title does not exist.	Chapter B13.3, 13.5; A CHMP with Native Title bodies will be developed during the detailed design phase; C1 Construction Environmental Management Plan
5.11.3	Native title	Identify the potential for native title rights and interests likely to be impacted upon by the project and the potential for managing those impacts by an Indigenous land use agreement or other native title compliance outcomes.	Chapter B13.5; A CHMP with Native Title bodies will be developed during the detailed design phase; C1 Construction Environmental Management Plan
5.12	Non-Indigenous Cultural Heritage		
5.12.1	Description of existing non-Indigenous cultural heritage values	Include a cultural heritage study/survey that describes non-Indigenous cultural heritage sites and places, and their values.	Chapter B13 Cultural Heritage B13.3
5.12.1	Description of existing non-Indigenous cultural heritage values	Describe the significance of artefacts, items or places of conservation or non-Indigenous cultural heritage value likely to be affected by the project and their values at a local, regional, state and national level.	Chapter B13 Cultural Heritage B13.3
5.12.1	Description of existing non-Indigenous cultural heritage values	Any such study should be conducted by an appropriately qualified cultural heritage practitioner and should include the following:	Chapter B13 Cultural Heritage B13.3
5.12.1	Description of existing non-Indigenous cultural heritage values	· review of:	Chapter B13 Cultural Heritage B13.3
5.12.1	Description of existing non-Indigenous cultural heritage values	– the Australian Heritage Places Inventory	Chapter B13 Cultural Heritage B13.3
5.12.1	Description of existing non-Indigenous cultural heritage values	– the Queensland Heritage Register and other information regarding places of	Chapter B13 Cultural Heritage B13.3
5.12.1	Description of existing non-Indigenous cultural heritage values	potential non-Indigenous cultural heritage significance	Chapter B13 Cultural Heritage B13.3
5.12.1	Description of existing non-Indigenous cultural heritage values	– any local government heritage register	Chapter B13 Cultural Heritage B13.3

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5.12.1	Description of existing non-Indigenous cultural heritage values	– any existing literature relating to the heritage of the affected areas	Chapter B13 Cultural Heritage B13.3
5.12.1	Description of existing non-Indigenous cultural heritage values	· liaison with relevant community groups/organisations (for example, local historical societies) concerning places of non-Indigenous cultural heritage significance located or identified	Chapter B13 Cultural Heritage B13.3; Appendix E Stakeholdr and Community Engagement Report
5.12.1	Description of existing non-Indigenous cultural heritage values	· locations of culturally and historically significant sites, shown on maps, which could potentially be impacted by the project	Chapter B13 Cultural Heritage B13.3
5.12.1	Description of existing non-Indigenous cultural heritage values	· a constraints analysis of the proposed development area to identify and record non- Indigenous cultural heritage places.	Chapter B13 Cultural Heritage B13.3
5.12.2	Potential impacts and mitigation measures	Provide an assessment of any likely effects on sites of non-Indigenous cultural heritage values.	Chapter B13 Cultural Heritage B13.4
5.12.2	Potential impacts and mitigation measures	Provide strategies to mitigate and manage any negative impacts on non-Indigenous cultural heritage values and enhance any positive impacts.	Chapter B13 Cultural Heritage B13.5, B13.6
5.12.2	Potential impacts and mitigation measures	As a minimum, investigation, consultation, impact assessment, management and protection strategies should satisfy statutory responsibilities and duties of care.	Chapter B13 Cultural Heritage B13.5, B13.6
6	Social values and management of impacts		
6.1	Description of existing social values		
6.1.1	Social and cultural area	Conduct a social impact assessment and define the project's social and cultural area of influence, including the local, district, regional and state level as relevant, taking into account the:	ChapterB9 Socio-economic B9.2.6, B9.3.5; Chapter B13 Cultural Heritage B13.3, B13.4
6.1.1	Social and cultural area	· potential for social and cultural impacts to occur	ChapterB9 Socio-economic B9.2.6, B9.3.5; Chapter B13 Cultural Heritage B13.3, B13.4
6.1.1	Social and cultural area	· location of other relevant proposals or projects	ChapterB9 Socio-economic B9.2.6, B9.3.5; Chapter B13 Cultural Heritage B13.3, B13.4
6.1.1	Social and cultural area	· location and types of physical and social infrastructure, settlement and land use patterns	ChapterB9 Socio-economic B9.2.6, B9.3.5; Chapter B13 Cultural Heritage B13.3, B13.4
6.1.1	Social and cultural area	· social values that might be affected by the project (for example, integrity of social conditions, visual amenity and liveability, social harmony, public health and wellbeing, and sense of community)	ChapterB9 Socio-economic B9.2.6, B9.3.5; Chapter B13 Cultural Heritage B13.3, B13.4
6.1.1	Social and cultural area	· Indigenous social and cultural characteristics such as native title rights and interests, and cultural heritage.	ChapterB9 Socio-economic B9.2.6, B9.3.5; Chapter B13 Cultural Heritage B13.3, B13.4
6.1.2	Community engagement	Consistent with national and international good practice, and with regard to local and regional strategies for community engagement, the proponent should undertake a community engagement strategy to engage at the earliest practicable stage with likely affected Chapteries to discuss and explain the project, and to identify and respond to issues and concerns regarding social impacts.	Chapter B9 Socio-Economic B9.2.4; Appendix E Stakeholder and Community Engagement Report
6.1.2	Community engagement	Detail the community engagement processes used to conduct open and transparent dialogue with stakeholders. Such processes should include, but not be limited to, community erence group forums. Include the project's planning and design stages and future operations including affected local and state authorities. Engagement processes should consider social and cultural factors, customs and values, and, where relevant, linkages between environmental, economic, and social impact issues.	Chapter B9 Socio-Economic B9.2.4; Appendix E Stakeholder and Community Engagement Report
6.1.2	Community engagement	Discuss engagement strategies and processes, including how complaint resolution will be addressed, for all stages of the project.	Chapter B9 Socio-Economic B9.2.4; Appendix E Stakeholder and Community Engagement Report
6.1.3	Workforce profile	The SIA should include a profile of the workforce that describes the following:	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	Workforce demand	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	The estimated composition of workforce by occupation, project stage and duration (including any planned construction prior to final investment decision) using the	Chapter B9 Socio-Economic B9.3.5

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6.1.3	Workforce profile	template provided at www.skills.qld.gov.au/significantprojects.aspx	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	Supply issues and strategies	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	· Analysis of relevant local, state and national workforce profiles and labour supply strategies and proposed programs for:	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	– recruitment and attraction	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	– population groups (including Indigenous people, women, secondary school	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	students and unemployed and underemployed)	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	– unskilled and semi-skilled labour requirements	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	– structured training (apprenticeships, traineeships, graduates)	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	– analysis of impact on local community workforce.	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	Identify any gaps/opportunities in workforce planning particularly, tourism and hospitality skills and associated skills, in the short (3-5 years) and medium to longer term (5–15 years), with a particular focus on maritime skills and port-related activities.	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	· particular erence should be made to the following documents:	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	– Tropical North Queensland Destination Tourism Strategy 2012–2016 (Tourism Tropical North Queensland and Tourism Queensland 2010)	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	– Tropical North Queensland Tourism Opportunity Plan 2010–2020 (Tourism Queensland 2010).	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	The fact sheet on Skills Queensland's website	Chapter B9 Socio-Economic B9.3.5
6.1.3	Workforce profile	(www.skills.qld.gov.au/significantprojects.aspx) provides essential information, contact and program details to develop the workforce management plan.	Chapter B9 Socio-Economic B9.3.5
6.2	Potential impacts	Assess and describe the type, level and significance of the project's social impacts (both beneficial and adverse) on the local and cultural area, based on outcomes of community engagement processes and the social baseline study. Furthermore:	Chapter B9 Socio-Economic B9.2.7 to B9.3.6; Appendix E Stakeholder and Community Engagement Report
6.2	Potential impacts	· describe and summarise outcomes of community engagement processes including the likely response of the affected communities, including Indigenous people	Chapter B9 Socio-Economic B9.2.7 , B9.3.6
6.2	Potential impacts	· address direct, indirect and secondary impacts from any existing projects and the proposed project including an assessment of the size, significance, and likelihood of these impacts at the local and regional level. Consider the following:	Chapter B9 Socio-Economic B9.2.7 , B9.3.6
6.2	Potential impacts	– local, regional and state labour markets during the construction and operational phases, with regard to the source of the workforce. Present this information according to occupational workforce groupings. Detail whether the proponent and/or contractors are likely to employ locally or through other means and whether there are initiatives for local employment business opportunities and how these workforce strategies relate and align to state and Commonwealth resource workforce planning, skill development and training strategies and policies	Chapter B9 Socio-Economic B9.2.7 , B9.3.6 and Chapter B18 Cumulative Impacts B18.4, B18.5, B18.6
6.2	Potential impacts	– proposed new skills and training related to the project including the occupational skill groups required and potential skill shortages anticipated	Chapter B9 Socio-Economic B9.2.7 , B9.3.6 and Chapter B18 Cumulative Impacts B18.4, B18.5, B18.6
6.2	Potential impacts	– impacts of construction and operational workforces, their families, and associated contractors on housing and accommodation availability and affordability.	Chapter B9 Socio-Economic B9.2.7 , B9.3.6 and Chapter B18 Cumulative Impacts B18.4, B18.5, B18.6
6.2	Potential impacts	Undertake an assessment of the impact of the passengers from the cruise ships on the social infrastructure in Cairns including civic facilities, services and networks.	Chapter B9 Socio-Economic B9.2.7 , B9.3.6 and Chapter B18 Cumulative Impacts B18.4, B18.5, B18.6
6.2	Potential impacts	The anticipated activities and duration of the stay should be taken into account to determine downstream impacts on infrastructure.	Chapter B9 Socio-Economic B9.2.7 , B9.3.6 and Chapter B18 Cumulative Impacts B18.4, B18.5, B18.6
6.2	Potential impacts	Undertake an assessment of the impact of the dredging proposal on recreational and commercial fishing activities and the traditional owner values related to traditional fishing and hunting.	Chapter B9 Socio-Economic B9.2.7 , B9.3.6 and Chapter B18 Cumulative Impacts B18.4, B18.5, B18.6
6.3	Impact mitigation measures and management strategies	For identified social impacts, social impact mitigation strategies and measures should be presented to address the recruitment and training of the construction and operational workforces and the social and cultural implications this may have for the host community, including if any Chapter of the workforce is sourced from outside the social and cultural area.	Chapter B9 Socio-Economic B9.2.8 B9.3.10

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6.3	Social and Economic	Describe any consultation about acceptance of proposed mitigation strategies, and how practical management and monitoring regimes would be implemented.	ChapterB9 Socio-economic B9.2.8 ,B9.3.10; Chapter B13 Cultural Heritage B13.3, B13.4; B13.5; Appendix E Stakeholder and Community Engagement Report
7	Economies and management of impacts		
7.1	Description of affected local and regional economies	Describe the existing economy in which the project is located and the economies materially impacted by the project. Include:	Chapter B9 Socio-Economic B9.3.5
7.1	Description of affected local and regional economies	· a map illustrating the local and regional economies (local government areas—LGAs) that could be potentially affected by the project	Chapter B1 Land B1.3
7.1	Description of affected local and regional economies	· gross regional product or other appropriate measure of annual economic production	Chapter B9 Socio-Economic B9.3.5
7.1	Description of affected local and regional economies	· demographic and employment profile of the study area as a whole and disaggregated by LGA. Include:	Chapter B9 Socio-Economic B9.3.5
7.1	Description of affected local and regional economies	– existing population (size, age, distribution)	Chapter B9 Socio-Economic B9.3.5
7.1	Description of affected local and regional economies	– existing community profiles of the LGAs directly affected by the project (household type, size, average income)	Chapter B9 Socio-Economic B9.3.5
7.1	Description of affected local and regional economies	– existing employment statistics (Chapter-time/full-time, by occupation)	Chapter B9 Socio-Economic B9.3.5
7.1	Description of affected local and regional economies	– the regional economy's key industries and their contribution to regional economic income	Chapter B9 Socio-Economic B9.3.5
7.1	Description of affected local and regional economies	· sufficient baseline economic data to underpin a comprehensive assessment of the direct, indirect, cumulative, costs and impacts of the project	Chapter B9 Socio-Economic B9.3.5
7.1	Description of affected local and regional economies	· the key regional markets relevant to the project:	Chapter B9 Socio-Economic B9.3.5
7.1	Description of affected local and regional economies	– labour market	Chapter B9 Socio-Economic B9.3.5
7.1	Description of affected local and regional economies	– education and training markets	Chapter B9 Socio-Economic B9.3.5
7.1	Description of affected local and regional economies	– housing and land markets	Chapter B9 Socio-Economic B9.3.5
7.1	Description of affected local and regional economies	– construction services and building inputs market	Chapter B9 Socio-Economic B9.3.5

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7.1	Description of affected local and regional economies	– regional competitive advantage and expected future growth	Chapters B9 Socio-Economic B9.3.5; AppendixAQ Economics Benefits Report; Appendix H . Cairns Cruise Shipping Development – Demand Study, 2016.
7.1	Description of affected local and regional economies	– tourism markets.	Appendix H . Cairns Cruise Shipping Development – Demand Study, 2016. Summarised in A1 Introduction A1.2;
7.2	Potential impacts and mitigation measures	The potential impacts should consider local, regional, state and national perspectives as appropriate to the scale of the project.	Chapters B9 Socio Economic; A1 Introduction A1.2
7.2	Potential impacts and mitigation measures	The analysis should describe both the potential and direct economic impacts including estimated costs, if material, on industry and the community, assessing the following:	Appendix AQ Economics Benefits Report; Chapter A1 Introduction A1.2
7.2	Potential impacts and mitigation measures	· property values	Chapter B9 Socio-Economic B9.3.6; Appendix AQ Economic Benefits Report
7.2	Potential impacts and mitigation measures	· industry output	Chapter B9 Socio-Economic B9.3.6; Introduction A1.2
7.2	Potential impacts and mitigation measures	· employment	Chapter B9 Socio-Economic B9.3.6; Introduction A1.2
7.2	Potential impacts and mitigation measures	· the indirect impacts likely to flow to other industries and economies from developing the project, and the implications of the project for future development	Chapters B9 Socio-Economic B9.3.5; Appendix AQ Economic Benefits Report; Chapter A1 Introduction A1.2;
7.2	Potential impacts and mitigation measures	· the distributional effects of the proposal including proposals to mitigate any negative impact on disadvantaged groups.	Chapters B9 Socio-Economic B9.3.5; Appendix AQ Economic Benefits Report; Chapter A1 Introduction A1.2;
7.2.1	Strategies for local participation	The assessment of economic impacts should outline strategies to encourage participation by local industry and the local workforce, including:	Chapters B9 Socio-Economic B9.3.5; Appendix AQ Economic Benefits Report; Chapter A1 Introduction A1.2;
7.2.1	Strategies for local participation	· strategies for assessing the capacity and cost-effectiveness of sourcing goods and services from the regional and wider state economy during the pre-construction, construction, operation and rehabilitation phases of the project	Chapters B9 Socio-Economic B9.3.5; Appendix AQ Economic Benefits Report; Chapter A1 Introduction A1.2;
7.2.1	Strategies for local participation	· strategies for ensuring local suppliers of goods and services receive full, fair and reasonable opportunity to tender for work throughout the life of the project. Government-funded projects must prepare a Local Industry participation Plan (LIPP) in accordance with the Queensland Local Industry Policy (Department of Employment, Economic Development and Innovation 2010) and it's associated Guidelines. Private sector projects without government funding are recommended voluntarily to applu the Policy's principles, for example by preparing a LIPP and working with the Queensland office of the Industry Capability Network (www.icnqld.org.au) to promote tender opportunities and identify capable local suppliers. Assistance with developing LIPPs and delivery strategies is available from the Industry Development unit of the Department of State Development, Infrastructure and Planning	Chapters B9 Socio-Economic B9.3.5; Appendix AQ Economic Benefits Report; Chapter A1 Introduction A1.2;
7.2.1	Strategies for local participation	· employment strategies for local residents including members of Indigenous communities and people with a disability, including a skills assessment and recruitment and training programs to be offered	Chapters B9 Socio-Economic B9.3.10; Appendix AQ Economic Benefits Report; Chapter A1 Introduction A1.2;
7.2.1	Strategies for local participation	· strategies adopting relevant government policy, relatin to:	Chapters B9 Socio-Economic B9.3.10; Appendix AQ Economic Benefits Report; Chapter A1 Introduction A1.2;
7.2.1	Strategies for local participation	· the level of training provided for construction contracts on Queensland Government building and construction contracts, with regard to the Queensland Government Building and Constructuon Contracts Structured Training Policy - the 10 per cent training policy (Skills Queensland 2008)	Chapters B9 Socio-Economic B9.3.10; Appendix AQ Economic Benefits Report; Chapter A1 Introduction A1.2;

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7.2.1	Strategies for local participation	· Indigenous employment opportunities-the Indigenous Employment Policy for Queensland Government: Building and Civil Constructon Projects-the 20 per cent policy (Department of Employment, Economic Development and Innovation 2008a) could be adopted or its implementation measures used as a guide or tool for engaging Indigenous workers.	Chapters B9 Socio-Economic B9.3.5; Appendix AQ Economic Benefits Report; Chapter A1 Introduction A1.2;
8	Hazard and Risk		
8.1	Hazard and risk assessment	Describe the potential hazards and risks to people and property that may be associated with the project, which may include but are not restricted to:	Chapter B17 Hazard and Risk B17.3, B17.4
8.1	Hazard and risk assessment	· idenifying potential hazards, accidents, spillages, fire and abnormal events that may occur during all stages of the project, including possible risk of occurrence	Chapter B17 Hazard and Risk B17.3, B17.4
8.1	Hazard and risk assessment	· identify all hazardous substances to be used, stored, processed and produced and rate of usage. Include a description of the quantities and types of storage and handling systems and their location on a site plan	Chapter B17 Hazard and Risk B17.3, B17.4
8.1	Hazard and risk assessment	· uelling infrastructure for fuel, chemicals and hazardous materials	Chapter B17 Hazard and Risk B17.3, B17.4
8.1	Hazard and risk assessment	· identification of the defined flood event level and the relationship between that level and the local of bulk hazardous materials storage facilities in accordance with State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide (Department of Local Government and Planning and Department of Energency Services 2003)	Chapter B17 Hazard and Risk B17.3, B17.4
8.1	Hazard and risk assessment	· Identify the susceptibility of the project from flooding, potential impacts of the project on flooding to adjacent properties and the impact of the project on existing flood characteristics. The EIS should consider the specific outcomes of flood hazard management in State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide (Department of Local Government and Planning and Department of Emergency Services 2003).	Chapter B17 Hazard and Risk B17.3, B17.4
8.1	Hazard and risk assessment	· potential wildlife hazards, natural events (for example, cyclone, storm surge, flooding, bushfire) and implications related to climate change.	Chapter B17 Hazard and Risk B17.3, B17.4; Chapter B8.4
8.1	Hazard and risk assessment	Undertake a preiminart risk assessment for all components of the project, as Chapter of the EIS process in accordance with Australia/New Zealand AS/NZS ISO 31000:2009 Risk management-Principles and guidelines (Standards Australia/Standards New Zealand 2009) and Managing environment-related risk (HB203:2012) (Standards Australia 2012). Where relevant, er to the Queensland Coastal Plan Coastal Hazards Guideline (Department of Environment and Heritage Protection 2012c) risk assessment factors. With respect to risk assessment, the EIS must:	Chapter B17 Hazard and Risk B17.3, B17.4
8.1	Hazard and risk assessment	· deal comprehensively with external and on-site risks including transport risks	Chapter B17 Hazard and Risk B17.3, B17.4
8.1	Hazard and risk assessment	· assess risks during the pre-construction, construction, operational and decommissioning phases of the project	Chapter B17 Hazard and Risk B17.3, B17.4
8.1	Hazard and risk assessment	· include an analysis of the consequences of each hazard on safety in the project area, examining the likelihood of both individual and collective consequences, involving injuries and fatalities to workers and to the public	Chapter B17 Hazard and Risk B17.4
8.1	Hazard and risk assessment	· present quantitative levels of risks from the above analysis	Chapter B17 Hazard and Risk B17.4
8.1	Hazard and risk assessment	Provide details on the safeguards that would reduce the likelihood and severity of hazards, consequences and risks to persons, within and adjacent to the project area(s).	Chapter B17 Hazard and Risk B17.5
8.1	Hazard and risk assessment	Present a comparison of assessed and mitigated risks with acceptable risk criteria for land uses in and adjacent to the project area(s).	Chapters B17 Hazard and Risk B17.5, 17. 6
8.1	Hazard and risk assessment	Identify the residual risk following application of mitigation measures. Present an assessment of the overall acceptability of the impacts of the project in light of the residual uncertainties and risk profile.	Chapters B17 Hazard and Risk B17.5, 17. 6
8.1	Hazard and risk assessment	Describe the mitigation strategies for flood hazard.	Chapters B17 Hazard and Risk B17.5; B6 Water Resources B6.5 B6.6;

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8.2	Cumulative risk	The risk analysis is to address the potential impacts that may occur on the normal onsite day-to-day activities during the construction and/or operation of the facilities.	Chapter B17 Hazard and Risk B17.4; Chapter B18 Cumualtive Risk B18.2, B18.4, B18.5
8.2	Cumulative risk	Furthermore, determine the level of change that may result on the risk contours of other relevant existing or proposed facilities in the area as a result of the proposed project (where details of such proposed facilities are provided to the proponent by the Office of the Coordinator-General or otherwise published). 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 B17 Hazard and Risk B17.4; Chapter B18 Cumualtive Risk B18.2, B18.4, B18.5
8.2	Cumulative risk	Identify and adopt, where appropriate, any changes to operating procedures that would reduce the possibility of these events occurring, or reduce the severity of the events should they occur. Present draft risk management plans for the construction and operational phases of the project.	Chapter B17 Hazard and Risk B17.4; Chapter B18 Cumualtive Risk B18.2, B18.3, B18.4, B18.5,B18.6
8.3	Health and safety		
8.3.1	Description of public health and safety community values	Describe the existing health and safety values of the community, workforce, suppliers and other stakeholders in terms of the environmental factors that can affect human health, public safety and quality of life, such as air pollutants, odour, lighting and amenity, dust, noise and water.	Chapters B17 Hazard and Risk B17.3; B11 Air Quality B11.3; B10 Noise and Vibration B10.3; B6 Water Resources B6.3
8.3.2	Potential impact and mitigation measures	Define and describe the objectives and practical measures for protecting or enhancing health and safety community values. Describe how nominated quantitative standards and indicators may be achieved for social impact management, and how the achievement of the objectives will be monitored, audited and managed.	Chapters B17 Hazard and Risk B17.5; B11 Air Quality B11.5; B10 Noise and Vibration B10.5; B6 Water Resources B6.5 ; Chapter C - Management Plans
8.3.2	Potential impact and mitigation measures	Assess the cumulative effects on public health values and occupational health and safety impacts on the community, workforce and regional health services from project operations and emissions including tourist visitors from cruise ships. Recommend any practical monitoring regimes in this section	Chapter B17 Hazard and Risk B17.5; Chapter B18 Cumulative Impacts B18.4,B18.5
8.3.2	Potential impact and mitigation measures	Include relevant consultation with the appropriate regional health service providers.	Appendix E Stakeholder and Community Engagement Report
8.4	Emergency management plan	The development of emergency and evacuation planning and response procedures is to be determined in consultation with state and regional emergency service providers.	Chapters B17 Hazard and Risk B17.5 ; Chapter C - Management Plans
8.4	Emergency management plan	Provide an outline of the proposed integrated emergency management planning procedures (including evacuation plans) for the range of situations identified in the risk assessment developed in this section. The plans are to provide for fire fighting infrastructure for the life of the project and take into account uelling infrastructure.	Chapters B17 Hazard and Risk B17.5 ; Chapter C - Management Plans
8.4	Emergency management plan	This includes strategies to deal with natural disasters during operation and construction including identification of key stakeholders.	Chapters B17 Hazard and Risk B17.5 ; Chapter C - Management Plans
8.4	Emergency management plan	Present preliminary information 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	Chapters B17 Hazard and Risk B17.5 ; Chapter C - Management Plans; Future Contractors Management Plans
8.4	Emergency management plan	· marine collision minimisation	Chapter C4 Maritime Operations Management Plan & C2. Dredge Management Plan C2.9
8.4	Emergency management plan	· fire prevention/protection	Chapter B17 Hazard and Risk B17.5, B17.6
8.4	Emergency management plan	· leak detection/minimisation	Chapter B17 Hazard and Risk B17.5, B17.6
8.4	Emergency management plan	· release of contaminants	Chapter B17 Hazard and Risk B17.5, B17.6
8.4	Emergency management plan	· emergency shutdown systems and procedures	Chapter B17 Hazard and Risk B17.5, B17.6
8.4	Emergency management plan	· natural disasters	Chapter B17 Hazard and Risk B17.5, B17.6

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8.4	Emergency management plan	If the proposed design and operation systems required are outside the scope of relevant standards or codes, a fire study is to be undertaken to ensure adequate levels of protection are in place.	Chapter B17 Hazard and Risk B17.5 outlines management strategies. Given the nature of the works however, a fire study is not considered necessary.
8.4	Emergency management plan	In addition, undertake an assessment of businesses that may be affected in the event of an emergency, including strategies to mitigate the impact on these businesses.	Chapter B17 Hazard and Risk B17.5
8.4	Emergency management plan	In regard to fires, outline strategies to manage the provision of:	Chapter B17 Hazard and Risk B17.5
8.4	Emergency management plan	· fire management systems to ensure the retention on site of fire water or other fire suppressants used to combat emergency incidents	Chapter B17.5 Hazard and Risk B17.3 ; C3 Vessel Transport Management Plan and C4 Maritime Operations Management Plan
8.4	Emergency management plan	· building fire safety measures for any construction or permanent accommodation	Chapter B17.5 Hazard and Risk B17.3 ; C3 Vessel Transport Management Plan and C4 Maritime Operations Management Plan
8.4	Emergency management plan	· details of any emergency response plans and bushfire mitigation plans under the State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and	Chapter B17.5 Hazard and Risk B17.3 ; C3 Vessel Transport Management Plan and C4 Maritime Operations Management Plan
8.4	Emergency management plan	· Landslide (Department of Local Government and Planning & Department of Emergency Services 2003)	Chapter B17.5 Hazard and Risk B17.3 ; C3 Vessel Transport Management Plan and C4 Maritime Operations Management Plan
8.4	Emergency management plan	· on-site fire fighting equipment provided and the level of training of staff who will be tasked with emergency management activities	Chapter B17.5 Hazard and Risk B17.3 ; C3 Vessel Transport Management Plan and C4 Maritime Operations Management Plan
8.4	Emergency management plan	· detailed maps showing the plant outline, potential hazardous material stores, incident control points, fire fighting equipment and the like.	Chapter B17.5 Hazard and Risk B17.3 ; C2 CEMP; C3 Vessel Transport Management Plan and C4 Maritime Operations Management Plan
8.4	Emergency management plan	· an outline of any dangerous goods stores associated with the plant operations, including fuel storage and emergency response plans.	Chapter B17.5 Hazard and Risk B17.3 ; C2 CEMP; C3 Vessel Transport Management Plan and C4 Maritime Operations Management Plan
8.4	Emergency management plan	Present outlines of emergency planning and response strategies to deal with relevant incidents above, which have been determined in consultation with state and regional emergency service providers, and which show integration of emergency services into the plans.	Chapter B17 Hazard and Risk B17.5; Chapter C - Management Plans
8.4	Emergency management plan	Present plans for emergency medical response and transport and first aid matters with involvement of the relevant state agencies (such as the Queensland Ambulance Service, Queensland Fire and Rescue Service and Emergency Management Queensland).	Chapter B17 Hazard and Risk B17.5
9	Cumulative impacts	Summarise the project's cumulative impacts and describe these impacts in combination with those of existing or proposed project(s) publicly known or advised by the office of the Coordinator-General to be in the region, to the greatest extent practicable. Assess cumulative impacts with respect to both geographic location and environmental values. In particular, address cumulative impacts in sensitive environmental areas identified in Section 5.4.1 of this TOR (er to page 26).	Chapter B18 Cumulative Impacts Assessment B18.3. Chapters B2, B5 and B8 outline potential impacts on sensitive environmental areas.
9	Cumulative impacts	Explain the methodology used to determine the cumulative impacts of the project, detailing the range of variables considered (including relevant baseline or other criteria upon which the cumulative aspects of the project have been assessed, where applicable).	Chapter B18 Cumulative Impacts Assessment B18.2
10	Sustainable development	Provide a comparative analysis of how the project conforms to the objectives for 'sustainable development'—see the National Strategy for Ecologically Sustainable Development (Commonwealth of Australia 1992).	B18, Cumulative Impacts Assessment B18.2, B18.4- B18.6
10	Sustainable development	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.	Executive Summary, Chapter A1 Introduction A1.1; Project Background Chapter A2.5; B18, Cumulative Impacts Assessment B18.4- B18.6

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10	Sustainable development	This information is required to demonstrate that sustainable development aspects have been considered and incorporated during the scoping and planning of the project.	Chapter A1 Introduction A1.1 , B18, Cumulative Impacts Assessment
11	Environmental management plan	Detail the EMPs for the construction and operational phases of the project. The EMP should be developed from, and be consistent with, the information in the EIS. The EMP must meet the requirements of section 203 of the EP Act, address discrete project elements and provide life-of-proposal control strategies. It must be capable of being read as a stand-alone document without erence to Chapters of the EIS.	Chapter C1, CEMP; C2, Dredge Management Plan; C3 Vessel Transport Management Plan; C4 Maritime Operations Management Plan
11	Environmental management plan	The EMP must comprise the following components for performance criteria and implementation strategies:	
11	Environmental management plan	· the proponent's commitments to acceptable levels of environmental performance, including environmental objectives, performance standards and associated measurable indicators, performance monitoring and reporting	Chapter C1 CEMP C1.7; C2 Dredge Management Plan C2.9 ; C3 Maritime Operations Management Plan C3.4
11	Environmental management plan	· impact prevention or mitigation actions to implement the commitments	Chapter C1 CEMP C1.7; C2 Dredge Management Plan C2.9 ; C3 Maritime Operations Management Plan C3.4
11	Environmental management plan	· corrective actions to rectify any deviation from performance standards	Chapter C1 CEMP C1.7; C2 Dredge Management Plan C2.9 ; C3 Maritime Operations Management Plan C3.4
11	Environmental management plan	· an action program to ensure the environmental protection commitments are achieved and implemented. This will include strategies in relation to:	Chapter C1 CEMP C1.7; C2 Dredge Management Plan C2.9 ; C3 Maritime Operations Management Plan C3.4
11	Environmental management plan	– continuous improvement	Chapter C1 CEMP C1.7; C2 Dredge Management Plan C2.9 ; C3 Maritime Operations Management Plan C3.4
11	Environmental management plan	– environmental auditing	Chapter C1 CEMP C1.7; C2 Dredge Management Plan C2.9 ; C3 Maritime Operations Management Plan C3.4
11	Environmental management plan	– monitoring	Chapter C1 CEMP C1.7; C2 Dredge Management Plan C2.9 ; C3 Maritime Operations Management Plan C3.4
11	Environmental management plan	– reporting	Chapter C1 CEMP C1.7; C2 Dredge Management Plan C2.9 ; C3 Maritime Operations Management Plan C3.4
11	Environmental management plan	– staff training	Chapter C1 CEMP C1.7; C2 Dredge Management Plan C2.9 ; C3 Maritime Operations Management Plan C3.4
11	Environmental management plan	– where relevant, a rehabilitation program for land proposed to be disturbed under each relevant aspect of the proposal.	Chapter C1 CEMP C1.7; C2 Dredge Management Plan C2.9 ; C3 Maritime Operations Management Plan C3.4

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Ports North

CAIRNS SHIPPING DEVELOPMENT PROJECT

Revised Draft Environmental Impact Statement

Commonwealth Guidelines Checklist

Commonwealth Guideline TOR		TOR	CHAPTER
5.1	Executive Summary	An executive summary that outlines the key findings of the EIS must be provided. The executive summary must briefly	Executive Summary
5.1	Executive Summary	a) State the background and the need for the proposal;	Executive Summary
5.1	Executive Summary	b) Discuss alternatives and the reasons for selecting the preferred option and rejecting the alternatives;	Executive Summary
5.1	Executive Summary	c) Summarise the pre-construction, construction, operational activities and any decommissioning associated with putting the proposal into practice;	Executive Summary
5.1	Executive Summary	d) State the proposed schedule for each key component of the proposal, the relationships and interdependencies between each stage, the expected duration of each stage and the proposal as a whole;	Executive Summary
5.1	Executive Summary	e) Provide an overview of the existing regional and local environments, summarising the features of the physical, biological, social, cultural and economic environment relating to the proposal and associated activities;	Executive Summary
5.1	Executive Summary	f) Summarise stakeholder consultation undertaken in preparing the EIS;	Executive Summary
5.1	Executive Summary	g) Describe the expected, likely and potential impacts of the proposal on matters of National Environmental Significance and Commonwealth land, the physical, biological, social, cultural and economic environment during pre- construction, construction, operational and post-operational phases;	Executive Summary
5.1	Executive Summary	h) Summarise the environmental protection measures and safeguards, mitigation measures, offsets and monitoring to be implemented for the proposal; and	Executive Summary
5.1	Executive Summary	i) Provide an outline of the environmental record of the proponent.	Executive Summary
5.2	Objective	The objectives of the EIS must be clearly stated and include specific reference to EPBC Act and GBRMP Act legislative requirements.	Part A1 Project Introduction A1.4, A1.5 and A1.6; A3.1
5.3	General Information	The EIS is to provide the background of the proposed development. This is to include: a) The title of the proposal;	Part A1 Project introduction A1.1
5.3	General Information	b) The full name and postal address of the designated proponent;	Part A1 Project introduction A1.3
5.3	General Information	c) A clear outline of the proposal	Part A1 Project introduction A1.1 and Part A3.1-3.4 Project Description
5.3	General Information	d) The location of the proposal;	Part A1 Project introduction A1.1
5.3	General Information	e) The background to the development of the proposal;	Part A1 Project introduction A1.1 and A2.1- A2.8
5.3	General Information	f) How the proposal relates to/relies on any other developments (of which the proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region;	Part B18 Cumulative Impacts B18.3, B18.6
5.3	General Information	g) The current status of the proposal;	Part A1 Project introduction A1.1 and A3.1
5.3	General Information	h) Prudent and feasible alternatives to the proposed action, including scale, configuration and staging options;	Part A1 Project introduction A1.3
5.3	General Information	I) The consequences (to the proponent and the environment) of not proceeding with the proposal or components of the proposal and/or the consequences of other projects (that this action relies upon) not proceeding;	Part A1 Project introduction A1.3
5.3	General Information	J) a brief explanation of the scope, structure and legislative basis of the EIS	Part A1 Project introduction A1.1, A2.1, A2.4 Project Background & A4 Legislation and Approvals;

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5.3	General Information	k) The specific EPBC Act and GBRMP Act matters affected by the proposal; and	Part A1 Project introduction A4 Legislation and Approvals
5.3	General Information	l) A description of government planning policies, statutory controls and agreements which will influence the proposal. All applicable jurisdictions and areas of responsible authorities within the area (both terrestrial and marine) must be listed and shown on maps at appropriate scales.	Part A1 Project introduction A1.1, provides an overview, with a detailed description of all relevant policies contained in A4 (Legislation and Approvals); Part B2 Nature Conservation Areas provides an overview of nature conservation values (terrestrial and marine) shown on maps.
5.4	Proposal Description	This section must describe the proposal in sufficient detail to allow an understanding of all stages (including interdependencies between stages) and components of the proposal, and determine potential environmental impacts associated with the proposal. Those elements with potential implications for matters protected under Part 3 of the EPBC Act must be highlighted.	Part A3 Project Description and B19.5- B19.19 EPBCA
5.4	Proposal Description	All pre-construction, construction, operational and decommissioning stages (short and long term) must be described in detail. This includes, but is not limited to, the date or time period over which construction will take place, details of the locations of each component of the proposal (i.e. the precise location (including GPS coordinates) of all works to be undertaken and/or the footprint area(s)), dimensions of structures/vessels to be built and materials, equipment to be used as well as construction access requirements, lay down/set down areas and elements of the action that may have impacts on matters of National Environmental Significance and Commonwealth land	Part A3 Project Description A3.2 to A3.4
5.4	Proposal Description	discussion of the assumptions underlying the predicted operation of the proposal and associated changes in the activities undertaken in the surrounding environment must be provided. Details of proposed preventative measures including monitoring and enforcement programs to help limit the impacts of the ongoing operations on matters of National Environmental Significance and Commonwealth land must also be addressed.	Part A3 Project Description, A3.1 to A3.4 provides a description of activities. Proposed preventative measures are detailed in each technical chapter (Part B) and also in each management plan (Part C) which details monitoring and enforcement in particular.
5.5	Project Details	a) The environmental principles on which the development will be managed;	Part C of the EIS contains detailed Management Plans. This includes C1 (Environmental Management Plan), C2 (Dredge Management Plan), C3 (Vessel Traffic Management Plan) and C4 (Maritime Operations Management Plan).
5.5	Project Details	b) All the components of the proposal including:	
5.5	Project Details	i. Site selection including the choice of region for the project and site within that region, an analysis of prudent and feasible alternative sites and why this site is likely to have the least impact on matters of National Environmental Significance and Commonwealth land;	Part A1 Project Introduction A1.3, Project Background A2.5- A2.7
5.5	Project Details	Describe all feasible, environmental, economic alternative site options for the proposal (e.g. through a multi-criteria analysis);	Part A1 Project Introduction A1.3, and Part A2.6-A2.7 Project Background
5.5	Project Details	iii. Development options, including an explanation of prudent and feasible alternatives;	Part A1 Project Introduction A1.3, and Part A2.6-A2.7 Project Background

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5.5	Project Details	iv. Associated permanent and temporary infrastructure, including transport networks/corridors (both land, estuarine and marine); anchoring and mooring structures, including any vessel cyclone moorings;	Part A3 Project Description A3.2 to A3.4 and Part B14 Transport B14.3
5.5	Project Details	v. All construction activities, including dredging and dredged material disposal requirements and an explanation of required engineering processes; vi. Any decommissioning activities, including an explanation of required engineering processes; vii. Operation, including details of the expected vessel numbers for each stage of the proposed development; viii. Related maintenance activities, both long and short term, including dredging and dredged material disposal requirements; and ix. Decommissioning.	Part A3 Project Description A3.2 to A3.4
5.5	Project Details	c) Describe the local and regional economic, social and built context, including historical and future trends (e.g. Australian Bureau of Statistics and Great Barrier Reef Outlook Report 2009), in which this project is proposed;	Part A1 Project Introduction A1.4 and Part B9.2.3; B9.2.6,B9.3.5, Socio Economic Assessment
5.5	Project Details	Future development areas that are currently “greenfield” in the region and the likely nature and timing of development, (including but not limited to strategic port development lands, state development areas);	Part B18 Cumulative Impacts B18.3
5.5	Project Details	e) Describe the overall planning context in which the proponent’s decisions for this project have been made (including the overarching plan in which this project sits within);	Part A1 Project Introduction A1.7 and Part A4, Legislation and Approvals
5.5	Project Details	f) A detailed description of social and economic impacts and drivers for the proposal;	Part A9, Socio-Economic Assessment
5.5	Project Details	g) The precise location of works to be undertaken (including specific footprint area(s)), structures to be built or other elements of the proposal that may have impacts on the environment. Aerial photographs, maps, figures and diagrams must be incorporated where appropriate;	Part A3 Project Description A3.2 to A3.4
5.5	Project Details	h) A general location map that includes the location of other known or potential future developments occurring in and around the Port of Cairns;	Part B18 Cumulative Impacts B18.3
5.5	Project Details	i) The following maps and figures must be provided in relation to the Great Barrier Reef Marine Park and Great Barrier Reef World Heritage Area:	Part B18 Cumulative Impacts B18.3
5.5	Project Details	i. A detailed map showing the boundary of the Great Barrier Reef Marine Park and Great Barrier Reef Coast Marine Park, including the Great Barrier Reef Zoning for Cairns Zoning Map MPZ 5 in relation to the proposed	Part B2 Nature Conservation Values B2.3
5.5	Project Details	development footprint of the project, including the dredge footprint, offshore dredged material disposal ground, and other components of the project. This map or figure must include an explanation of the basis for the zoning in this area;	Part A3 Project Description A3.2 to A3.4
5.5	Project Details	ii. Detailed maps showing Fish Habitat Areas, areas described in the Queensland Coastal Plan 2012, seagrass areas, acid sulphate soil areas, storm surge and tidal inundation areas;	Part B2 Nature Conservation Values B2.3 and Part B7 marine Ecology B7.3
5.5	Project Details	iii. Detailed maps showing wetlands, including wetlands of national importance;	Part B2 Nature Conservation B2.3
5.5	Project Details	iv. Detailed maps showing the presence of any at-risk habitats, species and groups of species as identified in the Draft Great Barrier Reef Biodiversity Conservation Strategy 2012;	Part B7 Marine Ecology B7.3
5.5	Project Details	v. A map showing the location of the proposal in relation to the Great Barrier Reef World Heritage Area and National Heritage place;	Part B2 Nature Conservation Values B2.3; Part A1.1
5.5	Project Details	vi. A map showing shipping lanes within the Great Barrier Reef Marine Park and Great Barrier Reef World Heritage Area in relation to the project footprint as described in (i); and	Part B2 Nature Conservation Values B2.3 and Part C4 Maritime Operations Management Plan

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5.5	Project Details	vii. Simulated viewfields of the proposal (including Trinity Inlet infrastructure and operations within the Great Barrier Reef World Heritage Area) showing its visual impact from various aspects including the adjacent coastline, nearby inhabited islands, and offshore.	Part B12 Visual Amenity B12.4
5.5	Project Details	j) Reference must be made to detailed technical information in appendices where relevant;	Appendices - various technical information is located in the Appendices section where relevant.
5.5	Project Details	k) How the works are to be undertaken and design parameters for all aspects of the structures or elements of the proposal. This must include:	see below
5.5	Project Details	i. An explanation of the anticipated timetable for pre-construction activities, construction, operation and any decommissioning;	Part A1 Project Introduction A1.1 ;Part A3 A3.1.3
5.5	Project Details	ii. Details of construction and operational equipment to be used;	Part A3 Project Description A3.2 to 3.4
5.5	Project Details	iii. Details of the environmental parameters (incorporating predictions of climate change and 'worst case scenarios') the structures are designed to withstand, based on the expected life of assets; and	Part B16 Climate Change and Greenhouse Gases B16.6
5.5	Project Details	iv. A summary of the design aspects that will be employed to minimise impacts on environmental, social, cultural and heritage values.	Part A3 Project Description A3.1 to A3.4; Part A2.5 Project Background ; B2.8 to B2.9 and Executive Summary; Impact mitigation sections of each Part B Chapter
5.6	Matters of NES and the Commonwealth Environment	In relation to matters of National Environmental Significance and Commonwealth land listed as controlling provisions for the proposal, an inventory of surveys, whether office-based or fieldbased, must be provided. These may be provided as appendices, but must at least be fully referenced and must be made publicly available. Any anticipated future surveys to be conducted in relation to matters of National Environmental Significance and Commonwealth land, whether office-based or field-based, must also be	Part B - A number of both office-based and field-based surveys have been undertaken. These are detailed in the methodology section of each technical chapter (Part B).
5.6	Matters of NES and the Commonwealth Environment	Output from the protected matters search tool (accessible from DSEWPaC's website) must be also included as an appendix. The results, indicating the presence of matters of National Environmental Significance and Commonwealth land, must also be provided. Any species or values considered likely or known to occur in areas impacted by the controlled action must be addressed. The description of matters of National Environmental Significance and Commonwealth land must focus on, but not be limited to the following controlling provisions:	Part B B19, Appendix BD; Relevant MNES are as described below.
5.6	Matters of NES and the Commonwealth Environment	a) World Heritage Properties (sections 12 & 15A);	Part B Nature Conservation Areas B2; Part B Terrestrial Ecology B8.3, B8.6; EPBCA B19 EPBCA B19.6 to B19.10
5.6	Matters of NES and the Commonwealth Environment	b) National Heritage Places (sections 15B & 15C);	Part B Nature Conservation Areas B2; Part B Terrestrial Ecology B8.3, B8.6; EPBCA B19 EPBCA B19.6 to B19.10
5.6	Matters of NES and the Commonwealth Environment	c) Listed threatened species and ecological communities (sections 18 & 18A);	Part B8 Terrestrial Ecology B8.4, 8.5, 8.6 and 8.7 and Part B7 Marine Ecology B7.3 and B7.4
5.6	Matters of NES and the Commonwealth Environment	d) Listed migratory species (sections 20 & 20A);	Part B8 Terrestrial Ecology B8.4, 8.5, 8.6 and 8.7 and Part B7 Marine Ecology B7.3 and B7.4

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5.6	Matters of NES and the Commonwealth Environment	e) Commonwealth marine areas (sections 23 & 24A);	Part B2 Nature Conservation B2.3 and B2.4
5.6	Matters of NES and the Commonwealth Environment	f) Great Barrier Reef Marine Park (sections 24B & 24C); and	Part B2 Nature Conservation B2.3 and B2.4; B19.17
5.6	Matters of NES and the Commonwealth Environment	g) Commonwealth land (sections 26 & 27A).	Part B2 Nature Conservation B2.3 and B2.4; B19.16
5.7	Alternatives to the proposal	This section must describe, to the extent reasonably practicable, any prudent and feasible alternatives to the proposal. For each alternative listed the proponent should provide the project details, impacts (positive and negative), location, scale, configuration and staging options. Sufficient detail must be provided to make clear why any alternative is preferred to another. This section must describe, but not be limited to the following:	see below
5.7	Alternatives to the proposal	a) The alternative of taking no action or not proceeding with components of the proposal;	Part A1.3
5.7	Alternatives to the proposal	b) Potential alternative locations for all components of the proposal, as well as different components of the proposal;	Part A1.3
5.7	Alternatives to the proposal	c) Potential alternative configuration or scale options for key components of the proposal;	Project Background Part A2 A2.5 to A2.7
5.7	Alternatives to the proposal	d) Describe options for integrating operations with existing infrastructure where they exist to mitigate impacts on the general environment, ecosystems and matters of National Environmental Significance and Commonwealth land;	Project Background Part A2 A2.5 to A2.7
5.7	Alternatives to the proposal	e) A comparative description of the adverse and beneficial impacts of the development as a whole, each component of the development, and location on the matters protected by the controlling provisions for the proposal;	Executive Summary, Part B B19
5.7	Alternatives to the proposal	f) A description of how each stage would be affected if one or more of the stages does not occur or is significantly modified;	Introduction Part A1.3 Project Background A2.6, A2.7
5.7	Alternatives to the proposal	g) A description of how each component would be affected if one or more of the components does not occur or is significantly modified;	Introduction Part A1.3 Project Background A2.6, A2.7
5.7	Alternatives to the proposal	h) The reasons for choosing the preferred location and option for the development as a whole, and each key component of the proposal, must be explained. The explanation must include a comparison of the adverse and beneficial effects used for selecting the preferred location and option, and compliance with the objectives of the EPBC Act and GBRMP Act (including the principles of ecologically sustainable development and use);	Part A1.3 Project Introduction; A2.5 to A2.8
5.7	Alternatives to the proposal	i) The advantages and disadvantages of alternatives when considered against relevant matters protected under the EPBC Act and GBRMP Act, including critical issues identified in the Great Barrier Reef Outlook Report 2009, must be specifically addressed; and	Part A1.3;Project Background A2.5 to A2.8; Part B B19.2, B19.5 to B19.19
5.7	Alternatives to the proposal	j) Short, medium and long-term advantages and disadvantages of the options must be considered.	Part A Project Background A2.5 to A2.8; Part B B18

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5.8	Consultation	The proponent is required to consult with all stakeholders including Traditional Owners, with a particular focus on individuals/sectors that may be affected by the proposal (affected parties), as part of the EIS process. Details of any consultation about the action must be provided. This is to include:	see below
5.8	Consultation	a) Any consultation that has already taken place including details on the frequency, forum and timeframes provided for consultation;	Part B9 Socioeconomic Assessment B9.2.4 and B13.2.5, 13.3.3; Appendix E Stakeholder and Community Engagement Report
5.8	Consultation	b) Identification of affected parties, including a statement mentioning any individuals/sectors/ communities that may be affected and a summary of their views;	Part B9 Socioeconomic Assessment B9.2.4 and B13.2.5, 13.3.3; Appendix E Stakeholder and Community Engagement Report
5.8	Consultation	c) Proposed consultation about relevant impacts of the action;	Part B9 Socioeconomic Assessment B9.2.4 and B13.2.5, 13.3.3; Appendix E Stakeholder and Community Engagement Report
5.8	Consultation	d) If there has been consultation about the proposed action, details of the issues discussed, including the views of the affected parties and any documented response to, or result of, the consultation;	Part B9 Socioeconomic Assessment B9.2.4 and B13.2.5, 13.3.3; Appendix E Stakeholder and Community Engagement Report
5.8	Consultation	e) Details on how affected parties comments received during consultations have been addressed in the EIS; and	Part B9 Socioeconomic Assessment B9.2.4 and B13.2.5, 13.3.3; Appendix E Stakeholder and Community Engagement Report
5.8	Consultation	f) Any further proposed consultation about potential impacts of the action.	Part B9 Socioeconomic Assessment B9.2.4 and B13.2.5, 13.3.3; Appendix E Stakeholder and Community Engagement Report
5.9	The Existing Environment	This section must provide a description of the project area including baseline condition and trends of coastal, terrestrial and marine environments, including hydrology, sediment characteristics, sediment flows, geography, flora and fauna, cultural and heritage values, and all relevant socio-economic considerations. This section must link to the proposal description, potential impacts, and proposed avoidance, mitigation, adaptive management framework and/or offset measures throughout the life of the project including pre-construction, construction, operation, and any decommissioning. This section is to also identify and reference any relevant (published and unpublished) studies undertaken in the area which will assist in describing patterns and trends in the environment.	Each technical chapter contains a description of the baseline, potential impacts and mitigation measures relevant to the topic. i.e. Chapter B8, Terrestrial Ecology provides a description of the terrestrial ecology baseline, proposed impacts and mitigation measures. A summary is located in the Executive Summary for the project.
5.9	The Existing Environment	The section must include a description of the environment of the proposal site and the surrounding areas that may be affected by the action. This must include the following information:	
5.9	The Existing Environment	a) Any listed threatened and/or migratory species and ecological communities that are likely to be present in the vicinity of the site (including but not limited to sawfish, marine turtles, inshore dolphins (including Australian Snubfin Dolphin, Orcaella heinsohni), cetaceans, dugong, migratory birds and shore birds, Broad leaf tea-tree (Melaleuca viridiflora) woodlands in high rainfall coastal north Queensland, and Littoral Rainforest and Coastal Vine Thickets of Eastern Australia);	Part B7 Marine Ecology B7.3 and Part B8 Terrestrial Ecology B8.3-B8.7

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5.9	The Existing Environment	b) At a minimum the following details must be included: i. Details of the scope, timing (survey season/s) and methodology for studies or surveys used to provide information on the listed species/community/habitat at the site (and in areas that may be impacted by the project); and ii. Include a summary of the location, size and breeding status of threatened and migratory species listed under the EPBC Act which are likely to occur in the area affected by the proposal.	Part B Terrestrial Ecology B8.2 to B8.4; Marine Ecololgy B7.2, B7.3; EPBCA B19.2 to B19.5, B19.20
5.9	The Existing Environment	c) Information on listed ecological communities, threatened and migratory species, including foraging, roosting, resting and nesting habitats, must include but not be limited to:	Part B7 Marine Ecology B7.3 and B8 Terrestrial Ecology B8.3 -B 8.4
5.9	The Existing Environment	i. Describe and map critical habitat for threatened species, ecological communities and migratory species; ii. The importance of habitat (including habitat utilisation) in a local, regional, national and international context; iii. The status of the population (e.g. abundance) in the area likely to be affected by the proposed development relative to other areas outside the area likely to be affected; iv. Genetic diversity; v. The viability of the local, regional and overall populations; vi. Local and regional representation; vii. Conservation and biodiversity values; viii. Economic, social and cultural values of species; ix. The extent (in hectares) of any areas of important or unique habitat; and x. Seasonal influences.	Part B7 Marine Ecology B7.3 and B7.4 and B8 Terrestrial Ecology B8.3 and b8.4
5.9	The Existing Environment	d) Identify the desired conservation outcomes that the project has for matters of National Environmental Significance;	Part B EPBCA B19.1 B19.3 and B19.4
5.9	The Existing Environment	e) Describe the biophysical/regional conditions that are required for matters of National Environmental Significance and Commonwealth land to be maintained and that are required to reach articulated conservation objectives for matters of National Environmental Significance;	Part B7 Marine Ecology B7.3 and B8 Terrestrial Ecology B8.4 to B8.6; EPBCA B19.4 to B19.20
5.9	The Existing Environment	f) Identify factors that influence matters of National Environmental Significance and Commonwealth land including human-induced and natural factors (e.g. climate change, cyclones, flooding);	Part B7 Marine Ecology B7.3
5.9	The Existing Environment	g) Describe and quantify natural variability of matters of National Environmental Significance and Commonwealth land where adequate data is available or can be sourced;	Each technical Chapter in Part B of the EIS provides a description relevant to the topic.
5.9	The Existing Environment	h) Describe the extent to which the general environment, ecosystems and matters of National Environmental Significance and Commonwealth land are already stressed by natural and anthropogenic effects;	Part B7 Marine Ecology B7.3 and B8 Terrestrial Ecology B8.3; B19.18
5.9	The Existing Environment	i) A description of the World Heritage and National Heritage values of the Great Barrier Reef World Heritage Area and National Heritage place relevant to the action;	Part B EPBCA B19.3 to B19.20
5.9	The Existing Environment	j) A description of the Commonwealth land environment and identification of those aspects of the Commonwealth land environment potentially affected by the proposal;	Part B1 Land; EPBCA B19.3, B19.4
5.9	The Existing Environment	k) A description of the Commonwealth marine environment and identification of those aspects of the Commonwealth marine area potentially affected by the proposal, including but not limited to baseline data on listed threatened species, migratory species and marine species and any other species of conservation significance, including cetaceans;	Part B19 EPBCA B19.6- B19.20
5.9	The Existing Environment	l) Description of biota/biotic habitats, including a map of marine/intertidal habitats (including information on seasonal fluctuations e.g. seagrass prevalence), likely to be affected by the proposed development;	Part B7 Marine Ecology B7.3; EPBCA 19.4
5.9	The Existing Environment	m) A description of important wetlands in the area, particularly Wetlands of National Importance;	Part B7 Marine Ecology B7.3; EPBCA 19.4

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5.9	The Existing Environment	n) A description of the at-risk species, groups of species and/or habitats as identified by the Draft Great Barrier Reef Biodiversity Conservation Strategy 2012 that are likely to be affected by the proposed development;	Part B7 Marine Ecology B7.3; EPBCA 19.4
5.9	The Existing Environment	o) Identify, describe and map environments important to the health of the Great Barrier Reef Marine Park, including terrestrial and intertidal habitats (including but not limited to internesting habitat of marine turtles and habitat for inshore dolphin species) that are likely to be affected by the proposed development;	Part B7 Marine Ecology B7.3; EPBCA 19.4
5.9	The Existing Environment	p) Identify, describe and map reef communities and those species supported by the reef communities in areas likely to be affected by the proposed development, including information on species diversity and abundance;	Part B7 Marine Ecology B7.3; EPBCA 19.4
5.9	The Existing Environment	q) Identify, describe and map seagrass communities in areas likely to be affected by the proposed development, including information on species diversity, seasonality and abundance;	Part B7 Marine Ecology B7.3; EPBCA 19.4
5.9	The Existing Environment	r) Identify, describe and map soft sediment fauna communities (e.g. infauna, benthic invertebrates) in areas likely to be affected by the proposed development, including information on species diversity, seasonality and abundance;	Part B7 Marine Ecology B7.3; EPBCA 19.4
5.9	The Existing Environment	s) Describe oceanographic conditions in the region, especially those which may have a bearing on the proposal. Include information on seasonal variation, waves, tides, currents, water salinity, clarity, temperature and depths. Discuss the frequency and severity of weather conditions such as storms and cyclones, for two, ten and 100 year conditions; and	Part B Coastal Processes B8.3
5.9	The Existing Environment	t) Identify and describe the existing uses of the area and nearby areas that may be affected by the proposed action (e.g. tourism, commercial and recreational fishing, research and traditional use activities), including any amenity issues.	Part B1 Land B1.3 and Part B9Socio-economic Assessment B9.2.6; B9.3.5
5.9	The Existing Environment	All habitat maps must be produced at a sufficiently fine scale and as accurately as possible, considering their primary purpose and end use. (For example; to evaluate habitat loss and inform locations of monitoring and reference sites).	Noted.
5.9.1	Socio-Economic and Cultural Environment	Discussion of the socio-economic and cultural environment must provide (however should not be limited to):	
5.9.1	Socio-Economic and Cultural Environment	a) Baseline demographic information of the affected communities (e.g. from Australian Bureau of Statistics, Queensland Office of Economic and Statistical Research, Bureau of Rural Sciences) and a detailed description of all stakeholders, together with key social, economic and cultural issues related to the proposal (from community and stakeholder perspectives);	Part B9 Socio-economic Assessment B9.2.6; B9.3.6; Cultural Heritage B13.3
5.9.1	Socio-Economic and Cultural Environment	b) A description of all historical, current and projected types of use and users, including patterns and trends in use, of the development area and Great Barrier Reef Marine Park zones. Include a discussion of scientific research, commercial and non-commercial tourism, commercial, traditional and recreational fishing activities as well as non-fishing recreational activities;	Part B1 Land B1.3
5.9.1	Socio-Economic and Cultural Environment	c) A description of local, State and Australian Government planning policies and statutory controls which will influence the project, surrounding areas of future, planned and current use. All applicable jurisdictions and areas of responsible authorities within the area must be listed and shown on maps at appropriate scales;	Part B1 Land B1.2

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5.9.1	Socio-Economic and Cultural Environment	d) A description of any places with known or anticipated heritage, social or cultural values (including any Traditional Use of Marine Resource Agreements), such that they have been recognised with listing or recording under relevant State or Commonwealth legislation or are anticipated to be listed under such legislation;	Part B1 Land B1.3 and Part B13 Cultural Heritage B13.4
5.9.1	Socio-Economic and Cultural Environment	e) Information on the location (past and present considering sea level rise) and importance of sites and features of cultural significance, including anthropological and archaeological sites or features of significance to the Traditional Owners in of the area. A description of how these sites and features were identified must be provided; and	Part B13 Cultural Heritage B13.3
5.9.1	Socio-Economic and Cultural Environment	f) A description of the Native Title status of the area in relation to the land and surrounding waters.	Part B13 Cultural Heritage B13.3
5.1	Relevant Impact of the Proposed Action	The EIS must include a description of all of the relevant impacts4 of the action. Relevant impacts (both direct and indirect) are impacts that the action will have or is likely to have on a matter protected by a controlling provision (as listed in the preamble of this document). This section must provide clear linkages with the existing environmental values described in section 5.9 and proposed avoidance, safeguards, management and mitigation measures described in section 5.11. Impacts during all phases of the project must be addressed. This section must include:	Noted.
5.1	Relevant Impact of the Proposed Action	a) A description of the framework used to assess impacts, including risk assessment processes based on an approved standard;	Part A1 Project Introduction A1.7
5.1	Relevant Impact of the Proposed Action	b) A detailed assessment of the nature, extent, likelihood and consequence of the likely short-term and long-term impacts including but not limited to: description of the risks and potential impacts (acute and chronic) from geotechnical activities (such as blasting and pile driving), impacts of increased marine underwater noise on marine species, including the impacts from noise at varying distances from each project component (considering the environmental variables e.g. depth, wave height, bottom profile); impacts from the proposal on air quality impacts; dredging and dredged material disposal impacts and impacts from increased shipping;	Each technical Chapter (Part B) provides a description of potential impacts and mitigation measures relevant to the specific topic. These are summarised in the Executive Summary. Part C of the EIS provides a series of Management Plan which further describe management and mitigation measures; refer CEMP C1.6 ; Dredge Management Plan C2.8 and C4.11 Maritime Operations Management Plan
5.1	Relevant Impact of the Proposed Action	c) A statement whether any relevant impacts are likely to be unknown, unpredictable, irreversible or sub-lethal (reversible over time) and what confidence level is placed on the predictions of relevant impacts;	Each technical chapter (Part B) provides a summary of potential impacts and their relative importance through a risk-based assessment process.
5.1	Relevant Impact of the Proposed Action	d) Analysis of the significance of the impacts;	Each technical chapter (Part B) provides a summary of potential impacts and their relative importance through a risk-based assessment process.
5.1	Relevant Impact of the Proposed Action	e) Any technical data, including modelling, and other information used or needed to make a detailed assessment of the relevant impacts;	Each technical Chapter (Part B) provides an introductory section which details technical studies and methodology for the relevant topic.

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5.1	Relevant Impact of the Proposed Action	f) A risk assessment of changing climate patterns that may affect the proposal and surrounding environment and a description of the preferred and alternative adaptation strategies to be implemented;	Part B16 Climate Change and Greenhouses Gases B16.4 and B16.6
5.1	Relevant Impact of the Proposed Action	g) In discussing potential impacts, consider how the interaction of extreme environmental events (e.g. cyclones, coral bleaching, flood events) and any related cumulative impacts may impact on the proposal and the environment (both independently and cumulatively);	Part B16 Climate Change and Greenhouses Gases B16.6
5.1	Relevant Impact of the Proposed Action	h) Consideration of potential impacts throughout the life of the proposal – from preconstruction, construction through to operation and any decommissioning;	Each technical chapter (Part B) provides a summary of potential impacts and their relative importance through a risk-based assessment process.
5.1	Relevant Impact of the Proposed Action	i) Impacts, including any downstream impacts of the proposed action on water quality, seagrass habitats, wetlands and Fish Habitat Areas and adjacent reef communities and island communities;	Part B7 Marine Ecology B7.4
5.1	Relevant Impact of the Proposed Action	j) Impacts to the sea floor through anchoring and/or direct placement of material/infrastructure, sediment disturbance. The GBRMP zone of likely seabed disturbance must be identified;	B3.3, Coastal Processes and B5.5 Marine Water Quality
5.1	Relevant Impact of the Proposed Action	k) Impacts of anticipated illumination on marine fauna particularly seabirds, marine turtles and other migratory species, including impacts on nesting and disorientation;	Part B7 Marine Ecology B7.4
5.1	Relevant Impact of the Proposed Action	l) Impacts on the existing use of the area and nearby areas that may be affected by the proposed action;	Various technical chapters (Part B).
5.1	Relevant Impact of the Proposed Action	m) Impacts on amenity (including from the mainland, air, vessels and surrounding islands);	Part B12 Landscape and Visual B12.4
5.1	Relevant Impact of the Proposed Action	n) A description of anticipated positive and negative social, cultural and/or economic impacts of the proposal on key stakeholder groups and individuals. This should include a consideration of anticipated changes in the social, cultural and heritage values of the GBRMP;	Part B7 Marine Ecology B7.4; Socio-Economic B9.2.7; B9.3.6,B9.3.7
5.1	Relevant Impact of the Proposed Action	o) An assessment of all impacts to known and potential historic shipwrecks in accordance with the Historic Shipwrecks Act 1976;	Part B13 Cultural Heritage B13.4
5.1	Relevant Impact of the Proposed Action	p) A description of how components of the project may impact upon listed threatened and/or migratory species and their habitat, as well as any listed ecological communities;	Part B8 Terrestrial Ecology B8.4: Marine Ecology B7.4
5.1	Relevant Impact of the Proposed Action	q) Impacts on any at-risk species, groups of species and habitats as identified in the Draft Great Barrier Reef Biodiversity Conservation Strategy 2012 that may be affected by the proposed action; and	Part B7 Marine Ecology B7.4
5.1	Relevant Impact of the Proposed Action	r) A risk assessment and description of potential impacts, including (but not limited to) spills, the construction and operation of the proposed Heavy Fuel Oil Storage tank and associated new fuel storage infrastructure and pipeline from the fuel storage area to the cruise wharf. The risk assessment must incorporate three-dimensional stochastic modelling of potential spills including likely and worst case scenarios.	Part B5 Marine Water Quality B5.5
5.10.1	Impacts to listed values of the GBR WHA	Provide an assessment of all potential and likely impacts to the World Heritage values of the Great Barrier Reef World Heritage Area that have been identified in the vicinity of the proposal. This assessment must include an analysis of the impacts at all stages of the proposal on the expression of the values at this location and how this in turn impacts on the overall values of the Great Barrier Reef World Heritage Area. Provide an analysis of direct, indirect and relevant impacts of the proposal on the integrity and Outstanding Universal Value of the Great Barrier Reef World Heritage Area.	Part B2 Nature Conservation B2.4; EPBCA B19.6 - B19.10

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5.10.2	Impacts to listed values of the GBR National Heritage Place	Provide an assessment of all potential and likely impacts to the National Heritage values of the Great Barrier Reef National Heritage place that have been identified in the vicinity of the proposal. This assessment must include an analysis of the impacts at all stages of the proposal on the expression of the values at this location and how this in turn impacts on the overall values of the Great Barrier Reef National Heritage place.	Part B2 Nature Conservation B2.4; EPBCA B19.6 - B19.10
5.10.3	Impacts of listed Migratory Species, threatened species and ecological communities	Provide an assessment of all potential and likely impacts to listed migratory species, threatened species and ecological communities that have been identified in the vicinity of the proposal. This assessment must include an analysis of the impacts at all stages of the proposal.	Part B8 Terrestrial Ecology B8.4; Marine Ecology B7.4; B19.6- B19.20
5.10.4	Impacts to the Commonwealth Marine Environment	Provide an assessment and discussion of the potential direct, indirect and consequential impacts of the proposed action on the Commonwealth marine environment.	Part B2 Nature Conservation B2.4; EPBCA B19.6 - B19.10
5.10.5	Impacts to the GBRMP	Provide an assessment and discussion of the potential direct, indirect and consequential impacts of the proposed development on the environment and values of the Great Barrier Reef Marine Park (with regards to Attachments 2 and 3).	Part B2 Nature Conservation B2.4; EPBCA B19.6
5.10.6	Impacts to the Commonwealth Land Environment	Provide an assessment of all potential and likely impacts to the environment of Commonwealth land from the proposed action. This assessment must include an analysis of the impact of the action on existing and predicted future activities, including those undertaken by the Department of Defence operation, HMAS Cairns.	Part B19 EPBCA B19.18, and A1 Project Description
5.10.7	Cumulative Impacts of the Proposed Development	The EIS must identify and address cumulative impacts, where potential project impacts are in addition to existing impacts of other activities (including known current and future expansions or developments by the proponent and other proponents in the region and vicinity). The EIS must also address the potential cumulative impact of the proposal on ecosystem resilience. The cumulative effects of climate change impacts on the environment must also be considered in the assessment of ecosystem resilience. Where relevant to the potential impact, a risk assessment must be conducted and documented.	Part B18.4 - B18.6 Cumulative Impacts
5.10.7	Cumulative Impacts of the Proposed Development	The risk assessment must include known future expansions or developments by the proponent and other proponents and known impacts on ecosystem resilience, matters of National Environmental Significance and Commonwealth land. Information on cumulative impacts may include as appropriate, but not be limited to:	Part B18.4 - B18.6 Cumulative Impacts
5.10.7	Cumulative Impacts of the Proposed Development	a) Description of existing, planned or potential developments (including construction status) of a similar type and scale to the proposed development, that have been approved within the last five years or are still under assessment with emphasis on those in the region that have, will have or are likely to have impacts on the same matters of National Environmental Significance and Commonwealth land;	Part B18.4 - B18.6 Cumulative Impacts
5.10.7	Cumulative Impacts of the Proposed Development	b) Description of any current or likely development precincts or zones in the region, their relationship to the proposed development and the likely cumulative impacts on the general environment, ecosystems, matters of National Environmental Significance and Commonwealth land as all projects are developed to capacity;	Part B18.4 - B18.6 Cumulative Impacts

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5.10.7	Cumulative Impacts of the Proposed Development	c) Discussion of the impacts of other tourism, residential, industrial and infrastructure projects both directly and indirectly related to the proposal in a regional context;	Part B18.4 - B18.6 Cumulative Impacts
5.10.7	Cumulative Impacts of the Proposed Development	d) Discussion of the range of developments which will be facilitated or impacted (either positively or negatively) by the proposal and if the project will result in an intensification of development in the region;	Part B18 Cumulative Impacts B18.4; EPBCA B19.4
5.10.7	Cumulative Impacts of the Proposed Development	e) Discussion of known impacts on ecosystem resilience, including reference to issues identified in the Great Barrier Reef Outlook Report 2009 (e.g. rising sea temperatures, ocean acidification, Crown-of-thorns starfish and increasing severity of cyclone events);	Part B18 Cumulative Impacts B18.4, B18.6; EPBCA B19.4, B19.5
5.10.7	Cumulative Impacts of the Proposed Development	f) Discussion and analysis of the cumulative impacts of this proposal on the integrity and Outstanding Universal Value of the Great Barrier Reef World Heritage Area;	Part B18 Cumulative Impacts B18.4; EPBCA B19.19
5.10.7	Cumulative Impacts of the Proposed Development	g) Discussion of existing and known and/or predicted increases in shipping in the region, the relationship to the proposed development and the likely cumulative impacts on matters of National Environmental Significance and Commonwealth land;	Part B18 Cumulative Impacts B18.4 and B5.5 Marine Water Quality and Part C4 Maritime Operations Management Plan
5.10.7	Cumulative Impacts of the Proposed Development	h) Discussion of any potential future changes to the development which are likely to change the nature or scale of environmental impacts;	Part A2.6, B2.7, Project Background Assessment and Part A3.2 to A3.3 Project Description; Part B18 Cumulative Impacts B18.4 and B5.5
5.10.7	Cumulative Impacts of the Proposed Development	i) Outline if existing impacts on the environment in general and matters of National Environmental Significance and Commonwealth land will be amplified by the action in combination with impacts of other projects;	Part B18 Cumulative Impacts B18.4
5.10.7	Cumulative Impacts of the Proposed Development	j) Discussion of the developments and activities which are likely to be facilitated by the proposal;	Part B18 Cumulative Impacts B18.4
5.10.7	Cumulative Impacts of the Proposed Development	k) Identify if the resulting impacts on the general environment, ecosystems and matters of National Environmental Significance and Commonwealth land could be unacceptable;	Part B18 Cumulative Impacts B18.4; EPBCA B19.19
5.10.7	Cumulative Impacts of the Proposed Development	l) Identify if these impacts on the general environment, ecosystems, matters of National Environmental Significance and Commonwealth land could be permanent. If the impacts on matters of National Environmental Significance and Commonwealth land are not permanent, describe how long it will take before recovery from the effect;	Part B18 Cumulative Impacts B18.4; EPBCA B19.19
5.10.7	Cumulative Impacts of the Proposed Development	m) Describe how the cumulative impact of the proposed project will impact on the reproductive capacity and/or survival of listed threatened and migratory species;	Part B18 Cumulative Impacts B18.4; EPBCA B19.19
5.10.7	Cumulative Impacts of the Proposed Development	n) Explain how much recovery of matters of National Environmental Significance and Commonwealth land population, habitat, ecosystems, and the environment in general could occur, with and without mitigation (e.g. complete, partial, none);	Part B18 Cumulative Impacts B18.4; EPBCA B19.19
5.10.7	Cumulative Impacts of the Proposed Development	o) Describe how soon restoration of habitat could be achieved to reinstate ecosystem function for matters of National Environmental Significance;	Part B18 Cumulative Impacts B18.4; EPBCA B19.19

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5.10.7	Cumulative Impacts of the Proposed Development	p) Where possible, identify how much likely change to matters of National Environmental Significance and Commonwealth land exceeds natural variability in the region;	Part B18 Cumulative Impacts B18.4; EPBCA B19.19
5.10.7	Cumulative Impacts of the Proposed Development	q) Describe how this project will contribute to the desired conservation objectives for matters of National Environmental Significance;	Part B18 Cumulative Impacts B18.4; EPBCA B19.19
5.10.7	Cumulative Impacts of the Proposed Development	r) Describe how housing, workforce and local and regional community changes as a result of the development; and	Part B18 Cumulative Impacts B18.4 and Socioeconomic B9.2.7, B9.3.6, B9.3.7; EPBCA 19.4
5.10.7	Cumulative Impacts of the Proposed Development	s) In conducting the risk assessment, key information sources and indicators for assessing change and impact must be described.	Part B18 Cumulative Impacts B18.4 and Socioeconomic B9.2.7, B9.3.6, B9.3.7; EPBCA 19.4
5.10.8	Consequential Impacts	Provide a detailed assessment of any likely impacts6 that this development may facilitate on the following (at the local, regional, state, national and international scale):	Part B18 Cumulative Impacts B18.4 and Socioeconomic B9.2.7, B9.3.6, B9.3.7; EPBCA 19.4
5.10.8	Consequential Impacts	a) The World Heritage values of the Great Barrier Reef World Heritage Area;	Part B18 Cumulative Impacts B18.4 and Socioeconomic B9.2.7, B9.3.6, B9.3.7; EPBCA 19.4
5.10.8	Consequential Impacts	b) The National Heritage values of the Great Barrier Reef National Heritage place;	Part B18 Cumulative Impacts B18.4 and Socioeconomic B9.2.7, B9.3.6, B9.3.7; EPBCA 19.4
5.10.8	Consequential Impacts	c) Listed threatened species and ecological communities;	Part B18 Cumulative Impacts B18.4 and Socioeconomic B9.2.7, B9.3.6, B9.3.7; EPBCA 19.4
5.10.8	Consequential Impacts	d) Listed migratory species;	Part B18 Cumulative Impacts B18.4 and Socioeconomic B9.2.7, B9.3.6, B9.3.7; EPBCA 19.4
5.10.8	Consequential Impacts	e) The Commonwealth marine environment;	Part B18 Cumulative Impacts B18.4 and Socioeconomic B9.2.7, B9.3.6, B9.3.7; EPBCA 19.4
5.10.8	Consequential Impacts	f) The environment and values of the Great Barrier Reef Marine Park, including coastal ecosystems that provide a function in maintaining the health of the Great Barrier Reef; and	Part B18 Cumulative Impacts B18.4 and Socioeconomic B9.2.7, B9.3.6, B9.3.7; EPBCA 19.4
5.10.8	Consequential Impacts	g) The environment of Commonwealth land.	Part B18 Cumulative Impacts B18.4 and Socioeconomic B9.2.7, B9.3.6, B9.3.7; EPBCA 19.4
5.10.9	Dredging and Dredged Material Disposal Related Impacts	The EIS must provide an assessment of all dredging and dredged material disposal related elements of the project and its impacts, including but not limited to the following:	

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5.10.9	Dredging and Dredged Material Disposal Related Impacts	a) Review of the historical use of the dredge disposal ground/s to be used by the proponent, including but not limited to; i. location, volume, timing, nature of material and equipment used; ii. identification of direct and indirect impacts of dredge material disposal over time; and iii. an assessment of alternatives to the current dredge disposal ground.	Part A3 Project Description A3.2 and A3.3 and A2.2 Project Background
5.10.9	Dredging and Dredged Material Disposal Related Impacts	b) Detailed evaluation of all potential disposal options in accordance with the National Assessment Guidelines for Dredging 2009 (NAGD 2009) and Annex 2 of the 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter, 1972 (as amended in 2006) (London Protocol), identification of the preferred disposal option(s) and explanation of how the preferred option was selected;	Part A3 Project Background A2.4 to A2.8
5.10.9	Dredging and Dredged Material Disposal Related Impacts	c) The amount to be dredged and a map of the dredge footprint and locations for proposed disposal. The map must also indicate the proposed staging of dredging activities;	Part A3 Project Background A2.4 to A2.8
5.10.9	Dredging and Dredged Material Disposal Related Impacts	d) The type and method of dredging proposed with the expected length and timing of the dredging activities;	Part A3 Project Background A2.4 to A2.8
5.10.9	Dredging and Dredged Material Disposal Related Impacts	e) Discussion of proposed dredging equipment and methodology;	Part A3 Project Background A2.4 to A2.8
5.10.9	Dredging and Dredged Material Disposal Related Impacts	f) Other uses of the dredged material including any re-use, recycling or possible future use;	Part A3 Project Background A2.4 to A2.8
5.10.9	Dredging and Dredged Material Disposal Related Impacts	g) Assessment of sediment according to the NAGD 2009. This must include an assessment of the suitability of this material for land deposition and offshore disposal at any proposed dredged material disposal ground;	Part B4.4 Sediment Quality Part B5 Marine Water Quality B5.5 and Part C2.8 Dredge Management Plans and Part A2 Project Background A2.5
5.10.9	Dredging and Dredged Material Disposal Related Impacts	h) Assessment of the risk and potential impacts of acid sulfate soils (ASS) and potential acid sulfate soils (PASS);	Part B4.4 Sediment Quality
5.10.9	Dredging and Dredged Material Disposal Related Impacts	i) Consideration of potential impacts of mobilised sediments (e.g. metal or contaminant release);	Part B4.4 Sediment Quality Part B5 Marine Water Quality B5.5 and Part C2.8 Dredge Management Plans and Part A2 Project Background A2.5
5.10.9	Dredging and Dredged Material Disposal Related Impacts	j) Details of future maintenance dredging and disposal requirements over the life of the project;	Part A3 Project Description A3.2
5.10.9	Dredging and Dredged Material Disposal Related Impacts	k) Details of any previous sea dumping permits applied for including dates and volumes and whether the permit was for capital dredging or maintenance dredging;	Part A3 Project Description A3.2 and Part A1 Project Introduction A1.7 and Part A4 Legislation and Approvals

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5.10.9	Dredging and Dredged Material Disposal Related Impacts	l) Detailed descriptions of potential impacts on the marine habitats and species within the proposed dredge footprint and disposal areas, including but not limited to assessment of seagrass and species that depend on it, and those at- risk species, groups of species and habitats as identified by the Draft Great Barrier Reef Biodiversity Conservation Strategy 2012, including any marine flora and fauna protection measures proposed;	Part B7 Marine Ecology A7.4
5.10.9	Dredging and Dredged Material Disposal Related Impacts	m) The characteristics of the dredged material disposal area(s) proposed including the history of the site and the predicted fate of the material after disposal and over time and the potential zone of impact;	Part B4.3 B4.4 Sediment Quality and Part B3.3, B3.4 Coastal Processes and Part B7.4 Marine Ecology and Part B5.5 Marine Water Quality
5.10.9	Dredging and Dredged Material Disposal Related Impacts	n) Detailed descriptions of both the direct and indirect impacts along with an assessment of the reversibility of those impacts are to be included in predictions of impacts associated with the activity of dredging and disposal on marine habitats and species7;	Part B4.3 B4.4 Sediment Quality and Part B3.3, B3.4 Coastal Processes and Part B7.4 Marine Ecology and Part B5.5 Marine Water Quality
5.10.9	Dredging and Dredged Material Disposal Related Impacts	o) Predictive, fully three dimensional modelling of indirect impacts of dredge generated sediments within the Great Barrier Reef Marine Park must be undertaken in accordance with the GBRMPA Guidelines for the Use of Hydrodynamic Numerical Modelling for Dredging Projects in the Great Barrier Reef Marine Park (Attachment 4).	Part B5.5 Marine Water Quality; Part B3.3 Coastal Processes ; Part C Dredge Management Plan C2.8
5.10.9	Dredging and Dredged Material Disposal Related Impacts	p) Predictive, fully three dimensional modelling of indirect impacts of dredge generated sediments must include: i. Hydrodynamic modelling; ii. Sediment transport modelling where the range of particle fractions (sand, silt and clay) are all modelled; iii. Modelling must include all types of resuspension possibilities including currents and wave-induced bottom shear stresses as well as wave induced mud fluidisation. If not modelled a justification as to why this phenomena was not relevant for that site; iv. Ecological impact predictions. Lethal and sub lethal thresholds used for the ecological impact predictions must be clearly indicated and substantiated with relevant scientific peer reviewed articles. This may be presented as zones of impact (high, moderate and influence); v. Testing the sensitivity of ecological impact predictions to different pressure thresholds and considering seasonal effects must also be undertaken to understand the likely range of prediction outcomes; vi. Proponent to provide results of modelling in a suitable electronic format (i.e. shapefiles); vii. The modelling must represent the conditions at the time of year in which the dredging will actually occur. If this is not known then modelling must be undertaken for all seasons (i.e. wet season conditions, dry season conditions and transitional conditions) depending on prevalent oceanographic conditions; and viii. The modelling should demonstrate total suspended solids (TSS) at the surface mid depth and within one metres of the sea floor and predicted sedimentation rates within the zones of impact.	Part B5.5 Marine Water Quality; Part B3.3 Coastal Processes ; Part C Dredge Management Plan C2.8
5.10.9	Dredging and Dredged Material Disposal Related Impacts	q) Modelling must include likely dispersion and re-suspension from both dredging operations and dredge material disposal during a range of probable hydrodynamic conditions, weather events (including cyclones) and expected dredge equipment scenarios;	Part B5.5 Marine Water Quality; Part B3.3 Coastal Processes ; Part C Dredge Management Plan C2.8
5.10.9	Dredging and Dredged Material Disposal Related Impacts	r) Site selection of dredge disposal site (even if a historic site) must be justified and compared to other possible sites with a prediction for re-suspension and possible direction and distance of the migration of the dredged material under different current conditions;	Part A2.3 to A2.7 Project Background

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5.10.9	Dredging and Dredged Material Disposal Related Impacts	s) Model outputs must use a spatially based scheme that provides for a clear and consistent way of describing and presenting the extent, severity and duration of predicted impacts of dredging and material disposal and must include likely "best case" and likely "worst case" scenarios;	Part B5.5 Marine Water Quality; Part B3.3 Coastal Processes ; Part C Dredge Management Plan C2.8
5.10.9	Dredging and Dredged Material Disposal Related Impacts	t) Modelling must be independently peer reviewed. Information relating to the peer review, including the Terms of Reference and the peer reviewer's report must be included as part of the EIS documentation; and	Part B5.5 Marine Water Quality; Part B3.3 Coastal Processes
5.10.9	Dredging and Dredged Material Disposal Related Impacts	u) Describe future maintenance dredging and disposal requirements over the life of the project, including: i. Impacts to benthic habitat, in particular benthic primary producer habitat (BPPH), must be described. The benthic habitat must be mapped and the potential impacts must be described, taking into consideration the sediment plume modelling. Cumulative impacts of the entire dredge operation and likely maintenance dredging requirements must be described; and ii. Identify the potential vectors and risks of introducing marine invasive species through vessels involved in dredging operations; and how these risks will be appropriately managed. Must include but not be limited to ballast water, entrainment of mud and sediment and biofouling in dredge equipment and ancillary fitting, niche areas, internal seawater systems, vessel history, previous work locations and maintenance history.	Part B5.5 Marine Water Quality; B7 Marine Ecology B7.4, Cumulative Impacts B18.4, B18.5 and C2.8 Dredge Management Plan
5.10.10	Land Based Disposal	a) Describe any prudent and feasible alternatives to any proposed land disposal (such as beneficial re-use). For each alternative listed the proponent must detail the impacts (positive and negative), location, scale, and configuration;	Project Background Part A2.5- A2.8; Introduction A1.3
5.10.10	Land Based Disposal	b) A plan of the proposed land on which material is to be disposed, drawn to an appropriate scale, showing the following information: i. the boundary of the disposal area, tied to real property boundaries; ii. the location of the line of mean high water spring tide and highest astronomical tide in relation to the disposal area; iii. location of marine and terrestrial plants and species habitat within and	Project Background Part A2.5- A2.8; Introduction A1.3
5.10.10	Land Based Disposal	c) The method, location and issues associated with the disposal of dredged material must be described including: i. for land-based dredge material disposal, a detailed description of potential methods, location issues/risks must be presented.	Project Background Part A2.5- A2.8; Introduction A1.3
5.10.10	Land Based Disposal	Consideration must be given to: i. quantities and quality of tail water likely to be generated from dredging activities and the rate of their discharge; ii. the settling rate of fine sediments from all dredge material types; iii. the residence time within settling ponds prior to discharge (related to dredge pumping rate, ratio of solids to water in dredged material, settling rates, available capacity of the disposal and settling areas, potential bulking factor, intensity and duration of rainfall events with consideration given to the worst case scenario for these factors); and	Project Background Part A2.5- A2.8; Project Description A3.2, A3.3; Introduction A1.3; B4.4; B5.5
5.10.11	Land Based Disposal	iv source of material for bunds and bund wall stability.	Part B Land B1.3- B1.6

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5.10.11	Increased Shipping	a) In relation to the projected increase in shipping, at a minimum, details of the following must be discussed: i. Describe current vessel numbers and type utilising the port, their size, speed, shipping movements, anchorages, access to/from the port and navigational arrangements; ii. Describe projected total vessel movements (including any barges) at each stage of the project, including at the completion of the project. Include a comparison with total shipping movements through the Great Barrier Reef World Heritage Area and National Heritage place and Great Barrier Reef Marine Park; and iii. Shipping routes to be used by vessels beyond the port in Commonwealth marine waters. These must be indicated on a map in relationship to the Great Barrier Reef World Heritage Area and National Heritage place and Great Barrier Reef Marine Park, and to the main shipping channels and any other navigational arrangements.	Part A3 Project Description A3.2 and A3.3; Part B EPBCA B19.5; Part C4 Maritime Operations Management Plan
5.10.11	Increased Shipping	b) In regard to increased shipping volumes, the following must be specifically addressed:	
5.10.11	Increased Shipping	i. Potential for introduction of marine invasive species from increased shipping rates;	Part C4 Marine Operations Management Plan and Marine Water Quality B8.4
5.10.11	Increased Shipping	ii. Potential increase in ship groundings and related impacts;	Part C4 Marine Operations Management Plan and Marine Water Quality B8.4
5.10.11	Increased Shipping	iii. Potential increased risk of vessel collisions and related impacts;	Part C4 Marine Operations Management Plan and Marine Water Quality B8.4;
5.10.11	Increased Shipping	iv. Potential for increased vessel strike to marine species;	Part C4 Marine Operations Management Plan and Marine Ecology B8.4
5.10.11	Increased Shipping	v. Ballast water management arrangements - including Australian Quarantine and Inspection Service (AQIS) mandatory arrangements and agency contingency planning;	Part C4 Marine Operations Management Plan and Marine Water Quality B8.4
5.10.11	Increased Shipping	vi. Management of ship waste, in particular quarantine waste, domestic garbage, oil and sewage;	Part C4 Marine Operations Management Plan and Marine Water Quality B8.4 and Part B15.4Waste Management
5.10.11	Increased Shipping	vii. Potential risk of oil, chemical and other hazardous and noxious substance spills and their management, including three-dimensional stochastic modelling of likely and potential worst case spill scenarios. Models must incorporate seasonal variations;	Marine Water Quality B8.4; Hazard and Risk B17.4
5.10.11	Increased Shipping	viii. Potential impacts on existing shipping activity;	Marine Ecology B8.4;Part C4 Maritime Operations Plan
5.10.11	Increased Shipping	ix. Impacts of increased marine underwater noise on marine species from all shipping activities;	Marine Ecology B8.4;Part C4 Maritime Operations Plan; CEMP C1.6
5.10.11	Increased Shipping	x. Additional marine transport issues that must be considered include the potential of the proposal to impact on domestic commercial and recreational vessels; and	Part B B14.4; Part C4 Maritime Operations Plan
5.10.11	Increased Shipping	xi. The potential use of the Great Barrier Reef World Heritage Area and Great Barrier Reef Marine Park for the offshore anchorage of ships and the associated impacts of anchorages, including impacts on other users.	Part C4 Maritime Operations Plan
5.10.12	Other uses of the area and nearby areas	The EIS must identify the potential impacts of the proposed action on other uses of the area, including but not limited to the following:	
5.10.12	Other uses of the area and nearby areas	a) Social, cultural and heritage values for each stage of the proposal;	Part B9 Socioeconomic Assessment B9.2.6, B9.5, B13.3
5.10.12	Other uses of the area and nearby areas	b) Current and projected commercial, recreational and scientific use, including any changes in visitation patterns;	Part B9 Socioeconomic Assessment B9.2.6, B9.5, B13.3

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5.10.12	Other uses of the area and nearby areas	c) Heritage and social values, including sites of historic or archaeological significance;	Part B13 Cultural Heritage B13.4
5.10.12	Other uses of the area and nearby areas	d) Commercial and recreation fishing;	Part B9 Socioeconomic Assessment B9.2.6, B9.5, B13.3
5.10.12	Other uses of the area and nearby areas	e) Tourism; and	Part B9 Socioeconomic Assessment B9.2.6, B9.5, B13.3
5.10.12	Other uses of the area and nearby areas	f) Traditional use activities.	Part B13 Cultural Heritage B13.4
5.11	Proposed avoidance, safeguards, management and mitigation measures	The EIS must provide information on proposed avoidance, safeguards and mitigation measures to deal with the impacts of the action. Specific and detailed descriptions of proposed measures must be provided and substantiated, based on best available practices/standards and must include the following elements.	Each technical Chapter (Part B) provides a description of potential impacts and mitigation measures relevant to the specific topic. These are summarised in the Executive Summary. Part C of the EIS provides a series of Management Plan which further describe management and mitigation measures.
5.11	Proposed avoidance, safeguards, management and mitigation measures	a) Identify the level of risk associated with potential impacts already identified and those that require mitigation, monitoring or management to avoid or reduce impacts to an acceptable level;	Each technical Chapter (Part B) provides a description of potential impacts and mitigation measures relevant to the specific topic. These are summarised in the Executive Summary. Part C of the EIS provides a series of Management Plan which further describe management and mitigation measures.
5.11	Proposed avoidance, safeguards, management and mitigation measures	b) A consolidated list of measures proposed to be undertaken to avoid, prevent, minimise or compensate (in priority order) for the impacts of the action (as specified in section 5.10), including: i. A description of proposed avoidance, safeguards and mitigation measures to deal with impacts of the action, including measures proposed to be taken by State governments, local governments or the proponent; ii. Assessment of the expected or predicted effectiveness of the measures; iii. Any statutory or policy basis for the mitigation measures; iv. The cost of the mitigation measures; and v. The resulting risk level for that impact post-avoidance, mitigation and/or management.	Each technical Chapter (Part B) provides a description of potential impacts and mitigation measures relevant to the specific topic. These are summarised in the Executive Summary. Part C of the EIS provides a series of Management Plan which further describe management and mitigation measures.
5.11	Proposed avoidance, safeguards, management and mitigation measures	c) Particular focus must be given to: i. Determining factors in the planning of the proposal so as to avoid damage to the environment;	Each technical Chapter (Part B) provides a description of potential impacts and mitigation measures relevant to the specific topic. These are summarised in the Executive Summary. Part C of the EIS provides a series of Management Plan which further describe management and mitigation measures.

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5.11	Proposed avoidance, safeguards, management and mitigation measures	ii. Measures to avoid or minimise damage to the Great Barrier Reef World Heritage Area and estuary environment;	Part B18.7 Cumulative Assessment Part A2 Project Background A2.5- A2.7; Marine Water Quality B5.6 and B6.5 Water Resources and B19 EPBCA B19.5- B19.19; Marine Ecology B7.5; Nature Conservation Areas B2.5, Marine Sediment B4.5
5.11	Proposed avoidance, safeguards, management and mitigation measures	iii. Measures to avoid or minimise damage to the National Heritage Values of the Great Barrier Reef;	Part B18.7 Cumulative Assessment Part A2 Project Background A2.5- A2.7; Marine Water Quality B5.6 and B6.5 Water Resources and B19 EPBCA B19.5- B19.19; Marine Ecology B7.5; Nature Conservation Areas B2.5, Marine Sediment B4.5
5.11	Proposed avoidance, safeguards, management and mitigation measures	iv. Measures to avoid or minimise damage to the environment of the Great Barrier Reef Marine Park;	Part B18.7 Cumulative Assessment Part A2 Project Background A2.5- A2.7; Marine Water Quality B5.6 and B6.5 Water Resources and B19 EPBCA B19.5- B19.19; Marine Ecology B7.5; Nature Conservation Areas B2.5, Marine Sediment B4.5
5.11	Proposed avoidance, safeguards, management and mitigation measures	v. Articulating conservation objectives for individual matters of National Environmental Significance and Commonwealth land with a focus on receptors	Part B18.7 Cumulative Assessment Part A2 Project Background A2.5- A2.7; Marine Water Quality B5.6 and B6.5 Water Resources and B19 EPBCA B19.5- B19.19; Marine Ecology B7.5; Nature Conservation Areas B2.5, Marine Sediment B4.5
5.11	Proposed avoidance, safeguards, management and mitigation measures	vi. Describing how this project is likely to contribute to protection of matters of National Environmental Significance;	Part B18.7 Cumulative Assessment Part A2 Project Background A2.5- A2.7; Marine Water Quality B5.6 and B6.5 Water Resources and B19 EPBCA B19.5- B19.19; Marine Ecology B7.5; Nature Conservation Areas B2.5, Marine Sediment B4.5
5.11	Proposed avoidance, safeguards, management and mitigation measures	vii. Outline how any avoidance, safeguards, management and mitigation measures will increase resilience of the environment, ecosystems and matters of National Environmental Significance and Commonwealth land within the region;	Part B18.7 Cumulative Assessment Part A2 Project Background A2.5- A2.7; Marine Water Quality B5.6 and B6.5 Water Resources and B19 EPBCA B19.5- B19.19; Marine Ecology B7.5; Nature Conservation Areas B2.5, Marine Sediment B4.5
5.11	Proposed avoidance, safeguards, management and mitigation measures	viii. Demonstrate how impact management and mitigation measures would ensure that matters of National Environmental Significance and Commonwealth land in the affected region are maintained or improved;	Part B18.7 Cumulative Assessment Part A2 Project Background A2.5- A2.7; Marine Water Quality B5.6 and B6.5 Water Resources and B19 EPBCA B19.5- B19.19; Marine Ecology B7.5; Nature Conservation Areas B2.5, Marine Sediment B4.5

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5.11	Proposed avoidance, safeguards, management and mitigation measures	ix. Characterise, quantify and address uncertainties that may affect the effectiveness of management measures and therefore on the confidence that biodiversity values would be maintained (or improved) during and after the project;	Part B18.7 Cumulative Assessment Part A2 Project Background A2.5- A2.7; Marine Water Quality B5.6 and B6.5 Water Resources and B19 EPBCA B19.5- B19.19; Marine Ecology B7.5; Nature Conservation Areas B2.5, Marine Sediment B4.5
5.11	Proposed avoidance, safeguards, management and mitigation measures	x. Measures to avoid or minimise disturbance to fauna and flora found around and within the proposal area (particularly listed threatened species and communities and listed migratory species);	Part B18.7 Cumulative Assessment Part A2 Project Background A2.5- A2.7; Marine Water Quality B5.6 and B6.5 Water Resources and B19 EPBCA B19.5- B19.19; Marine Ecology B7.5; Nature Conservation Areas B2.5, Marine Sediment B4.5
5.11	Proposed avoidance, safeguards, management and mitigation measures	xi. Management of the dredged material during the loading of the dredged material;	Chapter B5 Water Quality B5.6; Part C2 Dredge Management Plan C2.8
5.11	Proposed avoidance, safeguards, management and mitigation measures	xii. Management of the dredged material disposal area(s) during disposal operations;	Chapter B5 Water Quality B5.6; Part C2 Dredge Management Plan C2.8
5.11	Proposed avoidance, safeguards, management and mitigation measures	xiii. Management strategies for dredging, loading and dredged material disposal, including trigger levels for management actions linked to quantitative measurements of water quality and Benthic Primary Producer Habitat (BPPH) based on baseline data;	Chapter B5 Water Quality B5.6; Part C2 Dredge Management Plan C2.8
5.11	Proposed avoidance, safeguards, management and mitigation measures	xiv. Proposed monitoring before, during and after dumping including: (i) Monitoring of disposal plumes, sedimentation, current strength and direction, turbidity, water quality parameters that are likely to be affected and BPPH monitoring. Water quality parameters being monitored must include but should not be restricted to dissolved oxygen, nutrients, pH, turbidity, light attenuation, metals and metalloids and toxicants. Baseline water quality data that includes values for these parameters needs to be included in the EIS. This section must also include the likely impacts on turbidity and water quality from dredging and dredged material disposal and establish the triggers for management actions and specify proposed management actions; and (ii) Location of monitoring stations and rationale for location of monitoring stations and frequency of monitoring (down load frequency or via telemetry).	Chapter B5 Water Quality B5.6; Part C2 Dredge Management Plan C2.8
5.11	Proposed avoidance, safeguards, management and mitigation measures	xi. For ocean-based dredged material disposal, proposed management must be presented. This must include how water quality will be monitored and managed to ensure that water quality objectives for this area are achieved and the environmental values of the connected surface water and groundwater are maintained. Reference must be given to the National Water Quality Management Strategy including the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000), Queensland Water Quality Guidelines 2009, Water Quality Guidelines for the Great Barrier Reef 2010 and the Australian Monitoring and Reporting Guidelines (2000). Any toxicants that may occur in the sediments must be identified and must be managed appropriately;	Chapter B5 Water Quality B5.6; Part C2 Dredge Management Plan C2.8

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5.11	Proposed avoidance, safeguards, management and mitigation measures	xii. Measures to limit channelling and sediment re-suspension in settling ponds;	not applicable
5.11	Proposed avoidance, safeguards, management and mitigation measures	xiii. Measures to limit erosion and sediment re-suspension in discharge channels;	not applicable
5.11	Proposed avoidance, safeguards, management and mitigation measures	xiv. Monitoring of water quality and operational performance monitoring;	Part B5 Marine Water Quality B5.6
5.11	Proposed avoidance, safeguards, management and mitigation measures	xv. Disposal of tail waters or overflow due to climatic conditions (such as rain or flooding) to the receiving environment;	Part B5 Marine Water Quality B5.6
5.11	Proposed avoidance, safeguards, management and mitigation measures	xvi. Contingency measures in the event that discharge limits are exceeded; and	Part C2 Dredge Management Plan C2.8
5.11	Proposed avoidance, safeguards, management and mitigation measures	xvii. Staff training, including training in relation to environmental issues.	Part C2 Dredge Management Plan C2.8
5.11	Proposed avoidance, safeguards, management and mitigation measures	d) An outline of an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action, including any provisions for independent environmental auditing;	Part C1.5 Environmental Management Plan and Part C2.3 Dredge Management Plan and Part C3 Vessel Transport Management Plan and Part C4.7 Maritime Operations Management Plan
5.11	Proposed avoidance, safeguards, management and mitigation measures	e) The name of the agency responsible for endorsing or approving each mitigation measure or monitoring program;	Part C1.5 Environmental Management Plan and Part C2.3 Dredge Management Plan and Part C3 Vessel Transport Management Plan and Part C4.7 Maritime Operations Management Plan
5.11	Proposed avoidance, safeguards, management and mitigation measures	f) Measures to ensure that increases in shipping and ship movements do not negatively impact on water quality objectives and environmental values of the Great Barrier Reef Marine Park and Great Barrier Reef World Heritage Area, including but not limited to:	Part B5 Marine Water Quality B5.6 and Part C4 Maritime Operations Management Plan C4
5.11	Proposed avoidance, safeguards, management and mitigation measures	i. Provision of appropriate navigational and anchorage controls;	Part C3 Vessel Transport Management Plan and Part C4.11 Maritime Operations Management Plan

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5.11	Proposed avoidance, safeguards, management and mitigation measures	ii. Provision of best practice waste disposal facilities; and	Waste Management B15.5
5.11	Proposed avoidance, safeguards, management and mitigation measures	iii. Adequate risk management procedures and response equipment in place to identify and address risks of marine pollution.	Part B5 Marine Water Quality B5.4, B5.6; Part C2 Dredge Management Plan C2.8; Part C4.11 Maritime Operations Management Plan
5.11	Proposed avoidance, safeguards, management and mitigation measures	g) The EIS must describe the proponent's capacity to satisfactorily develop and manage the project including the capacity to remove, clean up, rehabilitate and/or take preventative action for the entire proposal.	Part A1 Introduction A1.3;Part A3 Project Description A3.1 to A3.3
5.12	Other approvals and conditions	The EIS must include information on any other requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action. This must include:	
5.12	Other approvals and conditions	a) Details of anu local or State Government planning scheme, or plan or policy under any local or State Government planning scheme that deals with the proposed action, including:	Part B Land B1.3
5.12	Other approvals and conditions	iWhat environmental assessment of the proposed action has been, or is being, carried out under the scheme, plan or policy; and	Part A Project Introduction A1; A4 Legislation and Approvals
5.12	Other approvals and conditions	ii. How the scheme provides for the prevention, minimisation and management of any relevant impacts.	Part C1.5 CEMP and Part C2.3 Dredge Management Plan and Part C4.7 Maritime Operations Management Plan
5.12	Other approvals and conditions	b) A description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the EPBC Act or the GBRMP Act), including any conditions that apply to the action;	Project Introduction A1 A1.5 and Part A4 Legislation and Approvals
5.12	Other approvals and conditions	c) A statement identifying any additional approval that is required; and	Project Introduction A1 A1.5 and Part A4 Legislation and Approvals
5.12	Other approvals and conditions	d) A description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.	Part C1 CEMP and Part C2 Dredge Management Plan and Part C3 Vessel Transport Management Plan and Part C4 Maritime Operations Management Plan
5.13	Offsets	Environmental offsets broadly mean measures to compensate for the adverse residual impacts of an action on the environment. More specifically, offsets are measures to compensate for environmental impacts that cannot be adequately reduced through avoidance or mitigation. Offsets do not reduce the impacts of an action. Instead they provide an environmental counterbalance to manage the impacts that remain after avoidance and mitigation measures. These remaining impacts are termed ‘residual impacts’8. Offsets are not intended to make proposals with unacceptable impacts acceptable. They simply provide an additional tool that can be used during project design and the Environmental Impact Assessment process.	Terrestrial Ecology B8.6; Part B18 Cumulative Impacts B18.4; Marine Ecology 7.5

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5.13	Offsets	This section of the EIS must outline plans to offset the residual potential impacts of the proposal. Environmental offsets may be appropriate when they: a) Are necessary to protect or repair impacts to a protected matter – i.e. a matter of national environmental significance or the environment more broadly; b) Relate specifically to the matter (for example, species) being impacted; and c) Seek to ensure that the health, diversity and productivity of the environment are maintained or enhanced. Any proposed environmental offsets must comply with the Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy, 2012.	Terrestrial Ecology B8.6; Part B18 Cumulative Impacts B18.4; Marine Ecology 7.5
5.14	Monitoring and Reporting	Appropriate baseline data requirements are to be provided as part of the EIS to form the basis for baseline measurement and ongoing monitoring of environmental parameters. It must be demonstrated that the proposed methods for baseline measurements and subsequent monitoring are based on current best practice/standards, scientifically robust and statistically sound to enable diligent and systematic data collection that will deliver unbiased and sound responses to EIS Guideline requirements. This section must identify parameters to be monitored, the performance indicators to be used to evaluate accuracy of predicted impacts and effectiveness of mitigation measures and offsets, and management response trigger values and response activities. This section is to also identify and describe monitoring programs, procedural and compliance audit programs and reporting requirements and arrangements which will demonstrate the effectiveness of proposed management measures and monitoring. The proponent must, in addition to outlining proposed programs, clearly identify what is to be monitored and why. Monitoring programs must be designed to provide objective evidence regarding activities associated with the proposal and if these activities are adversely impacting on the environment in the short, medium and long term. Monitoring programs must demonstrate an understanding and consideration of:	Each technical Chapter (Part B) provides a description of potential impacts and mitigation measures relevant to the specific topic. These are summarised in the Executive Summary. Part C of the EIS provides a series of Management Plans which further describe management and mitigation measures.
5.14	Monitoring and Reporting	a) Ecosystems and habitats, climatic or seasonal variations, flora and fauna (particularly listed threatened species/ecological communities and listed migratory species), and those at-risk species, groups of species and habitats identified in the Draft Great Barrier Reef Biodiversity Conservation Strategy 2012, underwater noise issues, light and light horizon impacts and water quality issues as a result of the proposed development;	Part B7.5 Marine Ecology and Part B5.5 Marine Water Quality; Part C C2 Dredge Management Plan; CEMP C1.6
5.14	Monitoring and Reporting	b) Measuring the effectiveness of mitigation and/or rehabilitation and offset measures;	Part C1 Environmental Management Plan and Part C2.8 Dredge Management Plan and Part C4.11; Maritime Operations Management Plan
5.14	Monitoring and Reporting	c) Documenting the difference between predicted and actual impacts;	Part C1 Environmental Management Plan and Part C2.8 Dredge Management Plan and Part C4.11; Maritime Operations Management Plan
5.14	Monitoring and Reporting	d) Methods for identification of non-predicted impacts and appropriate reporting and remedial measures;	Part C1 Environmental Management Plan and Part C2.8 Dredge Management Plan and Part C4.11; Maritime Operations Management Plan

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5.14	Monitoring and Reporting	e) Application and effectiveness of emergency and contingency plans;	Part C1 Environmental Management Plan and Part C2.8 Dredge Management Plan and Part C4.11; Maritime Operations Management Plan
5.14	Monitoring and Reporting	f) Review of consultation and management arrangements with regulatory authorities and the community. A diagram showing monitoring and reporting arrangements must be included in the EIS; and	Appendix B Stakeholder and Community Engagement Report Chapter B9
5.14	Monitoring and Reporting	g) Trigger values must be outlined for use in management actions and response to adverse project impacts.	Part C2.8 Dredge Management Plan
5.14	Monitoring and Reporting	A diagram showing monitoring and reporting arrangements must be included in the EIS.	Part C2 Dredge Management Plan; C1.6 CEMP
5.15	Environmental Record	The EIS must include the environmental record of the proponent. This must include: a) Reference to the GBRMP Regulations 88R(j) which includes the applicant's history in relation to environmental matters (for example compliance with Marine Park permits and environmental management plans) and any outstanding charges; and	Part A1 Project Introduction A1.3
5.15	Environmental Record	b) Details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the person proposing to take the action. If the person proposing to take the action is a corporation, details of the corporation's environmental policy and planning framework must be provided.	Part A1 Project Introduction A1.3
5.15	Environmental Record	Information relating to the persons' environmental record must also include any accreditations (for example ISO 14001), environmental awards, and other recognition for environmental performance.	Part A1 Project Introduction A1.3
5.16	Additional Social and Economic Matters	Section 136(1)(b) of the EPBC Act requires the Minister to consider economic and social matters when deciding whether to grant approval to the proposed action under Part 9 of the EPBC Act. The requirements under s136(1)(b) encompass a broader range of matters that may be considered than those addressed during the assessment of the potential impacts of a controlled action. Accordingly, information must be provided in the EIS on the broad social and economic impacts (positive or negative) of the proposal for the purposes of the Part 9 decision on approval. As the matters protected by the controlling provisions for this action include "the environment", there is the potential for an overlap between the information provided in response to this, and the information requested in the main body of the Guidelines in relation to social, economic and cultural aspects within the definition of the environment. The latter set of information need not be repeated if it will be contained in the body of the EIS. The mandatory considerations for applications under the GBRMP Regulations are outlined at Attachment 2. A table cross-referencing information relevant to 5.16 and the mandatory considerations for applications under the GRBMP Regulations must be provided identifying relevant text in the body of the EIS.	Part B9 Socio-Economic
5.17	Conclusion	An overall conclusion as to the environmental acceptability of the proposal must be provided, including discussion on compliance with the objectives and requirements of the EPBC Act and the GBRMP Act including the principles of ESD (Attachment 3). Reasons justifying undertaking the proposal in the manner proposed must also be outlined. The conclusion must highlight measures proposed or required to avoid, mitigate or offset any unavoidable impacts on the environment.	Executive Summary and; Part B Cumulative Impacts B18.8; EPBCA B19.20

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5.18	Information Sources	Information sources used in the formulation of the EIS are to be provided. This section will describe consultations and studies undertaken in the course of proposal formulation and preparation of the draft EIS, and sources of information and technical data. The following details must be provided for information used in developing the EIS: a) The source of the information; b) How recent the information is; c) How the reliability of the information was tested; and d) What uncertainties and/or gaps (if any) are in the information. A copy of all data and the sampling methodologies must be made available to the DSEWPaC and GBRMPA for the purpose of peer review on receipt of a written request from the DSEWPaC or GBRMPA. In making this statement, the sampling methodology (including time samples were collected, replication, size of samples etc.) should be specified in the relevant sections where data has been collected. Any further or ongoing consultations or studies must be outlined here.	Each technical chapter of the EIS (Part B) provides a summary of information sources used for the relevant technical assessment in their methodology section.
5.19	Reference List and Bibliography	The reference list and bibliography provided in the EIS is to be accurate and concise and include the address and date accessed of any internet pages used as data sources.	References are provided at the end of each EIS chapter and have included internet page references.
5.20.	Appendices and Glossary	Detailed technical information studies or investigations necessary to support the main text of the EIS, but not suitable for inclusion in the main text must be included as appendices; for example, detailed technical or statistical information, maps, risk assessment, baseline data, supplementary reports etc. A copy of the Guidelines must also be included. A glossary defining technical terms and abbreviations used in the text must be included to assist the general reader	Detailed technical studies are included in appendices . Appendix A includes the Commonwealth EIS Guidelines. A glossary is included after the Table of Contents
Attachment 1, Section 1	General Information	1.01 The background of the action including	Part A1 Project Introduction A1.1
Attachment 1, Section 1	General Information	(a) the title of the action;	Part A1 Project Introduction A1.1
Attachment 1, Section 1	General Information	(b) the full name and postal address of the designated proponent	Part A1.3, Project Introduction
Attachment 1, Section 1	General Information	(c) a clear outline of the objective of the action	Part A1.5, Project Introduction
Attachment 1, Section 1	General Information	(d) the location of the action	Part A1.7, Project Introduction
Attachment 1, Section 1	General Information	(e) the background to the development of the action	Part A1.1 to A1.3, Project Introduction
Attachment 1, Section 1	General Information	(f) how the action relates to any other actions (of which the proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action;	Part B18 Cumulative Impacts B18.3

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Attachment 1, Section 1	General Information	(g) the current status of the action; and	Part A1 Project Introduction A1.1
Attachment 1, Section 1	General Information	(h) the consequences of not proceeding with the action	Part A1 Project Description A3.5
Attachment 1, Section 2	Description	2.01 A description of the action, including	
Attachment 1, Section 2	Description	(a) all the components of the action;(b) the precise location of any works to be undertaken, structures to be built or elements of the action that may have relevant impacts;(c) how the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts;	Part A3 Project Description A3.2 to A3.4
Attachment 1, Section 2	Description	(d) relevant impacts of the action	Various technical chapters (Part B), and summarised in Executive Summary
Attachment 1, Section 2	Description	(e) proposed safeguards and mitigation measures to deal with relevant impacts of the action;	Part C1.6 Environmental Management Plan and Part C2.8 Dredge Management Plan and Part C4.11 Maritime Operations Management Plan
Attachment 1, Section 2	Description	(f) any other requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action;	Part A1 Project Introduction A1.1; A4 Legislation
Attachment 1, Section 2	Description	(g) to the extent reasonably practicable, any feasible alternatives to the action, including: (i) if relevant, the alternative of taking no action; (ii) a comparative description of the impacts of each alternative on the matters protected by the controlling provisions for the action; (iii) sufficient detail to make clear why any alternative is preferred to another;	Part A Project Description A3.5
Attachment 1, Section 2	Description	(h) any consultation about the action, including: (i) any consultation that has already taken place; (ii) proposed consultation about relevant impacts of the action; (iii) if there has been consultation about the proposed action — any documented response to, or result of, the consultation;	Part B Part B9.2.4, Socio-economic; Appendix E Stakeholder and Community Engagement Report
Attachment 1, Section 2	Description	(i) identification of affected parties, including a statement mentioning any communities that may be affected and describing their views.	Part B Part B9.2.4, Socio-economic; Appendix E Stakeholder and Community Engagement Report
Attachment 1, Section 3	Relevant Impacts	3.01 Information given under paragraph 2.01 (c) must include: (a) a description of the relevant impacts of the action; (b) a detailed assessment of the nature and extent of the likely short term and long term relevant impacts; (c) a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible; (d) analysis of the significance of the relevant impacts; and (e) any technical data and other information used or needed to make a detailed assessment of the relevant impacts.	Various technical chapters (Part B), and summarised in Executive Summary

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Attachment 1, Section 4	Proposed safeguard and mitigation measures	4.01 Information given under paragraph 2.01 (d) must include: (a) a description, and an assessment of the expected or predicted effectiveness of, the mitigation measures; (b) any statutory or policy basis for the mitigation measures; (c) the cost of the mitigation measures; (d) an outline of an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action, including any provisions for independent environmental auditing; (e) the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program; and (f) a consolidated list of mitigation measures proposed to be undertaken to prevent, minimise or compensate for the relevant impacts of the action, including mitigation measures proposed to be taken by State governments, local governments or the proponent.	Part C1.6 Environmental Management Plan and Part C2.8 Dredge Management Plan and Part C4.11 Maritime Operations Management Plan
Attachment 1, Section 5	Other approvals and conditions	5. Other Approvals and Conditions5.01 Information given under paragraph 2.01 (e) must include:(a) details of any local or State government planning scheme, or plan or policy under any local or State government planning system that deals with the proposed action, including: (i) what environmental assessment of the proposed action has been, or is being, carried out under the scheme, plan or policy;(ii) how the scheme provides for the prevention, minimisation and management of any relevant impacts;(b) a description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the Act), including any conditions that apply to the action; (c) a statement identifying any additional approval that is required; and (d) a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.	Part A1 Project Introduction A1.5; Legislation A4
Attachment 1, Section 6	Environmental record of person proposing to take the action	6. Environmental record of person proposing to take the action	Part A1 Project Introduction A1.2
Attachment 1, Section 6	Environmental record of person proposing to take the action	6.01 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:(a) the person proposing to take the action; and(b) for an action for which a person has applied for a permit, the person making the application.6.02 If the person proposing to take the action is a corporation — details of the corporation's environmental policy and planning framework.	Part A1 Project Introduction A1.3
Attachment 1, Section 7		7. Information sources7.01 For information given the EIS must state:(a) the source of the information; and(b) how recent the information is; and(c) how the reliability of the information was tested; and(d) what uncertainties (if any) are in the information	Various technical chapters (Part B) each contain a summary of information sources and references