

Preparing an environmental impact statement

Guideline for proponents

February 2024

This guideline is to be read in conjunction with the terms of reference for the EIS finalised under section 30 of the *State Development and Public Works Organisation Act 1971*

The Department of State Development and Infrastructure connects industries, businesses, communities and government (at all levels) to leverage regions' strengths to generate sustainable and enduring economic growth that supports well-planned, inclusive and resilient communities.

Acknowledgement of Country

The department acknowledges the First Nations peoples in Queensland: Aboriginal and Torres Strait Islander peoples and their connections to the lands, winds and waters we now all share. We pay our respect to Elders, past, present and emerging. We also acknowledge the continuous living culture of First Nations Queenslanders – their diverse languages, customs and traditions, knowledges and systems. We acknowledge the deep relationship, connection and responsibility to land, sea, sky and Country as an integral element of First Nations identity and culture.

The Country is sacred. Everything on the land has meaning and all people are one with it. We acknowledge First Nations peoples' sacred connection as central to culture and being. We acknowledge the stories, traditions and living cultures of First Nations peoples and commit to shaping our state's future together. The department recognises the contribution of First Nations peoples and communities to the State of Queensland and how this continues to enrich our society more broadly.

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1. Introduction

This guideline applies to proponents of projects declared by the Coordinator-General to be a 'coordinated project requiring an environmental impact statement' (EIS) under Part 4, section 26(1)(a) of the *State Development and Public Works Organisation Act 1971* (SDPWO Act).

The objective of the EIS is to identify all relevant environmental, social and economic impacts of the project and proponent proposals to avoid, minimise, mitigate and/or offset those potential impacts. The EIS should demonstrate that the project is based on sound environmental principles and practices.

This guideline outlines the recommended structure and content of the EIS and includes information requirements required to be addressed for all projects. In preparing a draft EIS, proponents are to ensure all matters specified in the terms of reference (TOR) are addressed to the satisfaction of the Coordinator-General,¹ and the information requirements for all projects within Section 4 of this guideline.

Further information regarding the coordinated project declaration and environmental impact assessment process can be found in the [Application Guideline - Coordinated project declaration under the State Development and Public Works Organisation Act 1971](#), and shown in Figure 1 below.

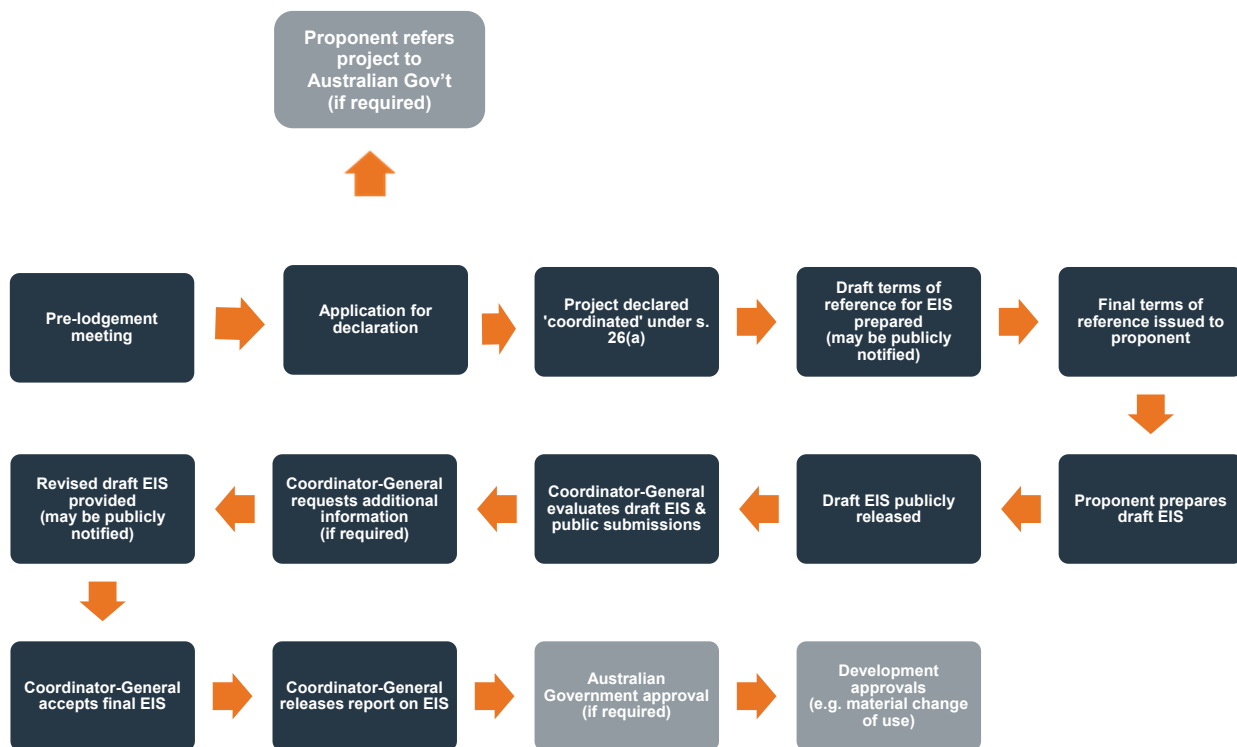


Figure 1 The EIS process for a coordinated project requiring an EIS

¹ Section 32(2) of the *State Development and Public Works Organisation Act 1971*.

2. Preparation of an EIS

2.1 Terms of reference for EIS

Following declaration as a coordinated project for which an EIS is required, the Coordinator-General will develop and issue a TOR for the EIS, which sets out the project specific matters to be addressed in the EIS. The Coordinator-General has discretion whether or not to release the draft TOR for public comment. If a draft TOR is publicly notified, state advisory agencies, the proponent and members of the public have the opportunity to comment on the project's EIS requirements.

The Coordinator-General will consider all comments received in finalising the TOR and issuing to the proponent. The final decision on the scope of all matters rests with the Coordinator-General and, where matters of national environmental significance (MNES) are impacted by the project, the Australian Department responsible for the administering the *Environment Protection and Biodiversity Conservation Act 1999*.

2.2 Draft EIS

Under section 32(2) of the SDPWO Act, the draft EIS must address, for the whole project, the matters identified in the TOR to the satisfaction of the Coordinator-General. The Coordinator-General may seek the views of state advisory agencies and the Australian Government Department on the adequacy of preliminary draft EIS material. To determine adequacy for public notification, the proponent must submit a complete draft EIS to the Coordinator-General. Once the draft EIS has been prepared to the satisfaction of the Coordinator-General, the draft EIS is publicly notified and submissions may be made to the Coordinator-General about the draft EIS. The draft EIS is made available online and at public display locations, such as libraries.

State advisory agencies, councils and the Australian Government (if relevant) will consider the draft EIS and provide submissions to the Coordinator-General and the proponent whether additional information is needed about an environmental, economic or social impact of the project and on the adequacy of the proponent's proposals to avoid, minimise, mitigate and/or offset those potential impacts. State advisory agencies may also propose conditions or recommendations for consideration by the Coordinator-General. Submissions about the draft EIS may also be made by members of the public and other stakeholders.

After the draft EIS submission period, the Coordinator-General must consider the draft EIS, any 'properly made' submissions, any other material the Coordinator-General considers is relevant to the project to decide whether additional information is needed to address matters raised during the submission period. If the Coordinator-General is satisfied additional information is needed about an environmental effect of the project or any other matter, the Coordinator-General will not accept the draft EIS as final and instead will request additional information. The Coordinator-General may require any additional information to undergo a further public notification.

2.3 Final EIS

Under section 34A of the SDPWO Act, the Coordinator-General may decide to accept the draft EIS, and any additional information requested as the final EIS.

The declaration of the project lapses if, within 18 months of the terms of reference being finalised, the Coordinator-General has not accepted the draft EIS as the final EIS.² The Coordinator-General may grant an extension of time for the lapse date, for which a fee applies.

Once the Coordinator-General accepts the draft EIS as the final EIS, the Coordinator-General must prepare a report evaluating the EIS. In evaluating the EIS, the Coordinator-General may state conditions and make recommendations to be imposed on the project's approval(s).

3. Developing the EIS

3.1 Audience

The draft EIS is a public document. Its purpose is to not only provide information to state advisory agencies, but also to inform and consult with the public about the project's scope, potential impacts and proposed mitigation measures. As such, the main text should be written in plain English and avoid jargon and acronyms as much as possible. Additional technical detail may be provided in appendices. The main text should be written assuming that the reader has no prior knowledge of the project site and be presented in such a way that the reader would not need to have visited the site to understand the potential project issues.

The draft EIS should provide information for the following persons and groups:

- interested bodies and persons—a basis for understanding the project, prudent and feasible alternatives to the project, affected environmental values, impacts that may occur and the measures to be taken to manage adverse impacts
- affected persons³—an outline of the environmental effects of the project
- state advisory agencies—a framework for decision-makers to assess the environmental effects⁴ of the project with respect to legislative and policy provisions, and based on that information, to make an informed decision on whether the project should proceed or not and if so, under what conditions
- the proponent—a mechanism by which the potential environmental effects of the project are identified and understood, including information to support the development of measures to manage the effects of adverse impacts of the development.

For more information regarding consultation and stakeholder engagement refer to part 4.6 of this Guideline.

3.2 Stakeholder consultation plan

The proponent must develop a comprehensive and inclusive consultation plan for the stakeholder groups identified under 'Audience' above. Consultation with state advisory agencies should be the principal

² Section 27A of the SDPWO Act.

³ Groups or persons with rights or interests in land as defined in section 38 of the *Environmental Protection Act 1994*; or water as defined in Schedule 4 the *Water Act 2000*.

⁴ For the purposes of the EIS process, 'environment' is defined in Schedule 2 of the SDPWO Act and includes social and economic matters.

forum for identifying legislation, regulations, policies or guidelines relevant to the project and EIS process (if not already identified in the project's initial advice statement or TOR).

The consultation plan should identify broad issues of likely concern to local and regional community and interest groups and address issues from project planning through commencement, project operations, decommissioning and rehabilitation (where known). The consultation plan should identify:

- the types of consultation and communication activities to be undertaken
- timing of activities
- how it will target the stakeholder/community representatives
- integration with other EIS activities and the project development process
- consultation responsibilities
- any relevant communication protocols
- stakeholder reporting and feedback arrangements
- how results of consultation will be considered by the proponent and integrated into the EIS process.

3.3 Structure and general approach

The draft EIS should address all matters as specified in the TOR for the project, including the requirements in Section 4 of this guideline. For all relevant matters, the draft EIS should identify and describe the environmental values that must be protected.

In predicting impacts, proponents should use appropriate scientific and/or specialist studies and provide details of their methodology, reliability, and any relevant assumptions or scientific judgements. If any residual impacts are not quantifiable, proponents should describe the residual impacts qualitatively, in as much detail as reasonably practicable.

Proponents should use cross-referencing within the draft EIS to avoid repetition of information. It is suggested that proponents follow the heading structure outlined in Section 4 below in the preparation of the draft EIS.

3.3.1 General approach

For the purposes of the EIS process, 'environment' is defined in Schedule 2 of the SDPWO Act. The detail at which the draft EIS deals with matters relevant to the project is to be proportional to the scale of the potential impacts on environmental values. When determining the scale of an impact, consideration is to be given to its extent, intensity, duration, cumulative effect, irreversibility, the risk of environmental harm, the effectiveness of any proposed management strategies to avoid or at least mitigate impacts and the ability to offset any residual impacts.

The EIS must address other matters not covered in the TOR in the following circumstances:

- (a) studies reveal a matter that had not been foreseen when the TOR was finalised
- (b) an issue not previously identified but is in the public interest
- (c) the Coordinator-General directs the proponent in writing to address a matter as an information request under section 34B of the SDPWO Act

- (d) new or amended legislation or policies come into effect after the TOR has been finalised, regardless of whether or not the legislation or policies have been listed in the TOR. Transitional arrangements or exemptions may apply for individual projects
- (e) the proponent makes amendments to the proposed project that would result in a change in the nature, timing or location of any impacts.⁵

The EIS should address matters relevant to the environmental objective assessment and performance outcomes specified in section 35(1)(a) and schedule 8 of the Environmental Protection Regulation 2019 (EP Regulation) to allow appropriate conditions to be developed.

3.3.2 Requirements of an EIS

The EIS is to:

- (a) be prepared in accordance with, and meet the minimum requirements of, Schedule 1 of the State Development and Public Works Organisation Regulation 2020 (SDPWO Regulation)
- (b) be prepared in accordance with any 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 state advisory agencies.
- (c) be prepared by suitably qualified and experienced professional/s, relevant to the field of expertise required for each subject matter
- (d) use consistent and clearly defined nomenclature and terminology.

Information and data requirements

The draft EIS should address the requirements of section 7 of Schedule 1 of the SDPWO Regulation, and:

- (a) provide all available site-specific and other relevant baseline information on the environmental values that may be affected by the project. Baseline information should be sufficient to identify seasonal and long-term variations at a scale relevant to the project. Justification should be provided where information is time-limited, or site-specific data is not available
- (b) provide detail about the quality of the information, in particular: the source of the information; how recent the information is; how the reliability of the information was tested, and any assumptions, exclusions and limitations.⁶. Where data is incomplete or has low levels of reliability, explain how these limitations have been overcome
- (c) provide all data, modelling and input/output information used in the EIS to characterise the existing environment and/or assess impacts in an appropriate electronic format (e.g. shapefiles or Microsoft Excel files).

⁵ The proponent is to notify the Coordinator-General of any amendments to the proposed project as described in the project's initial advice statement.

3.4 Format and copy requirements

3.4.1 Draft EIS to Coordinator-General for consideration

The proponent must submit a draft EIS for consideration by the Coordinator-General. The draft EIS should meet the requirements shown in Table 1. Documents that do not meet the requirements below will be returned to the proponent. It is in the proponent's interest to make the documents easy to navigate, to ensure they can be evaluated in a timely manner.

Table 1 Draft EIS requirements

<input type="checkbox"/>	Provide an electronic copy of the draft EIS in Portable Document Format (PDF).
<input type="checkbox"/>	Supply an electronic table of contents (PDF or HTML) of the draft EIS with hyperlinks to each chapter.
<input type="checkbox"/>	Each chapter of the draft EIS should include a table of contents, which is hyperlinked to subsections within the chapter (down to three heading levels).
<input type="checkbox"/>	Hyperlink any external websites referred to in the draft EIS.

3.4.2 Public notification of draft EIS

Once the draft EIS has been prepared to the satisfaction of the Coordinator-General, -General (and, if relevant, the Australian Government department of the environment) is satisfied that the draft EIS addresses the TOR and is suitable for public release, the proponent must meet the requirements identified in Table 2 and the formatting requirements provided in Table 3. Documents that do not meet the requirements will be returned to the proponent.

A PDF version of the draft EIS will be published on the Coordinator-General's website at the commencement of the public notification period, and all advertising material will direct the public to that website.

Important: The proponent must not commit to printing the draft EIS or make it publicly available in any form until the Coordinator-General provides written advice that the draft EIS may be released.

Table 2 Requirements for public notification of the draft EIS

Document requirements	
<input type="checkbox"/>	An unsecured version of the draft EIS in PDF format. The PDFs must allow for text to be copied and pasted. The unsecured version is for internal working purposes only and will not be made publicly available.
<input type="checkbox"/>	A secured version of the full draft EIS in PDF, that meets the Format Requirements identified in Table 3.
<input type="checkbox"/>	High resolution versions of all maps/diagrams/figures used in the draft EIS (excluding technical reports) in JPEG format (minimum resolution 300 dpi). These images are for internal use only, for possible reproduction in the Coordinator-General's evaluation report.
Electronic and printed copies available on request	
<input type="checkbox"/>	Produce a small number of copies of the draft EIS on A4-size paper, with maps and diagrams of A4 or A3 size (discuss the copy and distribution requirements with the Office of the Coordinator-General in the early stages of the EIS process). These hard copies may be required for public viewing locations, such as libraries.
<input type="checkbox"/>	Produce a small number of electronic copies of the draft EIS, for public distribution by the proponent on request. Discuss this requirement with the Office of the Coordinator-General, as the requirements may vary depending on the location of the audience.

Table 3 Format requirements

Document size	Each PDF file should not be larger than 10 MB and must meet the accessibility requirements described in the 'creating accessible PDFs' guidance information, available at: https://helpx.adobe.com/au/acrobat/using/creating-accessible-pdfs.html
Format and style	The format and style of the document is to be appropriate for publication on the Internet.
Plans, maps, diagrams and other illustrative material	All plans, maps, diagrams, and other illustrative material is to be provided at a suitable scale and must be included in a PDF format so that they are legible and easily understood.
	Plans, maps and diagrams are to be located within the appropriate draft EIS chapter/s, as close as possible to where referenced in the text.
	Plans, maps and diagrams are to be to scale on A4 or A3 size with the scale clearly displayed on each. The plan, map or diagram is also to state the original size (e.g. A1). Each should be in colour, where possible, and have a resolution between 300 and 900 dpi.
Locations	All geographical coordinates throughout the draft EIS are to be provided in latitude and longitude against the Geocentric Datum of Australia 2020 (GDA2020).
Elevations	Elevations detailed in the draft EIS are to be provided to Australian Height Datum (AHD). Plans, maps and diagrams included in the draft EIS should have contours at suitable increments relevant to the scale, location, potential impacts and components of the project.
References	All sources must be appropriately referenced using the Harvard standard. The reference list should include the address of any Internet webpages used as data sources.
Spatial data file format requirements	
Guidelines	Refer to <i>Guideline – Spatial information submission</i> ⁷
File names	File names are to be descriptive and provided in one of the following formats: ESRI file geodatabase (.GDB) - preferred ESRI Shapefiles. GDB/shape.
Data attributes	Provide raw sampling and monitoring data in the form of both pdf and excel spreadsheets as an appendix to the EIS. Provide other numerical data at the request of the administering authority. All data is to contain descriptive attributes or columns, including but not limited to the following: <ul style="list-style-type: none"> • date data was created • version number • who created the data (i.e. the company name) • datum (e.g. GDA2020) • category or stage.
Projection	
Projection	Data can be provided in any projection; however, a geographic projection system is preferred. The datum is to be GDA2020.
Metadata	
Use standards	ISO 19115:2015 ANZLIC ISO 1.1.

⁷ Queensland Government, Department of Environment, Science and Innovation, *Guideline – Spatial information submission*, ESR/2018/4337, version 5.00, April 2022.

4. Content requirements for draft EIS

The matters to be addressed in the draft EIS are set out in Schedule 1 of the SDPWO Regulation. In addition to addressing all matters in the TOR, the draft EIS is to address information requirements within Section 4 of this guideline.

The draft EIS should generally adhere to the following structure and content requirements, which are further detailed in Sections 4.1 to 4.10:

- (a) executive summary
- (b) introduction
- (c) project rationale
- (d) project description
- (e) planning and legislative requirements
- (f) community and stakeholder engagement
- (g) project specific matters (structured as a separate chapter for each matter [e.g. air quality, flooding and hydrology, flora and fauna])
- (h) matters of national environmental significance
- (i) environmental management plans
- (j) appendices to the EIS.

4.1 Executive Summary

The executive summary is to describe the project and convey the most important aspects of the project, its potential impacts and how they will be managed, in a concise and readable form. It is to use plain English, avoid jargon, be written as a stand-alone document and broadly follow the structure of the draft EIS.

4.2 Introduction

The introduction is to clearly explain the function of the draft EIS, why it has been prepared and what it sets out to achieve. The introduction is also to set the context for the detailed assessment of the project and describe the structure of the document.

Section 2, Schedule 1 of the SDPWO Regulation requires that the draft EIS must include general information about the background of the project, including the following—

- (a) the project's title;
- (b) the designated proponent's full name and postal address;
- (c) a clear outline of the project's objective;
- (d) the project's location;
- (e) the background to the project's development;

- (f) how the project relates to any other projects, of which the proponent should reasonably be aware, that have been, or are being, taken or that have been approved in the area affected by the project;
- (g) the project's current status;
- (h) the consequences of not proceeding with the project.

See Sections 4.2.1 and 4.2.2 for further detail to be included in the introduction.

4.2.1 Project proponent

The draft EIS introduction is to provide the following proponent information:

- (a) proponent's full name, street and postal addresses, Australian Business Number(s), and details of any joint venture partners
- (b) nature and extent of business activities
- (c) proponent's (including directors) experience in relevant technologies and developing and implementing comparable major projects
- (d) proponent's (including directors) environmental record in Australia, including a list of any breach of, or proceedings against the proponent under an Australian or state law for the protection of the environment or the conservation and sustainable use of natural resources (an environmental law), during the previous ten years
- (e) the proponent's environmental, health, safety and community policies
- (f) experience, qualifications and certification of all suitably qualified consultants and sub-consultants engaged by the proponent to complete the EIS
- (g) all potential or actual conflicts of interest for the proponent and all consultants and subconsultants engaged by the proponent.

4.2.2 The environmental impact assessment process

The draft EIS introduction is to provide information regarding the environmental impact assessment, including:

- (a) outline of the environmental impact assessment process, including the role of the EIS in the Coordinator General's decision-making process, noting which milestones have been completed, and an estimated timeframe for completing each remaining EIS stage(s). 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.
- (b) inform the reader how and when properly made public submissions on the EIS are to be addressed and considered in the assessment and decision-making processes under the SDPWO Act and any other relevant legislation.
- (c) if relevant, describe the assessment process under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) where project is subject to the Bilateral Agreement or the EIS under the SDPWO Act is accredited by the Australian Government when a controlled action decision is made.

4.3 Project rationale and alternatives

The draft EIS project rationale should address section 3(g) of Schedule 1 of the SDPWO Regulation and is to:

- (a) demonstrate the need and scale of the project including in a regional, state and national context. The demonstrated need should also take into account other major relevant infrastructure projects also proposed for the region.
- (b) provide a summary of the current status of similar technologies in Australia and globally.
- (c) discuss known environmental impacts associated with similar operations and how these are managed/mitigated.
- (d) describe the objectives and rationale for the project, including strategic, economic, environmental, and social implications, technical feasibility and commercial drivers.
- (e) describe the expected benefits and opportunities associated with the project and the relevant recipients of these benefits and opportunities (supported by relative evidence).
- (f) describe how the environmental benefits of the proposed project balance the residual environmental costs (supported by evidence). To allow a meaningful comparison, environmental costs and benefits should be quantified.
- (g) discuss the consequences of not proceeding with any component of the project.
- (h) present feasible alternatives of the project's configuration including conceptual, technological, scale and locality alternatives that may improve environmental outcomes. Detail the criteria used to determine the alternatives. Provide sufficient detail to enable an understanding for preferred option/s.
- (i) demonstrate why the preferred option/s has been selected by summarising the comparative environmental, social and economic impacts of each project option, with particular regard to the principles of ecologically sustainable development (ESD). Include a cost-benefit analysis.
- (j) present the feasible project options that were considered in selecting the preferred option including the consequences of not proceeding with the project (the 'do nothing' option).
- (k) where project options or alternatives are still under consideration, provide a description and assessment of each option and a timeframe of when the option will be confirmed. .

4.4 Project description

The draft EIS project description should clearly articulate the full particulars of the proposed development, design of infrastructure, and site description (which includes details of the existing environment and project footprint) to address section 3(a), (b) and (c) of Schedule 1 of the SDPWO Regulation.

4.4.1 Proposed development

The draft EIS is to include, at a minimum:

- (a) description of project components, and the precise location of works to be undertaken, structures to be built or components of the project that may have relevant impacts

- (b) how the works are to be undertaken and design parameters for aspects of the structures, or components, of the project that may have relevant impacts
- (c) the regional and local infrastructure context of the project (with maps at suitable scales)
- (d) workforce numbers to be employed by the project during its various phases, expressed as annual average full-time equivalent positions created during each phase
- (e) anticipated workforce recruitment and rostering arrangements, including proposed travel to and from work, such as fly-in-fly-out and drive-in drive-out
- (f) where and how personnel are to be accommodated during construction and operation of the project.

Additional information requirements specific to the proposed development are provided in the TOR.

4.4.2 Design of infrastructure

Information requirements for design of infrastructure are provided in the TOR.

4.4.3 Site description

The draft EIS project description is to detail, at a minimum, the existing environment and features of the project location, and project footprint. Any additional information requirements will be included in the TOR.

Existing environment and features

The draft EIS should clearly articulate the project's existing environment and features, including:

- (a) provide property descriptions, tenure and ownership information for all land impacted by the project area, and adjacent properties. Include detail of any special attributes of land
- (b) describe and illustrate with suitably scaled maps all transport corridors, private roads, local and state-controlled roads, pipelines, private and government owned corporation energy infrastructure, rail, air services⁸, maritime and other infrastructure or services within the project area and the surrounding region which are relevant to the project (permanently or temporarily), including its construction and operation activities and finish materials (roads)
- (c) describe and illustrate the topography of the project area and surroundings on maps and highlight any significant features. Include and name watercourses/waterways (including stream order information), lakes, springs and unmapped features in accordance with the *Water Act 2000*. When mapping watercourses, lakes, springs and unmapped features identify any existing relevant watercourse identification maps and the Queensland Waterways for Waterway Barriers layer⁹
- (d) describe and map, in both plan and cross-section view, the geology and landforms of the project area and any relevant areas within the project surrounds (including the boundaries of water catchment areas). Show geological structures, such as aquifers, faults, economic resources (such as agricultural, timber, quarries, and mining including historic), and any

⁸ As defined in the State Development Assessment Provisions

⁹ Watercourse identification maps (WIP) can be found on the Business Queensland website at:

<https://www.business.qld.gov.au/industries/mining-energy-water/water/maps-data/watercourse-map>. Determining the type of water feature using the WIP is important for applying relevant provisions of the Water Act 2000, Water Plans and regulatory documents.

other relevant projects and known development proposals that could have an influence on, or be influenced by, the project and its construction and operational activities

- (e) describe, map and illustrate soil types and profiles of the project area including added fill and/or exposed ground surface at a scale relevant to the proposed project and in accordance with relevant guidelines. Identify soils that would require specific management due to wetness, erosivity, sodicity, depth, acidity, salinity or other features.

Project footprint

The draft EIS should clearly articulate the project footprint and should:

- (a) map the location and boundaries of the project's footprint, including all infrastructure elements, extent of disturbance (including clearing of vegetation) and development necessary for the project. Show all key aspects including excavations, stockpiles, areas of fill, subsidence areas, services infrastructure, plant locations, levees, water storages and dams, existing groundwater bores, stormwater infrastructure and drainage systems, spill containment bunds, buildings, waterway crossings (including type), haul and access roads (identifying sealed and non-sealed), J, causeways, stockpile areas and loading and unloading facilities. Include discussion of any environmental design features of these facilities (for example, bunding of plant and storage facilities)
- (b) describe with concept and layout plans, in both plan and cross-section views, requirements for constructing, upgrading or relocating all infrastructure associated with the project. Show the locations and dimensions (including clearing) of any necessary infrastructure easements on the plans, including infrastructure such as roads, rail (and the rail corridor), tracks and pathways, environmental no-go areas, fencing, dams and weirs, bore fields, energy transmission infrastructure, power lines and other cables, wireless technology (such as microwave telecommunications), pipelines for any services, whether underground or above, vents, portals or any other above ground infrastructure (including access tracks) associated with any underground infrastructure
- (c) describe the site in the context of planning schemes, adopted and emerging land use plans applicable to the relevant regional Council(s), regional plans, state policies and government priorities for the project area and the region. A description of the hierarchy of government policies in the regional plans is to be included. Plans and drawings provided must be of sufficient detail for the approvals being sought to enable the Coordinator-General and state advisory agencies to assess the impacts of the project
- (d) describe findings of the Agricultural Land Audit¹⁰ and any land identified as strategic cropping land, priority agricultural area, priority living area or strategic environmental area for the project area
- (e) identify tourist destinations and sites used for recreation in the project area.

¹⁰ The Queensland Agricultural Land Audit identifies land important to current and future production and the constraints to development, highlighting the diversity and importance of Queensland's agricultural industries. For more information visit <https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/agribusiness/agricultural-land-audit/land-audit>

4.5 Planning and legislative requirements

To meet the requirements of sections 2(f) and 6 of Schedule 1 of the SDPWO Regulation, the planning and legislative requirements chapter of the draft EIS is to:

- (a) identify all government approvals required for the project and detail all approvals for which conditions are being sought through the EIS process¹¹, including relevant project stages and components, administering authority and timeframes (using a tabular format)
- (b) identify any local, state or Australian approvals required for the project for which approval will be sought separate to the EIS process, including relevant project stages and components, administering authority and timeframes (using a tabular format)
- (c) provide an assessment against the relevant planning schemes, regional plans, state policies and government priorities for the project area and the region
- (d) describe any legislative requirements that would need to be met in relation to the project's potential impacts on protected areas, reserves, declared fish habitat areas and State forests. If the project's potential impacts are considered to be inconsistent with the values of these areas, include a description of any proposed land dealings and/or required approvals process for changing the boundaries of state forest, reserves and national parks or other protected areas
- (e) the State Planning Policy (SPP) and the State Development Assessment Provisions (SDAP) set out the matters of interest to the State for development assessment. The EIS is to:
 - (i) identify the SPP and SDAP state codes relevant to the project
 - (ii) demonstrate the project's consistency with the relevant SPP
 - (iii) demonstrate the project satisfies the information requirements by providing an assessment against the most up to date version of the relevant SDAP state codes¹²
- (f) provide information required under section 125 of the *Environmental Protection Act 1994* (EP Act) in support of the project's application for any required environmentally relevant activities (ERAs). 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 Schedule 2, EP Regulation for a list of ERAs). The assessment and supporting information, where relevant, is to be sufficient for the administering authority to decide whether an approval should be granted.¹³ Environmental values, information and approval requirements are specified in the EP Act, the EP Regulation, environmental protection policies (EPP) and relevant guidelines
- (g) where relevant, describe the assessment process under the bilateral agreement, or an accredited assessment process, between the Australian Government and the State of Queensland
- (h) describe the approvals process under the EPBC Act.

¹¹ Approvals for which conditions are being sought should consider consideration provisions of Part 4 of the SDPWO Act

¹² Further info on SDAP requirements can be accessed from: <https://planning.statedevelopment.qld.gov.au/planning-framework/state-assessment-and-referral-agency/state-development-assessment-provisions-sdap>

¹³ For technical information requirements, see: <https://www.business.qld.gov.au/running-business/environment/licences-permits/applying/technical>

4.6 Community and stakeholder engagement

The draft EIS should include a community and stakeholder engagement plan which identifies and supports ongoing engagement with a range of stakeholders, including (but not limited to):

- (a) directly and indirectly affected landholders
- (b) directly, indirectly and potentially affected communities¹⁴ and stakeholders¹⁵
- (c) affected person¹⁶
- (d) Aboriginal and Torres Strait Islander peoples¹⁷
- (e) local, state and Australian government agencies
- (f) relevant industry operators including government owned corporations
- (g) other persons as identified in the TOR.

To meet the requirements of sections 2(h) and (i) of Schedule 1 of the SDPWO Regulation, the community and stakeholder engagement report should describe:

- (a) the objectives of the community and stakeholder engagement process, and how these objectives have been met
- (b) details of all stakeholders identified and consulted throughout the process
- (c) details of engagement activities undertaken to date, and proposed engagement activities, including appropriate Aboriginal and Torres Strait Islander consultation¹⁸
- (d) demonstration that engagement methods and processes are effective, transparent, accessible, timely, well-recorded, provide appropriate content and context, and encourage and facilitate participation
- (e) issues raised by stakeholders, and an analysis of key themes raised during engagement
- (f) how stakeholder issues and feedback have been resolved and/or considered by the EIS process
- (g) alterations to the project as a result of issues and feedback raised during engagement
- (h) how stakeholders will be informed of the consultation outcomes throughout the EIS process, detailed design, and project delivery and construction stages.

¹⁴Potentially affected communities are those local and/or regional communities that may be directly or indirectly affected by the project, whether negatively or positively.

¹⁵ Refer to Appendix 1 of the Coordinator-General's social impact assessment Guideline for a list of key stakeholders

¹⁶ Affected person includes groups or persons with rights or interests in land, as defined under section 38 of the EP Act; or water as defined in the Water Act 2000.

¹⁷ This includes Aboriginal and Torres Strait Islander peoples with interest in land directly affected by the proposal as well as those that could be potentially impacted (i.e. downstream Traditional Owners). In developing an engagement plan for consulting with Aboriginal and Torres Strait Islander peoples, input from relevant government agencies (e.g Water Plans with the Department of Regional Development, Manufacturing and Water) is required. Any Aboriginal and Torres Strait Islander peoples who hold distinct cultural rights for the purposes of the *Human Rights Act 2019* within the project area.

¹⁸ Refer to Interim Engaging with First Nations People and Communities on Assessments and Approvals under the EPBC Act (interim guidance) which outlines the statutory obligations that apply to, and the department's expectations of, proponents engaging with First Nations people and communities under the EPBC Act. The guidance applies to proponents undertaking referral, assessment, and approval processes under Chapter 4 of the EPBC Act. Available via: <https://www.dcceew.gov.au/environment/epbc/publications/engage-early>

4.7 Assessment of project specific matters

The TOR describes the project specific matters to be addressed in the draft EIS.

Assessment of each matter is to consider the potential direct and indirect impacts of the project at the local and regional scale. The draft EIS is to assess the potential catchment-wide impacts, including upstream and downstream, where relevant. The proponent is to engage with the Office of the Coordinator-General throughout the development of the draft EIS to clarify the scope of assessment of each project specific matter.

The proponent is to engage suitably qualified and experienced professionals, relevant to the field of expertise to advise on impact assessment methods and consult the Office of the Coordinator-General if necessary.

To meet the requirements of sections 3 and 4 of Schedule 1 of the SDPWO Regulation, the assessment of each matter, as prescribed by the TOR, is to address:

- environmental values
- project impacts
- uncertainty and risks
- mitigation and residual significance of the impact
- information requirements

Assessment of each matter, as required by the TOR is to address the below principles.

Environmental values

For each matter, the draft EIS is to provide:

- (a) identification and description of all relevant environmental values (as defined by section 9 of the EP Act¹⁹), including details of any protective legislation (e.g. a threatened ecological community protected under the EPBC Act or a waterway which supports aquatic habitat and provides fish passage)
- (b) analysis of the sensitivity of each environmental value, considering:
 - (i) relevant protective legislation or regulations (i.e. conservation status assigned by governments or recognised international organisations, or limits and thresholds set out in standards, policies or guidelines)
 - (ii) intactness of the value (i.e. a measure of its existing condition and representativeness)
 - (iii) uniqueness or rarity of the value (i.e. a measure of its abundance and distribution within and beyond the project area)
 - (iv) resilience of the value to change (i.e. its ability to adapt to change or return to its original state)
 - (v) replacement or offset potential of the value (i.e. the potential for losses to be replaced by representative or equivalent examples).

¹⁹ As per section 9 of the EP Act, Environmental value is— (a) a quality or physical characteristic of the environment that is conducive to ecological health or public amenity or safety; or (b) another quality of the environment identified and declared to be an environmental value under an environmental protection policy or regulation.

Project impacts

For each matter, the draft EIS is to provide:

- (a) details of project activities with the potential to impact environmental values
- (b) identification of potential impacts, including direct, indirect, beneficial, adverse and cumulative
- (c) analysis of the magnitude of potential impacts, considering:
 - (i) the geographical extent of the impact in the context of the existing environment (i.e. the extent of the impact at a small or local scale (e.g. individual waterways or species), or at a wider scale (e.g. catchments, ecosystems or bioregions)
 - (ii) duration of the impact in the context of the project staging and design life (i.e. short [0-12 months], medium [1-3 years], long-term [3-100 years] or permanent).
 - (iii) severity or intensity of the impact in the context of the degree of change from the existing environment (which can be positive or negative), and whether changes are irreversible
- (d) assessment of the inherent significance of each impact (i.e. prior to application of mitigation measures), based on the sensitivity of the environmental value and the magnitude of the impact determined in the steps above. This should be undertaken by technical experts who can use informed professional judgement in their reasoning and can use a significance matrix to demonstrate and justify how the significance of the impact is clearly related to the value's sensitivity and the impact's magnitude.

Uncertainty and risks

For each matter, the draft EIS is to evaluate uncertainty and risks, considering:

- (a) the likelihood that the impact will be realised at the expected level
- (b) the limitations of the impact assessment (e.g. lack of baseline information or imprecise models)
- (c) vulnerability of the project to external risks (e.g. human error or natural disasters)
- (d) identification and development of proposed measures and strategies to mitigate each potential impact using the avoid / minimise / offset hierarchy (including monitoring programs and management plans) to be included in a consolidated commitment register.

Mitigation and residual significance

For each matter, the draft EIS is to evaluate proposed mitigation measures and strategies considering:

- (a) mitigation incorporated into project design (e.g. vegetation clearance reduced by co-location of facilities)
- (b) the feasibility and practicality of each measure (e.g. limitations for measures that rely on site access during high rainfall events, or measures that are untested or prohibitively expensive)
- (c) the efficacy of each measure and how it will be measured (i.e. how effective the measure is likely to be to achieve the desired outcome and relevant criteria against which the efficacy will be benchmarked and monitored)
- (d) alignment of proposed measures with relevant model environmental authority conditions (e.g. for a particular ERA)

- (e) alignment of proposed measures with relevant industry best practice
- (f) adaptive management approaches to ensure long-term mitigation of impacts if predicted outcomes are not achieved.
- (g) assessment of residual significance of each impact, following the application of mitigation measures, following the same process described above.
- (h) analysis of the residual significance of each impact, and where relevant, the acceptability of predicted outcomes in the context of environmental objective assessment and performance outcomes specified in section 35(1)(a) and schedule 8 of the EP Regulation.

4.8 Matters of national environmental significance

The TOR describes matters to be addressed in the EIS for assessment of potential impacts on matters of national environmental significance (MNES) under the EPBC Act.

4.9 Environmental management plans

The EIS must include detailed environmental management plans (EMP) for both the construction and operational phases of the project. These EMPs should be developed from, and be consistent with, the information in the EIS and set SMART commitments that achieve best practice environmental management to protect the identified environmental values.²⁰ The EMPs are to be presented as stand-alone documents without reference to other parts of the EIS.

The contents of the EMPs are to include, but not be limited to:

- (a) the proponent's commitments to acceptable levels of environmental performance outcomes
- (b) the proponent's environmental objectives
- (c) expected levels of environmental harm
- (d) performance standards and associated measurable indicators
- (e) progressive and final rehabilitation
- (f) performance monitoring and reporting
- (g) corrective actions to rectify any deviation from environmental performance outcomes and objectives
- (h) effective impact prevention and control strategies to satisfy the commitments
- (i) effective corrective actions to rectify any deviation from environmental performance standards
- (j) a figure showing the full extent of proposed disturbance for the project. . .

²⁰ SMART commitments are: **S**pecific – it is clear what must be done; **M**easurable – it must be possible to know when it has been achieved; **A**chievable – it is capable of being achieved; **R**easonable/relevant – there is a clear connection between the commitment and the desired outcome. The requirement is reasonable; **T**ime Specific – it is clear when the milestone will be completed.

4.10 Appendices to the EIS

Appendices are to provide the complete technical evidence used to develop assumptions, statements and findings in the main text of the EIS. No significant issue or matter is to be mentioned for the first time in an appendix; such matters are to be addressed in the main text of the EIS.

The EIS should also include the following appendices:

- (a) a table listing the section and subsection of the EIS where each requirement of the TOR is addressed
- (b) a list citing all reference material used or relied on in the EIS
- (c) a glossary of terms and a list of acronyms and abbreviations
- (d) a consolidated commitment register that lists all mitigation measures (including monitoring programs and management plans) proposed to protect or enhance environmental values.

5. Policies and guidelines

This section provides a list of Queensland and Australian Government guidance and policy documents which are likely to be relevant to the preparation of a draft EIS. The list is not exhaustive, and other relevant policies and guidelines may be specified in the TOR. Where updated versions of the documents identified in this section are released, the updated version should be considered.

5.1 General

The draft EIS is to ensure the requirements of all relevant guidance materials are addressed to enable post EIS statutory approvals under a range of Queensland legislation can proceed.

Technical information guidelines published by the Department of Environment, Science and Innovation are available via:

- <https://www.qld.gov.au/environment/management/environmental/eis-process/resources>

Detailed spatial information requirement for projects requiring approval under the EP Act is available via:

- Queensland Government, *Spatial information submission*, version 5, ESR/2018/4337, Department of Environment and Science, 2022, viewed 28 November 2023, https://environment.des.qld.gov.au/policies?a=272936:policy_registry/rs-ql-spatial-information.pdf

The State Planning Policy (SPP) outlines 17 state interests arranged under five broad themes: liveable communities and housing, economic growth, environment and heritage, safety and resilience to hazards, infrastructure. The SPP also contains guiding principles to ensure the plan-making and development assessments systems are outcome focused, integrated, efficient, positive and accountable. Information on the SPP is available via:

- <https://planning.statedevelopment.qld.gov.au/planning-framework/plan-making/state-planning/state-planning-policy>

- Queensland Government, *State Planning Policy*, Department of Infrastructure, Local Government and Planning, 2017, viewed 20 December 2023, <https://dsdmipprd.blob.core.windows.net/general/spp-july-2017.pdf>

The State Assessment and Referral Agency (SARA) assesses development applications against the State Development Assessment Provisions (SDAP). SDAP defines the state's interest in development assessment and includes the assessment benchmarks or matters SARA will assess an application against. The state uses SDAP to deliver a coordinated, whole-of-government approach to the state's assessment of development applications. Information regarding the SDAP is provided here:

- Queensland Government, *State Development Assessment Provisions*, 2023, viewed 1 December 2023, <https://planning.statedevelopment.qld.gov.au/planning-framework/state-assessment-and-referral-agency/state-development-assessment-provisions-sdap>

Information regarding the agriculture, fisheries, forestry and biosecurity matters that are to be addressed in a draft EIS are published by the Department of Agriculture and Fisheries (DAF) via:

- Queensland Government, *DAFF Environmental Impact Assessment Companion Guide*, Department of Agriculture, Fisheries and Forestry, 2014, viewed 1 December 2023, <https://staging.publications.qld.gov.au/dataset/daff-environmental-impact-assessment-companion-guide/resource/7b1825c4-5e42-4cf8-aa2d-7fa55c2f5e4c>

Guidance materials to inform assessment of relevant environmental hazards that impact on human health and wellbeing has been developed by Queensland Health, and is available via:

- Queensland Government, *Health considerations – Environmental Impact Statement – Guidelines for proponents*, Queensland Health, 2016, viewed 20 at https://www.health.qld.gov.au/data/assets/pdf_file/0034/444949/envIRON-IMPACT-STATE-GUIDELINES.PDF

5.2 Water

5.2.1 Surface water

The Department of Environment, Science and Innovation provide detailed policy and guidelines relating to the regulation of impacts to waters under the under the *Environmental Protection Act 1994* and Environmental Protection (Water and Wetland Biodiversity) Policy 2019, available via:

- <https://environment.des.qld.gov.au/management/water/policy>
- <https://environment.des.qld.gov.au/management/water/quality-guidelines>
- <https://environment.des.qld.gov.au/management/water/quality-guidelines/sampling-manual>

Guidelines which may be relevant for impacts to surface water include:

- Queensland Government, *Water–EIS information guideline*, ESR/2020/5312, 2022, Department of Environment and Science, viewed 30 November 2023, https://www.qld.gov.au/data/assets/pdf_file/0025/145096/eis-tm-water-information-guide.pdf
- Queensland Government, *Application requirements for activities with impacts to water* ESR/2015/1837, Department of Environment and Science, 2017, viewed 30 November 2023, <https://environment.des.qld.gov.au/assets/documents/regulation/era-gl-water-impacts.pdf>
- Queensland Government, *Reef discharge standards for industrial activities*, ESR/2021/5627, Version 1.03, 20023, viewed 8 December 2023,

https://environment.des.qld.gov.au/policies?a=272936:policy_registry/era-ql-reef-discharge-standards-industrial-activities.pdf

- Queensland Government, *Technical Guideline, Wastewater release to Queensland waters*, Department of Environment and Science, 2019, viewed 30 November 2023, https://www.des.qld.gov.au/policies?a=272936:policy_registry/pr-ql-wastewater-to-waters.pdf
- Queensland Government, *Deciding aquatic ecosystem indicators and local water quality guideline values*, Department of Environment and Science, 2022, viewed 29 November 2023, https://environment.des.qld.gov.au/data/assets/pdf_file/0029/88148/deriving-local-water-quality-guidelines.pdf
- Queensland Government, *Queensland Water Quality Guidelines*, version 3, Department of Environment and Heritage Protection, 2013, viewed 28 November 2023, <https://www.qld.gov.au/environment/library>
- Queensland Government, *Monitoring and Sampling Manual: Environmental Protection (Water) Policy*, Department of Environment and Science, 2018, viewed 28 November 2023, <https://environment.des.qld.gov.au/water/monitoring/sampling-manual/pdf/monitoring-sampling-manual-2018.pdf>
- Australia and New Zealand Governments, *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, Australian and New Zealand Governments and Australian state and territory governments, 2018, viewed 28 November 2023, <https://www.waterquality.gov.au/guidelines/anz-fresh-marine>
- NHMRC, NRMCC, *Australian Drinking Water Guidelines Paper 6 National Water Quality Management Strategy*, National Health and Medical Research Council, National Resource Management Ministerial Council, 2011, viewed 28 November 2023, <https://nhmrc.gov.au/about-us/publications/australian-drinking-water-guidelines>
- Queensland Government, *Stormwater and environmentally relevant activities*, ESR/2015/1653, Version 1.04, 2021, viewed 4 December 2023, https://environment.des.qld.gov.au/data/assets/pdf_file/0028/89119/pr-ql-stormwater-guideline-era.pdf

5.2.2 Groundwater

Guidelines which may be relevant for impacts to groundwater include:

- Queensland Government, *Using monitoring data to assess groundwater quality and potential environmental impacts*, version 2, Department of Environment and Science, 2021, viewed 28 November 2023, <https://publications.qld.gov.au/en/dataset/groundwater-quality-assessment-guideline>
- Queensland Government, *Groundwater dependent ecosystems–EIS information guideline*, version 1.02, ESR/2020/5301, Department of Environment and Science, 2022, viewed 28 November 2023, https://www.qld.gov.au/data/assets/pdf_file/0016/242314/eis-tm-gde-information-guide.pdf

5.2.3 Waterway Barrier Works

To construct or raise waterway barrier works within a waterway, the works must comply with accepted development requirements or a development application under the *Planning Act 2016* needs to be lodged.

Guidance material for accepted development requirements for operational work that is constructing or raising waterway barrier works are provided in the following materials:

- Queensland Government, *What is a waterway barrier work?* Department of Agriculture and Fisheries, 2023, viewed 30 November 2023, <https://www.daf.qld.gov.au/business-priorities/fisheries/habitats/policies-guidelines/factsheets/what-is-a-waterway-barrier-work>
- Queensland Government, *What is a waterway?*, Department of Agriculture and Fisheries, 2017, viewed 30 November 2023, <https://www.daf.qld.gov.au/business-priorities/fisheries/habitats/policies-guidelines/factsheets/what-is-a-waterway>
- Queensland Government, *Accepted development requirements for operational work that is constructing or raising waterway barrier works*, Department of Agriculture and Fisheries, 2018, viewed 30 November 2023, https://www.daf.qld.gov.au/data/assets/pdf_file/0006/1476888/adr-operational-waterway-barrier-works.pdf
- Queensland Government, *Guidelines to assist in preparing an application addressing State Development Assessment Provisions*, 2023, viewed 30 November 2023, <https://www.daf.qld.gov.au/business-priorities/fisheries/habitats/fisheries-development/sdap-guidelines>

5.2.4 Water resources

Queensland Government publishes policies, procedures and guidelines relevant to the management of water resources. The following website should be consulted to view available materials:

- <https://www.rdmw.qld.gov.au/about-us/our-policies>

Guidance material for management of water resources include:

- Queensland Government, *State Development Assessment Provisions guidance material State Code 10: Taking or interfering with water*, Department of Regional Development, Manufacturing and Water, 2022, viewed 1 December 2023, https://www.rdmw.qld.gov.au/?a=109113:policy_registry/guideline-sdap-code-10.pdf&ver=2.00
- Queensland Government, *Riverine protection permit exemption requirements*, Department of Regional Development, Manufacturing and Water, 2023, viewed 1 December 2023, https://www.rdmw.qld.gov.au/?a=109113:policy_registry/riverine-protection-permit-exemption-requirements.pdf&ver=2.03
- Queensland Government, *Guideline: Works that interfere with water in a watercourse for a resource activity watercourse diversions authorised under the Water Act 2000*, version 2.0, Department of Natural Resource and Mines, 2019, viewed 1 December 2023, https://www.resources.qld.gov.au/?ver=2.00&a=109113%3Apolicy_registry%2Fwatercourse-diversions-water-act.pdf

Queensland Government, *Technical guideline – Licensing wastewater releases to Queensland water*, 2022, Department of Environment and Science, accessed 5 June 2023, https://environment.des.qld.gov.au/data/assets/pdf_file/0031/88636/pr-gl-wastewater-to-waters.pdf

5.3 Land

Guidance material for assessments in relation to land when preparing draft EIS:

- Queensland Government, *Land–EIS information guideline*, version 1.03, ESR/2020/5303, Department of Environment and Science, 2022, viewed 29 November 2023, https://www.qld.gov.au/data/assets/pdf_file/0006/140010/eis-tm-land-information-guide.pdf
- Queensland Government, *Application requirements for activities with impacts to land*, version 4.03, ESR/2015/1839, Department of Environment and Science, 2021, viewed 29 November 2023, https://environment.des.qld.gov.au/policies?a=272936:policy_registry/era-ql-land-impacts.pdf
- Queensland Government, *Contaminated land–EIS information guideline*, version 1.01, ESR/2020/5300, 2020, Department of Environment and Science, viewed 29 November 2023, https://www.qld.gov.au/data/assets/pdf_file/0013/140008/eis-tm-contaminated-land-information-guide.pdf
- Queensland Government, *Quarry material–EIS information guideline*, version 1.01, ESR/2020/5306, 2022, Department of Environment and Science, viewed 29 November 2023, https://www.qld.gov.au/data/assets/pdf_file/0017/113480/eis-tm-quarry-material-information-guide.pdf

Agricultural land

Guidance material is available for agricultural land via:

- Queensland Government, *Guidelines for Agricultural Land Evaluation in Queensland*, Department of Science, Information Technology and Innovation and Department of Natural Resources and Mines, 2015, viewed 1 December 2023, <https://www.publications.qld.gov.au/dataset/qld-agricultural-land-evaluation-guidelines>.
- Queensland Government, *Guideline for co-ordinated project involving clearing for agriculture (land suitability requirement)*, version 1.0, Department of Natural Resources, Mines and Energy, 2018, viewed 8 February 2024, <https://nla.gov.au/nla.obj-2649625873/view>

5.3.1 Soils

Survey and Sampling

Guidance material regarding soil survey and sampling is available via:

- Soil Science Australia, *Guidelines for Soil Survey along Linear Features*, 2015, viewed 1 December 2023, <https://www.soilscienceaustralia.org.au/wp-content/uploads/2021/02/SSA2015.Guidelines-for-Soil-Survey-along-Linear-Features.pdf>
- Queensland Government, *Queensland Soil and Land Resource Survey Information Guideline*, VEG/2018/4460, version 2.0, Department of Resources, 2021, viewed 29 November 2023, https://www.daf.qld.gov.au/?a=109113:policy_registry/guideline-soil-land-resource-survey.pdf
- McKenzie NJ, Grundy, MJ, Webster R, Ringrose-Voase, AJ, *Guidelines for Surveying Soil and Land Resources*, CSIRO, 2008.
- National Committee on Soil and Terrain, *Australian Soil and Land Survey Field Handbook*, CSIRO, 2009.

Salinity

The Salinity Risk Assessment Framework (Grundy et al. 2007) is the preferred method to assess salinity risk in Queensland. Information on soil management for preventing and managing salinity is provided via:

- Queensland Government, *Salinity*, 2023 Department of Environment and Resource Management, 2011, viewed 4 December 2023, <https://www.qld.gov.au/environment/land/management/soil/salinity>
- Grundy MJ, Silburn DM, Chamberlain T (2007). A risk framework for preventing salinity. *Environmental Hazards*. 7: 97–105. <https://www.sciencedirect.com/science/article/abs/pii/S1747789107000245>
- Queensland Government, *Salinity management handbook*, Second edition, Department of Environment and Resource Management, 2011, viewed 1 December 2023, <https://www.publications.qld.gov.au/dataset/5f866f8d-d47a-430e-aa9f-c97f7c4147d7/resource/b586d088-63e2-4ae5-9488-fbf864dcd638/download/salinity-management-handbook-foreword.pdf>

Erosion and sediment control

- International Erosion Control Association, *Best Practice Erosion and Sediment Control Document*, 2023, viewed 1 December 2023, <https://www.austieca.com.au/publications/best-practice-erosion-and-sediment-control-bpesc-document>
- Queensland Government, *Soil Conservation Guidelines for Queensland*, Department of Science, Information Technology and Innovation, 2015, viewed 1 December 2023, <https://publications.qld.gov.au/dataset/soil-conservation-guidelines>

Acid Sulfate Soils

The Australian Government and the National Committee for Acid Sulfate Soils has developed a suite of resources and guidance material to provide clear advice about investigating and managing acid sulfate soils, available via:

- <https://www.waterquality.gov.au/issues/acid-sulfate-soils/a-synthesis>

Guidance materials for acid sulfate soils in Queensland include:

- Queensland Government, *Managing acid sulfate soil*, Department of Environment and Science, viewed viewed 4 December 2023, <https://www.qld.gov.au/environment/land/management/soil/acid-sulfate/management>
- Queensland Government, *Guidance materials for acid sulfate soils*, 2023, viewed 4 December 2023, <https://www.qld.gov.au/environment/land/management/soil/acid-sulfate/national-guidance>
- Dear SE, Williams KM, McElnea AE, Ahern CR, Dobos SK, Moore NG, and O'Brien LE, *Queensland Acid Sulfate Soil Technical Manual, Soil Management Guidelines*, version 5, Department of Resources and Department of Environment and Science, 2023, viewed 1 December 2023, <https://www.publications.qld.gov.au/dataset/cf17fb49-0ea5-4dee-82c9-32e09bf1eab5/resource/6d880993-4b80-45e3-9110-5c24fa7a7e75/download/queensland-ass-management-guideline-2014.pdf>

5.3.2 Acid rock drainage

The Global Acid Rock Drainage (GARD) Guide addresses the prediction, prevention, and management of drainage produced from sulfide mineral oxidation.

- International Network for Acid Prevention (INAP), *Global Acid Rock Drainage (GARD) Guide*, 2009, viewed 8 February 2024, <https://www.gardguide.com/images/5/5f/TheGlobalAcidRockDrainageGuide.pdf>

5.3.3 Rehabilitation

This guideline informs proponents about the information requirements in relation to rehabilitation matters when preparing an environmental impact statement (EIS). The guideline is divided into two sections that address mining projects and other resource projects respectively.

- Queensland Government, *Rehabilitation–EIS information guideline*, 2022, Department of Environment and Science, viewed 30 November 2023, https://www.qld.gov.au/data/assets/pdf_file/0017/242315/eis-tm-rehabilitation-information-guide.pdf
- Queensland Government, *Guideline - Progressive rehabilitation and closure plans (PRC Plans)*, ESR/2019/4964, Version 3, 2023, viewed 4 December 2023, https://environment.des.qld.gov.au/policies?a=272936:policy_registry/rs-gl-prc-plan.pdf

5.4 Flora and fauna

Guidance material relevant to flora and fauna assessment include:

- Queensland Government, *Aquatic ecology – EIS information guideline*, 2021, Department of Environment and Science, ESR/2020/5295, version 1.02, 2022, viewed 4 December 2023, https://www.qld.gov.au/data/assets/pdf_file/0018/153261/eis-tm-aquatic-ecology-information-guide.pdf
- Queensland Government, *Terrestrial ecology–EIS information guideline*, ESR/2020/5309, Version 1.02, Department of Environment and Science, 2022, viewed 4 December 2023, https://www.des.qld.gov.au/policies?a=272936:policy_registry/eis-tm-terrestrial-ecology-information-guide.pdf
- Queensland Government, *Guidelines for Fish Salvage*, Department of Agriculture and Fisheries, 2018, viewed 4 December 2023, <https://www.daf.qld.gov.au/business-priorities/fisheries/habitats/policies-guidelines/factsheets/guidelines-for-fish-salvage>
- Queensland Government, *State Policy for Vegetation Management, v4.00*, Department of Natural Resources, Mines and Energy, 2019, viewed 4 December 2023, https://www.dnrme.qld.gov.au/?a=109113:policy_registry/state-policy-vegetation-management.pdf

5.4.1 Survey methods

Guidance material relevant to survey methods is available via:

- Queensland Government, *Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities*, Version 6.0, Department of Environment and Science), 2022, viewed 4

December 2023, <https://publications.qld.gov.au/dataset/redd/resource/6dee78ab-c12c-4692-9842-b7257c2511e4>

- Queensland Government, *Flora Survey Guidelines - Protected Plants*, NCS/2016/2534, version 2.01, 2020. Department of Environment and Science, viewed 4 December 2023, https://www.qld.gov.au/data/assets/pdf_file/0028/99901/ql-wl-pp-flora-survey.pdf

The *Terrestrial Vertebrate Fauna Survey Guidelines for Queensland* outline the minimum survey requirements, survey standards and appropriate practice for the survey of terrestrial vertebrate fauna in Queensland:

- Queensland Government, *Terrestrial Vertebrate Fauna Survey Guidelines, 2022*, viewed 1 December 2023, <https://www.qld.gov.au/environment/plants-animals/biodiversity/vertebrate-survey>
- Eyre TJ, Ferguson DJ, Smith GC, Mathieson MT, Venz MF, Hogan, LD, Hourigan CL, Kelly, AL & Rowland, J., *Terrestrial Vertebrate Fauna Survey Guidelines for Queensland, Version 4*, 2022, Department of Environment and Science, viewed 4 December 2023, https://www.qld.gov.au/data/assets/pdf_file/0022/68224/fauna-survey-guidelines.pdf

5.4.2 Environmental Offsets (Queensland)

Guidance material relevant to environmental offsets assessment is available via:

- <https://www.qld.gov.au/environment/management/environmental/offsets>
- Queensland Government, *General guide for the Queensland Environmental Offsets Framework*, version 1.03, EPP/2021/5541, Department of Environment and Science, 2021, viewed 4 December 2023, https://environment.des.qld.gov.au/data/assets/pdf_file/0018/90180/offsets-policy-general-guide.pdf
- Queensland Government, *Queensland Environmental Offsets Policy*, version 1.15, Department of Environment and Science, 2023, viewed 4 December 2023, https://environment.des.qld.gov.au/data/assets/pdf_file/0014/330224/offsets-policyv1-15.pdf

5.4.3 Matters of National Environmental Significance

Guidelines relating to MNES are available in the TOR.

5.4.4 Biosecurity

This guideline advises proponents about the information and assessment requirements in relation to biosecurity when preparing a draft EIS.

- Queensland Government, *Biosecurity–EIS information guideline*, ESR/2020/5297, 2022, Department of Environment and Science, viewed 30 November 2023, https://www.qld.gov.au/data/assets/pdf_file/0010/140005/eis-tm-biosecurity-information-guide.pdf

5.5 Hazards, health and safety

Dam safety

- Queensland Government, *Manual for assessing consequence categories and hydraulic performance of structures*, ESR/2016/1933, Version 5.02, Department of Environment and Science, viewed 4

December 2023, https://www.des.qld.gov.au/policies?a=272936:policy_registry/era-mn-assessing-consequence-hydraulic-performance.pdf

- Queensland Government, *Guideline: Dam Safety Management*, Department of Natural Resources and Mines and Energy, 2020, viewed 23 February 2023, https://www.rdmw.qld.gov.au/data/assets/pdf_file/0007/78838/dam-safety-management.pdf
- Queensland Government, *Guideline for failure impact assessment of water dams*, Department of Natural Resources and Mines and Energy, 2018, viewed 13 March 2023, https://www.rdmw.qld.gov.au/data/assets/pdf_file/0005/78836/guidelines-failure-impact-assessment.pdf

Bushfire

- Queensland Government, *Natural hazards, risk and resilience state interest – Bushfire*, May 2021, Department of State Development, Infrastructure, Local Government and Planning, viewed 24 February 2023 <https://dtdmipprd.blob.core.windows.net/general/natural-hazards-risk-and-resilience-state-interest-bushfire-example-planning-scheme-assessment-benchmarks.pdf>

5.6 Social, economic and cultural heritage

Social

Social impact assessment (SIA) is a process for the identification, analysis, assessment, management and monitoring of the potential social impacts of a project, both positive and negative. The phases of the SIA process are outlined in the SIA process overview and explained in detail in the social impact assessment guideline:

- Queensland Government, *Social impact assessment guideline*, Department of State Development, 2018, Department of State Development, Infrastructure, Local Government and Planning, viewed 4 December 2023, <https://www.statedevelopment.qld.gov.au/coordinator-general/strong-and-sustainable-resource-communities/social-impact-assessment>
- Queensland Government, *Supplementary material for assessing and managing the social impacts of projects under the Coordinator-General's Social Impact Assessment Guideline (March 2018)*, Department of State Development, Infrastructure, Local Government and Planning, 2023 viewed 4 December 2023, <https://www.statedevelopment.qld.gov.au/coordinator-general/strong-and-sustainable-resource-communities/social-impact-assessment>

Cultural heritage

- Queensland Government, *Aboriginal and Torres Strait Islander cultural heritages – EIS information guideline*, ESR/2020/5296 Version 1.01, 2022, Department of Environment and Science, viewed 4 December 2023, https://www.qld.gov.au/data/assets/pdf_file/0018/113481/eis-tm-atsi-heritages-information-guide.pdf
- Queensland Government, *Non-Indigenous cultural heritage – EIS information guideline*, ESR/2020/5302, Version 1.01, Department of Environment and Science, 2022, viewed 4 December 2023, https://www.qld.gov.au/data/assets/pdf_file/0014/140009/eis-tm-heritage-information-guide.pdf

Economic

- Queensland Government, *Economic impact assessment guideline*, Department of State Development, 2017 viewed 4 December 2023, https://www.statedevelopment.qld.gov.au/data/assets/pdf_file/0012/33420/economic-impact-assessment-guideline.pdf

5.7 Noise and vibration

Guidance materials for assessing and managing noise and vibration impacts is available via:

- Queensland Government, *Noise and vibration – EIS information guideline*, 2020, Department of Environment and Science, 1 December 2023, https://www.qld.gov.au/data/assets/pdf_file/0029/87941/eis-tm-noise-vibration-information-guide.pdf
- Queensland Government, *Applications for activities with noise impacts*, ESR/2015/1838, 2022, Department of Environment and Science, viewed 29 November 2023, https://environment.des.qld.gov.au/policies?a=272936:policy_registry/era-gl-noise-impacts.pdf

5.8 Air

Queensland Government guidelines for assessment of project with impacts to air, include:

- Queensland Government, *Air – EIS information guideline*, ESR/2020/5294, Version 1.02, 2022, Department of the Environment and Science, viewed 8 February 2024, https://www.des.qld.gov.au/policies?a=272936:policy_registry/eis-tm-air-information-guide.pdf
- Queensland Government, *Application requirements for activities with impacts to air* - ESR/2015/1840, Department of Environment and Science, 2017, viewed 29 November 2023, <https://environment.des.qld.gov.au/assets/documents/regulation/era-gl-air-impacts.pdf>
- Queensland Government, *Guideline - Odour Impact Assessment for Developments*, Department of Environment and Heritage Protection, viewed 29 November 2023, <https://www.publications.qld.gov.au/dataset/guideline-odour-impact-assessment-for-developments>

The Australian Government Clean Energy Regulator (CER) has developed guidelines to assist compliance with National Greenhouse and Energy Reporting (NGER) obligations. The guidelines describe details of key reporting obligations but are not intended to be a definitive or comprehensive interpretation of the NGER legislation.

- Australian Government, *National Greenhouse and Energy Reporting: Guidelines*, Clean Energy Regulator, 2023, viewed 29 November 2023, <https://www.cleanenergyregulator.gov.au/NGER/Forms-and-resources/Guidelines>

5.9 Climate

Queensland Government, climate change science resources are available at:

- <https://www.qld.gov.au/environment/climate/climate-change/resources/science>
- <https://longpaddock.qld.gov.au/qld-future-climate/>

This guideline advises proponents about the information requirements in relation to climate when preparing an environmental impact statement (EIS):

Queensland Government, *Climate – EIS information guideline*, ESR/2020/5298, Version 1.01, 2022, Department of Environment and Science, viewed 4 December 2023, https://www.qld.gov.au/data/assets/pdf_file/0011/140006/eis-tm-climate-information-guide.pdf

5.10 Transport

Guidance materials for assessment of transport impacts area available via:

- Queensland Government, *Transport– EIS information guideline*, ESR/2020/5310, version 1.02, 2022, Department of Environment and Science, viewed 4 December 2023, https://www.qld.gov.au/data/assets/pdf_file/0009/140013/eis-tm-transport-information-guide.pdf
- Queensland Government, *Business and industry - Technical publications*, 2023, viewed 4 December 2023, <https://www.tmr.qld.gov.au/business-industry/technical-standards-publications>
- Queensland Government, *Transport Noise Management Code of Practice: Volume 1 – Road Traffic Noise*, Department of Transport and Main Roads, 2013, viewed 29 January 2024, https://www.tmr.qld.gov.au/media/busind/techstdpubs/environment-management/transport-noise-management/transportnoisemgmt.pdf?sc_lang=en&hash=C44FEB5F3EA7BF1BE833BE3D01364C01
- Queensland Government, *Transport Noise Management Code of Practice: Volume 2 – Construction Noise and Vibration*, Department of Transport and Main Roads, 2023, viewed 8 February 2024, https://www.des.qld.gov.au/policies?a=272936:policy_registry/pr-cp-noise-and-vibration.pdf
- Queensland Government, *Transport Noise Management Code of Practice: Volume 3 – Operational Railway Noise and Vibration Government Supported Transport Infrastructure*, March 2019
- Queensland Government, *Guide to Traffic Impact Assessment*, Department of Transport and Main Roads, 2018, viewed 8 February 2024, <https://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/Guide-to-Traffic-Impact-Assessment>
- Queensland Government, *Guide for Development in Transport Environment: Rail*, Department of Transport and Main Roads, 2015, viewed 1 December 2023, <https://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/Guide-to-development-in-a-transport-environment-rail.aspx>

5.11 Waste

Guidance materials for assessment of waste impacts area available via:

- Queensland Government, *Waste – EIS information guideline*, ESR/2020/5311, 2022, Department of Environment and Science, viewed 4 December 2023, https://www.des.qld.gov.au/policies?a=272936:policy_registry/eis-tm-waste-information-guide.pdf
- Queensland Government, *Application requirements for activities with waste impacts*, ESR/2015/1836, Version 5.03, 2023, viewed 4 December 2023,

https://environment.des.qld.gov.au/policies?a=272936:policy_registry/era-ql-waste-impacts.pdf

- Queensland Government, *Assessing applications for sewage treatment works* ESR/2015/1652, Department of Environment and Science, 2019, viewed 1 December 2023, https://environment.des.qld.gov.au/data/assets/pdf_file/0022/88240/pr-ql-sewage-treatment.pdf
- Queensland Government, *Disposal of effluent using irrigation Technical guideline*, Department of Environment and Science, 2020, viewed 1 December 2023, <https://www.publications.qld.gov.au/dataset/6ac44bbf-5282-460f-8836-c0f99fac5029/resource/ff879429-ff61-4cc4-a12f-b81883ceb7ee/download/disposal-of-effluent-using-irrigation-technical-guideline.pdf>

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