Draft terms of reference for an environmental impact statement:

North Queensland Country Club Resort and Equestrian Centre

June 2019

COORDINATOR-GENERAL

Queensland Government

The Department of State Development, Manufacturing, Infrastructure and Planning

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Part A. About these terms of reference

1. Introduction

1.1 This document outlines the draft terms of reference (TOR) for the North Queensland Country Club Resort and Equestrian Centre (the project), proposed by Landmark Projects Pty Ltd and being assessed under the *State Development and Public Works Organisation Act 1971* (SDPWO Act).

1.2 The project is located on a 440-hectare site, north-west of the Toolakea township in the suburb of Bluewater, 30 kilometres (km) north-west of Townsville. The project comprises an integrated resort including an accommodation precinct with up to 2,800 rooms and units, a sport and recreation precinct including an equestrian centre and an environmental and open space precinct for nature-based recreation activities.

1.3 The project would be constructed in five stages over a 20 to 25-year period. Subject to approvals, construction of stage 1 would commence in 2022 with estimated completion of the final stage 5 in 2044.

2. Statutory basis

2.1 The Coordinator-General has declared the North Queensland Country Club Resort and Equestrian Centre to be a 'coordinated project for which an environmental impact statement (EIS) is required' under section 26(1)(a) of the SDPWO Act. This declaration initiates the statutory environmental impact assessment procedure of Part 4 of the SDPWO Act, which requires a proponent to prepare an EIS for the project.

2.2 These TOR set out the matters the proponent must address in an EIS for the project and are approved by the Coordinator-General under section 30 of the SDPWO Act.

3. Accredited process for controlled actions under Commonwealth legislation

3.1 The proponent lodged a referral for controlled action decision under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) in late April 2019. Effective 17 May 2019, this referral is under consideration by the Commonwealth Department of Environment and Energy.

3.2 Should the Commonwealth Minister for the Environment determine the project a 'controlled action' under the EPBC Act due to likely potential impacts on matters of national environmental significance (MNES), the EIS process for the project under the EPBC Act may be conducted under the Bilateral Agreement between the Australian Government and the State of Queensland relating to environmental assessment (Bilateral Agreement). If so, the EIS must address the controlling provisions for the project and describe the aspects of the environment and the project that are subject to the controlled action decision.

3.3 If the EIS process for the EPBC Act is to be conducted under the Bilateral Agreement, the assessment of the controlling provisions, mitigation measures and any offsets for residual impacts must be described and illustrated in a stand-alone report in the EIS that fully addresses the matters relevant to the controlling provisions. Requirements for MNES, if the project is determined to be a controlled action, are set out on pages 11 – 20 of this TOR.

4. EIS guidelines

4.1 This TOR must be read in conjunction with *Preparing an environmental impact statement: Guideline for proponents* (refer Appendix 1Appendix 1), which explains the following:

(a) participants in the EIS process

(b) consultation requirements

(c) EIS format and copy requirements.

4.2 In addition, subject-specific policies and guidelines are referenced throughout this TOR and are listed in Appendix 1.

5. More information

5.1 For information about the project or the EIS process conducted under the SDPWO Act, visit **www.dsdmip.qld.gov.au/cg**

Part B. General approach and requirements

6. General approach

6.1 The objectives of the EIS are to provide a detailed description of the proposed project and to ensure that all relevant environmental, social and economic matters of the project are identified and assessed, and to recommend mitigation measures to avoid and minimise adverse impacts. The EIS should demonstrate that the project is based on sound environmental principles and practices.

6.2 For the purposes of the EIS process, 'environment' is defined in Schedule 2 of the SDPWO Act and includes social and economic matters.

6.3 The detail at which the EIS deals with matters relevant to the project should be proportional to the scale of the impacts on environmental values. When determining the scale of an impact, consider its intensity, duration, cumulative effect, irreversibility, the risk of environmental harm, management strategies and offsets provisions.

6.4 The EIS is to be prepared in accordance with relevant policies, standards and guidelines. Application of such guidelines, standards and policies will be confirmed throughout the development of the EIS in consultation between the Coordinator-General, the proponent and advisory agencies.

7. Mandatory requirements of an EIS

7.1 For all the relevant matters, the EIS must identify and describe the environmental values that must be protected. Environmental values are specified in the *Environmental Protection Act 1994* (EP Act),[1] the Environmental Protection Regulation 2008 (EP Regulation), environmental protection policies (EPPs) and relevant guidelines.[2]

7.2 The assessment should cover the short to long terms impacts of the project and state whether any relevant impacts are likely to be irreversible. The assessment should also discuss scenarios of unknown and unpredictable impacts.

[1] Part 3, Division 2, Subdivision 1, section 9.
[2] For example, the *Queensland Water Quality Guidelines* and the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (refer to Appendix 1 for details).

7.3 Provide all available baseline information relevant to the environmental risks of the project. Provide details about the quality of the information provided, in particular: the source of the information; how recent the information is; how the reliability of the information was tested; and any uncertainties in the information.

7.4 Provide detailed strategies regarding all matters for the protection, or enhancement as desirable, of all relevant environmental values in terms of outcomes and possible conditions that can be measured and audited. In general, the preferred hierarchy for managing likely impacts is: (a) to avoid; (b) to minimise/mitigate; and (c) if necessary, and possible, to offset.

7.5 Impact minimisation measures should include ongoing monitoring and proposals for an adaptive management approach, as relevant, based on monitoring. The proposed measures should give confidence that, based on current technologies, the risks can be effectively minimised over the long-term.

7.6 Each matter assessed in the EIS (as described in section 12 of this TOR) should include a concise summary of the potential impacts of the project and the measures proposed by the proponent to avoid, minimise, mitigate, manage and/or offset those impacts.

7.7 Present feasible alternatives of the project's configuration (including individual elements), including conceptual, technological and locality. Provide sufficient detail to provide understanding for preferred option/s and discuss the consequences of not proceeding with the project.

7.8 Assess the extent to which the construction and operation (to the extent known) of the project meets all statutory and regulatory requirements of the State and Commonwealth and that the intended outcomes are consistent with current state and commonwealth policies and guidelines. If there is a conflict, provide comment on the planning merit that supports the project.

7.9 An appropriate public consultation program is essential to support the impact assessment process. The proponent is to consult with local, State and Commonwealth government agencies, and potentially affected communities.

7.10 The EIS must describe the consultation that has taken place and how the responses from the community and agencies have been incorporated into the design and outcomes of the project.

7.11 Include as an appendix a consultation report detailing how the community and stakeholder engagement program was implemented and the results.

8. Further requirements of an EIS

8.1 The proponent must identify in the EIS the scope of all government approvals sought through the EIS process. The assessment and supporting information should be sufficient for the administering authority to decide whether an approval should be granted. Where applicable, sufficient information should be included to enable approval conditions to be decided.

8.2 To the extent of the information available, the assessment should endeavour to predict the cumulative impact[3] of the project on environmental values over time and in combination with impacts created by the activities of other adjacent and upstream and downstream developments and landholders—as detected by baseline monitoring. This will inform the decision on the EIS and the setting of conditions. The EIS should also outline ways in which the cumulative impact assessment and management could subsequently be progressed further on a collective basis.

[3] Cumulative impact is defined as 'combined impacts from all relevant sources (developments and other activities in the area)'.

8.3 Include a consolidated description of all the proponent's commitments to implement management measures (including monitoring programs). Should the project proceed, these should be able to be carried over into the approval conditions as relevant.

8.4 Provide all geographical coordinates throughout the EIS in latitude and longitude against the *Geocentric Datum of Australia 1994* (GDA94) (or updated datum sets).

8.5 An EIS must also describe the expected benefits and opportunities associated with the project.

Part C. EIS content and suggested structure

9. Executive summary

9.1 The executive summary must describe the project and convey the most important and preferred aspects and environmental management 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.

10. Introduction

10.1 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.

Project proponent

10.2 Describe the following:

(a) the proponent's full name, postal address and Australian Business Number, if relevant (including details of any joint venture partners)

(b) the nature and extent of business activities

(c) proponent's experience

(d) proponent's (including directors) environmental record in Australia, including a list of any breach of relevant environmental laws during the previous ten years

(e) proponent's environmental, health, safety and community policies

(f) experience and qualifications of consultants and sub-consultants engaged by the proponent to complete the EIS.

The environmental impact assessment process

10.3 Provide an outline of the environmental impact assessment process, including the role of the EIS in the Coordinator-General's decision-making process. The information in this section is required to ensure readers are informed of the process to be followed and are aware of any opportunities for input and participation.

10.4 Inform the reader how and when properly made public submissions on the EIS will be addressed and considered in the decision-making process.

Project approvals process

10.5 Describe the approvals, and the entities granting each approval, required to enable the project to be constructed and operated and the level of approval sought via the EIS assessment

process. Explain how the environmental impact assessment process (and the EIS itself) informs the issue of the leases/ licences/ preliminary approvals/ development permits/ consents required by the proponent before construction can commence. Provide a flow chart indicating the key approvals, stages, timing and opportunities for public comment.

10.6 Provide detailed information pertaining to the planning history of the project site (e.g. rezoning history, land use approvals, current applications), which would include:

(a) A copy of any planning and/or development applications currently lodged with Townsville City Council (TCC) and any former rezoning/ land use/ development approvals on the site

(b) clarification of the relationship between any current development applications and the superseded City of Thuringowa Planning Scheme 2003, including a description of the mechanism(s) within the superseded scheme which would allow the current material change of use application (subject to code assessment) to be issued with a development permit (as opposed to a variation request / Preliminary Approval to override the Townsville City Plan 2014 which would trigger a material change of use approval subject to impact assessment)

(c) describe how the project aligns with the 1985 rezoning of the site

(d) describe how the project aligns with the City of Thuringowa Planning Scheme 2003, in particular the Rural Planning Area Code and the Toolakea Local Area Code.

10.7 Identify the preferred land use planning approval framework for the project site, particularly in relation to project stages (e.g. Development Permit or Preliminary Approval for Material Change of Use for all or some of the project stages), including any proposed condition sets that could attach to planning approvals issued subsequent to the EIS assessment process.

10.8 Provide detailed information which would allow TCC to assess a variation request or application for preliminary approval to override the Townsville City Plan 2014. A Draft Plan of Development should be provided which sets out additional planning provisions to those set out in the Townsville City Plan 2014 which vary the effect of the planning scheme. The Draft Plan of Development should:

(a) categorise development as assessable or accepted development,

(b) include tables of assessment which specify categories of assessment required for different types of assessable development

(c) sets out the matters (assessment benchmarks) than an assessment manager must assess any assessable development against – these would replace use and overlay codes identified in the Townsville City Plan

(d) include common material against which subsequent development applications within the Plan of Development Area will be assessed.

10.9 A variation request or application for preliminary approval to override the Townsville City Plan 2014 would amend a local planning instrument. The State Planning Policy applies when making or amending a local planning instrument. The local government must consider how the relevant parts of the SPP apply in their local area and appropriately integrate those parts of the SPP in a local planning instrument.

10.10 Demonstrate how the Draft Plan of Development incorporates the consideration and assessment of State interests as described by the State Planning Policy. Identify these interests and their provisions which apply to the proposed uses of land within the project site. Identify how the State Interest policies and assessment benchmarks are to be implemented and enforced through the Plan of Development. Where it is considered that State interests and

associated provisions of the SPP do not apply, provide justification for that position. Provide detailed plans and supporting documentation which clearly identifies all aspects of the proposed development including:

(a) the layout, design and extent of all proposed buildings and structures including scaled site plans, architectural drawings and elevations

(b) the breakdown of all land uses within each of the proposed precincts, including land area and maximum yield for each stage

(c) a staging plan with a detailed description of each precinct with supporting plans to indicate land area, land uses, accommodation types, car parking spaces and a description of vehicle movements

(d) extent of works such as filling and excavation

(e) layout and design for internal roads.

10.11 The State Development Assessment Provisions (SDAP) prescribed in the Planning Regulation 2017 (Planning Regulation) sets out the matters of interest to the state for development assessment where the chief executive of the *Planning Act 2016* (Planning Act) is the assessment manager for development applications. If the proponent intends to satisfy the information requirements of future development assessment decisions under SDAP for any component of the project during this coordinated project EIS process, the material provided in accordance with sections 11–12 of this TOR should be sufficient to permit those assessments to be completed for that project component. Further information on SDAP requirements can be assessed from **https://planning.dsdmip.qld.gov.au/.**

10.12 Describe the assessment process under the Bilateral Agreement between the Commonwealth and the State of Queensland under section 45 of the EPBC Act relating to Environmental Assessment (Bilateral Agreement).

10.13 The EIS must provide, where relevant, the information required under section 125 of the EP Act in support of the project's environmentally relevant activities (ERA). Any ERA to be conducted as part of the project should be listed separately with the appropriate ERA number, activity name and required threshold (see EP Regulation, Schedule 2 for a list of ERAs). The assessment and supporting information provided in the EIS should be sufficient for the administering authority to decide whether an approval should be granted. Environmental values and approval requirements are specified in the EP Act, the EP Regulation, EPP and relevant guidelines.

10.14 The information in the EIS must satisfy previous requests for information from relevant administering authorities related to the existing application with TCC.

11. Project description

Proposed development

11.1 The EIS must describe and illustrate at least the following specific information about the proposed project:

(a) project title

(b) project description

(c) project objectives

(d) expected capital expenditure

(e) rationale for the project

(f) regional and local context of the project's footprint, including reference to infrastructure (with maps at suitable scales)

(g) relationship to other major projects and/or development (of which the proponent should reasonably be aware)

(h) workforce numbers to be employed by the project during all project phases and source of local workforce (including peak and direct workforce numbers)

(i) where construction and operational personnel would be accommodated

(j) proposed timing and overall duration of the project including construction staging and likely schedule of works, including details of early works.

Site description

11.2 Provide real property descriptions of the project land and adjacent properties; any easements; any tenures; and identification number of any lease for the project land that is subject to the application.

11.3 Describe and map key transport, all local government and state-controlled roads, private and government owned corporation energy, rail, air, port/sea and other infrastructure or services in the region and impacted by the project.

11.4 Describe and map proximate rural premises, business precincts, and public facilities (e.g. childcare and education facilities, health facilities).

11.5 Describe and map the topography of the project site and surrounding area, highlighting any significant features shown on the maps. Include and name rivers and creeks. Maps should include a scale and have contours at suitable increments relevant to the scale, location, potential impacts and type of project, shown with respect to Australian Height Datum (AHD) and drafted to GDA94 (or updated datum sets).

11.6 Describe and illustrate specific information about the proposed project including the precise location of the proposed development in relation to designated and protected areas such as erosion prone areas, the coastal management district, marine park boundaries, fish habitat areas and World Heritage Areas.

11.7 Where relevant, describe and map in plan and cross-sections the geology and landforms, including catchments, of the project area. Show geological structures, such as aquifers, faults and economic resources (such as agricultural products) that could have an influence on, or be influenced by, the project's activities.

11.8 Describe, map and illustrate soil types and profiles of the project area including added fill and/or exposed ground surface of all parts of the project area at a scale relevant to the proposed project. Identify soils that would require specific management due to wetness, erosivity, depth, acidity, salinity or other features.

11.9 Describe the planning schemes, regional plans, state policies, government priorities for the project area.

11.10 Describe tourist destinations and sites used for recreation in and adjoining the product delivery routes.

11.11 Plans and drawings provided must be detailed enough to ensure adequate assessment of the proposal, for the approvals being sought. Detailed plans and supporting documentation must

be provided so that the approvals being sought can be adequately assessed. Detailed plans and supporting information may include:

(a) the layout, design and extent of all proposed buildings and structures including scaled site plans, architectural drawings and elevations

(b) the breakdown of all land uses within each of the proposed precincts, including land area and maximum yield for each stage

(c) a staging plan with a detailed description of each precinct with supporting plans to indicate land area, land uses, accommodation types, car parking spaces and a description of vehicle movements

(d) extent of works such as filling and excavation

(e) layout and design for internal roads.

11.1.2 All plans and drawings should comply with the Townsville City Plan Development Manual Planning Scheme Policy which sets out the level of information required to support development applications.

Climate

11.12 Describe the site's climate patterns that are relevant to the environmental assessment, with particular regard to discharges to water and air, and the propagation of noise. Climate information should be presented in a statistical form including long-term averages and extreme values, as necessary.

Proposed construction and operations

11.13 Describe the following information about the proposed project:

Pre-construction

(a) the sequencing and staging of activities

(b) project site access arrangements

(c) establishment of internal access tracks

(d) proposed vegetation clearing

(e) proposed interference with watercourses and floodplain areas, including wetlands

(f) proposed upgrades, realignments, relocation, deviation or restricted access to roads and other infrastructure including water, power and telecommunications

(g) an estimate of any fill or quarry materials required and location of the potential source/s

(h) proposed construction of temporary site offices and services

Construction

(i) the sequencing and staging of activities

(j) hours of operation for proposed construction works, including night time works

(k) the proposed earthworks, construction methods, associated equipment and techniques

(l) disturbance areas

(m) the capacity of high-impact plant and equipment, their chemical and physical processes, and chemicals or hazardous materials to be used

(n) on-site and off-site infrastructure requirements (e.g. roads, electricity, telecommunications, water supply, sewerage, stormwater)

(o) site drainage, erosion and stormwater management, flood protection and waste water management

(p) any activity that is a prescribed ERA

(q) the rehabilitation of affected areas after construction

Operation

(r) the sequencing and staging of activities

(s) operation detail (e.g. hours of operation for project components)

(t) the range of land uses and site layout

(u) built form and design specifics

(v) location and scale of parking requirements

(w) management structure of final development (e.g. body corporate)

(x) on-site and off-site infrastructure requirements (e.g. roads, electricity, telecommunications, water supply, sewerage, stormwater)

(y) any activity that is a prescribed ERA

(z) location, design and capacity of water supply, telecommunications, power generation and transmission infrastructure

(aa) any infrastructure alternatives, justified in terms of ecologically sustainable development (including energy and water conservation)

11.1 For each stage of development, identify the type, quantity, origin, routes, delivery modes, storage and laydown requirements for materials required during the pre-construction, construction and operation of the project for works:

(a) at the project site

(b) at the project component sites, to the degree it is required for subsequent approval processes

(c) for the product delivery route.

Infrastructure requirements

Objectives

The project should provide necessary infrastructure to service the development that:

(a) maintains or enhances services to existing users

(b) ensures any required works are compatible with existing infrastructure

(c) ensure upgrades to essential infrastructure are funded by the proponent.

11.2 This section should detail, with concept and layout plans, requirements for new infrastructure, or the upgrading, retention, relocating and/or decommissioning for each stage of development of existing on-site and off-site infrastructure to service the project. Infrastructure to be considered should include, but is not limited to, access roads including connections to public roads and proposed road/rail interfaces, bridges, water supply, energy supply, telecommunications,

stormwater, waste disposal, sewerage (including location and size of the sewage treatment plant, the sewage collection system, wet weather storage and any pipelines and waste disposal areas associated with the plant), and locations of any infrastructure easements.

11.3 For each stage of development, describe the timing of requirements for this infrastructure (starting with construction of the project) and detail any proposed decommissioning schedule for project related infrastructure.

11.4 Provide details of the options assessed for the proposed raw water supply pipeline, electricity transmission line, telecommunications infrastructure, water treatment, sewage and roads, including justification for the preferred and final alignments or locations chosen.

11.5 Identify any proponent commitments for contributions to infrastructure upgrade requirements to support the project.

11.6 Provide sufficient supporting information in relation to proposed infrastructure to meet TCC's documentation guidelines for development applications, including water and sewer network analysis.

11.7 Provide an estimate of infrastructure charges payable to cover trunk infrastructure costs that arise as a result of the project using TCC's contributions calculators.

11.8 Provide supporting information which demonstrates that upgrades to existing infrastructure and the establishment of any new infrastructure can be fully funded by the proponent.

12. Assessment of project specific matters

12.1 This section sets out the scope of project specific matters that should be given detailed treatment in the EIS.

12.2 The final scope of project specific matters will be determined by the Coordinator-General when finalising the TOR. In the course of preparing the EIS, information may become available that warrants a change of scope.

Matters of national environmental significance

Background and context

12.3 This section should provide a stand-alone description and detailed assessment of the impacts for each relevant controlling provision under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act), inclusive of any avoidance, mitigation and offset measures.

12.4 The proponent lodged a referral for controlled action decision under the EBPC Act in late April 2019. Effective 17 May 2019, this referral is under consideration by the Commonwealth Department of Environment and Energy.

12.5 The Commonwealth Minister for the Environment may determine that the project will impact upon the following controlling provisions under the EPBC Act:

(a) World Heritage properties (sections 12 and 15A)
(b) National Heritage places (sections 15B and 15C)
(c) Great Barrier Reef Marine Park (sections 24B and 24C)
(d) Listed threatened species and communities (sections 18 and 18A)
(e) Listed migratory species (sections 20 and 20A).

12.6 If the EIS is to be prepared pursuant to the Bilateral Agreement between the Commonwealth of Australia and the State of Queensland, The EIS must meet the impact assessment requirements under both Commonwealth and Queensland legislation. The project would then require approval from the responsible Commonwealth minister under Part 9 of the EPBC Act before it can proceed.

12.7 Once the EIS has been prepared to the satisfaction of the Coordinator-General and MNES addressed to the satisfaction of the Commonwealth Department of the Environment and Energy, the EIS would be made available for public comment.

12.8 The proponent may be required by the Coordinator-General or the Department of the Environment and Energy to provide additional material to address matters raised in submissions on the EIS.

12.9 At the conclusion of the environmental assessment process, the Coordinator-General would provide a copy of the report to the Commonwealth Minister for the Environment, in accordance with Part 13, section 36(2) of the State Development and Public Works Organisation Regulation 2010 (Qld).

12.10 After receiving the evaluation report and sufficient information about the relevant impacts of the action, the Commonwealth Minister for the Environment would have 30 business days to consider whether the impacts of the proposal are acceptable, or not, and to decide whether or not to approve each controlling provision.

12.11 The Minister's decision is separate to the approval decisions made by Queensland state agencies and other agencies with jurisdiction on state matters.

12.12 In accordance with Section 3.1 of Schedule 1 of the Bilateral Agreement, the EIS must:

(a) assess all relevant impacts that the proposed action has, will have or is likely to have;

(b) provide enough information about the proposed action and its relevant impacts to allow the Commonwealth Minister for the Environment to make an informed decision whether or not to approve the action under Part 9 of the EPBC Act; and

(c) address the matters mentioned in Division 5.2 of the Environment Protection and Biodiversity Conservation Regulations 2000 (Cth) (EPBC Regulations).

12.13 A cross-reference to the relevant sections in the EIS that addresses each of the matters mentioned in Division 5.2 of the EPBC Regulations should be provided.

12.14 Consideration should be given to any relevant advice, policy statements and guidelines (available at **www.environment.gov.au**) including but not limited to:

(a) *Significant impact guidelines 1.1 - Matters of National Environmental Significance* (refer Appendix 1)

(b) EPBC Act Environmental Offsets Policy (refer Appendix 1); and

(c) any approved conservation advice, recovery plans and threat abatement plans (as relevant) for listed threatened species and ecological communities.

12.15 The MNES section of the EIS should bring together assessments of impacts from other chapters and produce a stand-alone assessment in a format suited for assessment under the EPBC Act.

12.16 The project should initially be assessed in its own right followed by an assessment of the cumulative impacts related to all known proposed developments in the region with respect to

each controlling provision and all identified consequential actions. Cumulative impacts not solely related to the project development should also be assessed.

12.17 Predictions of the extent of threat (risk), impact and the benefits of any mitigation measures proposed, should be based on sound science and quantified where possible. Reference all sources of information relied upon and provide an estimate of the reliability of predictions. Also identify and evaluate any positive impacts.

12.18 The extent of any new field work, modelling or testing should be commensurate with risk and should be such that when used in conjunction with existing information, provides sufficient confidence in predictions that well-informed decisions can be made.

12.19 Project alternatives must be discussed in accordance with Schedule 4, section 2.01(g) of the EPBC Regulations, including:

(a) If relevant, the alternative of taking no action

(b) a comparative description of the impacts of each alternative on the triggered MNES protected by controlling provisions of Part 3 of the EPBC Act for the action

(c) sufficient detail to make clear why any alternative or option is preferred to another

(d) short, medium and long-term advantages and disadvantages of the alternatives or options must be discussed.

12.20 The following content requirements are based on these matters and considerations, with the addition of directions specific to the proposed action and the receiving environment.

12.21 The information provided must include 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 proposed to take the action

(b) for an action for which a person has applied for a permit, the person making the application.

If the person proposing to take the action is a corporation, details of the corporation's environmental policy and planning framework must also be included.

12.22 The economic and social impacts of the action, both positive and negative, must be analysed. Matters of interest may include:

(a) Details of any public consultation activities undertaken, and their outcomes;

(b) Details of any consultation with Indigenous stakeholders;

(c) Projected economic costs and benefits of the project, including the basis for their estimation through cost/benefit analysis or similar studies; and

(d) Employment and other opportunities expected to be generated by the project (including construction and operational phases).

(e) Economic and social impacts should be considered at the local, regional and national levels. Details of the relevant cost and benefits of alternative options to the proposed action should also be included.

12.23 Identification of affected parties is required, including a statement mentioning any communities that may be affected and describing their views.

Assessment requirements

12.24 The EIS must provide background to the action and describe in detail all aspects of the action, including but not limited to, the construction, operational and (if relevant) decommissioning aspects, including:

(a) the precise location of all works to be undertaken (including associated offsite works and infrastructure), structures to be built or elements of each aspect that may have impacts on any matter protected under each relevant controlling provision; and

(b) details on how the works are to be undertaken (including stages of development and their timing) and design parameters for those parts of the structures or elements that may have relevant impacts.

12.25 The EIS must also provide details on the current state of the proposed action as well as the consequences of not proceeding with the project.

12.26 To the extent reasonably practicable, the EIS must include a discussion of feasible alternatives in accordance with Schedule 4, section 2.01(g) of the EPBC Regulations. The short, medium and long-term advantages and disadvantages of the alternatives must be discussed.

12.27 The EIS should include an assessment of the cumulative impacts, with respect to each controlling provision and all identified consequential actions related to the action and all known developments (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.

12.28 With respect to each controlling provision, describe any avoidance measures proposed to reduce the impact on MNES and the anticipated result of proposed avoidance measures. Supporting evidence should be provided to demonstrate the appropriateness of avoidance measures proposed. Where the likely success of avoidance measures cannot be supported by evidence, identify and assess contingencies in the event the avoidance is not successful.

12.29 With respect to each controlling provision, describe any mitigation measures proposed to reduce the impact on MNES and the anticipated result of proposed mitigation measures. Supporting evidence should be provided to demonstrate the appropriateness of mitigation measures proposed. Where the likely success of mitigation measured cannot be supported by evidence, identify contingencies in the event the mitigation is not successful.

12.30 With respect to each controlling provision, describe the residual significant impacts of the action after all proposed avoidance and mitigation measures are taken into account and any compensatory measures proposed.

12.31 With respect to each controlling provision for each proposed action, include maps at suitable scales showing the location of disturbance areas, estimates of disturbance for MNES likely to be impacted as a result of the project, and quantify the extent of habitat for listed threatened species and communities adjacent to the project site to provide clarity on the regional context of these habitats on the project site.

World Heritage properties (if this is determined to be a controlling provision)

Great Barrier Reef World Heritage Area

12.32 Identify and describe the characteristics and values of the Great Barrier Reef World Heritage Area that are likely to be impacted by all stages of the proposed development.

12.33 Values include, but are not restricted to, exceptional natural beauty and aesthetic importance of the area, species of conservation significance and the significant regional habitat for listed

threatened and migratory species **(https://www.environment.gov.au/heritage/places/world/gbr/values).**

12.34 Discuss the potential direct, indirect and consequential impacts on each area, place, site or reserve, including:

(a) modification, destruction, fragmentation, isolation or disturbance of an important or substantial area of habitat

(b) impacts on other users of the area

(c) the potential impacts on important amenities, navigation, threatened or migratory species or sensitive habitat

(d) the extent to which impacts can be forecasted or predicted, and management.

12.35 Analyse the impact of the action on the values at the proposed location, and how this in turn impacts on the overall values of the Great Barrier Reef World Heritage Area.

12.36 Describe any mitigation and management measures proposed to protect or enhance impacts on the Great Barrier Reef World Heritage Area.

12.37 Assess the impacts of the project against relevant reports and documents published as part of the Great Barrier Reef Region and Great Barrier Reef Coast Strategic Assessments Reports and the Reef 2050 Long-Term Sustainability Plan.

12.38 Describe the residual impacts of the proposed development after all proposed avoidance and mitigation measures are taken into account. Where residual significant impacts to the attributes and/or integrity of the Great Barrier Reef World Heritage Area are determined likely, include proposed offsets consistent with the EPBC Act environmental offsets policy.

12.39 Demonstrate that the project will not be inconsistent with:

(a) Australia's obligations under the World Heritage Convention; or

(b) the Australian World Heritage management principles; or

(c) a plan that has been prepared for the management of a declared World Heritage property under section 316 or as described in section 321 of the EPBC Act.

National Heritage Area (if this is determined to be a controlling provision)

Great Barrier Reef Heritage Area

12.40 Assess and discuss all potential and likely impacts to the National Heritage values of the Great Barrier Reef National Heritage place.

12.41 Analyse the direct, indirect and consequential impacts of the action on the values of the Great Barrier Reef National Heritage place.

12.42 Describe any mitigation and management measures proposed to protect on the values of the Great Barrier Reef National Heritage place.

12.43 Demonstrate that the project will not be inconsistent with:

(a) the National Heritage management principles, or

(b) an agreement to which the Commonwealth is party in relation to a National Heritage place, or

(c) a plan that has been prepared for the management of a National Heritage place under section 324S or as described in section 324X of the EPBC Act.

Great Barrier Reef Marine Park (if this is determined to be a controlling provision)

12.44 Assess and discuss the potential direct, indirect and consequential impacts of all stages of the proposed development on the environment of the Great Barrier Reef Marine Park, including, but not limited to:

(a) impacts resulting from an increase in contaminants to water quality

(b) potential risk of pest species becoming established in the Great Barrier Reef Marine Park area.

12.45 An assessment and discussion of the potential and likely impacts of the proposed development on the environment of the Great Barrier Reef Marine Park. This must reference the key values and attributes outlined in the *Great Barrier Reef Outlook Report 2014* (Great Barrier Reef Marine Park Authority) that may be impacted by proposed development.

12.46 Assess the impacts of the project against relevant actions, targets and objectives of the *Reef 2050 Long-Term Sustainability Plan*

12.47 Describe the residual significant impacts of the project after all proposed avoidance and mitigation measures are taken into account. Where residual significant impacts to the environment in the Great Barrier Reef Marine Park are determined likely, describe proposed offsets consistent with the *EPBC Act environmental offsets policy* (2012).

Listed threatened species and communities (if this is determined to be a controlling provision)

12.48 For each proposed action the EIS must:

(a) describe the relevant listed threatened species and ecological communities (including EPBC Act listing status, distribution, life history and habitat);

(b) provide details of the scope, methodology, timing and effort of surveys for the action (including areas outside of each proposed action area which may be impacted by the proposed action); and include details of:

i. the application of best practice survey guidelines;

ii. how studies or surveys are consistent with (or a justification for divergence from) published Australian Government guidelines and policy statements;

(c) describe and assess the impacts to listed threatened species and ecological communities identified below and any others that are found to be or may potentially be present in areas that may be impacted by the proposed action in accordance with the Significant impact guidelines 1.1 - Matters of National Environmental Significance, *Environment Protection and Biodiversity Conservation Act 1999*;

(d) identify which aspect of each proposed action is of relevance to each listed threatened species or ecological community or if the threat of impact relates to consequential actions; and

(e) where relevant, have regard to any approved conservation advice.

12.49 Describe the residual significant impacts of the proposed development after all proposed avoidance and mitigation measures are taken into account. Where residual impacts to listed threatened species and ecological communities are likely to be significant, include proposed offsets consistent with the EPBC Act Environmental Offsets Policy, including detailed

justification of any proposed offsets using the Offsets Assessment Guide accompanying the Environmental Offsets Policy.

12.50 Where relevant, the EIS must demonstrate that each proposed action will not be inconsistent with:

(a) Australia's obligations under:

i. the Biodiversity Convention;

ii. the Convention on Conservation of Nature in the South Pacific (Apia Convention);

(b) a recovery plan or threat abatement plan.

List of potential listed threatened species

12.51 The EIS must address impacts on any listed threatened species that may be directly, indirectly or consequentially impacted by the proposed action, including but not limited to, the following species:

Plants

(a) Cardwell Bear Orchid (*Calochilus psednus*) - Endangered;
(b) Cardwell Midge Orchid (*Genoplesium tectum*) - Endangered;
(c) Lesser Swamp-orchid (*Phaius australis*) - Endangered;
(d) *Marsdenia brevifolia* – Vulnerable;
(e) Bluegrass (*Dichanthium setosum*) - Vulnerable;
(f) *Tephrosia leveillei* – Vulnerable.
(g) Ant Plant (*Myrmecodia beccarii*) - Vulnerable;

Birds

(h) Red Knot (*Caldris canutus*) – Endangered;
(i) Curlew Sandpiper (*Calidris ferruginea*) – Critically endangered;
(j) Great Knott (*Calidris tenuirostris*) – Critically endangered;
(k) Greater Sand Plover (*Charadrius leschenaultii*) – Vulnerable;
(l) Lesser Sand Plover (*Charadrius mongolus*) - Endangered;
(m) Red Goshawk (*Erythrotriorchis radiates*) – Vulnerable;
(n) Bar-tailed Godwit (*Limosa lapponica baueri*) – Vulnerable;
(o) Eastern Curlew (*Numenius madagascariensis*) - Critically endangered;
(p) Southern Black-throated Finch (*Poephila cincta cincta*) – Endangered;
(q) Australian Painted Snipe (*Rostratula australis*) – Endangered;
(r) Masked Owl (*Tyto novaehollandiae kimberli*) – Vulnerable;

Bats

(s) Barerumped Sheathtail Bat (*Saccolaimus saccolaimus nudicluniatus*) – Vulnerable;
(t) Large-eared Horseshoe Bat (*Rhinolophus robertsi*) – Vulnerable;

Turtles

(u) Green Turtle (*Chelonia mydas*) – Vulnerable;
(v) Flatback Turtle (*Natator depressus*) – Vulnerable.

List of potential listed threatened ecological communities

12.52 The EIS must address impacts on any listed threatened ecological community that may be directly, indirectly or consequentially impacted by the proposed action, including but not limited to, the following community:

(a) Broad leaf tea-tree woodlands in high rainfall coastal North Queensland – endangered.

Impact on a listed migratory species (if this is determined to be a controlling provision)

12.53 The EIS must describe the listed migratory species identified below (including distribution, life history, and habitat).

12.54 Provide details of the scope, methodology, timing and effort of surveys for the proposed action (including areas outside of the proposed action area which may be impacted by the proposed action); and include details of:

(a) the application of best practice survey guidelines;

(b) how studies or surveys are consistent with (or a justification for divergence from) published Australian Government guidelines and policy statements;

12.55 Describe and assess the impacts to the listed migratory species identified below and any others that are found to be or may potentially be present in areas that may be impacted by the proposed action in accordance with the *Significant impact guidelines 1.1 – Matters of National Environmental Significance,* EPBC Act; and identify which aspect of the proposed action is of relevance to each species or if the threat of impact relates to consequential actions.

12.56 Describe the residual impacts of the proposed development after all proposed avoidance and mitigation measures are taken into account. Where residual impacts to listed migratory species are likely to be significant, include proposed offsets consistent with the EPBC Act Environmental Offsets Policy.

12.57 Where relevant, demonstrate that the proposed action will not be inconsistent with:

(a) Australia's obligations under:

i. Convention on the Conservation of Migratory Species of Wild Animals (the Bonn Convention);

ii. China-Australia Migratory Bird Agreement (CAMBA);

iii. Japan-Australia Migratory Bird Agreement (JAMBA); and

iv. an international agreement approved under subsection 209(4) of the EPBC Act.

List of potential listed migratory species

12.58 The EIS must address impacts on any migratory species that may be directly, indirectly or consequentially impacted by the proposed action, including but not limited to, the following species:

(a) Estuarine Crocodile (*Crocodylus porosus*);

Turtles

(b) Flatback Turtle (*Natator depressus*);

(c) Loggerhead Turtle (*Caretta caretta*);

(d) Green Turtle (*Chelonia mydas*);

(e) Leatherback Turtle (*Dermochelys coriacea*);
(f) Olive Ridley Turtle (*Lepidochelys olivacea*);

Birds

(g) Flatback Rainbow Bee-eater (*Merops ornatus*);
(h) White-throated Needletail (*Hirundapus caudacutus*);
(i) Great Egret (*Ardea ibis*);
(j) Oriental Cuckoo (*Cuculus optatus*);
(k) Beach Stone-curlew (*Esacus magnirostris*);
(l) Barn Swallow (*Hirundo rustica*);
(m) Yellow Wagtail (*Motacilla flava*);
(n) Satin Flycatcher (*Myiagra cyanoleuca*);
(o) Common Sandpiper (*Actitis hypoleucos*);
(p) Ruddy Turnstone (*Arenaria interpres*);
(q) Sharptailed Sandpiper (*Calidris acuminate*);
(r) Pectoral Sandpiper (*Calidris melanotos*);
(s) Red-necked Stint (*Calidris ruficollis*);
(t) Latham's Snipe (*Gallinago hardwickii*);
(u) Whimbrel (*Numenius phaeopus*);
(v) Osprey (*Pandion haliaetus*);
(w) Greytailed Tattler (*Tringa brevipes*);
(x) Common Greenshank (*Tringa nebularia*);
(y) Magpie Goose (*Anseranas semipalmata*);
(z) Redcapped Plover (*Charadrius ruficapillus*).

Offsets

12.59 The EIS must describe the residual impacts of the action for each relevant matter protected by the EPBC Act, after all proposed avoidance and mitigation measures are applied.

12.60 The EIS must identify whether the residual impacts are significant with reference to the *Matters of National Environmental Significance, Significant impact guidelines 1.1*, EPBC Act.

12.61 If those residual impacts are significant the EIS must propose offsets for relevant matters protected by the EPBC Act consistent with the, Environmental Offsets Policy.

Assumptions and/or predictions

12.62 If the EIS utilises predictions of the extent of threat (risk), impact and/or any benefit of any mitigation measures proposed, this must be based on sound science and quantified where possible.

12.63 The EIS must reference all sources of information relied upon and an estimate of the reliability of predictions must be provided.

12.64 Any positive impacts may also be identified and evaluated.

12.65 The EIS should describe any additional new field work, modelling or testing that, when used in conjunction with existing information, provides sufficient confidence in predictions that well-

informed decisions can be made. The extent of any new field work, modelling or testing should be commensurate with risk.

Conclusion

12.66 The EIS must include an overall conclusion for the action as to the environmental acceptability of the proposed action on each relevant matter protected by the EPBC Act, including:

(a) a discussion on the consideration with the requirements of the EPBC Act, including the objects of the EPBC Act, the principles of ecologically sustainable development and the precautionary principle;

(b) reasons justifying undertaking the proposed action in the manner proposed, including the acceptability of the avoidance and mitigation measures; and

(c) if relevant, a discussion of residual significant impacts and any offsets and compensatory measures proposed or required for residual significant impacts on relevant matters protected by the EPBC Act, and the relative degree of compensation and acceptability.

Other required information

12.67 The EIS must include 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.

12.68 If the person proposing to take the action is a corporation—details of the corporation's environmental policy and planning framework must also be included.

12.69 The economic and social impacts of the action, both positive and negative, must be analysed, including but not limited to:

(a) the economic and social impacts at the local, regional and national levels for the project as a whole

i. further to the economic and social impacts for the State's considerations (detailed at sections 12.118– 12.131 of this document), this may include projected economic costs and benefits of each proposed action, including the basis for their estimation through cost/benefit analysis or similar studies;

(b) details of the relevant cost and benefits of alternatives to the action

ii. further to the economic and social impacts for the State's considerations (detailed at sections 12.118 – 12.131 of this document), this may include employment and other opportunities expected to be generated (including construction and operational phases) by the project as a whole;

(c) identification of affected parties, including a statement mentioning any communities that may be affected and describing their views

i. further to the economic and social impacts for the State's considerations (detailed at sections 12.118 – 12.131 of this document), this may include:

- details of any public consultation activities undertaken, and their outcomes; and

- details of any consultation with Indigenous stakeholders.

Flora and fauna

Objective

Biodiversity including matters of state environmental significance are identified and appropriately safeguarded to support healthy and resilient ecosystems and ensure the sustainable, long-term conservation of biodiversity and the social, economic, cultural and environmental benefits it provides.

Existing environment

12.70 Identify and describe matters of state environmental significance (MSES), State and regionally significant biodiversity and natural environmental values of the terrestrial and aquatic ecology likely to be impacted by the project. Where MSES have been addressed in the section on MNES, cross referencing may be appropriate.

Impact assessment

12.71 The general layout and footprint of development in the November 2018 Change Application with TCC has been modified - provide further information regarding the proposed changes to the development footprint and how it differs from the original development application.

12.72 Describe the likely impacts on the biodiversity and natural environmental values of affected areas arising from the construction and operation of the project (where known) in accordance with DES *Information guideline for an environmental impact statement* relevant to terrestrial and aquatic ecology (refer Appendix 1).

12.73 Take into account any proposed avoidance and/or mitigation measures. The assessment should include, but not be limited to, the following key elements:

(a) MSES, matters of local environmental significance (MLES), and designated State and regional biodiversity values and conservation corridors of conservation significance. Reference should be made to the Biodiversity Planning Assessment and BioCondition assessment tools where appropriate (refer Appendix 1).

(b) terrestrial and aquatic ecosystems (including groundwater-dependent ecosystems) and their interaction

(c) biological diversity including listed flora and fauna species and regional ecosystems

(d) the existing integrity and connectivity of ecological processes, including habitats of threatened, near-threatened or special least-concern species

(e) the integrity of landscapes and places, including wilderness and similar natural places

(f) actions of the project that require an authority under the *Nature Conservation Act 1992* and *Water Act 2000* and/or would be assessable development for the purposes of the *Vegetation Management Act 1999*, the *Fisheries Act 1994* or the *Coastal Protection and Management Act 1995*

(g) chronic, low-level exposure to contaminants or the bio-accumulation of contaminants

(h) impacts on native fauna (terrestrial and marine) due to proximity to the site and site impacts (e.g. lighting, noise, waste, surface water runoff).

12.74 Include maps at suitable scales showing the location of disturbance areas, estimates of disturbance for MSES likely to be impacted as a result of the project, and quantify the extent of habitat for listed threatened species and communities adjacent to the project site to provide clarity on the regional context of these habitats on the project site. Where MSES have been addressed in the section on MNES, cross referencing may be appropriate.

12.75 Discuss how impacts to MSES values identified are going to be avoided, minimised and/or mitigated to the greatest extent practicable.

Mitigation measures

12.76 Propose practical measures for protecting or enhancing natural values and assess how the nominated quantitative indicators and standards may be achieved for nature conservation management. In particular, address measures to protect or preserve any threatened or near-threatened species.

12.77 Describe strategies for protecting any Ramsar wetlands; and discuss any obligations imposed by state or Commonwealth legislation or policy, or international treaty obligations (that is, Japan–Australia Migratory Birds Agreement (JAMBA), China–Australia Migratory Birds Agreement (CAMBA) and Republic Of Korea–Australia Migratory Birds Agreement (ROKAMBA)).

12.78 Assess the need for buffer zones and the retention, rehabilitation or planting of movement corridors, and propose measures that would avoid the need for waterway barriers, or propose measures to mitigate the impacts of their construction and operation.

12.79 Describe how the achievement of the flora and fauna objectives would be monitored, audited and reported, and how corrective/preventative actions would be managed for all phases of the project.

Offsets

12.80 Where a significant residual impact will occur on a prescribed environmental matter as outlined in the Environmental Offsets Regulation 2014, the offset proposal(s) must be consistent with the requirements of Queensland's *Environmental Offsets Act 2014* and the Queensland's *Environmental Offsets Policy (Version 1.6) 2018* and relevant parts of the Guide to determining terrestrial habitat quality (refer Appendix 1).

Land

Objectives

Development should be designed and operated to:

(a) minimise impacts on the environment and improve environmental outcomes

(b) contribute to a strong, connected community that draws on diversity, skills and expertise of residents to build a community that has provide in its culture and lifestyle

(c) contribute to strong and balanced social, economic and environmental sustainability.

Land use

Existing environment

12.81 Detail the existing land uses on the project site and surrounding area.

12.82 Discuss the compatibility of the project with the surrounding area and the Townsville region, taking into consideration the proposed measures that would be used to avoid or minimise and manage impacts. The discussion should include:

(a) existing and proposed land uses, in and around the project area, assessed against relevant regional plans and local government planning schemes (*City of Thuringowa Planning Scheme 2003* and/or *the Townsville City Plan 2014*)

(b) any tenures overlying and adjacent to the project site, and any to be applied for as part of this project

(c) identification of how the project complies with state interests identified in the State Planning Policy (SPP)

(d) locational factors influencing the choice of site.

12.83 Provide justification for any instances where the project is not compatible with any of the above plans, or the state interests identified in the SPP.

Impact assessment

12.84 Assess impacts on land in accordance with DES *Application requirements for activities with impacts to land* (refer Appendix 1).

12.85 Assess the proposal in the context of the applicable regional plan and the Townsville City Council planning scheme.

12.86 Describe, illustrate and assess the visual impact of the construction and operation of the project. Include major views, view sheds, outlooks, and features contributing to the amenity of the area, including assessment from private residences.

12.87 Outline how the project will maintain or enhance general public access to or along the foreshore, unless this is contrary to the protection of coastal resources or public safety.

12.88 If the project impacts on Strategic Cropping Land (SCL), provide the approach to addressing the requirements of the *Strategic Cropping Land Act 2011* (SCL Act). Document the necessary studies and discussions that have been completed preceding any SCL protection decision.

12.89 Identify potential and actual areas of acid sulfate soils. Where potential areas are identified, further investigations (including field surveys) should be undertaken in accordance with the SPP and accepted industry guidelines.

12.90 Detail any known or potential sources of contaminated land. Describe how any proposed land use may result in land becoming contaminated.

Mitigation measures

12.91 Identify the measures that would be used to avoid, minimise or mitigate any impact on land uses, including the management of existing infrastructure remaining on land parcels.

12.92 Describe any proposed measures to avoid, minimise or mitigate potential impacts on landscape character and visual amenity.

12.93 Identify the measures to avoid or mitigate potential impacts of the project on soil values must be described.

12.94 Describe what actions would be taken to avoid, identify, clean-up, manage and dispose of soil that is currently contaminated or becomes contaminated.

12.95 If potential or actual acid sulfate soils may be disturbed, describe measures to avoid oxidation of the sulphides or to treat and neutralise the acid if it forms. This should be done in accordance with the accepted industry guidelines (refer Appendix 1).

Native Title

12.96 Identify the existing and potential Native Title rights and interests possibly impacted by the project and the potential for managing those impacts by an Indigenous Land Use Agreement or other measure.

Water

Objective

Development is planned, designed, constructed and operated to protect environmental values of Queensland waters and supports the achievement of water quality objectives.

The construction and operation of the project should aim to meet the following objectives:

(a) equitable, sustainable and efficient use of water resources

(b) environmental flows, water quality, in-stream habitat diversity, and naturally occurring inputs from riparian zones to support the long-term maintenance of the ecology of aquatic biotic communities

(c) the condition and natural functions of water bodies, lakes, springs and watercourses are maintained—including the stability of beds and banks of watercourses

(d) waterway barrier works in fish habitats are constructed to maintain connectivity and habitat values

(e) volumes and quality of water resources are maintained and current lawful users of water (such as entitlement holders, stock and domestic users) and other beneficial uses of water (such as spring flows and groundwater-dependent ecosystems) are not adversely impacted by the development.

Existing environment

12.97 Describe the water related environmental values and describe the existing surface water and groundwater regime within the study area and the adjoining tidal waterways in terms of water levels, discharges and freshwater flows. Detail the interaction of freshwater flows with different tidal states.

12.98 With reference to the EPP (Water) Policy 2009, section 9 of the EP Act and *SPP State Interest Guideline – Water Quality,* identify the environmental values of surface water and groundwater within the project area and immediately downstream that may be affected by the project, including any human uses of the water and any cultural values.

12.99 At an appropriate scale, detail the chemical, physical and biological characteristics of surface waters and groundwater within the area that may be affected by the project. Include a description of water quality variability within the study area associated with climatic and seasonal factors, variability of freshwater flows and extreme events.

12.100 Describe any existing and/or constructed waterbodies adjacent to the project.

12.101 Identify the location and source aquifer of any licensed groundwater extraction bores in areas potentially impacted by the project.

Water quality

Impact assessment

12.102 Provide information required in order to assess impacts from the proposed onsite sewage treatment plant consistent with DES guideline *Application requirements for activities with impacts to water* (refer Appendix 1).

12.103 Identify the quantity, quality, location, timing and duration of all potential discharges of water and wastewater by the project, whether as point sources (such as controlled discharges) or diffuse sources (such as irrigation to land of treated sewage effluent).

12.104 Assess the potential impacts of any discharges on the quality and quantity of receiving waters taking into consideration the assimilative capacity of the receiving environment and the practices and procedures that would be used to avoid or minimise impacts.

Mitigation measures

12.105 Describe the proposed management of existing and/or constructed waterbodies on the project site to maintain water quality, including any proposed exchange of tidal water.

12.106 Describe how the achievement of the water quality objectives would be monitored, audited, reported, and how corrective/preventative actions would be managed. Describe measurable criteria, standards and/or indicators that will be used to assess the condition of the ecological values and health of surface water environments, mitigation strategies and contingency plans for:

(a) potential accidental discharges of contaminants and sediments during construction and operation

(b) stormwater run-off from the project facilities and associated infrastructure

(c) flooding of relevant river systems, the effects of tropical cyclones and other extreme events

(d) management of acid sulfate soils (see also paragraph 12.89).

Water resources

Impact assessment

12.107 Provide details of any proposed impoundment, extraction, discharge, injection, use or loss of surface water or groundwater.

12.108 Identify any approval or allocation that would be needed under the *Water Act 2000*.

12.109 Detail any significant diversion or interception of overland flow. Include maps of suitable scale showing the location of diversions and other water-related infrastructure in relation to mining infrastructure.

12.110 Identify any quantitative standards and indicators which will be used to describe the ecological values and health of surface water environments.

12.111 Develop hydrological models as necessary to describe the inputs, movements, exchanges and outputs of all significant quantities and resources of surface water and groundwater that may be affected by the project. The models should address the range of climatic conditions that may be experienced at the site, and adequately assess the potential impacts of the project on water resources. The models should include a site water balance. This should enable a description of the project's impacts at the local scale and in a regional context including proposed:

(a) changes in flow regimes from diversions, water take and discharges

(b) alterations to riparian vegetation and bank and channel morphology

(c) direct and indirect impacts arising from the development.

12.112 Provide information on the proposed water usage by the project, including details about:

(a) the ultimate supply required to meet the demand for full occupancy of the development, including timing of demands

(b) the quality and quantity of all water supplied to the site during the construction and operational phases based on minimum yield scenarios for water reuse, rainwater reuse and any bore water volumes

(c) a water balance analysis

(d) a site plan outlining actions to be taken in the event of failure of the main water supply.

12.113 Describe proposed sources of water supply given the implication of any approvals required under the *Water Act 2000*. Estimated rates of supply from each source (average and maximum rates) must be given and proposed water conservation and management measures must be described.

12.114 Determination of potable water demand must be made for the project, including the temporary demands during the construction period. Include details of any existing town water supply to meet such requirements. Detail should also be provided to describe any proposed on-site water storage and treatment for use by the site office during construction and operational phases.

Mitigation measures

12.115 Provide detailed designs for all infrastructure utilised in the treatment of on-site water including how any onsite water supplies are to be treated, contaminated water is to be disposed of and any decommissioning requirements and timing of temporary water supply/treatment infrastructure is to occur.

12.116 Describe measures that would be used to avoid, minimise or mitigate any impacts on surface water and groundwater resources.

12.117 Provide a policy outline of compensation, mitigation and management measures where impacts are identified.

Social

Objectives

The construction and operation of the project should:

(a) avoid or mitigate adverse social impacts arising from the project

(b) enhance benefits for local and regional communities.

12.118 Prepare a social impact assessment (SIA) for the project consistent with the relevant requirements in the Coordinator-General's Social Impact Assessment Guideline (March 2018) (refer to Appendix 1).

12.119 The SIA is to be developed in consultation with the Coordinated Project Delivery Division in the Office of the Coordinator-General, Department of State Development, Manufacturing, Infrastructure and Planning.

Community and stakeholder engagement

12.120 The SIA should be informed by an inclusive and effective community and stakeholder engagement process. Community and stakeholder engagement is to be iterative throughout the SIA process and should commence at an early stage. Detail of the community and stakeholder engagement principles, process and tools used and to be adopted in the future to conduct open and transparent dialogue with all stakeholders. Such processes should include but not be limited to community reference groups.

12.121 The SIA must demonstrate evidence of engagement outcomes, as a minimum, from affected landholders, state and local government agencies, employment and training providers, public and private housing providers, local and regional commerce and industry groups, social and public services providers, local recreation and tourism businesses, Aboriginal and Torres Strait Islander peoples, and local communities.

12.122 The community and stakeholder engagement process is to be documented in the EIS report (see section 7.11). This must describe in detail:

(a) stakeholders consulted and how and when they were consulted

(b) overview of the consultation program and key events

(c) stakeholder feedback and issues raised, and how these have been or will be addressed

(d) the complaints resolution process for all stages of the project

(e) any agreements negotiated with stakeholders.

Social impact assessment and mitigation

12.123 The assessment of impacts must address and provide details on the following matters, as a minimum:

(a) potential impacts to businesses in the local and regional labour market

(b) potential impacts on the ability of local persons to participate in regional and local employment and training opportunities

(c) potential impacts on local communities including changes to capacity of social infrastructure, housing availability and affordability and access to recreational and culturally important areas.

12.124 The SIA is to include an evaluation of the potential social impacts resulting from the project and any surrounding projects, including an estimation of the overall size, significance and likelihood of those impacts.

Key social outcomes

12.125 For identified social impacts, the proponent must propose solutions to minimise potential adverse impacts and enhance the potential benefits. Solutions should be developed in consultation with stakeholders and, as a minimum, should:

(a) ensure recruitment of workers from local and regional communities is prioritised

(b) support local business procurement for the life of the project, including Aboriginal and Torres Strait Islander businesses

(d) manage any adverse effects on the local housing market

(e) ensure the level of service provided to the local community by existing social services, facilities and infrastructure is not reduced

(f) support community health and well-being in local communities

(g) align with existing local, regional or state programs, plans and initiatives.

12.126 The SIA is to describe how practical management and monitoring regimes are proposed to be implemented.

Economic

Objectives

The construction and operation of the project should aim to:

(a) avoid or mitigate adverse economic impacts arising from the project

(b) capitalise on opportunities potentially available for capable local businesses and communities

(c) create a net economic benefit to the region and State.

Existing environment

12.127 Describe the existing economic environment consistent with the Coordinator-General's *Economic impact assessment guideline* (April 2017) (refer Appendix 1).

Impact assessment

12.128 Identify the economic impacts of the project on the local and regional area and the state, ensuring the analysis is consistent with the Coordinator-General's *Economic impact assessment guideline* (April 2017).

12.129 Estimate the employment and value-added contribution of the project to the local, regional and state economies using computable general equilibrium modelling.

12.130 Estimate the employment and value-added contribution of the project to the local, regional and state economies using computable general equilibrium modelling.

12.131 Provide a demand analysis for the project to provide justification for the scale and scope of the proposal.

Cultural heritage

Objective

The construction and operation of the project should aim to ensure that the nature and scale of the project does not compromise the cultural heritage significance of a heritage place or heritage area.

Existing environment

12.132 With reference to the *Aboriginal Cultural Heritage Act 2003* (ACH Act) and the *Queensland Heritage Act 1992* (Heritage Act) describe and identify the cultural heritage values within the project area and the adjoining tidal waterways that may be affected by the project.

Indigenous Cultural Heritage

Impact assessment and mitigation measures

12.133 Unless section 86 of the ACH Act applies, the proponent must develop a Cultural Heritage Management Plan in accordance with the requirements of Part 7 of the ACH Act. The EIS should provide details of the Cultural Heritage Management Plan, or plans, and any associated agreements that has been developed or reached or steps taken up to that point to develop or reach such a plan or agreement including:

(a) notification given to owners and occupiers of land within the plan area, Aboriginal cultural heritage bodies and Aboriginal parties within the plan area

(b) public notification and consultation processes undertaken

(c) details of the plan or agreement reached or progressed between the relevant parties including:

i. arrangements for access to the project area(s) and surrounding areas covered by the agreement

ii. details of working groups or committees responsible for coordination, implementation and management of Aboriginal cultural heritage

iii. arrangements for identifying Aboriginal cultural heritage values

iv. the way in which Aboriginal cultural heritage is to be reported and managed for the life of the project, including identified Aboriginal cultural heritage and new finds

v. confirming the plan or agreement will address if Aboriginal cultural heritage is to be damaged, relocated or taken away, and how this is to be managed

vi. contingency planning for disputes, unforeseen delays and other foreseeable and unforeseeable obstacles to carrying out activities under the plan or agreement

vii. other matters reasonably necessary for successfully carrying out activities under the plan or agreement.

Non-Indigenous Cultural Heritage

Impact assessment

12.134 For non-Indigenous historical heritage, undertake a study of, and describe, the known and potential historical cultural and landscape heritage values of the area potentially affected by the project.

12.135 Any such study should be conducted by an appropriately qualified cultural heritage practitioner.

Mitigation measures

12.136 If the Heritage Act requirements are triggered, provide strategies to mitigate and manage any negative impacts on non-Indigenous cultural heritage values and enhance any positive impacts.

Transport

Objectives

The construction and operation of the project should aim to:

(a) maintain the safety and efficiency of all affected transport modes for the project workforce and other transport system users

(b) avoid or mitigate impacts on the condition of transport infrastructure

(c) ensure any required works are compatible with existing infrastructure and future transport corridors

(d) ensure upgrades to transport infrastructure are funded by the proponent.

Existing environment

12.137 Describe and map the existing transport infrastructure and corridors. Provide data on existing road, active transport and rail traffic in the project area. Provide detail traffic statistics including existing road condition, public transport options and requirements for any essential infrastructure upgrades.

12.138 Describe how the project complies with the *Queensland Level Crossing Safety Strategy 2012-2021* on new road/rail interfaces and the impacts on existing road/rail interfaces.

Impact assessment

12.139 The EIS should include a clear summary of the total transport task for the project, including workforce, inputs and outputs, during the construction and operational phases. Proponents should make appropriate modal choices to ensure transport efficiency and minimise impacts on the community.

12.140 Conduct transport assessments and present the transport assessments in separate sections for each project-affected mode (road, rail, air, sea, public transport, walking and cycling) as appropriate for each phase of the project.

12.141 Provide an assessment of the development's potential impact on state transport infrastructure. As a minimum, the following information should be provided:

(a) extent of any works such filling, excavation or construction which has the potential to impact on state transport through changes in flooding or through construction traffic

(b) layout and design for all internal roads including any significant bridging structures which may cause a flooding impact on state transport infrastructure.

(c) number and types of vehicles to be expected for each use (permanent residents, service vehicles, event breakdown for sport and recreation precinct, shuttle bus, cars, taxis) number of car parking spaces, size of shuttle bus or will coached be expected.

12.142 Provide a detailed flooding and stormwater assessment to demonstrate how the project does not result in stormwater or drainage impacts within existing or future state transport corridors.

12.143 Provide a Traffic Impact Assessment demonstrating how the project will not adversely impact the safety, function and operational efficiency of the state-controlled road network or the safety of the railway crossing on Forestry Road, Toolakea.

12.144 Include details of the adopted assessment methodology:

(a) for impacts on roads: the road impact assessment report in accordance with the Department of Transport and Main Roads *Guide to Traffic Impact Assessment*

(b) for impacts on rail level crossings: the Australian Level Crossing Assessment Model.

Mitigation measures

12.145 Detail how identified impacts will be mitigated so as to meet the above objectives for each transport mode. Mitigation strategies may include works, contributions or management plans and are to be prepared in close consultation with relevant transport authorities (including local government), should consider those authorities' works program and forward planning, and be in accordance with the relevant transport authorities' methodologies, guidelines and design manuals.

Waste management

Objective and performance outcomes

(a) Any waste transported, generated, or received as part of carrying out the activity is managed in a way that protects all environmental values.

(b) Ensure upgrades to any waste infrastructure are funded by the proponent.

Existing environment

12.146 Detail the existing capacity of waste and recycling facilities surrounding the project.

12.147 Identify the existing routes for the transport of waste from the project site.

Impact assessment

12.148 The assessment of impacts on waste will be in accordance with DES *Application requirements for activities with waste* (refer Appendix 1).

12.149 For wastes besides wastewater (which is addressed in the Water section of this TOR), describe and quantify all the expected significant waste streams[4] from the proposed project activities during the construction and operational phases of the project.

12.150 Describe the quantity, form (liquid, solid, gas), hazard, and toxicity of each significant waste, as well as any attributes that may affect its likelihood of dispersal in the environment, as well the associated risk of causing environmental harm.

Mitigation measures

12.151 Define and describe the objectives and practical measures for protecting or enhancing environmental values from impacts by wastes. Take into account best practice waste management strategies and the *Waste Reduction and Recycling Act 2011,* Environmental Protection (Waste) Policy 2000 and the Environmental Protection (Waste) Regulation 2000.

12.152 Assess the proposed management measures against the preferred waste management hierarchy, namely: avoid waste generation; cleaner production; recycle; reuse; reprocess and reclaim; waste to energy; treatment; disposal. This includes the generation and storage of waste.

12.153 Describe how nominated quantitative standards and indicators may be achieved for waste management, and how the achievement of the objectives would be monitored, audited reported and how corrective/preventative actions would be managed during all phases of the project.

[4] Waste includes overburden, tailings and any materials (liquid, solid or gaseous) generated by the project that is not product.

12.154 Detail waste management planning for the proposed project especially how these concepts would be applied to prevent or minimise environmental impacts due to waste at each stage of the project.

12.155 Provide details on natural resource-use efficiency (such as energy and water), integrated processing design, and any co-generation of power and by-product reuse as shown in a material/energy flow analysis.

Hazards, health and safety

Objectives

The construction and operation of the project should aim to ensure:

(a) the risk of, and the adverse impacts from, natural and human-made hazards are identified, avoided, minimised or managed and mitigated to protect people and property

(b) the community's resilience to natural hazards is enhanced

(c) developments are appropriately located, designed and constructed to minimise health and safety risks to communities and individuals and adverse effects on the environment.

Impact assessment

General

12.156 Describe the potential risks to people and property that may be associated with the project in the form of a preliminary risk assessment for all components of the project and in accordance with relevant standards. The assessment should include:

(a) potential hazards, accidents, spillages, fire and abnormal events that may occur during all stages of the project, including estimated probabilities of occurrence

(b) identifying all hazardous substances to be used, stored, processed or produced and the rate of usage

(c) potential hazards posed by wildlife interactions, natural events (for example, cyclone, storm tide inundation, flooding, bushfire) and implications related to climate change

(d) how the project may potentially affect hazards away from the project site (e.g. changing flooding characteristics).

Storm tide inundation

12.157 Describe storm tide inundation risk for a range of annual exceedance probabilities for all parts of the project and assess (through hydrodynamic modelling) how the project may affect storm tide hazard vulnerability of nearby premises. Take into consideration potential sea-level rise scenarios.

12.158 The assessment should consider all infrastructure associated with the project including levees, roads and linear infrastructure and all proposed measures to avoid or minimise risks to life, property, community (including damage to other properties) and the environment during storm tide events.

Flooding

12.159 Describe flood risk from both storm surge and rainfall events for a range of annual exceedance probabilities (including Probable Maximum Flood) for the site and assess how the project may

change flooding characteristics including stream flow velocities and afflux. Consider the impact of changed flooding characteristics on watercourses and wetlands. Take into consideration potential sea-level rise scenarios. Include a discussion of historical events in the area, including the early 2019 event, and how the site responded to this extreme weather event.

12.160 The assessment should consider all infrastructure associated with the project including culverts or levees, roads and linear infrastructure and all proposed measures to avoid or minimise risks to life, property, community (including damage to other properties) and the environment during flood events.

Erosion prone areas

12.161 If the project proposes permanent buildings or structures in a coastal management district, detail how coastal erosion risks are avoided or mitigated and identify any development free buffers.

Chemical Leaks and Spills

12.162 Describe the proposed procedures and safeguards built into the design and management/operational practices to:

(a) reduce the potential for chemical leaks and spills

(b) enable the detection of spills and leaks and management measures to be implemented to rectify

(c) provide procedures for managing water in containment areas

(d) outline an inventory and describe the characteristics and management involved in the handling, storage, spill management, transport and disposal of all chemicals, products/by-products and potential contaminants as a result of construction, operation, maintenance, commissioning and decommissioning.

Include identification of buffer zones and all means that will be incorporated to ensure human health and the environment are not impacted.

Mitigation measures

12.163 Provide details on the mitigation measures that would reduce the likelihood and severity of hazards, consequences and risks to persons, within and adjacent to the project area(s), with specific reference to flood immunity required for each project component and stage. Identify the residual risk following application of mitigation measures. Present an assessment of the overall acceptability of the impacts of the project with consideration to the residual uncertainties and risk profile.

12.164 Provide an outline of the proposed integrated emergency management planning procedures (including evacuation plans, if required) for the range of situations identified in the risk assessment developed in this section.

12.165 Outline any consultation undertaken with the relevant emergency management authorities, including the Local Disaster Management Group.

Air

Objectives

Development is planned, designed, constructed and operated to protect the environmental values of air.

Existing environment

12.166 Describe the existing air quality that may be affected by the project in the context of environmental values.

12.167 Describe the existing local and regional air shed environment.

Impact assessment

12.168 Describe the characteristics of contaminants or materials that may be released as a result of the construction or operation of the project, including point source and fugitive emissions (e.g. equipment and pipe leaks, storage tanks and wastewater treatment systems), treatment and discharge systems. Emissions (point source and fugitive) during construction, operations and decommissioning should be described.

12.169 Predict the impacts of the releases from the relevant activity on environmental values of the receiving environment.

12.170 The description of impacts should take into consideration the practices and procedures that would be used to avoid or minimise impacts.

12.171 Describe residual impacts on air receiving environment, with reference to the Environmental Protection (Air) Policy 2008 (EPP (Air)).

Mitigation measures

12.172 Describe the proposed mitigation measures and how the proposed activity will be consistent with best practice environmental management and relevant government plans.

12.173 Describe any expected exceedances of air quality goals or criteria following the provisions and/or application of mitigation measures, and how any residual impacts would be addressed.

12.174 Describe how the achievement of the objectives would be monitored, audited and reported, and how corrective actions would be managed.

Noise and vibration

Objective and performance outcomes

Development is planned, designed, constructed and operated to protect the environmental values of the acoustic environment.

Existing environment

12.175 Describe the existing noise and vibration environment that may be affected by the project in the context of the environmental values.

Impact assessment

12.176 Describe the characteristics of noise and vibration sources that would be emitted when carrying out the activity (point source and general emissions). Noise and vibration emissions (including fugitive sources) that may occur during construction, operation and decommissioning should be described.

12.177 Predict and map the impacts of the noise emissions from the activity on the environmental values of the receiving environment.

12.178 The description of impacts should take into consideration the practices and procedures that would be used to avoid or minimise impacts.

12.179 Describe residual impacts on air receiving environment, with reference to the Environmental Protection (Noise) Policy 2008 (EPP (Noise)).

Mitigation measures

12.180 Describe how the proposed activity would be managed to be consistent with best practice environmental management for the activity. Where a government plan is relevant to the activity, or the site where the activity is proposed, describe the activity's consistency with that plan.

12.181 Describe any expected exceedances of noise and vibration goals or criteria following the provision and/or application of mitigation measures, and how any residual impacts would be addressed.

12.182 Describe how the achievement of the objectives would be monitored and audited, and how corrective actions would be managed.

Biosecurity

Objective

The construction and operation of the project should aim to ensure:

(a) the spread of weeds, pest animals and vector agents are minimised

(b) existing weeds and pests are controlled.

Existing environment

12.183 Provide information on the current distribution and abundance of animal pests, weeds and vector agents within the project area.

Impact assessment

12.184 Detail the potential impacts of project operations on the spread of weeds, pest and vector agents within and adjacent to the project area.

Mitigation measures

12.185 Propose detailed measures to control and limit the spread of restricted matters including noxious fish, invasive plants and invasive animals on the project site and adjacent areas as per Schedule 2 of the Biosecurity Regulation 2016, and the Townsville City Council Biosecurity Plan and Draft Townsville Local Government Area Biosecurity Plan 2017-2021.

12.186 Provide detailed measures to control the spread of invasive plants and invasive animals due to outdoor activities, including horse riding, on the project site and adjacent areas.

12.187 Provide details of any proposed vertebrate pest and weed control programs to be implemented by the project.

13. Appendices to the EIS

13.1 Appendices should provide the complete technical evidence used to develop assertions and findings in the main text of the EIS.

13.2 No significant issue or matter should be mentioned for the first time in an appendix—it must be addressed in the main text of the EIS.

13.3 Include a table listing the section of the EIS where each requirement of the TOR is addressed.

13.4 Include a glossary of terms and a list of acronyms and abbreviations.

Acronyms and abbreviations

The following acronyms and abbreviations have been used in this document.

Acronym/abbreviation	Definition
AADT	Annual average daily traffic
ACH Act	*Aboriginal Cultural Heritage Act 2003*
AHD	Australian Height Datum
CAMBA	China-Australia Migratory Bird Agreement
DES	Department of Environment and Science (Qld)
DSDMIP	Department of State Development, Manufacturing, Infrastructure and Planning (Qld)
EIS	Environmental impact statement
EP Act	*Environmental Protection Act 1994*
EP Regulation	Environmental Protection Regulation 2008
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cth)
EPBC Regulation	Environment Protection and Biodiversity Conservation Regulations 2000 (Cth)
EPP	Environmental Protection Policy
EPP (Air)	Environmental Protection (Air) Policy 2008
EPP (Noise)	Environmental Protection (Noise) Policy 2008
EPP (Water)	Environmental Protection (Water) Policy 2009
ERA	Environmentally relevant activity
GDA94	Geocentric Datum of Australia 1994
JAMBA	Japan-Australia Migratory Bird Agreement
km	Kilometres
MNES	Matters of national environmental significance (under the EPBC Act)
MSES	Matters of state environmental significance
PO	Performance outcome
ROKAMBA	Republic of Korea-Australia Migratory Birds Agreement
SCL	Strategic cropping land
SDAP	State Development Assessment Provisions
SDPWO Act	*State Development and Public Works Organisation Act 1971*
SIA	Social impact assessment
SPP	State planning policy
TCC	Townsville City Council
The Bonn Convention	Convention on the Conservation of Migratory Species
TOR	terms of reference
VMA	*Vegetation Management Act 1999*

Appendix 1. Policies and guidelines

Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand, *The Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, Australian Water Association (Artarmon) and NZ Water and Wastes Association (Auckland), 2000, viewed 25 August 2016, **www.environment.gov.au/system/files/resources/53cda9ea-7ec2-49d4-af29-d1dde09e96ef/files/nwqms-guidelines-4-vol1.pdf**

Australian Government, EPBC Act environmental offsets policy, Department of Environment and Energy, 2012, viewed 11 June 2019, **https://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy**

Australian Government, Great Barrier Reef Outlook Report, Great Barrier Reef Marine Park Authority, 2014, viewed 11 June 2019, **http://www.gbrmpa.gov.au/our-work/reef-strategies/great-barrier-reef-outlook-report**

Australian Government, Reef 2050 Long-Term Sustainability Plan, Commonwealth of Australia, viewed 11 June 2019, **http://www.environment.gov.au/marine/gbr/publications/reef-2050-long-term-sustainability-plan-2018**

Australian Government, Significant Impact Guidelines 1.1 - Matters of National Environmental Significance, Department of Environment and Energy, 2013, viewed 11 June 2019. **https://www.environment.gov.au/epbc/publications/significant-impact-guidelines-11-matters-national-environmental-significance**

Australian Government, The Great Barrier Reef, Qld – World heritage values, Department of Environment and Energy, viewed 11 June 2019, **https://www.environment.gov.au/heritage/places/world/gbr/values**

Commonwealth of Australia, *National Strategy for Ecologically Sustainable Development*, Ecologically Sustainable Development Steering Committee, Canberra, December 1992, viewed 11 June 2019, **www.environment.gov.au/resource/national-strategy-ecologically-sustainable-development**

Queensland Government, *Application requirements for activities with impacts to water*, Department of Environment and Science, March 2017, viewed 11 June 2019, **http://www.ehp.qld.gov.au/assets/documents/regulation/era-gl-water-impacts.pdf**

Queensland Government, *Application requirements for activities with waste impacts*, Department of Environment and Science, February 2019, viewed 11 June 2019, **http://www.ehp.qld.gov.au/assets/documents/regulation/era-gl-waste-impacts.pdf**

Queensland Government, *Application requirements for activities with impacts to land,* Department of Environmetn and Science, March 2017, viewed 11 June 2019, **https://environment.des.qld.gov.au/assets/documents/regulation/era-gl-land-impacts.pdf**

Queensland Government, Australian Level Crossing Assessment Model (ALCAM), Department of Transport and Main Roads, Brisbane, 2016, viewed 11 June 2019, **http://www.tmr.qld.gov.au/Travel-and-transport/Rail/Level-crossings/ALCAM.aspx**

Queensland Government, *BioCondition,* viewed 11 June 2019, **https://www.qld.gov.au/environment/plants-animals/biodiversity/biocondition**

Queensland Government, *Biodiversity planning assessments,* viewed 11 June 2019, **https://www.qld.gov.au/environment/plants-animals/biodiversity/planning**

Queensland Government, *DAFF Environmental Impact Assessment Companion Guide*, Department of Agriculture, and, Brisbane, June 2014, viewed 11 June 2019, **https://publications.qld.gov.au/dataset/daff-environmental-impact-assessment-companion-guide**

Queensland Government, *Economic Impact Assessment Guideline*, The Coordinator-General, Department of State Development, Manufacturing, Infrastructure and Planning, April 2017, viewed 11 June 2019, **https://www.statedevelopment.qld.gov.au/resources/guideline/cg/economic-impact-assessment-guideline.pdf**

Queensland Government, *Environmental offsets and environmental offsets framework,* Department of Environment and Science, Brisbane, 2015, viewed 11 June 2019, **http://www.qld.gov.au/environment/pollution/management/offsets**

Queensland Government, *Guide to determining terrestrial habitat quality (Version 1.2),* April 2017, viewed 11 June 2019, **https://environment.des.qld.gov.au/assets/documents/pollution/management/offsets/habitat-quality-assessment-guide.pdf**

Queensland Government, *Guide to Traffic Impact Assessment,* Department of Main Roads, Brisbane, December 2018, viewed 11 June 2019, **https://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/Guide-to-Traffic-Impact-Assessment**

Queensland Government, *Guideline for preparing an environmental impact statement*, The Coordinator-General, Department of State Development, Manufacturing, Infrastructure and Planning, Brisbane, 2015, viewed 11 June 2019, **www.statedevelopment.qld.gov.au/fact-sheets-and-guidelines/coordinated-projects.html**

Queensland Government, *Information guideline for an environmental impact statement*, Department of Environment and Science, Brisbane, viewed 11 June 2019, **http://www.ehp.qld.gov.au/management/impact-assessment/eis-processes/eis-tor-support-guidelines.html**

Queensland Government, *Queensland Environmental Offsets Policy (Version 1.6)*, Department of Environment and Science, June 2018, viewed 11 June 2019, **https://environment.des.qld.gov.au/assets/documents/pollution/management/offsets/offsets-policyv1-6.pdf**

Queensland Government, *Queensland Environmental Offsets Policy: Significant Residual Impact Guideline*, Department of Environment and Science, December 2014, viewed 11 June 2019, **https://environment.des.qld.gov.au/assets/documents/pollution/management/offsets/significant-residual-impact-guide.pdf**

Queensland Government, *Queensland Level Crossing Strategy 2012-2021,* Department of Transport and Main Roads, viewed 11 June 2019, **https://www.tmr.qld.gov.au/Safety/Rail-safety/Level-crossing-safety**

Queensland Government, *Queensland Water Quality Guidelines 2009,* Department of Environment and Science, Brisbane, 2018, viewed 11 June 2019, **http://www.ehp.qld.gov.au/water/guidelines**

Queensland Government, *Social Impact Assessment Guideline*, The Coordinator-General, Department of State Development, Manufacturing, Infrastructure and Planning, March 2018, viewed 11 June 2019, **https://www.statedevelopment.qld.gov.au/resources/cg/social-impact-assessment-guideline.pdf**

Queensland Government, State Development Assessment Provision, Department of State Development, Manufacturing, Infrastructure and Planning, Brisbane, November 2018, viewed 11 June 2019, **https://planning.dsdmip.qld.gov.au/planning/better-development/the-development-assessment-process/the-states-role/state-development-assessment-provisions**

Queensland Government, *State Planning Policy – state interest guideline: Water quality,* April 2016, viewed 11 June 2019, **https://www.dlgrma.qld.gov.au/resources/guideline/spp/spp-guideline-water-quality.pdf**

Queensland Government, State Planning Policy, July 2017, Department of Infrastructure, Local Government and Planning, Brisbane, 2017, viewed 11 June 2019, **https://dsdmipprd.blob.core.windows.net/general/spp-july-2017.pdf**

Queensland Government, *Technical information requirements for an environmental authority application,* Department of Environment and Science, viewed 11 June 2019, **https://www.business.qld.gov.au/running-business/environment/licences-permits/applying/technical**

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