

Agenda Report for Noting

Meeting Date: 8 December 2022

Item Name	Impact Assessed Improvement Project: Revised Practice Direction 17, Assessment Requirements Library and draft Assessment Requirements format
Presenters	Margaret Smith, Simon Neldner and Robert Kleeman
Purpose of Report	Noting
Item Number	6.1
Strategic Plan Reference	N/A
Work Plan Reference	N/A
Confidentiality	<ul style="list-style-type: none"> • Agenda Report: Not Confidential (Release Immediately) • Attachment 1: Confidential (Draft Advice or Documents) • Appendices A and B: Not Confidential (Release Immediately) • Appendices C and D: Confidential (Draft Advice or Documents).
Related Decisions	SPC Agenda Item – 8 December 2022 – Request to amend <i>Practice Direction 4 – Restricted and Impact Assessed Development 2019</i>

Recommendation

It is recommended that the State Planning Commission (the Commission) resolves to:

1. Approve the designation of this item as follows:
 - Agenda Report: Not Confidential (Release Immediately)
 - **Attachment 1**: Confidential (Draft Advice or Documents)
 - **Appendices A and B**: Not Confidential (Release Immediately)
 - **Appendices C and D**: Confidential (Draft Advice or Documents).
2. Note the work undertaken to develop *Assessment Requirements Library v1.0* (the Library) (**Attachment 1**).
3. Note that the Library for Impact Assessed Developments will be published on the SA Planning Portal once finalised.
4. Note the work undertaken to develop the new *Practice Direction 17 – Impact Assessed Development* (Practice Direction 17) and a revised Assessment Requirements template as shown in **Appendix C**.

Background

Pursuant to section 112 of the *Planning, Development and Infrastructure Act 2016* (the Act), the Commission has the responsibility of preparing and endorsing a set of Assessment Requirements that guides the direction and level of investigation for the preparation of an Environmental Impact Statement (EIS) by a proponent for projects previously declared, or prescribed by regulation, as Impact Assessed Developments under the Act or the *Planning, Development and Infrastructure (General) Regulations 2017* (the Regulations).

In May 2022, JBS&G were selected to undertake a review of the current EIS processes (in accordance with the new Act), with the key deliverables being:

- (a) An update to the Assessment Requirements template (currently Attachment 2 of the current *Practice Direction 4 – Restricted and Impact Assessed Development 2019* (Practice Direction 4) and now to be included into the new Practice Direction 17).
- (b) The development of a new reference resource, being a common library of baseline Assessment Requirements to inform the preparation of subsequent project-specific Assessment Requirements for any impact assessed development.

An interactive workshop was also held between Planning and Land Use Services (PLUS) and JBS&G staff on 24 May 2022.

The JBS&G background paper undertook a review of Australian EIS equivalent processes (with some additional Canadian examples) to inform the scope of their analysis. This analysis included:

- A review of relevant legislation in each State jurisdiction.
- How EIS requirements are developed (including where the primary responsibility rests and the level of consultation that occurs in their preparation).
- How the precautionary principle and environmental sustainability development (ESD) principles are considered in guideline setting.
- The level of digitisation of the assessment process.
- Whether or not data captured by the EIS process is incorporated into state databases.
- Whether or not the final guideline document is peer reviewed.

It is noted that there are both differences and similarities between State jurisdictions in how Environmental Impact Assessment processes are undertaken, the level of public consultation required and the final decision-maker; however, the South Australian model continues to provide a transparent, thorough and robust process under dedicated legislation with independent oversight provided by the Commission (who set the Assessment Requirements and is the author of the Assessment Report).

The JBS&G work recommends a number of improvements, which seek to further embed an outcomes focussed approach in the setting of Assessment Requirements (based on environmental attributes), the preparation of an Assessment Requirements library, which includes relevant standards, guides and publications, modifying the level of assessment to either 'detailed' or 'standard' (as opposed to critical, medium or standard now prescribed in PD 4), and confirmation of the depth of study required for each attribute.

Some issues remain out of scope due to time and budget constraints but could be revisited in the future. These matters relate to:

- The consideration and implementation of an environmental management system when proposed by a proponent.
- The use of an interactive website with enhanced functionality to provide an alternative form of access to an EIS.

- How community and stakeholder groups could be further consulted in the preparation of Assessment Requirements.

It is noted that public consultation on Assessment Requirements used to occur under the former *Development Act 1993* until the early 2000s but was discontinued due to the additional time taken not resulting in the identification of any new issues. The guideline setting process (at the time) was independently overseen by the Development Assessment Commission, whilst peer review on critical technical matters was provided by State agencies and the environmental regulator. These requirements and/or actions have not changed with the introduction of the new Act.

A copy of the initial project brief, and background paper and model (draft) guidelines, prepared by JBS&G, are provided at **Appendices A** and **B**, respectively.

Discussion

Following receipt of the JBS&G working documents, targeted feedback was sought on the model Assessment Requirements from relevant agencies, comprising:

- Aboriginal Affairs and Reconciliation, Attorney-General's Department
- Department for Environment and Water
- Environment Protection Authority.

Based on this feedback, a number of editorial and content changes were made to the initial JBS&G work but retained the overall format and guidance.

Assessment Requirements Library

The Library would be a Department for Trade and Investment-badged planning practitioners' resource published on the Plan SA website, allowing it to be periodically updated.

The key features of the Assessment Requirements Library are:

- A table setting out the environmental attributes (grouped by categories) which would generally require assessment in an EIS.
- The key factors to consider in identifying whether the level of assessment required for an environmental attribute in the context of a specific project is 'detailed' or 'standard'.
- The characteristics of each level of assessment to guide the information required to address a specific environmental attribute potentially impacted by a specific project.
- Draft standard and detailed Assessment Requirements for consideration of PLUS assessors, as well as referral agencies and other stakeholders.

The Library is to provide a baseline set of Assessment Requirements – essentially 'plug and play' – and focus more on specific guidance, tailored to a particular project, which are then informed by agency, council and proponent feedback before formal consideration. Importantly, it would not dilute the requirement for the Commission to formally set the final Assessment Requirements for each project but would aid consistency and timeliness.

It is noted that an additional environmental attribute was added (No. 8) to the work completed by JBS&G which has a 'design' focus. This is currently being reviewed by the Office for Design and Architecture SA (ODASA), as whilst most projects (such as ports, landfills etc.) do not have a significant urban design focus, other projects such as the Peregrine Headquarters, Highway Inn, Adelphi Hotel, Mount Lofty Golf Course and Southern Ocean Lodge developments do have significant design and public realm elements.

It is anticipated for projects where a design attribute requirement required a more detailed level of assessment, this would also be the subject of a formal Design Review process.

The draft Library document is contained in **Attachment 1**.

New Practice Direction 17 & Updated Assessment Requirements Template

On 20 January 2022, a draft Practice Direction 17 reviewed by the Commission, which was developed to account for work undertaken with the former Commonwealth Department of Agriculture, Water and the Environment (DAWE) to accredit both the Impact Assessed and Crown development pathways of the Act under a new bilateral agreement.

This would have replaced the existing assessment bilateral for Major Developments under the former *Development Act 1993* with a new agreement for both assessment and approval processes.

However, following a change of Government at both the State and Federal levels between March and May 2022, departmental negotiations have slowed, such that further work on a new bilateral agreement has been delayed until 2023, pending the outcome of a Commonwealth review of the previous *Environment Protection and Biodiversity Conservation Act 1999* report undertaken by Professor Graeme Samuels in 2020.

PLUS have been actively engaged with the Commonwealth on the potential for interim arrangements (i.e. administrative cooperation, information sharing etc.), and whether a project specific bilateral could be considered, but the scope of any commitments remain to be determined.

Since consideration of the draft Practice Direction 17 in January 2022, Matters of National Environmental Significances (MNES) content has been retained where relevant, although the MNES-specific assessment pathway has been deleted. Other amendments from the existing Practice Direction 4 are minor in nature. Further work is being undertaken to road-test a new Assessment Requirements template (draft Attachment 1 of Practice Direction 17) (**Appendix C**) with more recently declared projects. This will be presented to the Commission in the new year.

The key features and/or differences of the new template are as follows:

- Reference to the application submitted by a proponent for an Impact Assessed Development (not being restricted) changed from 'application' to 'scoping application' to clarify its role in developing the EIS Assessment Requirements.
- The section on 'Specialist Reports and Details' has been deleted. Requirements for specialist reports will be incorporated into the relevant Assessment Requirements.
- Updates to the 'Process' section to incorporate changes to the manner in which Assessment Requirements will be developed (i.e. consideration of key factors to determine level of assessment).
- Reference to 'critical' level of assessment in the Assessment Requirements has been changed to 'detailed' level of assessment. This removes the need for a medium level of assessment and reflects interstate best practice.

A brief project issues summary will also be incorporated into the template, being the key assessment matters that the EIS must address, with the Assessment Requirements being the specific guidance for each environmental attribute.

An example of the revised template format based on a current project is provided at **Appendix D**. This is provided to the Commission on a confidential basis and is not for public release.

Recommendations for further work

The JBS&G background paper also contained a number of recommendations for further work, including:

- Consideration of cumulative impacts.
- Delivery of and compliance with ESD initiatives.
- Focus on social and economic impacts.
- Community and stakeholder engagement (scoping stage).
- Engagement with Aboriginal communities.
- Further guidance on requirements for modelling/detailed studies.
- Incorporation of peer review process.

Whilst some of these initiatives are worthy of further investigation, dependent on resourcing and workload prioritisation, they may also require legislative or regulatory change to implement, or in the case of cumulative impacts, can be more difficult to define where complete information may not be available to the proponent in a timely matter or is prohibitively expensive to obtain.

In addition, consideration was given to:

- The preparation of draft Assessment Requirements by the proponent (not supported).
- Inclusion of a 'no further assessment' category in the Assessment Requirements (under consideration).
- Requiring proponents to submit specified data collected during preliminary investigations on new projects to the State (supported, but query if the authority exists under the Act to do this).
- A requirement to consider gender impacts and impacts on historically disadvantaged groups in an EIS (further consideration required).

Procedural matters

The decision to amend Practice Direction 4 and create Practice Direction 17 is being considered directly after this Agenda Item (on 8 December 2022).

Additional improvements to **Attachment 1** are to follow as draft Assessment Requirements are worked-up for new projects in early 2023.

Attachments:

1. Draft Assessment Requirements Library for Impact Assessed Development (#19528555).

Appendices:

- A. Project Specification for Model EIS Guidelines (#19535858).
- B. JBS&G Model Environmental Impact Statement Guidelines Summary Report (14 July 2022) (#19535857).
- C. Working Draft – Assessment Requirements template – New format (#19532362).
- D. Project-specific example – Assessment Requirements template – New format (#19537699).

Prepared by: Simon Neldner

Endorsed by: Robert Kleeman and Margaret Smith

Date: 22 November 2022



Government
of South Australia

Department of Trade and Investment
("Public Authority")

**Model Environmental Impact Statement Guidelines
and Standard Assessment Criteria**

Impact Assessment by Minister

Specification

1. INTRODUCTION

1.1 Purpose

To develop model assessment guidelines and standard criteria for the assessment of impact assessed developments by the Minister for Planning (not restricted) under Section 108(1)(b) & (c) of the *Planning, Development and Infrastructure Act 2016* (new Act).

The purpose of this procurement is to develop a model assessment guideline document that can be used for the development of assessment criteria for an Environmental Impact Statement (EIS) for projects of state significance under the new Act.

1.2 Background

The new Act allows for an EIS level of assessment under the South Australian Planning system, replacing the former major development / major projects process under s.46 of the *Development Act 1993* (previous Act).

This pathway is acknowledged as the highest and most rigorous level of state development assessment, and is reserved for projects of economic, social and environmental significance.

These types of projects require a whole of government assessment due to their complexity or uniqueness, such that a general assessment against the Planning and Design Code would not be appropriate.

The State Planning Commission has the responsibility under the new Act to develop and endorse project specific assessment guidelines for an EIS.

[Practice Direction 4: Restricted and Impact Assessed Development 2019](#) contains the existing assessment requirements template and guidance for an EIS level assessment, and was developed as an initial 'stop-gap' to ensure compliance with the requirements of the new legislation.

Whilst Practice Direction 4 has been recently reviewed as part of a proposed EPBC Accreditation Process by the Commonwealth (unpublished 2021 update), an opportunity now exists to develop a model template for EIS level guidelines, which builds on this existing work and meets current best practice (in terms of requirements, relevance, legibility and useability).

Refer to relevant documentation in Section 5: Attachments.

2. REQUIREMENTS – SERVICES

1.3 Procurement Objectives

The main procurement objective is to develop a model assessment requirements document that can be used by the State Planning Commission and PLUS-DTI staff as a guide for an individual EIS level of assessment under the new Act.

1.4 Scope of Services

To review current practices, procedures and templates to produce an updated model assessment requirements document (refer Attachment 2 – Template Assessment Requirements - Practice Direction 4). The updated document must be consistent with the legislative requirements of the new Act and Regulations, as they pertain to impact assessed

developments by Minister (specifically section 112), and the current draft of the new *Practice Direction 17: Impact Assessed Development by Minister 2021*, and demonstrate best procedural and assessment practice for EIS level assessments.

1.5 Requirements

- Evaluate the approach of interstate land-use planning jurisdictions in the development of assessment guidelines for EIS level projects.
- Review the current and the proposed assessment guideline document to be authored by the State Planning Commission, and the broader legislative requirements under the PDI Act
- Prepare a revised assessment guidelines document incorporating current best practices, consistent with both SPC and state legislative requirements, and draft standard assessment criteria.
- Provide a model assessment guidelines document that includes an overall library of potential requirements for the preparation of an individual EIS (in terms of scope, indexing, legibility, prioritisation and layout).

A copy of the current guidelines template and three of the latest guidelines documents under the former Act are included in the attachments, noting that no assessment criteria document has yet been produced for a new impact assessed development under the new Act to date.

Technology, systems and management techniques

The work undertaken will remain the intellectual property of the Planning and Land Use Services directorate (Department of Trade and Investment) (DTI) and may not be distributed, transmitted or reproduced in any format without the express permission of DTI.

Records management

The model assessment guidelines will be developed in an editable MS Word format.

Quality requirements

The model guidelines will be independently* edited and peer reviewed (* this can be undertaken within an existing firm or business enterprise).

1.6 Timeframes

The work would need to be completed within a period of six (6) weeks from project commencement.

3. PUBLIC AUTHORITY SPECIFIC REQUIREMENTS

The public authority requires that all contracts with suppliers of goods and services include a “Respectful Behaviours” clause that acknowledges the Public Authority’s commitment to a policy of zero tolerance to violence against women in the workplace and the broader community and requires the Suppliers’ personnel to comply with the Public Authority’s instructions, policies, procedures and guidelines regarding acceptable workplace behaviour.

If your Public Authority has any other relevant policies, please include details here.

4. GLOSSARY

Development Act 1993 – previous Act.

Planning Development and Infrastructure Act 2016 – the Act.

Planning, Development and Infrastructure (General) Regulations 2017 – the Regulations.

5. ATTACHMENTS

List of attachments:

1. [Practice Direction 4: Restricted and Impact Assessed Development 2019](#) - Online
2. *Practice Direction 17: Impact Assessed Development by Minister 2021 – Confidential Draft Only*
3. *Current Impact Assessed by Minister Guidelines template (word doc).*
4. [Assessment Guidelines – SA-NSW Interconnector](#)
5. [Assessment Guidelines – Southern Launch](#)
6. [Assessment Guidelines – KIPT Smith Bay](#)
7. *Assessment Guidelines – Mount Lofty Golf Course Resort (confirmed but not released)*
8. [Planning Development and Infrastructure Act 2016](#) - Online
9. [Planning, Development and Infrastructure \(General\) Regulations 2017](#) - Online



Department for Trade and Investment
Planning and Land Use Services
Model Environmental Impact Statement Guidelines
Summary Report

14 July 2022

63013/ 145,804 (Rev 1)

JBS&G

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Appendix 2: Draft Model Template Assessment Requirements

Appendix 3: Assessment Requirements Library

1. Introduction

The State Planning Commission has the responsibility under the *Planning, Development and Infrastructure Act 2016* (PDI Act) to develop and endorse project specific requirements for the preparation of an Environmental Impact Statement (EIS) for developments declared as impact assessed development (not being restricted development).

Requirements for the preparation of an EIS (including the level of detail the EIS must address, and information that must be provided by a proponent) are developed by officers within the DTI-PLUS team. This is done in consultation with relevant Government agencies, local Councils and in certain circumstances the Commonwealth department responsible for administering the *Environment Protection and Biodiversity Act 1999*.

The implementation of the new PDI Act provides an opportunity to review the current process for developing EIS assessment requirements and develop a user-friendly template for assessment requirements that reflects current best practice and is consistent with the relevant legislative requirements.

The review and drafting of model documents has been undertaken within the constraints of the available budget. Recommendations for the consideration DTI-PLUS on future work and guidance documents are also provided.

2. Summary of the review of EIS assessment guidelines

This document summarises the review process which has resulted in the preparation of the following documents:

- A comparative review of interstate and international EIS assessment guidelines which provided recommendations for the approach to development and content of standard Assessment Requirements, and for further work on providing guidance for proponents (refer Section 2.1 and Appendix 1)
- A draft model template Assessment Requirements document (refer Section 2.3 and Appendix 2)
- Assessment Requirements Library based on the recommendations from the comparative EIS guidelines review including a list of environmental attributes, guidance on determining level of assessment, and characteristics for standard and detailed assessment (refer Section 2.4 and Appendix 3).

2.1 Review of EIS guidelines

A thorough review of existing environmental impact assessment guidelines was undertaken together with a gap analysis of legal requirements for the new impact assessed development pathway under Section 108(1)(b) and (c) of the PDI Act. The review also evaluated the approaches to environmental impact assessment requirements and guidelines of interstate and overseas jurisdictions.

The guidelines were reviewed against a series of questions developed based on our experience regarding leading practice in scoping and the 'Good practice in impact assessment' guidance document developed by the Environment Institute of Australia and New Zealand (<https://www.eianz.org/document/item/3302>).

Key findings of the review were used to develop draft examples for an Assessment Requirements library and inform the draft model template Assessment Requirements document.

The EIS Guidelines Review report is attached at Appendix 1. The recommendations in the report for the current scope of work which have been adopted are summarised in Table 2-1.

Table 2-1: Summary of actions adopted in the review of EIS assessment guidelines

Recommended for current scope of work	Addressed	Comment
1. Embed an outcomes-based approach into the Assessment Requirements (AR) by identifying desired outcomes for each environmental issue. The AR should require the EIS to demonstrate how the project would meet the desired outcomes.	Partial	Objectives developed for environmental attribute in draft example ARs. Budget for current scope constrained ability to undertake work on environmental outcomes. <i>Outcomes based on the Code and / or interstate examples to be developed as future scope of work.</i>
2. Under the assessment requirements for each issue, include a list of existing policies, guidelines, standards etc. that must be considered by the proponent in the assessment.	Yes	Included in draft example ARs.
3. Consider whether standard assessment requirements can be included in the AR template for issues categorised as 'standard'.	Yes	Included in draft example ARs. <i>Further consideration to be given to whether some matters currently included in 'standard assessment' can be left instead to other statutory post-approval processes</i>
4. Revise the guidance on how issues are categorised into 'critical' and 'standard'. The AR should also specify the issues that require no further assessment.	Partial	<ul style="list-style-type: none"> • 'Critical' level of assessment changed to 'detailed' and example detailed ARs developed. This removes the need for a medium level of assessment and reflects interstate best practice. 'Detailed' is considered to more accurately reflect the focus of these assessment requirements on complexity, uncertainty or need for further investigation. • Public interest and the views of the Commission added as criteria to consider for detailed level of assessment. • Medium level of assessment removed. • Example standard ARs developed. • Characteristics of detailed and standard levels of assessment defined in AR library document for guidance (adapted from NSW example). <i>Matter of 'no further assessment' to be discussed further with DTI-PLUS.</i>
5. Expand the requirements for community and stakeholder engagement in the ARs.	Partial	Community and stakeholder engagement ARs added for selected environmental attributes. Suggest preparation of a separate document to guide community and stakeholder engagement in the AR guidance library. Budget for current scope constrained ability to undertake extensive work on community and stakeholder engagement requirements. <i>To be developed as future scope of work.</i>
6. Draft the assessment requirements in the ARs so it is clear what depth of study is required (e.g. whether a qualitative and quantitative study is needed).	Yes	Included in draft example detailed ARs.
7. Include a requirement to address cumulative impacts in the ARs.	Yes	Included in draft example ARs. Suggest preparation of a separate document to guide cumulative assessment for proponents.

Recommended for current scope of work	Addressed	Comment
8. Provide more detailed requirements for the EIS to set out the environmental management systems or environmental policies implemented or proposed by the proponent to ensure the project meets the required environmental outcomes.	No	Budget for current scope constrained ability to undertake this work. <i>To be developed as future scope of work.</i>
9. In section 7 of the Practice Direction on 'Requirements as to the preparation of an EIS', note that a proponent may choose to prepare a website with interactive functionality to provide an alternative form of access to EIS information. This should also be noted in the ARs and that proponents planning to do so should first consult with the Commission.	No	<i>To be discussed further with DTI-PLUS.</i>

2.2 Summary of workshop outcomes

The review of EIS assessment guidelines was also informed by a workshop on 24 May 2022 attended by JBS&G personnel and representatives of DTI-PLUS. Issues raised in the workshop included:

- Change reference from EIS 'guidelines' to 'Assessment Requirements', to emphasise the necessity of addressing the issues identified.
- The need and opportunity to provide greater clarity of the process of scoping the impacts and assessment requirements particularly at the early stages of project development.
- Clear, early identification of assessment parameters, likely criticality and resultant depth of study, peer review, accountability and expert input requirements.

2.3 Draft model template Assessment Requirements document

A draft model template for the Assessment Requirements document issued by the Commission to proponents was developed. This document is based on the existing template but updated to reflect the best practice recommendations of the EIS Guideline Review and the proposed process for developing Assessment Requirements set out in the draft Assessment Requirements Library (see Section 2.4).

Key changes to the template include:

- Reference to the application submitted by a proponent for an impact assessed development (not being restricted) changed from 'application' to 'scoping application' to clarify its role in developing the EIS assessment requirements.
- The section on 'Specialist Reports and Details' has been deleted. Requirements for specialist reports will be incorporated in the relevant Assessment Requirements.
- Updates to the 'Process' section to incorporate changes to the manner in which Assessment Requirements will be developed (i.e. consideration of key factors to determine level of assessment).
- Reference to 'critical' level of assessment in the Assessment Requirements has been changed to 'detailed' level of assessment. This removes the need for a medium level of assessment and reflects interstate best practice.

Additional recommendations in relation to the draft model template Assessment Requirements document that have not been incorporated into the work undertaken are presented in Sections 3 and 4 below.

2.4 Assessment Requirements Library

An Assessment Requirements Library of examples has been developed to assist in the development of assessment requirements for impact assessed development, and in particular to guide the application of 'standard' and 'detailed' assessment requirements. The Assessment Requirements Library comprises:

- A table setting out the environmental attributes (grouped by categories) which would generally require assessment in an EIS.
- The key factors to consider in identifying whether the level of assessment required for an environmental attribute in the context of a specific project is 'detailed' or 'standard' (i.e. scale of the project, nature of the impacts, sensitivity of the receiving environment, ability to avoid, minimise and/or offset the impacts and complexity of technical assessment required).
- The characteristics of 'detailed' and 'standard' levels of assessment to guide the determination of the level of assessment required for each environmental attribute potentially impacted by a specific project. This streamlines the process to two levels where 'standard' applies to projects not likely to have significant impact if managed through conventional management and mitigation measures. 'Detailed' requirements would supplement standard requirements and be applied where significant or cumulative impacts are likely or there is sufficient complexity, uncertainty or need for further investigation. Further explanation is provided in Table 3 of Appendix 3.
- Draft example standard and detailed Assessment requirements for consideration of DTI-PLUS assessors, and referral agencies and other stakeholders.

Due to constraints with the budget, example Assessment Requirements focused primarily on environmental attributes and were not prepared for matters such as stakeholder consultation and engagement or planning assessment. Preparation of example Assessment Requirements for these matters are recommended as future work.

3. Recommendations for DTI-PLUS consideration

Recommendations for the consideration of DTI-PLUS were included in the Comparative Review of EIS Guidelines report at Appendix 1. Suggested approaches and resources to progress the recommendations are provided in the report.

1. Consider requiring the **proponent to prepare draft ARs** in accordance with guidance and a template prepared by DTI-PLUS. The ARs would need to be to the satisfaction of and approved by the Commission. The guidance and template could include a requirement to consult with stakeholders and discuss in the ARs (or supporting information) how the issues raised by stakeholders have been considered in the ARs.
2. Consider including a category of a 'no further assessment category' as per recommendation.
3. Consider updating draft Practice Direction 17 reflect the changes to the Assessment Requirements implemented in line with the EIS Guidelines Review report, and to provide refined detail for the 'scoping application'.
4. Consider requiring proponents to submit specified data collected by proponents during impact assessments in a specific form where it can be included in government databases.
5. Consider including in the ARs a requirement to consider gender impacts and impacts on historically disadvantaged groups, and provide supporting guidance on how to do this.

6. Consider opportunities presented by digital impact assessments for enhancing the impact assessment process and improving community engagement and understanding of the project and its impacts.

4. Recommendations for further materials / work

Recommendations for the preparation of EIS specific guidance documents for proponents (within the Practice Direction or as a separate document) were included in the Comparative Review of EIS Guidelines report at Appendix 1. Suggested approaches and resources to progress the recommended documents are provided in the report.

The guidance documents recommended would address:

- Assessment of compliance of the project with the principles of ecologically sustainable development and any other relevant principles (e.g. principles of good planning in section 14 of the PDI Act)
- General EIS guidance proponents for the impact assessment of environmental attributes e.g. requirements for modelling / detailed studies
- Assessment of cumulative impacts
- Holistic assessment
- Assessment of social and economic impacts
- Community and stakeholder engagement (general). It is recommended that engagement also be undertaken much earlier in the process, and incorporated into guidance for proponents to undertake at the scoping application phase.
- Engagement with Aboriginal communities in a culturally appropriate manner and recognising their knowledge, rights and interests
- Requirements for peer review as part of the impact assessment process.

5. Limitations

Scope of services

This report (“the report”) has been prepared by JBS&G in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and JBS&G. In some circumstances, a range of factors such as time, budget, access and/or site disturbance constraints may have limited the scope of services. This report is strictly limited to the matters stated in it and is not to be read as extending, by implication, to any other matter in connection with the matters addressed in it.

Reliance on data

In preparing the report, JBS&G has relied upon data and other information provided by the Client and other individuals and organisations, most of which are referred to in the report (“the data”). Except as otherwise expressly stated in the report, JBS&G has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report (“conclusions”) are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. JBS&G has also not attempted to determine whether any material matter has been omitted from the data. JBS&G will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to JBS&G. The making of any assumption does not imply that JBS&G has made any enquiry to verify the correctness of that assumption.

The report is based on conditions encountered and information received at the time of preparation of this report or the time that site investigations were carried out. JBS&G disclaims responsibility for any changes that may have occurred after this time. This report and any legal issues arising from it are governed by and construed in accordance with the law as at the date of this report.

Environmental conclusions

Within the limitations imposed by the scope of services, the preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted environmental consulting practices. No other warranty, whether express or implied, is made.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.



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Document Status

Rev No.	Author	Reviewer	Approved for Issue		
		Name	Name	Signature	Date
Final	BW	KP	AM		14/07/2022
Rev 1 (added limitations)	AM	AM	AM		01/12/2022

APPENDIX 1 - COMPARATIVE REVIEW OF EIS GUIDELINES



Model environmental impact statement guidelines:
Comparative Review of EIS guidelines

29 June 2022

63013 145,259 Rev 1

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1. Recommendations

1.1 Part of current scope of work

1. Embed an outcomes-based approach into the Assessment Requirements (AR). This could use the terminology in the Planning and Design Code of ‘Desired Outcome’ or a term such as environmental outcomes or objectives. The ARs should identify the desired outcome for each environmental issue. The AR should require the EIS to demonstrate how the project would meet the desired outcomes. It should also include details on whether and how the proposed environmental outcome can be assured by conditions or other statutory decision-making processes.

Outcomes should be taken from the Planning and Design Code where applicable. Where relevant outcomes are not available in the Code, the WA and NT environmental objectives could be used as a guide:

<https://www.epa.wa.gov.au/statement-environmental-principles-factors-and-objectives>
https://ntepa.nt.gov.au/data/assets/pdf_file/0020/804602/guide-ntepa-environmental-factors-objectives.pdf

Ideally, the Practice Direction could include a list of environmental objectives similar to that developed in WA and NT.

2. Under the assessment requirements for each issue, include a list of existing policies, guidelines, standards etc. that must be considered by the proponent in the assessment. These should be distinguished from a list of ‘useful’ documents that can be included in an appendix to the AR. Useful documents are those that may be helpful to the proponent but it is not mandatory for a proponent to consider them.

The ‘Approved form for submission of a draft terms of reference for environmental impact statements’ in Queensland’ is one potential model, available from this site: <https://www.qld.gov.au/environment/pollution/management/eis-process/resources>

3. Consider whether standard assessment requirements can be included in the AR template for issues categorised as ‘standard’. In developing these requirements, consider other statutory requirements post approval and whether some matters can be left instead to these processes.
4. Revise the guidance on how issues are categorised into ‘critical’ and ‘standard’. The AR should also specify the issues that require no further assessment. As an example, the table below shows the criteria used in NSW (refer to Appendix D of the State significant development guidelines – preparing a scoping report:

<https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/Policy-and-legislation/SSD-Guidelines/SSD-Guide---preparing-a-scoping-report-App-A.pdf>)

and criteria taken from a Victorian project.

Level of assessment	NSW criteria	Victorian criteria
Critical	<p>The project may result in significant impacts on the matter, including cumulative impacts.</p> <p>The assessment of the impacts of the project on the matter will require detailed studies and investigations to be carried out by technical specialists.</p> <p>During this assessment, these specialists may need to:</p>	<p>These issues either have the potential for a significant impact on an environmental value, or further investigation is required to assess the potential impacts. These assessments and specialist studies will be comprehensive across the project area.</p>

Level of assessment	NSW criteria	Victorian criteria
	<ul style="list-style-type: none"> • work closely with the specialists assessing the impacts of the project on other matters to determine the likely indirect impacts of the project • undertake a detailed cumulative impact assessment for the project. <p>Also, the assessment is likely to involve several uncertainties in relation to one or more of the following:</p> <ul style="list-style-type: none"> • data collection (e.g. baseline information, availability of data for cumulative impacts assessment) • identifying the specific mitigation measures or suitable offsets for the project • the methods available for predicting the impacts of the project, including the indirect and cumulative impacts • criteria for evaluating the acceptability of the impacts of the project. <p>Consequently, specific strategies may be required to address these uncertainties (e.g. further monitoring, review, technical investigations and adaptive management).</p>	
Standard	<p>The project is unlikely to result in significant impacts on the matter, including cumulative impacts.</p> <p>While the assessment of the impacts of the project on the matter will involve technical specialists, these impacts are likely to be:</p> <ul style="list-style-type: none"> • well understood • relatively easy to predict using standard methods • capable of being mitigated to comply with relevant standards or performance measures. <p>Also, the assessment is unlikely to involve any significant uncertainties, or require any detailed cumulative impact assessment</p>	<p>These issues are generally well understood by regulators and stakeholders and are unlikely to be significant if managed through conventional management and mitigation measures. The assessments will be supported by quantitative assessment methods, although the focus and coverage may be on specific project components or project locations.</p>
Matters requiring no further assessment	<p>The project will have no impact on the matter, or the impacts of the project on the matter will be so small that they are not worth considering.</p>	<p>Adequate information exists to confirm the absence of the environmental value or that the project would have no material impact on the environmental value. [Slightly revised from the original text which defined a low categorisation].</p>

The final category (matters requiring no further assessment) should also consider the level of public interest. The SA guidelines *Preparation of a mining application for metallic and industrial minerals* note: ‘Even if not technically justified as credible, perceived major impacts identified through public consultation should be listed, appropriately addressed and validated or dismissed using scientific and logical justification’. Such issues should only be included in the AR if they have a high level of public concern.

5. Expand the requirements for community and stakeholder engagement in the AR. This should include the following or similar requirements:

- a. Describe the community consultation undertaken (methodology and criteria for identifying stakeholders and the communication methods used). This includes the methods used to engage with Aboriginal communities, minority groups and other community groups in a culturally appropriate manner.
 - b. Provide details on the information provided during the community consultation process. A plain English statement explaining the proposal and conceptual drawings must be made available to the community and stakeholders.
 - c. Consultation should occur as early as possible and avoid, or make allowances for public holidays, school holidays and the summer holiday (Christmas) shutdown period.
 - d. Provide a summary of how the community and stakeholders responded to the proposal and the main comments raised.
 - e. Describe how any concerns have been considered and identify any changes that have been made to the proposal as a result.
6. Draft the assessment requirements in the ARs so it is clear what depth of study is required (for example, whether a qualitative and quantitative study is needed).
7. Include a requirement to address cumulative impacts in the ARs. Example text that could be used is that in the Queensland template:

Assess the cumulative impacts of the proposed project on environmental values. Every effort must be made to find information from all sources relevant to the assessment of cumulative impacts including other major projects or developments of which the proponent is reasonably aware. The EIS must outline ways in which the cumulative impact assessment and management could subsequently be progressed further on a collective basis.

Impact assessment must address cumulative impacts, including:

- impacts to environmental values of land, air and water, public health and the health of terrestrial and aquatic ecosystems
 - impacts to environmental values over time or in combination with other impacts in the dimensions of scale, intensity, duration or frequency of the impacts
 - impacts created by the activities on other adjacent, upstream and downstream developments and infrastructure, and landholders
 - impact of proposed project on overall state and national greenhouse gas (GHG) inventories and targets.
8. Provide more detailed requirements for the EIS to set out the environmental management systems or environmental policies implemented or proposed by the proponent to ensure the project meets the required environmental outcomes. This should include
- a. a framework for continuing management, mitigation and monitoring of the project's relevant impacts, including any provision for independent environmental auditing
 - b. an adaptive management approach to provide confidence that, based on current technologies, the impacts can be effectively managed over the long-term
 - c. proposed ongoing community and stakeholder engagement, including:
 - i. how monitoring results will be shared with those stakeholders
 - ii. how community and Aboriginal knowledge, where available, will be incorporated into the ongoing environmental management.

- d. Where the assessment identified significant uncertainties in relation to the knowledge of the existing environment, expected impacts of the project or in relation to the effectiveness of the mitigation measures, proposed studies or trials to reduce that level of uncertainty.
9. In section 7 of the Practice Direction on 'Requirements as to the preparation of an EIS', note that a proponent may choose to prepare a website with interactive functionality to provide an alternative form of access to EES information. This should also be noted in the ARs and that proponents planning to do so should first consult with the Commission.

1.2 Recommendations for PLUS

1. PLUS consider requiring the proponent to prepare draft ARs in accordance with guidance and a template prepared by PLUS. The ARs would need to be to the satisfaction of and approved by the Commission given the Commission is responsible for determining the level of detail required in the EIS under section 112 of the Act. The guidance and template could include a requirement to consult with stakeholders and discuss in the ARs (or supporting information) how the issues raised by stakeholders have been considered in the ARs.
2. PLUS prepare guidance for proponents (within the practice note or as a separate document) on how proponents should assess compliance of their project with the principles of ecologically sustainable development and any other relevant principles (for example, the principles of good planning in section 14 of the Act). In preparing this guidance, PLUS may wish to consider the requirement in the NT Environment Protection Act to consider:
 - the principles of ecologically sustainable development and
 - the environmental decision-making hierarchy and
 - the waste management hierarchy and
 - ecosystem-based management and
 - the impacts of a changing climate.

PLUS could also consider *Guidance: Considering the Extent to which a Project Contributes to Sustainability* (<https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/guidance-considering-extent-project-contributes-sustainability.html>) prepared by the Government of Canada.

3. PLUS prepare guidance for proponents (within the practice note or as a separate document) on how proponents should assess cumulative impacts. Resources that could be used in developing this guidance are:
 - a. *Cumulative Impact Assessment Guidelines for State Significant Projects* (2021) in NSW: <https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/Policy-and-legislation/SSPT-Guidelines/GD1259-RAF-Assessing-Cumulative-Impacts-Guide-final.pdf>
 - b. Effects Assessment Policy, Environmental Assessment Office, British Columbia: https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/environmental-assessments/guidance-documents/2018-act/effects_assessment_policy_v1_-_april_2020.pdf
 - c. Cumulative Environmental Impact Assessment Industry Guide (Minerals Council of Australia 2015): https://www.minerals.org.au/sites/default/files/Cumulative_Environmental_Impact_Assessment_Industry_Guide_FINAL_0.pdf
4. PLUS prepare guidance for proponents (within the practice note or as a separate document) on how proponents should undertake a holistic assessment. As this is a requirement in WA and NT,

PLUS could consult with the EPAs in those jurisdictions to gain feedback on their experience and identify good practice examples.

5. PLUS consider opportunities presented by digital impact assessments for enhancing the impact assessment process and improving community engagement and understanding of the project and its impacts. The International Association for Impact Assessment has prepared a useful overview at: <https://iaia.org/uploads/pdf/State%20of%20Digital%20IA%20Practice%20converted.pdf>.
6. PLUS prepare guidance for proponents (within the practice direction or as a separate document) on requirements for peer review as part of the impact assessment process. PLUS may wish to consider the advisory note on 'Peer Review and Quality Assurance' prepared by the Victorian Government: https://www.planning.vic.gov.au/_data/assets/pdf_file/0016/424231/Advisory-Note-EES-Peer-Review-and-Quality-Assurance.pdf. JBS&G understands the NSW Department of Planning, Industry and Environment also produced draft guidance but this has not been finalised.
7. PLUS require proponents to submit specified data collected by proponents during impact assessments in a form where it can be included in government databases. PLUS should consult with relevant government agencies to determine where such data would be usable and the format required. The intent is to ensure data collected by proponents and their consultants adds to the state of knowledge and is accessible by others. PLUS may wish to note:
 - a. The Biodiversity Data Repository being developed by the Commonwealth Department of Agriculture, Water and Environment: <https://www.awe.gov.au/environment/epbc/environment-assessment-and-approvals/improving-how-we-operate-under-epbc-act/biodiversity-data-repository#benefits-of-the-project>
 - b. The Biodiversity Information Office in WA <https://www.dbca.wa.gov.au/biodiversity-information-office>
 - c. The election commitment by the incoming Labor Government to establish an environmental data, information and analysis division. 'The data division will respond to community, stakeholder and industry views that Australia needs to improve our efforts, as a nation, to collect and store environmental data, to help inform decision-making and policy development, and to reduce transaction costs for environmental assessments'.
 - d. The requirement in Queensland to provide spatial data presented in the EIS in appropriate electronic form, such as shape files. This includes all water quality, wastewater quality data and geological structures, such as aquifers, faults and economic resources. Refer to the guideline Spatial information submission (ESR/2018/4337) for information on the format for spatial information'. The guidelines is available at: https://environment.des.qld.gov.au/_data/assets/pdf_file/0027/90288/rs-gl-spatial-information.pdf
 - e. The 'Provincial data submission standards' in Appendix 2 of the Effects Assessment Policy in British Columbia: https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/environmental-assessments/guidance-documents/2018-act/effects_assessment_policy_v1_-_april_2020.pdf
8. PLUS consider including in the AR a requirement to consider gender impacts and impacts on historically disadvantaged groups, and provide supporting guidance on how to do this. A possible model in this regard is the Canadian requirement for Gender Based Analysis Plus (<https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/gender-based-analysis.html#toc15>).
9. PLUS consider preparing guidance on engaging with Aboriginal communities and recognising their knowledge, rights and interests. Some useful reference in this regard are:

- a. NT guidance on stakeholder engagement and consultation:
https://ntepa.nt.gov.au/_data/assets/pdf_file/0005/884696/guidance-proponents-stakeholder-engagement-and-consultation.pdf.
- b. Section 3 'Indigenous Participation and Engagement' in the *Practitioner's Guide to Federal Impact Assessments under the Impact Assessment Act*: <https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act.html>
- c. EPBC Indigenous engagement guidelines:
<https://www.awe.gov.au/environment/epbc/publications/engage-early>

PLUS could also note the requirement in section 43 of the NT Environment Protection Act for proponents:

- to consult with affected Aboriginal communities in a culturally appropriate manner
- to seek and document community knowledge and understanding (including scientific and traditional knowledge and understanding) of the natural and cultural values of areas that may be impacted by the proposed action
- to address Aboriginal values and the rights and interests of Aboriginal communities in relation to areas that may be impacted by the proposed action.

10. PLUS consider developing guidance on assessment of social and economic impacts. Useful guidance includes:

- a. NSW guidelines: <https://www.planning.nsw.gov.au/Policy-and-Legislation/Under-review-and-new-Policy-and-Legislation/Social-Impact-Assessment>
- b. Queensland guidelines:
https://www.statedevelopment.qld.gov.au/_data/assets/pdf_file/0017/17405/social-impact-assessment-guideline.pdf
- c. International Association for Impact Assessment guidance document:
https://www.iaia.org/uploads/pdf/SIA_Guidance_Document_IAIA.pdf
- d. Queensland economic impact assessment guidelines:
https://www.statedevelopment.qld.gov.au/_data/assets/pdf_file/0012/33420/economic-impact-assessment-guideline.pdf

2. Introduction

This report reviews guidelines used to develop environmental impact statements (EISs) (or equivalent documents) in other states and territories in Australia and also looks at a couple of Canadian examples. Guidelines were reviewed against a series of questions as shown in the next section. These questions were developed based on JBS&G's experience regarding leading practice in scoping and the 'Good practice in impact assessment' guidance document developed by the Environment Institute of Australia and New Zealand (<https://www.eianz.org/document/item/3302>). The EIANZ guidance document has also been accepted by the International Association for Impact Assessment as the basis for 'Fastip': https://iaia.org/uploads/pdf/Fastips_18%20Scoping.pdf.

2.1 Key findings

The table below summarises the key findings for each of the questions below. Where relevant, it notes leading practice regarding each question.

Question	Response
1. What is the name of the relevant document in the state/territory?	Various names use, e.g. scoping document, terms of reference. They all serve the same purpose
2. What is the legal head power and any relevant regulations?	See below for each jurisdiction.
3. How are the EIS guidelines developed? a. Who develops the guidelines? b. What information must the proponent provide to obtain the scoping requirements? c. Does preparation of the guidelines allow for proponent feedback? d. Is there any relevant guidance to assist guideline development?	<p>In most cases, guidelines are prepared by the relevant regulatory agency based on input from the proponent. However, guidelines in Queensland are prepared by the proponent, and may be prepared by the proponent in some instances in WA and NT. The requirement in SA for the State Planning Commission to develop guidelines does not preclude the proponent preparing draft guidelines. This is the process used in Qld where the relevant department 'finalises' the guidelines.</p> <p>Guidelines prepared by regulatory agencies may be based on information in the initial referral/application or the process may require the proponent to submit further information. In the latter case, this extra step potentially adds time to the guideline process. However, it does result in more comprehensive information which may not be available at the time of the referral/application. An example is Victoria which requires a full scope of activities for each of the EIS studies and a program.</p> <p>It is arguable as to what is leading practice in this regard. WA used to require all proponents to prepare the scoping document. However, this was inefficient for smaller, less capable proponents as their documents were often inadequate and required multiple rounds of revisions before they could be accepted. Projects requiring an EIS in SA are generally restricted to larger projects where proponents will either have inhouse expertise or use experienced consultants.</p> <p>There is benefit in requiring proponents to prepare draft EIS guidelines:</p> <ul style="list-style-type: none"> • They have the best knowledge of the project so are well placed to understand the potential impacts • It forces proponents to carefully consider the potential impacts of their project and potentially may encourage them to redesign their project to avoid certain impacts. <p>If proponents are responsible for preparing draft guidelines, they should be assisted with a template and guidance material. Similar to the Qld process, the SPC should still finalise the guidelines.</p>
4. How do the guidelines set objectives/outcomes that the project should meet?	WA, NT and Qld have state-wide environmental objectives that projects should meet. However, these are very high level. In contrast, Victoria sets project-specific evaluation objectives but lack the framework of state-wide objectives. Leading practice would be to combine these two approaches – i.e. develop a state-wide environmental factors and objectives document and use this to develop more detailed project-specific outcomes. Proponents would then have to demonstrate in

Question	Response
	the EIS how the project can meet those outcomes. This provides for a more focused assessment.
<p>5. How do the guidelines set the strategic and regulatory context for the project in terms of:</p> <p>a. Decisions already made by government that affect the project</p> <p>b. Regulatory standards, policies and guidelines that the project must meet?</p>	<p>Guidelines generally require the proponent to discuss the strategic context in the EIS. A number of guidelines and templates in other states/territories did provide a list of key policies and guidance material. This is a useful step for a proponent and helps to ensure important documents are not overlooked. This should be split into:</p> <ul style="list-style-type: none"> • Policies, guidelines etc. that must be considered in the assessment of an environmental matter • Other material which is provided for reference. <p>The Queensland template is a good example of this approach.</p>
<p>6. How are issues categorised in terms of their relative importance for assessment and level of investigation required?</p>	<p>Only some states/territories provide guidance on this. ACT uses a standard risk assessment framework. There is some useful material in their methodology but the overall approach is flawed as it doesn't consider the extent to which an impact is already understood and therefore the amount of additional study that may needed.</p> <p>Appendix D of the scoping report guidelines in NSW provides the most useful guidance on categorising issues. Notably, it also lists issues not requiring further assessment. This is important for keeping EISs focused on the matters that will affect decision-making rather than padding them out with matters of that will have minimal impact.</p> <p>The Canadian approach to identifying Valued Components (VCs) may also be worth further consideration. Potentially, this provides for more rigorous scoping and a more focused assessment. Queensland has a specific requirement to identify impacted environmental values but the Canadian approach to identifying VCs would appear to be more selective.</p>
<p>7. How do the guidelines address stakeholder engagement?</p>	<p>All guidelines address stakeholder engagement. NSW and NT have developed guidance material to assist proponents in stakeholder engagement. The NT guidelines put particular attention on engagement with Aboriginal communities and represent leading practice in Australia in this regard. The Canadian guideline for engaging with indigenous communities is amongst the leading practices internationally.</p> <p>Victoria is unique in Australia in requiring proponents to prepare a comprehensive EES consultation plan. This plan is tailorable to the impacts of the development and potential interest of the local, regional, state and national stakeholders. This model is worth considering as a way to better inform communities how they will be engaged.</p> <p>The Canadian requirement for Gender Based Analysis Plus potentially provides a useful model for engaging with and addressing the needs of groups that have been historically disadvantaged. None of the Australian guidelines address gender or disadvantaged groups in any substantive way.</p>
<p>8. How do the guidelines address EPBC requirements?</p>	<p>All address EPBC requirements to varying degrees. Some include them as an appendix to the guidelines. The treatment in the draft SA assessment requirements is as comprehensive as any. Note these requirements are similar to those that apply in NSW which has an 'extended' bilateral agreement with the Commonwealth. These should result in a more expedited EPBC approval process.</p>
<p>9. How do the guidelines include any standard assessment requirements?</p>	<p>Several jurisdictions have templates. The most comprehensive are those in Qld and the Tailored Impact Assessment Guidelines in Canada. NSW is noteworthy for having some industry-specific standard guidelines.</p>
<p>10. How is uncertainty in the impact assessments addressed in the guidelines?</p>	<p>Most guidelines require EISs to address uncertainties but they provide little guidance on how this should be done, beyond using plausible worst case scenarios, identifying assumptions and adopting adaptive management. There are inconsistencies and some confusion around how risk assessment is used in impact assessments.</p> <p>The ACT guidelines take a risk-based approach to assessments. In some examples, this was applied to unplanned events. In others, it seemed to be also applied to</p>

Question	Response
	<p>planned events. Applying a risk likelihood rating to a known, planned event is illogical.</p> <p>The Victorian Advisory Note on the use of risk assessments in impact assessments seeks to provide clarity and does, but only to some extent. The current revision of the Ministerial Guidelines may provide greater assistance.</p> <p>The most methodological approach to dealing with uncertainty is that used in SA for mining assessments (not reviewed in this document). However, this is a fairly technical approach that may be confusing to proponents.</p> <p>Consequently, there is no clear 'leading practice' in Australia but uncertainty does need to be carefully considered in impact assessments. Further guidance for proponents on this matter would be useful.</p>
<p>11. How do the guidelines require consideration of the precautionary principle and other principles of ESD?</p>	<p>Most guidelines require ESD to be considered in assessments – often ESD is incorporated into the objects and/r principles of the enabling legislation. NT goes a bit further by requiring assessment of:</p> <ul style="list-style-type: none"> • the principles of ecologically sustainable development and • the environmental decision-making hierarchy and • the waste management hierarchy and • ecosystem-based management and • the impacts of a changing climate. <p>However, guidelines provide little direction on how this should be done. By far, the most comprehensive treatment of this topic is the Canadian guide to 'Considering the Extent to which a Project Contributes to Sustainability'.</p>
<p>12. How do the guidelines address cumulative impacts?</p>	<p>Most guidelines require cumulative impacts to be assessed but generally provide minimal direction. Two notable exceptions are: NSW, which references the Cumulative Impact Assessment Guidelines for State Significant Projects (2021); and the Effects Assessment Policy in British Columbia.</p> <p>While broader than cumulative impacts, the WA requirement (also since picked up in NT) for a holistic assessment is interesting and worth consideration. It would be useful to get feedback from regulators on how this is working in practice. Victoria seeks to use an 'integrated' approach though the use of evaluation objectives and environmental performance requirements that may draw on multiple discipline assessments. However, this approach lacks the framework provided in the WA approach.</p>
<p>13. How do the guidelines integrate economic and social impacts assessments?</p>	<p>Guidelines all require social and economic impacts to be assessed. They provide some guidance on the matters to be assessed but generally provide little guidance on how social and economic matters should be integrated (beyond ESD considerations as discussed above). Notably, NSW and Queensland have guidelines for social impact assessment. Victoria is also planning to develop guidance. NT has prepared 'Guidelines for the preparation of an economic and social impact assessment'.</p> <p>These are all useful reference documents.</p>
<p>14. How do the guidelines refer to peer review requirements?</p>	<p>Guidelines do not generally mention peer review requirements. Victoria has developed an advisory note on peer review and quality assurance.</p>
<p>15. How do the guidelines allow or facilitate an EIS to be produced in a digital format?</p>	<p>The Victorian scoping requirements are the only guidelines in Australia to specifically note this option although provide no further guidance. No guidelines in Australia prevent this approach although some submission requirements could be problematic with a web-based EIS, for example, requiring the document to be submitted as a single PDF.</p> <p>Leading international practice in digital impact assessment is described in the following document prepared for the International Association for Impact Assessment:</p> <p>https://iaia.org/uploads/pdf/State%20of%20Digital%20IA%20Practice_converted.pdf</p>
<p>16. How do the guidelines include requirements for the (post-</p>	<p>There are some requirements in all guidelines but the treatment in Victoria, Queensland, Western Australia and Canada is the most comprehensive. The</p>

Question	Response
approval) environmental management framework?	<p>Victorian and WA approaches are focused on environmental outcomes, although more explicitly so in WA. The approach to 'follow-up' in the Canadian Tailored Impact Assessment Guidelines is strongly focused on verifying the impact predictions made in the EIS.</p> <p>Best practice is an outcomes based approach, informed by the impact assessment, with a strong monitoring program to confirm outcomes are being met and a requirement for remedial action, within an adaptive management framework, where they are not.</p>
17. Do the guidelines require data gathered during the impact assessment to be submitted to the relevant regulator in the state/territory? What data must be provided?	<p>Queensland has a guideline on how and what data should be submitted. WA has specific requirements in relation to biodiversity data. British Columbia has a very comprehensive set of data requirements that are worth considering.</p> <p>Leading practice is to ensure data is captured and incorporated into state databases so that it adds to the state of knowledge.</p>
18. What are the aspects of these guidelines that could be considered leading practice?	See above

3. South Australian guidelines

Question	Response
1. What is the name of the relevant document in the state/territory?	Assessment Requirements?
2. What is the legal head power and any relevant regulations?	<i>Planning, Development and Infrastructure Act 2016</i>
3. How are the EIS guidelines developed? a. Who develops the guidelines? b. What information must the proponent provide to obtain the scoping requirements? c. Does preparation of the guidelines allow for proponent feedback? d. Is there any relevant guidance to assist guideline development?	Assessment requirements are developed by State Planning Commission in accordance with the Act and Practice Direction 17. In an application for an impact assessed development, the proponent must provide a planning report which includes a preliminary assessment of the key social, environmental and economic issues and impacts associated with the development.
4. How do the guidelines set objectives/outcomes that the project should meet?	The draft assessment requirements note that: 'Each assessment requirement is intended to be outcome-focused'. The EIS must detail the extent to which the development is consistent with the provisions of the Planning and Design Code (the Code), the State Planning Policies (SPPs) and any matter prescribed by the Regulations under the Act. The Code sets assessment provisions which effectively are outcomes. It would be useful if the relevant provisions were included in the Assessment Requirements.
5. How do the guidelines set the strategic and regulatory context for the project in terms of: a. Decisions already made by government that affect the project b. Regulatory standards, policies and guidelines that the project must meet?	A list of useful documents is provided in an appendix of the Assessment Requirements
6. How are issues categorised in terms of their relative importance for assessment and level of investigation required?	In determining the level of detail required, the SPC considers: a) the class of the development (e.g. industry, residential, commercial); b) the level of information that has already been provided/is available about the proposed development; c) the degree to which the impacts (and management of the impacts) are known and can be managed; and d) the scale of the expected impacts in terms of extent and duration, including cumulative impacts. Section 5 of the Assessment Requirements seeks to illustrate this but it is unclear how these are integrated. The categorisation appears to be based only on risk and not scale.
7. How do the guidelines address stakeholder engagement?	Statutory process described but no other requirements to take a more comprehensive approach to engagement or discuss the outcomes of stakeholder engagement.
8. How do the guidelines address EPBC requirements?	Detailed requirements in section 6 of the Assessment Requirements as 'Critical assessment requirements'.

Question	Response
9. How do the guidelines include any standard assessment requirements?	Assessment Requirements template provided.
10. How is uncertainty in the impact assessments addressed in the guidelines?	In regard to sources of information, the Assessment Requirements note: 'reference should be made to any uncertainties in knowledge' but no further guidance is provided.
11. How do the guidelines require consideration of the precautionary principle and other principles of ESD?	Not specifically mentioned but the EIS must include a statement of the extent to which the expected effects of the development are consistent with state planning policies, the Code etc. so this may be picked up in those documents?
12. How do the guidelines address cumulative impacts?	Cumulative impacts are only mentioned in the Assessment Requirements in relation to EPBC matters.
13. How do the guidelines integrate economic and social impacts assessments?	Economic and social matters have to be assessed. As an objective, the Assessment Requirements note 'Impact assessment enables the holistic consideration of proposals' but do not discuss how this should be done.
14. How do the guidelines refer to peer review requirements?	Not mentioned
15. How do the guidelines allow or facilitate an EIS to be produced in a digital format?	Not mentioned
16. How do the guidelines include requirements for the (post-approval) environmental management framework?	The Assessment Requirements require the EIS to include management arrangements for the construction and operational phases (including Environmental Management and Monitoring Plans). Previous guidelines have set out requirements for a CEMP and OEMP but have not specifically required information on the environmental management framework.
17. Do the guidelines require data gathered during the impact assessment to be submitted to the relevant regulator in the state/territory? What data must be provided?	Not mentioned
18. What are the aspects of these guidelines that could be considered leading practice?	Notwithstanding the comments above, the SA guidelines provide some useful guidance around categorisation of issues.

4. Comparison of interstate guidelines

4.1 Victoria

Question	Response
1. What is the name of the relevant document in the state/territory?	Scoping Requirements for an Environment Effects Statement (EES)
2. What is the legal head power and any relevant regulations?	<p><i>Environment Effects Act 1978</i></p> <p>Section 10 of the Act allows the Minister to lay down guidelines for carrying out the Act. Refer to <i>Ministerial guidelines for assessment of environmental effects (2006)</i> at: https://www.planning.vic.gov.au/_data/assets/pdf_file/0026/95237/DSE097_EES_FA.pdf</p> <p>Note these guidelines are in the final stages of being reviewed with new guidelines likely to be released around mid 2022.</p> <p>Assessments can also fall under the <i>Major Transport Project Facilitation Act 2009</i>. This is rarely used and has not been considered in this table. In relation to scoping, it has no innovative features that are not within the EES process.</p>
<p>3. How are the EIS guidelines developed?</p> <p>a. Who develops the guidelines?</p> <p>b. What information must the proponent provide to obtain the scoping requirements?</p> <p>c. Does preparation of the guidelines allow for proponent feedback?</p> <p>d. Is there any relevant guidance to assist guideline development?</p>	<p>The scoping requirements are developed for each project by the Department of Environment, Land, Water and Planning (DELWP). Prior to this, and following the Minister’s decision to require an EES, the proponent must submit to DELWP:</p> <ul style="list-style-type: none"> • A project description • A preliminary list of issues/risks • A preliminary hazard/risk assessment to inform the issues to be investigated and level of investigation required • A draft EES Study Program describing the proposed EES investigations (scope, methodological approach, relationships/dependencies between studies) and a schedule for the studies and the EES development. <p>An Advisory Note provides information on EES commencement and scoping: https://www.planning.vic.gov.au/_data/assets/pdf_file/0038/398729/Advisory-Note-Proponent-EES-Commencement-and-Scoping-E3.1.6,-2018.pdf. It notes the EES study program should provide the following information for each study:</p> <ul style="list-style-type: none"> • Proposed scope and methodology of each study summarising: <ul style="list-style-type: none"> ○ Purpose of the study ○ Statement of key environmental risks to be investigated and key uncertainties/ data gaps ○ Relevant legislation & policy ○ The project components subject to assessment ○ Timing of the investigation ○ Type of investigation (desktop review, field investigations, modelling) ○ Description of key tasks, including where possible outlining proposed methodologies, and outputs required to estimate likely impacts, inform recommended mitigation and monitoring (including proposed sources of information/ databases, types of data to be collected/ sourced, calculations required, and survey standards that will be applied). ○ The description should also state if any referral authorities have already been consulted on the proposed methodology. <p>The deliverables and their anticipated timing (e.g. impact assessment report, empirical model, options assessment report, environmental management framework, other specific technical appendices).</p> <p>The scoping requirements are developed with input from a Technical Review Group comprising relevant government agencies, local government and Traditional Owners. The draft scoping requirements are released for public comment. The proponent also has the opportunity to review a draft.</p>

Question	Response
	<p>The Ministerial Guidelines (see above) provide general guidance on the expected content of an EES. There are no generic or standard scoping requirements. These are developed for each project but follow a consistent format.</p>
<p>4. How do the guidelines set objectives/outcomes that the project should meet?</p>	<p>The Ministerial Guidelines note that an EES needs to consider ‘objectives under statutory provisions, including policy’. It also should include ‘proposed environmental indicators and objectives to guide environmental monitoring and management actions’.</p> <p>Scoping requirements identify evaluation objectives for each environmental matter to be assessed. The following is standard text in current scoping requirements:</p> <ul style="list-style-type: none"> • The evaluation objectives identify desired outcomes in the context of key legislative and statutory policies, as well as the principles and objectives of ecologically sustainable development and environment protection, including net community benefit. In accordance with the Ministerial Guidelines, they provide a framework to guide an integrated assessment of environmental effects and for evaluating the overall implications of the project. <p>An EES is expected to confirm whether a project can meet the evaluation objectives. The environmental management framework presented in the EES must include ‘proposed performance criteria and monitoring requirements (including parameters, locations and frequency) to confirm effectiveness of management measures and trigger contingency responses’. These are known as ‘environmental performance requirements’ (EPRs) and the EES will present a consolidated list of EPRs.</p> <p>As noted above, the Ministerial Guidelines are being reviewed and it is likely the new guidelines will more explicitly address the above.</p>
<p>5. How do the guidelines set the strategic and regulatory context for the project in terms of:</p> <ol style="list-style-type: none"> Decisions already made by government that affect the project Regulatory standards, policies and guidelines that the project must meet? 	<p>The scoping requirements do not provide this information but require the EES to address these matters.</p>
<p>6. How are issues categorised in terms of their relative importance for assessment and level of investigation required?</p>	<p>Scoping requirements include this standard text: ‘A risk-based approach should be adopted during the EES studies, so that a greater level of effort is directed at investigating and managing those matters that pose relatively higher risk of adverse effects’. There is no categorisation within the scoping requirements.</p> <p>The initial categorisation is done by the proponent in the EES study program through the preliminary risk assessment. The Advisory Note provides some guidance on how this is done but it is primarily left to the proponent.</p>
<p>7. How do the guidelines address stakeholder engagement?</p>	<p>The scoping requirements refer to the EES consultation plan that must be developed by the proponent (see above). The plan is published on the DELWP website and must be reviewed during the EES process as needed. DELWP has prepared an advisory note on preparing the consultation plan: https://www.planning.vic.gov.au/data/assets/pdf_file/0037/398728/Advisory-Note-Preparing-an-EES-Consultation-Plan-IAU,-2018.pdf</p>
<p>8. How do the guidelines address EPBC requirements?</p>	<p>The scoping requirements note if the project is being assessed under the bilateral agreement and briefly describes that process. EPBC requirements are integrated into the assessment requirements for each environmental matter. JBS&G has not seen any scoping requirements that specifically require a separate EPBC assessment section in the EES although proponents may choose to do this.</p>
<p>9. How do the guidelines include any standard</p>	<p>There is much common text between scoping requirements, particularly for the general content of the EES. However, there are no standard assessment requirements as such.</p>

Question	Response
assessment requirements?	
10. How is uncertainty in the impact assessments addressed in the guidelines?	Scoping requirements note the need to address associated uncertainty of predictions or estimates. They generally do not provide any further guidance. However, DELWP has developed an advisory note on 'Use of impact assessment and risk assessment in environment effects statements' (https://www.planning.vic.gov.au/_data/assets/pdf_file/0021/511680/Final-Advisory-Note-Risk-Assessment.pdf). This describes how uncertainty should be addressed in impact assessments.
11. How do the guidelines require consideration of the precautionary principle and other principles of ESD?	Scoping requirements include the need to evaluate the project against the principles and objectives of ESD but provide no further guidance.
12. How do the guidelines address cumulative impacts?	Scoping requirements generally require 'assessment of cumulative impacts with other approved or proposed developments in the region'. The requirements for each environmental matter may also include assessing cumulative impacts. However, no further guidance is provided. Page 8 of the Ministerial Guidelines defines cumulative impacts and provides some guidance on how they should be assessed.
13. How do the guidelines integrate economic and social impacts assessments?	The Ministerial Guidelines note the need to address social and economic impacts. Scoping requirements will generally include a section on 'Social, land use and infrastructure'. These will include specific social and economic matters to be assessed but with minimal information on how they are to be integrated with environmental matters. The main tool for doing this is through the consolidated set of EPRs. DELWP is planning to develop guidance on social impact assessment (timing unknown).
14. How do the guidelines refer to peer review requirements?	Peer review requirements are generally not specifically mentioned in scoping requirements. However, DELWP has developed an advisory note on 'Peer Review and Quality Assurance': https://www.planning.vic.gov.au/_data/assets/pdf_file/0016/424231/Advisory-Note-EES-Peer-Review-and-Quality-Assurance.pdf
15. How do the guidelines allow or facilitate an EIS to be produced in a digital format?	Current scoping requirements note 'The proponent may choose to prepare a website with interactive functionality to provide an alternative form of access to EES information'. Such an approach should be discussed with DELWP. However, proponents must still produce a non-technical summary in hard copy. The EES for the Suburban Rail Loop East Project was released in 2021 as Victoria's first digital EES.
16. How do the guidelines include requirements for the (post-approval) environmental management framework?	Scoping requirements include a section on requirements for the environmental management framework with some detail on what this must contain. As noted above, EPRs are an important component of this.
17. Do the guidelines require data gathered during the impact assessment to be submitted to the relevant regulator in the state/territory? What data must be provided?	JBS&G has not seen any scoping requirements that include this requirement.
18. What are the aspects of these guidelines that could be considered leading practice?	The approach in scoping requirements to setting evaluation objectives for a project to achieve and then prescribing the required environmental outcomes through the EPRs could be considered leading practice. As noted above, the current Ministerial Guidelines are somewhat outdated in regards to this aspect and it is likely this will be addressed more comprehensively in the revised guidelines likely to be released in mid 2022.

Question	Response
	While not formally part of the scoping requirements, the requirement for the proponent to prepare an EES consultation plan could also be considered leading practice.

4.2 New South Wales

Question	Response
1. What is the name of the relevant document in the state/territory?	Secretary's Environmental Assessment Requirements (SEARs) The SEARs process is described at: https://pp.planningportal.nsw.gov.au/major-projects/assessment/state-significant-development/ssd-process/secretarys-environmental-assessment
2. What is the legal head power and any relevant regulations?	<i>Environmental Planning & Assessment Act 1979</i> Note: The information in this table relates to State Significant Development. There are other assessment processes under the Act including for State Significant Infrastructure.
3. How are the EIS guidelines developed? a. Who develops the guidelines? b. What information must the proponent provide to obtain the scoping requirements? c. Does preparation of the guidelines allow for proponent feedback? d. Is there any relevant guidance to assist guideline development?	SEARs are developed by the Department of Planning, Industry and Environment (DPIE). A proponent must submit an application for the SEARs. Applications for project-specific SEARs must include a scoping report. The scoping report must: <ul style="list-style-type: none"> follow the department's State Significant Development Guidelines – Appendix A, preparing a scoping report' (https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/Policy-and-legislation/SSD-Guidelines/SSD-Guide---preparing-a-scoping-report-App-A.pdf) describe the project in simple terms include an analysis of feasible alternatives considered having regard to the objectives of the development, and identify the alternatives that will be investigated further in the EIS give an early indication of community views on the project identify what engagement will be carried out during the preparation of the EIS identify the key matters requiring further assessment in the EIS and the proposed approach to assessing each of these matters having regard to any relevant Government legislation, plans, policies or guidelines. The scoping report will be published on the DPIE website.
4. How do the guidelines set objectives/outcomes that the project should meet?	The scoping report and SEARs do not include specific requirements for objectives/outcomes the project should meet.
5. How do the guidelines set the strategic and regulatory context for the project in terms of: a. Decisions already made by government that affect the project b. Regulatory standards, policies and guidelines that the project must meet?	The SEARs do not provide information on the strategic context. However, section 3.2 of the scoping guidelines requires the strategic context Appendix to be discussed. Attachment 1 of project-specific SEARs provides a list of 'Environmental Planning Instruments, Policies, Guidelines & Plans'.
6. How are issues categorised in terms of their relative importance for assessment and level of investigation required?	Appendix D of the scoping report guidelines describes the levels of assessment. These are: <ul style="list-style-type: none"> Detailed Standard Matters requiring no further assessment in the EIS Appendix D describes the matters that determine the level of assessment.

Question	Response
7. How do the guidelines address stakeholder engagement?	DPIE has prepared <i>Undertaking Engagement Guidelines for State Significant Projects (2021)</i> . Refer: https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/Policy-and-legislation/SSPT-Guidelines/GD1265-RAF-Engagement-Guidelines-final.pdf . SEARs require the proponent to demonstrate how engagement undertaken has been consistent with these guidelines. Project-specific SEARs specify a list of parties who, in particular, must be consulted.
8. How do the guidelines address EPBC requirements?	Where relevant, SEARs include an attachment which specifically addresses EPBC issues titled: 'Commonwealth Department of Agriculture, Water and the Environment assessment requirements'. These set out general requirements, key issues, assessment requirements, other approvals and conditions, environmental record of the person taking the action, information sources and anticipated engagement with DAWE. Note that NSW has an extended bilateral agreement with the Commonwealth. Amongst other matters, this provides for the NSW assessment report to address all the matters the Commonwealth Minister must consider in making an approval decision. The intent is this will expedite the approval process to a 'tick and flick' approach.
9. How do the guidelines include any standard assessment requirements?	DPIE has developed industry-specific SEARs that can be used for eligible projects. These can be found at https://pp.planningportal.nsw.gov.au/major-projects/assessment/state-significant-development/ssd-process/secretarys-environmental-assessment . Project-specific SEARs apply to projects that are not eligible for industry-specific SEARs (or for industries where these have not been developed). While they follow the same format, the content is project specific. General guidance on the content of EISs is in Appendix B to the state significant development guidelines (https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/Policy-and-legislation/SSD-Guidelines/SSD-Guide---preparing-an-environmental-impact-statement-App-B.pdf).
10. How is uncertainty in the impact assessments addressed in the guidelines?	Not specifically addressed in the SEARs. However, Appendix B to the state significant development guidelines requires an EIS to 'identify key uncertainties associated with the assessment and what action will be taken to address these uncertainties' but do not provide any further guidance.
11. How do the guidelines require consideration of the precautionary principle and other principles of ESD?	The guidelines require the EIS to give reasons why the development should be approved having regard to a number of matters, including: 'the biophysical, economic and social impacts of the development, including the principles of ecologically sustainable development'
12. How do the guidelines address cumulative impacts?	SEARs generally require: 'consideration of the potential cumulative impacts due to other developments in the vicinity (completed, underway or proposed)'. Appendix B to the State Significant Development Guidelines requires an EIS to discuss: <ul style="list-style-type: none"> • key uncertainties associated with the assessment (e.g. lack of baseline data, doubts about the effectiveness of the proposed mitigation measures, limitations of the methodology used to predict impacts, lack of agreed criteria for evaluating impacts) • the proposed measures to deal with these uncertainties (e.g. monitoring, review, further technical investigation, staging, adaptive management). DPIE has released Cumulative Impact Assessment Guidelines for State Significant Projects (2021): https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/Policy-and-legislation/SSPT-Guidelines/GD1259-RAF-Assessing-Cumulative-Impacts-Guide-final.pdf
13. How do the guidelines integrate economic and social impacts assessments?	Appendix B to the State Significant Development Guidelines requires an EIS to include a project justification section that provides 'a justification and evaluation for the project as a whole, having regard to the economic, environmental and social impacts of the project and the principles of ecologically sustainable development'. No more detailed guidance is provided. DPIE has developed social impact assessment guidelines: https://www.planning.nsw.gov.au/Policy-and-Legislation/Under-review-and-new-Policy-and-Legislation/Social-Impact-Assessment . A guideline was originally developed for resource projects in 2017 – this is currently still available on this site. It is being replaced by the 2021 guidelines which will apply to all projects.

Question	Response
14. How do the guidelines refer to peer review requirements?	Peer review requirements are not mentioned. Under the EIA Improvement Project, DPIE had developed draft guidelines on peer review. However, these guidelines have not been finalised and no longer appear to be available on the DPIE website.
15. How do the guidelines allow or facilitate an EIS to be produced in a digital format?	This is not addressed.
16. How do the guidelines include requirements for the (post-approval) environmental management framework?	Other than the need to describe mitigation measures and their effectiveness, requirements for the environmental management framework are not specifically provided.
17. Do the guidelines require data gathered during the impact assessment to be submitted to the relevant regulator in the state/territory? What data must be provided?	The SEARs and Appendix B to the State Significant Development Guidelines don't provide any guidance as to what and how data should be submitted. However, section 2.4 of Appendix A to the State Significant Development guidelines sets out how data should be provided with a scoping report.
18. What are the aspects of these guidelines that could be considered leading practice?	<p>The list of 'Environmental Planning Instruments, Policies, Guidelines & Plans' provided in Attachment 1 of the SEARs is a useful consolidation for the proponent. It is also useful to clearly set out the issues that do not require further assessment.</p> <p>The NSW guidelines on social impact assessment and cumulative impact assessment are also worthy of consideration. Both the 2017 and 2021 social impact assessment guidelines should be considered as some useful material in the 2017 guidelines was not carried over into the 2021 guidelines.</p> <p>NSW has moved further than most other states/territories to integrate EPBC matters into their processes.</p>

4.3 ACT

Question	Response
1. What is the name of the relevant document in the state/territory?	Scoping Document
2. What is the legal head power and any relevant regulations?	<i>Planning and Development Act 2007.</i>
3. How are the EIS guidelines developed? a. Who develops the guidelines? b. What information must the proponent provide to obtain the scoping requirements? c. Does preparation of the guidelines allow for proponent feedback? d. Is there any relevant guidance to assist guideline development?	<p>The scoping document is developed by the Environment, Planning and Sustainable Development Directorate. A proponent must submit an EIS scoping document application.</p> <p>The proponent must provide the following:</p> <ul style="list-style-type: none"> • A completed Application for Environmental Impact Assessment Processes form • A completed Letter of Authorisation form, providing details and signatures of all lessees or land custodians of land to which the proposal relates • A statement outlining the objectives of the project and why it is needed • A description of the nature/type of project proposed by providing location map(s) of the project site(s), preliminary design drawings and satellite/aerial photographs • A preliminary risk assessment • A description of the natural conservation values of the site • A description of measures within the proposal that seek to avoid and minimise (and as a last resort offset) impact on identified conservation values

Question	Response
	<ul style="list-style-type: none"> Any decision made under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 in relation to this proposal. <p>After the scoping document and draft EIS are submitted, public consultation occurs after which comments are provided back to the proponent which they can address. The proponent then prepares a revised EIS to send back to the authority. Requirements for the scoping document application are in the Proponents Guide to Environmental Impact Statements</p> <p>https://www.planning.act.gov.au/_data/assets/pdf_file/0020/1149500/EIS-Proponents-Guide.pdf</p>
4. How do the guidelines set objectives/outcomes that the project should meet?	Does not appear to be specifically addressed in scoping documents
5. How do the guidelines set the strategic and regulatory context for the project in terms of: <ol style="list-style-type: none"> Decisions already made by government that affect the project Regulatory standards, policies and guidelines that the project must meet? 	Scoping documents contain a section on legislative context. A typical requirement in this section is: 'Provide a description of the EIS process including any statutory approvals obtained or required for the proposal, and how the proposal is aligned with strategic priorities for the ACT'. This section refers to Acts that must be specifically addressed.
6. How are issues categorised in terms of their relative importance for assessment and level of investigation required?	<p>A scoping document application must include a preliminary risk assessment (PRA). The requirements for this are set out in the Proponent's Guide to Environmental Impact Statements. The PRA uses a standard risk assessment framework. The guide includes tables for determining likelihood and consequence and a risk assessment matrix. The PRA is considered by the Environment, Planning and Sustainable Development Directorate in drafting the scoping document. However, scoping documents do not distinguish the matters to be assessed based on the derived risk rating.</p> <p>The guide notes that the EIS process is only designed to address potentially significant impacts.</p> <p>Note that the ACT documents tend to confuse the use of the terms: risk and impact.</p>
7. How do the guidelines address stakeholder engagement?	Scoping documents specify the stakeholders that must be consulted in preparing the EIS. They also require the EIS to describe the consultation methods and how feedback was considered.
8. How do the guidelines address EPBC requirements?	Where relevant, scoping documents include an Attachment A that sets out the EPBC assessment requirements.
9. How do the guidelines include any standard assessment requirements?	There is some standard text in the scoping documents (e.g. for the project description) but each scoping document is project specific.
10. How is uncertainty in the impact assessments addressed in the guidelines?	Scoping documents require the assessment to include an updated risk assessment based on the PRA. The EIS must identify and assess residual risks.
11. How do the guidelines require consideration of the precautionary principle and other principles of ESD?	Scoping documents include a requirement for the EIS to describe how the proposed development demonstrates ESD.
12. How do the guidelines address cumulative impacts?	Scoping documents require the assessment to address cumulative impacts but provide no further guidance.

Question	Response
13. How do the guidelines integrate economic and social impacts assessments?	<p>The Proponents Guide to Environmental Impact Statements requires the scoping document application to evaluate consequence in the PRA – this includes social and economic impact. The general elements when evaluating consequence are below:</p> <ul style="list-style-type: none"> • Social <ul style="list-style-type: none"> - Number of people - The number of people directly or indirectly affected through lost opportunities for enjoyment or other values such as equity or existence values. - Heritage - The impact on known or possible items of heritage or cultural value. - Political - The measure of the likely political implications or level of community interest. • Economic <ul style="list-style-type: none"> - The financial cost of the impact through lost productivity or the cost of remediation. <p>Scoping documents require the PRA to be updated. Depending on the relevant matters, the impact assessment section of the scoping document may require certain economic and social issues to be assessed. However, there is no specific guidance on how these matters are to be integrated.</p>
14. How do the guidelines refer to peer review requirements?	Peer review requirements are not specifically mentioned in scoping documents.
15. How do the guidelines allow or facilitate an EIS to be produced in a digital format?	The guidelines do not specifically mention the production of an EIS in digital format.
16. How do the guidelines include requirements for the (post-approval) environmental management framework?	There are no specific requirements regarding information on the environmental management framework.
17. Do the guidelines require data gathered during the impact assessment to be submitted to the relevant regulator in the state/territory? What data must be provided?	JBS&G has not seen any scoping requirements that include this requirement.
18. What are the aspects of these guidelines that could be considered leading practice?	The Proponents Guide to Environmental Impact Statements includes some useful information regarding rating the consequence of a proposal in the PRA. However, the PRA approach outlined in the guide as a tool for determining the relative priority of issues for assessment is somewhat flawed as it fails to consider the extent to which the relevant impacts are already known.

4.4 Queensland

Note: There are two types of EIS assessment processes in Queensland:

- EIS under the Environmental Protection Act 1994 (EP Act), administered by the Department of Environment and Science.
- EIS under the State Development and Public Works Organisation Act 1971, administered by the Coordinator-General.

This review considers the process for developing terms of reference for EISs under the EP Act. This is because this process provides a comprehensive template for the TORs. A template or other extensive guidance does not appear to be available for the Coordinator General process.

Question	Response
1. What is the name of the relevant document in the state/territory?	Terms of Reference (TOR)
2. What is the legal head power and any relevant regulations?	Environment Protection Act 1994 Environment Protection Regulations 2019 (in particular, Schedule 1)
3. How are the EIS guidelines developed? a. Who develops the guidelines? b. What information must the proponent provide to obtain the scoping requirements? c. Does preparation of the guidelines allow for proponent feedback? d. Is there any relevant guidance to assist guideline development?	Draft TOR are developed by the proponent using the Generic TOR Template: https://www.qld.gov.au/environment/pollution/management/eis-process/about-the-eis-process/terms-of-reference . The submitted Draft TOR are reviewed by the Department of Environment and Science. If acceptable, the TOR are published for public comment for at least 30 business days. The proponent then considers comments received and provides an amended TOR to the department. The department finalises the TOR and published them its website.
4. How do the guidelines set objectives/outcomes that the project should meet?	<p>Assessment of each of the project specific matters in section 9 of the template includes environmental objectives and outcomes for each matter. These are taken from the environmental objectives in Part 3 of Schedule 8 of the Environment Protection Regulations. Interestingly, the template only cites the environmental objectives and does not include the performance measures in the regulations.</p> <p>Section 8.4 of the templates requires the EIS to ‘demonstrate that the design of the proposed project and its predicted outcomes meet the environmental objectives and outcomes listed in section 9 for each matter and the performance outcomes stated in Schedule 8 of the Environmental Protection Regulation’.</p> <p>Note also that section 8.1 of the template requires the EIS to: Identify and describe the values that must be protected for all the relevant matters including:</p> <ul style="list-style-type: none"> • environmental values specified in the Environmental Protection Act, the Environmental Protection Regulation (e.g. environmental objectives and performance outcomes as defined in schedule 8), environmental protection policies and associated guidelines • values under other State legislation, policies and guidelines including the Vegetation Management Act 1999, the Nature Conservation Act 1992, the Regional Planning Interests Act 2014 • values identified in the project specific matters in section 9.
5. How do the guidelines set the strategic and regulatory context for the project in terms of: a. Decisions already made by government that affect the project b. Regulatory standards, policies and guidelines that the project must meet?	The strategic context is not specifically addressed in the template. However, the template lists the relevant guidelines and policies that must be considered for each matter. There is also a more extensive list of policies, guidelines and references in Appendix 2 of the TOR.
6. How are issues categorised in terms of their relative importance for assessment and level of investigation required?	The template notes: The detail in which the EIS deals with all matters relevant to the proposed project must be proportional to the scale of the impacts on environmental values. When determining the scale of an impact, consider the impact’s intensity, duration, cumulative effect, irreversibility, the risk of environmental harm, management strategies and offset provisions.

Question	Response
	<p>A critical matter is a project specific matter listed in section 9 that has one or more of the following characteristics:</p> <ul style="list-style-type: none"> • It has a high or medium probability of causing serious or material environmental harm, or a high probability of causing an environmental nuisance. • It is considered important by the administering authority, and/or there is a public perception that an activity has the potential to cause serious or material environmental harm or an environmental nuisance, or the activity has been the subject of extensive media coverage. • It is relevant to a controlling provision under the EPBC Act. • It raises obligations under any other legislation applicable for the proposed project
7. How do the guidelines address stakeholder engagement?	The EIS process must include an appropriate public consultation program. The required information is set out in section 6 of the template.
8. How do the guidelines address EPBC requirements?	Section 9.16 of the template deals with MNES. Specific Commonwealth requirements are included in an EPBC TOR that is attached as an appendix.
9. How do the guidelines include any standard assessment requirements?	The template includes standard requirements.
10. How is uncertainty in the impact assessments addressed in the guidelines?	<p>Section 8.1 of the template notes: Describe the quality of all information, in particular the source of the information, how recent the information is, how the reliability of the information was tested, and any assumptions and uncertainties in the information.</p> <p>Section 10, regarding appendices to the ES, states: No significant issue or matter, including statements of uncertainty associated with assertions and findings, should be mentioned for the first time in an appendix—it must be addressed in the main text of the EIS.</p>
11. How do the guidelines require consideration of the precautionary principle and other principles of ESD?	This is not discussed in the template. There may be a more general requirement to address this in the Act or Regulations.
12. How do the guidelines address cumulative impacts?	<p>Cumulative impacts are addressed briefly in section 8.3. The assessment must address:</p> <ul style="list-style-type: none"> impacts to environmental values of land, air and water, public health and the health of terrestrial and aquatic ecosystems • impacts to environmental values over time or in combination with other impacts in the dimensions of scale, intensity, duration or frequency of the impacts • impacts created by the activities on other adjacent, upstream and downstream developments and infrastructure, and landholders • impact of proposed project on overall state and national greenhouse gas (GHG) inventories and targets.
13. How do the guidelines integrate economic and social impacts assessments?	Section 9.13 of the template addresses social impacts. Section 9.14 addresses economic impacts. The way in which these matters are integrated in the assessment is not specifically described.
14. How do the guidelines refer to peer review requirements?	The template notes that the groundwater and surface water models should be peer reviewed but makes no other reference to peer reviews.
15. How do the guidelines allow or facilitate an EIS to be produced in a digital format?	Not mentioned

Question	Response
16. How do the guidelines include requirements for the (post-approval) environmental management framework?	<p>Section 8.4 of the template requires the EIS to:</p> <ul style="list-style-type: none"> include an environmental management plan setting out the framework for continuing management, mitigation and monitoring programs for the project's relevant impacts, including any provision for independent environmental auditing include an adaptive management approach to provide confidence that, based on current technologies, the impacts can be effectively managed over the long-term be described in context of the department's model conditions and/or site-specific, outcome-focussed conditions that can be measured and audited.
17. Do the guidelines require data gathered during the impact assessment to be submitted to the relevant regulator in the state/territory? What data must be provided?	<p>Section 13 of the template addresses spatial and electronic data presentation. It notes: 'Provide spatial data presented in the EIS to the department in appropriate electronic form, such as shape files. This includes all water quality, wastewater quality data and geological structures, such as aquifers, faults and economic resources. Refer to the department's guideline Spatial information submission (ESR/2018/4337) for information on the format for spatial information'. The guidelines is available at: https://environment.des.qld.gov.au/__data/assets/pdf_file/0027/90288/rs-gl-spatial-information.pdf</p>
18. What are the aspects of these guidelines that could be considered leading practice?	<p>The use of a template potentially streamlines the process for preparing the TOR. However, assessment of some matters may not warrant the level of assessment provided for in the template text. This creates a risk that proponents may have difficulty in matching the risk to an environmental matter with the level of investigation required.</p> <p>The use of environmental objectives is similar to the WA/NT approach except that the environmental objectives are specified in the Regulations rather than a guidance document. Like the WA/NT approach, the requirement to show how a project can achieve relevant environmental objectives and performance measures is leading practice.</p> <p>The requirements for data submissions appear quite comprehensive.</p>

4.5 Northern Territory

Question	Response
1. What is the name of the relevant document in the state/territory?	Terms of reference (TOR)
2. What is the legal head power and any relevant regulations?	<p><i>Environment Protection Act 2019</i></p> <p>Environment Protection Regulations 2020</p>
<p>3. How are the EIS guidelines developed?</p> <p>a. Who develops the guidelines?</p> <p>b. What information must the proponent provide to obtain the scoping requirements?</p> <p>c. Does preparation of the guidelines allow for proponent feedback?</p> <p>d. Is there any relevant guidance to assist guideline development?</p>	<p>NT has multiple assessment pathways. The information in this table is based on assessment by EIS. The TOR are prepared by the NT EPA. The TOR are based on information in the referral (to determine whether assessment is required and the level of assessment). The TOR are released for public comment for 15 business days. When developing the draft TOR, the NT EPA has the option to consult with the proponent before publishing the draft TOR, inviting the proponent to provide submissions to the NT EPA within a specified period.</p> <p>NT EPA has developed a guide to 'Preparing an environmental impact statement' which includes guidance on the expected content of an EIS (https://ntepa.nt.gov.au/__data/assets/pdf_file/0009/818217/preparing-an-environmental-impact-statements.pdf).</p>

Question	Response
	<p>The NT process also allows a proponent to initiate an EIS, rather than respond to a determination by the EPA. In this case, the proponent will develop the TOR. A TOR template for a proponent initiated EIS referral is available at: https://ntepa.nt.gov.au/publications-and-advice/environmental-management</p>
<p>4. How do the guidelines set objectives/outcomes that the project should meet?</p>	<p>Like WA, NT uses an approach based on environmental factors and objectives. These are defined in https://ntepa.nt.gov.au/_data/assets/pdf_file/0020/804602/guide-ntepa-environmental-factors-objectives.pdf. TOR define the environmental factors that are relevant to the project. The EIS must describe the environmental values that are relevant to each factor for the project. It must then describe the predicted outcome from the assessment against the factor's environmental objective, and state whether there a likely to be any significant residual environmental impacts.</p>
<p>5. How do the guidelines set the strategic and regulatory context for the project in terms of:</p> <ol style="list-style-type: none"> a. Decisions already made by government that affect the project b. Regulatory standards, policies and guidelines that the project must meet? 	<p>The EIS must describe the strategic and statutory context of the proposal. TOR include a 'List of relevant guidance material' in Appendix A.</p>
<p>6. How are issues categorised in terms of their relative importance for assessment and level of investigation required?</p>	<p>There is no clear process for doing this.</p>
<p>7. How do the guidelines address stakeholder engagement?</p>	<p>TOR include a stakeholder engagement and consultation section. NT has prepared stakeholder engagement and consultation guidance: https://ntepa.nt.gov.au/_data/assets/pdf_file/0005/884696/guidance-proponents-stakeholder-engagement-and-consultation.pdf.</p> <p>The EP Act includes a general duty for proponents in section 43 to consult with communities, take account of their views, document their knowledge and address Aboriginal values and rights.</p>
<p>8. How do the guidelines address EPBC requirements?</p>	<p>EPBC requirements are incorporated into the TOR under 'other environmental factors or matters', but in no great detail.</p>
<p>9. How do the guidelines include any standard assessment requirements?</p>	<p>As noted above, there is a template for proponent initiated EISs.</p>
<p>10. How is uncertainty in the impact assessments addressed in the guidelines?</p>	<p>The Guide to preparing an EIS notes: 'Where there is scientific uncertainty about the potential significance, scale or extent of an impact, identify the uncertainties and provide a detailed description of how uncertainties would be addressed, such as through an adaptive management approach incorporating monitoring and staging. Where uncertainty remains, adopt the precautionary principle and demonstrate how it has been met'.</p>
<p>11. How do the guidelines require consideration of the precautionary principle and other principles of ESD?</p>	<p>EISs must include a description of how the EIS meets the requirements of section 42(b) of the EP Act: all actions that may have a significant impact on the environment are assessed, planned and carried out taking into account:</p> <ul style="list-style-type: none"> • the principles of ecologically sustainable development and • the environmental decision-making hierarchy and • the waste management hierarchy and • ecosystem-based management and • the impacts of a changing climate.

Question	Response
12. How do the guidelines address cumulative impacts?	TOR require EISs to address cumulative impacts but provide no further guidance.
13. How do the guidelines integrate economic and social impacts assessments?	<p>Social and economic aspects are considered part of the 'environment'. TOR require EISs to address social and economic impacts as relevant to the project. NT EPA has prepared 'Guidelines for the preparation of an economic and social impact assessment' (https://ntepa.nt.gov.au/_data/assets/pdf_file/0006/287430/guideline_assessment_economic_social_impact.pdf). The guidelines include a requirement for an Economic and Social Impact Management Plan.</p> <p>EISs must also: 'Provide a holistic assessment of the impacts of the proposal on the whole of the environment (where relevant), including a description of the connections and interactions between the environmental factors, acknowledging that impacts may be cumulative across environmental factors'.</p>
14. How do the guidelines refer to peer review requirements?	This is not mentioned.
15. How do the guidelines allow or facilitate an EIS to be produced in a digital format?	Not discussed. The EIS guide notes that: 'Electronic copies (pdf and word format) must be provided both as a single file of the entire document and separate files of the document i.e. the main document and separate appendices'. It may be difficult to meet this requirement with a web-based EIS.
16. How do the guidelines include requirements for the (post-approval) environmental management framework?	TOR require details of monitoring and reporting for each environmental factor but the environmental framework is otherwise not discussed.
17. Do the guidelines require data gathered during the impact assessment to be submitted to the relevant regulator in the state/territory? What data must be provided?	Not mentioned.
18. What are the aspects of these guidelines that could be considered leading practice?	<p>The approach to defining environmental factors and objectives in the WA and NT process and for assessments to demonstrate how projects will achieve these can be regarded as leading practice.</p> <p>The general duty for proponents in section 43 of the Environment Protection Act to consult with communities, take account of their views, document their knowledge and address Aboriginal values and rights is leading practice in Australia although more fully developed in Canada.</p> <p>The requirement for a holistic assessment is potentially leading practice although it is too early to assess how this is working in practice.</p>

4.6 Western Australia

Question	Response
1. What is the name of the relevant document in the state/territory?	Environmental scoping document (ESD). The scoping document is used to prepare an Environmental Review Document (ERD) – equivalent to an EIS.
2. What is the legal head power and any relevant regulations?	Environmental Protection Act 1986

Question	Response
	Administrative procedures for the EIA process have also been developed under the Act: https://www.epa.wa.gov.au/administrative-procedures .
<p>3. How are the EIS guidelines developed?</p> <p>a. Who develops the guidelines?</p> <p>b. What information must the proponent provide to obtain the scoping requirements?</p> <p>c. Does preparation of the guidelines allow for proponent feedback?</p> <p>d. Is there any relevant guidance to assist guideline development?</p>	<p>The ESD may be prepared by the proponent or the EPA. This is determined by the EPA Chair. (In part, this considers the capability of the proponent. Previously, these were all prepared by proponents but those submitted by less capable proponents took so much rework that it was more efficient for the EPA to prepare those ESDs themselves).</p> <p>The ESD is based on information in the referral.</p> <p>An ESD may be released for public comment. Where this occurs and where the EPA receives any comments and/or information that may be adverse to the proponent, the EPA will give the proponent the opportunity to respond to the substance of the information.</p> <p>The Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual prepared under the Act sets out the required content of an ESD. For proponents who prepare ESDs, the EPA has prepared instructions on how to prepare an ESD: https://www.epa.wa.gov.au/sites/default/files/Forms_and_Templates/Instructions%20-%20Proponent%20prepared%20Environmental%20Scoping%20Document.pdf along with a template. EPA has also prepared instructions on how to prepare an ERD: https://www.epa.wa.gov.au/sites/default/files/Forms_and_Templates/Instructions-%20How%20to%20prepare%20an%20Environmental%20Review%20Document_0.pdf. These describe the required content of an ERD.</p>
<p>4. How do the guidelines set objectives/outcomes that the project should meet?</p>	<p>WA defines environmental factors and objectives that are relevant to an assessment. These are derived from the Statement of environmental principles, factors, objectives and aims of EIA: https://www.epa.wa.gov.au/statement-environmental-principles-factors-and-objectives. The WA EPA has also developed interim guidance on 'Environmental outcomes and outcomes-based conditions': https://www.epa.wa.gov.au/sites/default/files/Interim%20Guidance%20-%20Outcomes%20and%20Outcomes-based%20conditions.pdf. This notes:</p> <p>Once likely residual impacts from a proposal are assessed, the proponent should specify the related environmental outcomes they propose to achieve or ensure during and at the cessation of the implementation of their proposal ... Proponents should then consider whether the proposed environmental outcomes are consistent with the EP Act principles and EPA objectives for the key environmental factors.</p> <p>Proponents should also include details on whether and how the proposed environmental outcome can be assured by conditions or other statutory decision-making processes.</p>
<p>5. How do the guidelines set the strategic and regulatory context for the project in terms of:</p> <p>a. Decisions already made by government that affect the project</p> <p>b. Regulatory standards, policies and guidelines that the project must meet?</p>	<p>The instructions for preparing an ERD require ERDs to discuss the legislative requirements. ESDs include a section that lists relevant policies for each environmental factor.</p>
<p>6. How are issues categorised in terms of their relative importance for assessment</p>	<p>There is no categorisation other than the EPA determining the environmental factors that are relevant to the assessment.</p>

Question	Response
and level of investigation required?	
7. How do the guidelines address stakeholder engagement?	ESDs include a section on stakeholder consultation. As well as general requirements to consult the community and other relevant stakeholders, the section lists decision-making authorities that must be consulted.
8. How do the guidelines address EPBC requirements?	The instructions for preparing an ERD includes a general description of the required content for EPBC assessments. This is addressed in ESDs under 'other environmental factors or matters'.
9. How do the guidelines include any standard assessment requirements?	There are general requirements in the instructions for preparing an ERD.
10. How is uncertainty in the impact assessments addressed in the guidelines?	This is not specifically discussed other than the ERD must describe whether the proposed mitigation measures are industry standard and best practice, and the degree of certainty about their effectiveness.
11. How do the guidelines require consideration of the precautionary principle and other principles of ESD?	An ERD must assess the proposal against the objects of the EP Act. These objects include ESD.
12. How do the guidelines address cumulative impacts?	<p>The instructions for preparing an ERD include a requirement to address cumulative impacts. These are defined as 'the successive, incremental and interactive impacts on the environment of a proposal with one or more past, present and reasonably foreseeable future activities'. The procedures manual defines reasonably foreseeable future activities.</p> <p>Note that EPA also requires a 'holistic impact assessment'. The instructions for preparing an ERD requires this to:</p> <ul style="list-style-type: none"> • Outline the connections and interactions between environmental factors or values that in combination have the potential to have a significant effect on the environment. • Provide a diagram of the links between environmental factors or values. • Summarise the potential combined environmental effects. • Summarise any additional mitigation measures proposed to mitigate combined environmental effects. • Summarise any significant residual combined environmental effects. • Summarise proposed additional environmental outcomes for the proposal on the environment as a whole, and (optional) any proposed conditions for consideration by the EPA.
13. How do the guidelines integrate economic and social impacts assessments?	EPA environmental factors include social surroundings and human health. Where relevant, ESDs will require these factors to be assessed. There is no guidance on integration other than the holistic impact assessment requirements above.
14. How do the guidelines refer to peer review requirements?	Not mentioned
15. How do the guidelines allow or facilitate an EIS to be produced in a digital format?	Not mentioned
16. How do the guidelines include requirements for the (post-approval)	The EPA uses an outcomes-based conditions approach where practicable. The ERD must describe the proposed monitoring of any proposed environmental outcomes. The instructions for preparing an ERD notes this must:

Question	Response
environmental management framework?	<ul style="list-style-type: none"> Describe baseline environmental condition and proposed indicators, response actions, reporting and adaptive management approaches in relation to proposed environmental outcomes. This may be included in an outcomes-based Environmental Management Plan. It should include indicators, trigger criteria, threshold criteria, trigger level actions and threshold contingency actions. <p>Instructions on how to prepare environmental management plans are at: https://www.epa.wa.gov.au/forms-templates/instructions-part-iv-environmental-management-plans</p>
17. Do the guidelines require data gathered during the impact assessment to be submitted to the relevant regulator in the state/territory? What data must be provided?	<p>The instructions for preparing ERDs set out requirements for providing spatial data and figures. In addition, each time a terrestrial biodiversity survey report or marine survey report is submitted (at any point in the assessment), an Index of Biodiversity Surveys for Assessments or Index of Marine Surveys for Assessments data package should be provided. IBSA and IMSA are mechanisms by which all terrestrial biodiversity survey and marine survey information collected for environmental impact assessment under the EP Act will be captured and integrated into a consolidated, indexed and publicly available repository. I</p>
18. What are the aspects of these guidelines that could be considered leading practice?	<p>The approach to defining environmental factors and objectives in the WA and NT process and for assessments to demonstrate how projects will achieve these can be regarded as leading practice.</p> <p>The requirement for a holistic assessment is potentially leading practice although it is too early to assess how this is working in practice.</p> <p>Requirements for data submission appear to be leading practice.</p>

4.7 Tasmania

Question	Response
1. What is the name of the relevant document in the state/territory?	<p>Project Specific Guidelines – these supplement the general <i>Guidelines for Preparing and Environmental Impact Statement</i> (https://epa.tas.gov.au/Documents/Guidelines%20for%20Preparing%20an%20Environmental%20Impact%20Statement.pdf). The latter document is referred to as the EIS Guidelines in this table.</p>
2. What is the legal head power and any relevant regulations?	<p>The EPA assesses proposals under the <i>Environmental Management and Pollution Control Act 1994</i>. An EIS can also be required under the <i>State Policies and Projects Act 1993</i> for projects of State Significance. Major infrastructure development projects having effects extending beyond a single council area can be assessed under the <i>Major Infrastructure Development Approvals Act 1999</i>. The latter two assessments are undertaken by the Tasmanian Planning Commission.</p> <p>The EPA process is considered in this table as this has the more extensive guidance.</p>
3. How are the EIS guidelines developed? a. Who develops the guidelines? b. What information must the proponent provide to obtain the scoping requirements?	<p>The Project Specific Guidelines are developed by the EPA Board. There are multiple pathways to a project requiring an EIS but all require an application of some kind to be made.</p>

Question	Response
c. Does preparation of the guidelines allow for proponent feedback? d. Is there any relevant guidance to assist guideline development?	
4. How do the guidelines set objectives/outcomes that the project should meet?	The EIS Guidelines note: Identify the environmental performance requirements to be achieved for each environmental impact and provide evidence to demonstrate that these can be complied with. These may be standards or requirements specified in legislation, codes of practice, state policies, national guidelines or as determined by agreement with the assessing agencies. Industry best practice standards should be referred to where appropriate. Unsupported assertions that performance requirements will be achieved will not be considered adequate.
5. How do the guidelines set the strategic and regulatory context for the project in terms of: a. Decisions already made by government that affect the project b. Regulatory standards, policies and guidelines that the project must meet?	The EIS Guidelines require the EIS to describe: <ul style="list-style-type: none"> • Environmental legislation, standards and guidelines that will be applicable (such as policies, regulations and industry codes of practice). • Other relevant Commonwealth, State and Local Government policies, strategies and management plans with which the proposal would be expected to comply. The EIS Guidelines do, however, list relevant legislative and policy requirements under each environmental discipline.
6. How are issues categorised in terms of their relative importance for assessment and level of investigation required?	The EIS Guidelines note the EIS should be prepared using a risk based approach. Not all issues nominated in these guidelines will have the same degree of relevance to all proposed activities. Depending on the nature of the proposed activity and its location, some of the issues may be more relevant than others, and some may not be applicable at all. The level of detail provided on each issue should be appropriate to the level of significance of that environmental issue to the proposal. Otherwise, there is no categorisation of issues.
7. How do the guidelines address stakeholder engagement?	The EIS Guidelines require the EIS to detail the nature and results of public consultation. The EPA Board has produced a guide to community engagement, allegedly at: http://epa.tas.gov.au/assessment/assessment-process/guidance-documents (although this wasn't available at this link)
8. How do the guidelines address EPBC requirements?	The EIS Guidelines include general requirements for EPBC assessments. It notes that: 'If the proposal is being assessed under the bilateral agreement, the EIS should contain a summary table showing that it addresses the matters specified in Schedule 4 of the Commonwealth Environment Protection and Biodiversity Conservation Regulations 2000'.
9. How do the guidelines include any standard assessment requirements?	The EIS Guidelines provide standard requirements.
10. How is uncertainty in the impact assessments addressed in the guidelines?	The EIS Guidelines note: The evaluation of potential impacts should identify plausible worst case consequences, the vulnerability of the affected environment to the potential impacts, and the reversibility of the impacts ... Assumptions, simplifications and scientific judgements should be stated clearly, and the nature and magnitude of uncertainties should be clearly defined.
11. How do the guidelines require consideration of the precautionary principle and other principles of ESD?	Not specifically addressed.

Question	Response
12. How do the guidelines address cumulative impacts?	Section 6.15 of the EIS Guidelines addresses cumulative and interactive impacts. This should address existing and approved developments in the region. It should also consider 'Other proposals which have been formally proposed, and for which there is sufficient information available to the proponent to allow a meaningful assessment of their impacts'.
13. How do the guidelines integrate economic and social impacts assessments?	Section 6.10 of the EIS Guidelines lists socio-economic issues that should be considered. Section 6.15 notes that: Interactions between biophysical, socio-economic and cultural impacts of the proposal should be discussed'. No further guidance is provided.
14. How do the guidelines refer to peer review requirements?	Not mentioned
15. How do the guidelines allow or facilitate an EIS to be produced in a digital format?	Not mentioned
16. How do the guidelines include requirements for the (post-approval) environmental management framework?	Section 6.14 of the EIS Guidelines requires the proponent to outline the environmental management system.
17. Do the guidelines require data gathered during the impact assessment to be submitted to the relevant regulator in the state/territory? What data must be provided?	Not mentioned
18. What are the aspects of these guidelines that could be considered leading practice?	All pretty standard

4.8 Canada

While Canada is not currently a state/territory of Australia, it is included in this review as there are many similarities in the context for impact assessment in the two countries. Two documents were reviewed:

- Practitioner's Guide to Federal Impact Assessments under the Impact Assessment Act (Government of Canada): <https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act.html>. This guide includes:
 - Tailored Impact Statement Guidelines Template for Designated Projects Subject to the Impact Assessment Act (Government of Canada): <https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act.html>
- Effects Assessment Policy, Environmental Assessment Office, British Columbia: https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/environmental-assessments/guidance-documents/2018-act/effects_assessment_policy_v1_-_april_2020.pdf

Some potentially useful aspects of these documents are:

Valued Components

The impact assessment approach at the federal level in Canada and in British Columbia has for many years been focused on Valued Components (VCs). The Effects Assessment Policy notes that VCs 'are

identified based on comprehensive issues scoping and engagement, which reveals the values that may be affected by the project and priorities of Indigenous nations, the public, local governments, provincial and federal government agencies, and stakeholders'. This has some similarities with the WA and NT approach of identifying the relevant environmental factors for an assessment although goes down to a more detailed level. They are derived from what would generally be known in Australia as environmental values.

The Effects Assessment Policy note that, to be well-defined and effective, VCs must have the following attributes:

- Relevant to at least one of the assessment matters and clearly linked to the values reflected in the issues raised in respect of the project
- Comprehensive, so that taken together, the VCs selected for an assessment should enable an understanding of the potential effects of the project
- Representative of the important features of the biophysical and human environment likely to be affected by the project
- Responsive to the potential effects of the project
- Concise, so that the nature of the interactions between the project and the VCs can be clearly articulated and understood and redundant analysis is avoided.

The VC approach potentially allows the impact assessment to be more focused on the matters of most concern.

Impacts on indigenous peoples

The Practitioner's Guide includes policy context and guidance documents on indigenous participation in impact assessment, assessment of potential impacts on the rights of indigenous peoples, collaboration with indigenous peoples in impact assessment, procedures for working with indigenous communities, and protecting confidential indigenous knowledge under the Impact Assessment Act. These requirements have been incorporated into the Tailored Impact Statement Guidelines. They represent leading practice and go significantly beyond what is generally required in Australia.

Gender-based Analysis Plus

Gender-based Analysis Plus (GBA Plus) is an analytical tool that can guide practitioners in identifying who is impacted by a project and assess how they may experience impacts differently. Guidance on GBA Plus (<https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/gender-based-analysis.html#toc15>) notes:

- GBA Plus recognizes that historical and current power structures (e.g., laws, policies, governments and other institutions) have shaped society and contributed to inequalities. Designated projects—and the positive and negative impacts they may cause—are layered on top of these structures and also contribute to shaping and reshaping these structures. Recognizing this context is important to understanding why the impacts of a project may be different for diverse groups of people, and how projects have the potential to both reinforce and transform existing inequalities or unequal power relations in communities.

The 'Plus' reflects that the approach is not only focused on gender issues. It notes, for example, that people from diverse cultural backgrounds may experience the project differently. The Tailored Impact Assessment Guidelines require GBA Plus to be considered in the baseline assessment. The impact assessment 'must be sufficiently disaggregated and analysed to support the analysis of disproportionate effects as per the GBA+'.

Project contribution to sustainable development

Canada has a set of sustainability principles similar to the ESD principles used in Australia. Guidance: Considering the Extent to which a Project Contributes to Sustainability (<https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/guidance-considering-extent-project-contributes-sustainability.html>) provides detailed guidance to proponents on how to assess their project against each of these principles. The Tailored Impact Assessment Guidelines requires an assessment of how the sustainability principles were applied. Specifically, the impact assessment must:

- indicate how the planning and design of the project, in all phases, considers the sustainability principles
- describe the process in selecting the preferred alternative means and alternatives to the project and how the sustainability principles were considered
- indicate how monitoring, management and reporting systems consider the sustainability principles and attempt to ensure continuous progress towards sustainability
- describe the ecological, health, social and economic benefits of the project to local communities within the study area, potentially affected Indigenous groups, regional, provincial, territorial and/or federal governments
- describe engagement with potentially affected Indigenous groups and describe measures and commitments to ensuring the sustainability of Indigenous livelihood, traditional use, culture and wellbeing.

Cumulative impacts

Section 3.7 of the Effects Assessment Policy provides a useful discussion of how to assess cumulative effects. One problem in assessing cumulative impacts is to determine the ‘reasonably foreseeable’ projects that should be included. A box on page 42 provides a good overview of the projects that should be considered.

The policy advocates assessing residual adverse cumulative effects against benchmarks. For example, a benchmark for Grizzly Bear value is 60% secure core area in a landscape unit.

Environmental management framework

Section 26 of the Tailored Impact Assessment Guidelines provides detailed requirements on ‘follow-up programs’. A follow-up program ‘verifies the accuracy of the effects assessment and evaluates the effectiveness of mitigation measures’. Consequently, it is somewhat analogous to an environmental management framework.

The follow-up program particularly focuses on addressing uncertainties in the impact assessment, such as the efficacy of new or unproven techniques and technology, the degree of uncertainty about the effectiveness of proposed mitigation measures, and whether there was limited scientific knowledge about the effects in the IA. This information may then be used to determine whether additional actions are necessary (adaptive management) to address unanticipated outcomes.

The Impact Statement must present a follow-up program that includes:

- objectives of the follow-up program and the VCs targeted by the program
- list of elements requiring follow-up
- number of follow-up studies planned, as well as their main characteristics (list of parameters to be measured, planned implementation timetable, etc.)

- intervention mechanism used in the event that an unexpected deterioration of the environment or impacts on rights of Indigenous peoples and cultures is observed or experienced
- mechanism to disseminate follow-up results among the concerned interested parties
- accessibility and sharing of data for the general population
- opportunity for the proponent to include the participation of Indigenous groups and stakeholders on the affected territory during the development and implementation of the program
- involvement of local and regional Indigenous organizations in the follow-up program design and implementation, evaluation of the follow-up results, as well as any updates, including a communication mechanism between these organizations and the proponent.

Data provision

Proponents in British Columbia may be required to submit specific data and their associated reports, to the Environmental Assessment Office at various points in the assessment. Submitted data will need to meet data submission standards to allow for the storage of data. Data may be subject to quality assurance (QA) by the responsible provincial agency and the proponent can work with the provincial agency to ensure the accuracy of the data.

Appendix 2 of the Effects Assessment Policy provides 'Provincial data submission standards'. While much of this is specific to British Columbia, it provides a useful overview of the data that proponents may need to submit. Requirements such as this are valuable in ensuring important data collected during assessments is not lost and is made more widely available.

5. Limitations

Scope of services

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Environmental conclusions

Within the limitations imposed by the scope of services, the preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted environmental consulting practices. No other warranty, whether express or implied, is made.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.



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APPENDIX 2 - DRAFT MODEL TEMPLATE ASSESSMENT REQUIREMENTS

ASSESSMENT REQUIREMENTS FOR THE PREPARATION OF AN ENVIRONMENTAL IMPACT STATEMENT



STATE
PLANNING
COMMISSION

DRAFT

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1 Objective of the EIS

Assessment of impacts for projects declared as impact assessed development (not being restricted development) is undertaken through the preparation of an Environmental Impact Statement (EIS). The EIS process is the highest level of assessment under the *Planning, Development and Infrastructure Act 2016* (PDI Act) and enables the holistic consideration of major development or projects that are considered to be of economic, social or environmental importance to South Australia. The EIS process provides a comprehensive assessment of a development or project proposal and expected effects on the receiving environment and within the broader context of its setting.

Production of an EIS by the proponent is based on the Assessment Requirements provided by the State Planning Commission (the Commission) in this document, as well as engagement and collaboration with affected stakeholders, the general public and State Government Agencies.

2 Background to these Assessment Requirements

[include the text applicable depending on whether impact assessed development is declared by the Minister or classified by the regulations]

On *[date the development was declared impact assessed by the Minister]*, the Minister declared that the proposed *[description of development]* at *[address of subject land]* be assessed as an Impact Assessed development pursuant to section 108(1)(c) of the *Planning, Development and Infrastructure Act 2016* (the PDI Act).

OR

The proposed *[description of development]* at *[address of subject of subject land]* is of a type listed by regulation 27 (a1) to be assessed Impact Assessed development pursuant to section 108(1)(b) of the *Planning, Development and Infrastructure Act 2016* (the PDI Act).

This document contains the Assessment Requirements for an EIS, as required by the Commission specifically for the subject scoping application.

Every attempt has been made to ensure these Assessment Requirements address all of the major issues associated with the proposed development, however they are not necessarily exhaustive. The Assessment Requirements should not be interpreted as excluding from consideration matters deemed to be significant but not incorporated in them, or matters that emerge as important or significant from environmental studies or otherwise during the course of the preparation of the EIS.

The EIS must therefore address other matters not covered in these Assessment Requirements in the following circumstances:

- Studies reveal a matter that had not been foreseen when the Assessment Requirements were finalised.
- Stakeholder engagement and consultation with the community identifies an issue of widespread concern to the public, which had not previously been considered contentious. This may include a public perception of significant environmental harm that may not be borne out by technical studies, which may also be attracting extensive media coverage.
- New or amended legislation or policies come into effect after the Assessment Requirements have been finalised, which may or may not have been referred to in the

Assessment Requirements. Transitional arrangements or exemptions may apply, but it is considered best practice and of net benefit to a project to consider emergent legislation or policies even if not specifically required. This serves to 'future-proof' the EIS.

- The proponent makes amendments to the proposed project that would result in a change in the nature, scale, timing or location of any impacts.

3 The Impact Assessment Process

3.1 EIS process

Once a development has been categorised as impact assessed development (not being restricted development), a Scoping Application is prepared by the proponent which includes a preliminary assessment of the key social, environmental and economic issues and impacts associated with the development. The Commission uses the information provided in the Scoping Application to develop EIS Assessment Requirements to inform the preparation of the EIS (see Section 3.2).

The EIS must be prepared by the proponent in accordance with the Assessment Requirements for each environmental attribute in line with the level of detail specified. The level of detail is determined by the Commission based on the Practice Direction, the views of the relevant government agencies and the local council. The proponent is also given an opportunity to express any views on the level of detail required.

Assessment Requirements are intended to be outcome-focused and, supported by relevant guidance documents and legislation, are generally accompanied by a method of investigating the highlighted impacts and measures to assess these impacts. The methods provided are not necessarily exhaustive and a wide range of methods may be available to consider and respond to a particular issue.

If additional matters requiring detailed assessment become apparent after the final Assessment Requirements are issued, the EIS must also address these new matters in a comprehensive manner and identify means by which the effects can be managed.

The matters that must be included in an EIS are set out Section 113 of the PDI Act and provided below in Section 4. These requirements include detail of expected environmental, social, economic and climate effects of the development, consistency with state and regional planning documents, consideration of the provisions of the *Environment Protection Act 1993* and commitments by the proponent to avoid, mitigate or satisfactorily manage and control any potentially adverse effects of the development on the environment.

The EIS process is illustrated in Figure 1.

3.2 Consultation Process

After the completed EIS is submitted to the Minister for public release, it is referred to council(s) and relevant government agencies for comment. The public is provided with an opportunity to comment when the completed EIS is released for public exhibition.

Public consultation is a valuable resource to the EIS preparation process and a well-considered engagement strategy can play a pivotal role in the assessment of a project. The PDI Act sets out the principles of the Community Engagement Charter which guide public participation in the planning process and ensure that people and communities have a greater opportunity to engage in the planning process. The Commission and the Minister will consider the Charter in determining the consultation program for an impact assessed development.

Public exhibition is undertaken for a minimum of 30 business days. An advertisement will be placed in The Advertiser and local newspapers inviting submissions. The public consultation process will cater for those with special needs or those not able to access documentation electronically.

[The Commission and Minister in setting the AR must also consider the Community Engagement Charter and the consultation program. The PDI Act does not set any requirements for public notification except to say that the EIS must be placed on public notification however the PD details a minimum of 30 business days. The PD should outline details (aligning with the reading of the Community Engagement Charter) where additional or tailored consultation should be undertaken by the Minister and the proponent.

The Charter should be considered the minimum requirements for public consultation and emphasise the importance of early and open engagement as soon as practicable to avoid or minimise situations as early as possible where Stakeholder engagement and consultation with the community identifies an issue of widespread concern to the public, which had not previously been considered contentious.]

3.3 Responding to submissions

Copies of submissions from the public, council(s) and other relevant agencies will be provided to the proponent who then prepares a Response Document to address matters raised during the public exhibition period.

Following the receipt of the Response Document, the Commission will prepare an Assessment Report. The Assessment Report must set out:

- The Minister's assessment of the development
- Any comments by the Minister relating to:
 - the EIS
 - submissions received through the public consultation process
 - the proponent's responses to submissions received and matters raised by the Minister
- Comments provided by the Environment Protection Authority, another Minister, a council or other authority or body
- Any other comments or matters as the Minister or the Commission thinks fit.

The Assessment Report and the Response Document will be available for inspection and purchase by members of the public at a place and for a period of time determined by the Commission.

Availability of each of these documents (primarily on the PlanSA Portal website) will be notified by advertisements in The Advertiser and local newspapers and in writing to persons who made a written submission. A copy of the EIS, Response Document and the Assessment Report will be provided to the relevant council(s). Requirements for public availability and notification of an EIS, Response Document and Assessment Report are laid out in Section 113 (10) - (12) of the PDI Act.

For an EIS that has identified potential impacts to Matters of National Environmental Significance (MNES) under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), notification will also occur via The Australian newspaper, including inviting public submissions and noting where copies of the EIS can be obtained.

The Minister will make a final decision subject to Section 115 of the PDI Act.

In deciding whether the proposal will be approved and any conditions that will apply, the Minister must have regard to:

- The State Planning Policies
- Regional Plans, including the 30-Year Plan for Greater Adelaide (where relevant)
- Provisions of the Planning Rules and the regulations
- If relevant, the Building Code of Australia
- Where development involves or is for the purposes of a prescribed activity of environmental significance, the Environment Protection Act including the objects, General Environmental Duty and relevant environment protection policies
- Where relevant, the view of the Minister who is responsible for the administration of an area of the State subject to a special legislative scheme
- The EIS, Response Document and the Commission's Assessment Report
- Where relevant, any other government policy and/or legislation.

Pursuant to Section 115(2)(a) of the PDI Act the Minister can at any time indicate that the development will not be granted authorisation. This may occur if the development is inappropriate or cannot be demonstrated to be properly managed. This is commonly referred to as an "early no."

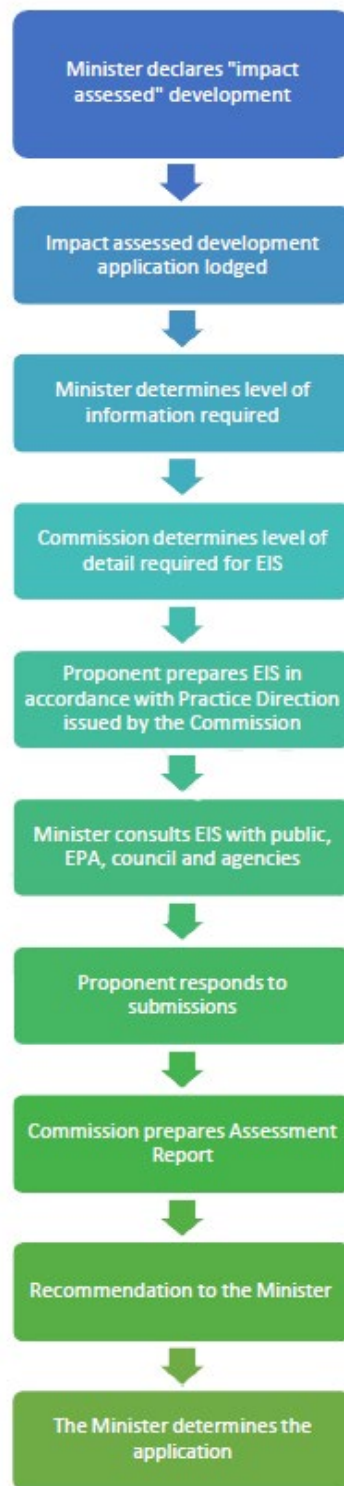


Figure 1: Steps in impact assessed development process

3.4 Development of the Assessment Requirements

Assessment Requirements set out the environmental attributes relevant to the development which are to be assessed (e.g. soil, water, heritage, threatened species, refer Table 3-3). The key environmental, social and economic impacts to these environmental attributes are to be addressed in the EIS. The level of assessment required is determined by the Commission

based on consideration of key factors to determine whether a standard level of assessment will be sufficient or whether more detailed assessment is required.

3.4.1 Key factors to consider in determining level of assessment detail

The PDI Act defines an EIS as “a document that includes a detailed description and analysis of a wide range of issues relevant to the proposed development or project, incorporating significant information to assist in an assessment of environmental, social or economic effects associated with the development or project and the means by which those effects can be managed”.

In setting the Assessment Requirements, the Commission considers the scale, nature and sensitivity of the receiving environment associated with the proposal and refers to relevant legislation, policy, guidance documents, government agencies and subject matter experts to determine whether a standard or a detailed level of assessment is appropriate.

The Commission must also have regard to whether a development will have or is likely to have a significant impact on MNES requiring approval under the EPBC Act. Consultation is undertaken with the Commonwealth during the process of determining Assessment Requirements.

The Commission is required to classify the issues relevant to the proper assessment of the development or project according to categories of importance so as to indicate the levels of attention that should be given to those issues in the preparation of an EIS.

The following key factors have been considered in identifying the issues requiring assessment in the EIS and whether the Assessment Requirements are ‘detailed’ or ‘standard’:

- Scale of the impact taking into account intensity, geographical extent and duration
- Nature of the impact which should consider direct, indirect, cumulative and perceived impacts
- Sensitivity of the receiving environment
- Ability to avoid, minimise and/or offset the impacts of the project, to the extent known at the application stage
- Complexity of technical assessments and investigations required to identify and assess mitigation measures.

Description and examples of the key factors is provided in Table 1.

Table 1: Description and examples of key factors to consider during scoping

Factor	Components of factor	Description of example
Scale of the Impact	Intensity	The scale or degree of the impact relative to the current situation or adopted standards or performance measures.
	Geographical extent	The intensity may be measured quantitatively and compared to reference values (e.g. area of vegetation cleared, air and water quality, noise levels, change or disruption to ecological community function) or qualitatively.
	Duration	The scale or degree of the impact relative to the current situation or adopted standards or performance measures.
Nature of the Impact	Direct impacts	Impacts caused directly by the development. They usually occur at the same time as the project and

Factor	Components of factor	Description of example
		within the vicinity of the site (e.g. vegetation clearing, air emissions).
	Indirect impacts	Impacts that occur as a consequence of the development or its direct impacts. Impacts may be delayed and happen further away from the site (e.g. project changes water table, changes affect wetland and causes an impact on groundwater dependent ecosystems). Impacts may also occur due to growth or land use changes facilitated by the project (e.g. a new transmission line may open up new areas for renewable energy generation).
	Cumulative impacts	The combined impacts of the project on a matter combined with other relevant future project (e.g. marine impacts from multiple port developments).
	Perceived impacts	There are range of perceptions of the same impacts by people or groups
Sensitivity of the Receiving Environment	Existing regulations and guidance	The degree of sensitivity expressed in legislation or relative to adopted standards and performance measures (e.g. Guidelines for the use of the Environment Protection (Noise) Policy 2007, <i>ANZECC Guidelines for Fresh and Marine water Quality</i>)
	Value to society	<u>Environmental value</u> : e.g. water quality, natural habitat). <u>Social value</u> : e.g. community value, landscape, recreation, lifestyle disturbance, water quality, cultural heritage, amenity. <u>Economic value</u> : e.g. water supply, critical transport routes
	Vulnerability / resilience to change	The degree of vulnerability of the environment to the impacts of the project or resilience to cope with change. Regard to be had to the likely scale and nature of the impacts of the development and the sensitivity and adaptive capacity of the environment.

3.4.2 Assessment Level Characteristics

The characteristics of 'detailed' and 'standard' levels of assessment are provided in Table 2. A detailed level of assessment is required if the impact of the development has one or more the characteristics set out in Table 2.

Table 2: Characteristics of detailed and standard assessment

Level of Assessment	Characteristics of the impact of the development
Detailed	<ul style="list-style-type: none"> The development has a high / medium probability of causing significant environmental impact on the environmental attribute, including cumulative impacts. It is considered important by the Commission, and/or there is a public perception that an activity has the potential to cause significant impacts on

Level of Assessment	Characteristics of the impact of the development
	<p>the environmental attribute, or the activity has been the subject of extensive media coverage.</p> <ul style="list-style-type: none"> • Potential impacts to a Matter of National Environmental Significance (MNES) are likely to require referral and approval under the <i>Environment Protection Biodiversity and Conservation Act 1999</i>. The development raises requirements under other legislation applicable for the development (e.g. prescribed activities of environmental significance under the Environment Protection Act 1993). • Assessment of the impacts of the development on the environmental attribute will require detailed studies and investigations to be carried out by technical specialists. During this assessment, these specialists may need to: <ul style="list-style-type: none"> ○ work closely with specialists assessing the impacts of the project on other environmental attributes to determine the likely indirect impacts of the project ○ undertake a detailed cumulative impact assessment for the project. • Assessment is likely to involve several uncertainties in relation to one or more of the following and specific strategies may be required to address these uncertainties (e.g. further monitoring, review, technical investigations and adaptive management). <ul style="list-style-type: none"> ○ data collection (e.g. baseline information, availability of data for cumulative impacts assessment) ○ identifying the specific mitigation measures or suitable offsets for the project ○ the methods available for predicting the impacts of the project, including the indirect and cumulative impacts ○ criteria for evaluating the acceptability of the impacts of the project. ○ specific strategies may be required to address these uncertainties (e.g. further monitoring, review, technical investigations and adaptive management).
Standard	<ul style="list-style-type: none"> • The project is unlikely to result in significant impacts on the environmental attribute if managed through conventional management and mitigation measures, including cumulative impacts. • While the assessment of the impacts of the development on the environmental attribute will involve technical specialists, these impacts are likely to be: <ul style="list-style-type: none"> ○ well understood by regulators and stakeholders ○ relatively easy to predict using standard methods ○ capable of being mitigated to comply with relevant standards or performance measures. • The assessments will be supported by quantitative assessment methods, although the focus and coverage may be on specific project components or project locations • The assessment is unlikely to involve any significant uncertainties, or require any detailed cumulative impact assessment.

3.4.3 Environmental Attributes to be considered in the EIS

Issues relevant to the proposal are addressed by Assessment Category within which a range of environmental attributes are identified. Specific Assessment Requirements are determined for each environmental attribute relevant to the proposal with the level of detail tailored for that development (refer Table 3).

Table 3: Assessment categories and environmental attributes

Assessment category	Environmental attribute and typical issues
1. Amenity and Environmental Quality	<u>Air quality</u> <ul style="list-style-type: none"> • Ground level concentrations (include construction / traffic), odour, stack emissions, receptors (location and sensitivity)
	<u>Noise / Vibration</u> <ul style="list-style-type: none"> • Noise / vibration type (include traffic noise), underwater noise, noise level, sensitive receptors and location. Sensitive receptors may include MNES and terrestrial and marine fauna.
	<u>Transport and Traffic</u> <ul style="list-style-type: none"> • Traffic disruptions- commuter and local, public transport, pedestrians / cyclists, changes to traffic flow and volumes - temporary / ongoing, road / maritime safety, car parking, presence of heavy vehicles, impacts to road pavement, marine traffic / shipping
	<u>Visual amenity</u> <ul style="list-style-type: none"> • Interface with adjoining land, landscape changes, built form, light spill
2. Biological Environment	<u>Biosecurity</u> <ul style="list-style-type: none"> • Weeds, pest species (including marine pests), diseases and pathogens (including marine)
	<u>Matters of National Environmental Significance</u> <ul style="list-style-type: none"> • Nationally threatened species and communities, migratory species, wetlands of national importance (Ramsar), Commonwealth marine areas
	<u>Marine Flora and Fauna</u> <ul style="list-style-type: none"> • Marine protected areas, threatened species, communities/ ecosystems, seagrass clearance, biodiversity loss
	<u>Terrestrial and Aquatic Flora and Fauna</u> <ul style="list-style-type: none"> • Protected areas, threatened species and communities, native vegetation clearance, habitat loss through clearing fire or fragmentation, biodiversity loss
3. Climate Change and Resource Use Efficiency	<u>Climate Change Adaptation</u> <ul style="list-style-type: none"> • Climate change risk assessment
	<u>Greenhouse gas emissions</u> <ul style="list-style-type: none"> • Greenhouse gas emissions including emissions reduction targets, NGER reporting, cumulative impacts on state and national GHG inventories and targets.
	<u>Sustainable use of resources</u> <ul style="list-style-type: none"> • Sustainable procurement, products / materials, energy efficiency
	<u>Waste Management</u> <ul style="list-style-type: none"> • Waste hierarchy; waste recycling / disposal
4. Economic Environment	<u>Local, regional and state economies</u> <ul style="list-style-type: none"> • Economic impact assessment which addresses workforce / employment, existing economic land and marine uses (primary production, tourism, ports, fisheries), infrastructure - utilities (energy, water), telecommunications, ports, rail), displacement, competition, opportunities, temporary and ongoing for existing businesses / industries, property and land values
5. Hazards and Risks	<ul style="list-style-type: none"> • Hazard risk management, bushfire, flooding, site / groundwater contamination and dangerous goods
6. Land	<u>Land Tenure, Protected Areas and Land Use</u>

Assessment category	Environmental attribute and typical issues
	<ul style="list-style-type: none"> Land tenure (freehold, pastoral lease, mining, oil and gas, native title, crown land), generalised land use, population centres, major infrastructure and utilities (including marine infrastructure), Planning Code Overlays and Zones, reserved areas (including marine parks), changes / displacement of land uses
7. Physical Environment	<u>Coastal and Marine</u> <ul style="list-style-type: none"> Coastal land systems (dunes, estuaries, beaches, island), and marine water quality
	<u>Soils, Landform and Geology</u> <ul style="list-style-type: none"> Erosion and sedimentation, soil compaction and inversion, contamination (spills), land subsidence and acid sulfate soils.
	<u>Surface Water and Groundwater</u> <ul style="list-style-type: none"> Surface water quality (sedimentation, wastewater, spills, use of surface water) and groundwater use and quality.
8. Social and Community	<u>Aboriginal cultural heritage</u> <ul style="list-style-type: none"> Known and unknown Aboriginal sites, objects and remains
	<u>Community wellbeing</u> <ul style="list-style-type: none"> Social impact assessment which addresses impacts to specific groups (Aboriginal people, disability, aged), impacts to services, impacts / displacement of residential areas, public safety (including perceptions), recreation and public space amenity
	<u>Non-Aboriginal cultural heritage</u> <ul style="list-style-type: none"> Listed national, state and local heritage sites

4 Content Requirements for the EIS

Section 113 of the PDI Acts sets out the legislative requirements for the content of an EIS.

The detail in which the EIS deals with matters relevant to the development or project which require assessment must be proportionate to the scale of the impacts on environmental attributes, and is guided by whether standard or detailed Assessment Requirements have been identified.

4.1 Statutory Requirements

The EIS must include the following (subject to any Practice Direction):

1. A statement of the expected, predicted or potential environmental, social and economic effects of the development, whether positive, neutral or negative. The assessment of effects should include all issues identified in the Assessment Requirements and be cross referenced to supporting technical studies.
2. A statement of the expected of the development on the climate and any proposed measures designed to mitigate or address those effects
3. A statement of the extent to which the expected, predicted or potential effects of the development are consistent or at variance with the provisions of—
 - a. Any relevant State Planning Policy
 - b. Any relevant Regional Plan(s), including the 30-Year Plan for Greater Adelaide (if applicable)

- c. The Planning and Design Code
 - d. Any matters prescribed by the Regulations.
4. If the development involves, or is for the purposes of, a prescribed activity of environmental significance as defined by the *Environment Protection Act 1993*, a statement of the extent to which the expected, predicted or potential effects of the development are consistent or at variance with—
 - a. The objects of the *Environment Protection Act 1993*
 - b. The general environmental duty under that Act
 - c. Relevant environment protection policies under that Act.
 5. If the development will, or is likely to, significantly impact one or more MNES under the EPBC Act, a statement of:
 - a. The expected, predicted or potential effects of the development on each identified MNES
 - b. The extent to which the expected, predicted or potential effects of the development are consistent or at variance with the provisions of any relevant Commonwealth of Australia conventions, agreements or obligations under international agreements or treaties as they relate to MNES aspects
 - c. The extent to which the expected, predicted or potential effects of the development are consistent or at variance with any relevant Commonwealth plans (such as threat abatement plan and recovery plans), conservation or management principles.
 6. If the development is to be undertaken within an area of the State that is specifically subject to a special legislative scheme—a statement of the extent to which the expected, predicted or potential effects of the development are consistent or at variance with the State Planning Policy that specifically relates to that special legislative scheme.
 7. A statement of the proponent’s commitments to avoid, mitigate and satisfactorily manage and/or control any potential or likely adverse impacts of the development on the environment (including any proposed offsets to reduce residual significant impacts) or any matter that may be directly relevant to a special legislative scheme.
 8. Any other particulars in relation to the development required by the Regulations, relevant Practice Direction or by the Minister.

The proponent’s commitment to meet conditions proposed to avoid, mitigate and satisfactorily manage and/or control any potential or likely adverse impacts of the development on the physical, social or economic environment, must be clearly articulated in the EIS.

The design and construction of the proposed development should be flexible enough to incorporate changes to minimise any impacts highlighted by this evaluation.

4.2 Summary of the EIS

The EIS should include a summary of the matters set out in the Practice Direction prepared pursuant to Section 109 of the PDI Act and include mention of all environmental attributes set out in the Assessment Requirements. The reader should be able to obtain a quick but thorough understanding of the proposal and associated environmental impacts. The summary should convey the most important aspects and environmental management commitments relating to the proposed project in accessible, easily understood language.

The summary should aim to construct a narrative around what is being proposed in the EIS, alternatives that were considered, what the broad environmental implications are of the proposal and how they will be managed to provide a net benefit. The summary should be logical and easy to read and need not reflect the precise order of chapters within the EIS itself. Images and graphics are suggested as a means of assisting to succinctly communicate the contents of the summary.

Content should be summarised accurately and objectively. It should report all of the EIS's key conclusions and be consistent with the rest of the EIS. Specific issues and impacts should be addressed at an appropriate level of detail proportionate to their potential for significant impact and depth of study undertaken.

4.3 Introduction to the EIS

The introduction to the EIS should set the context for detailed assessment of the project in subsequent sections of the EIS, and include:

- Background to, and objectives of, the proposed project
- Proponent details, including;
 - Contact information for the proponent or representatives of a proponent organisation for the project, including full name, street and postal address, Australian Business Number, telephone, fax, email and other details as appropriate
 - Identify the legal entities that would develop, manage and operate the project
 - Provide a description of corporate structure including joint ventures, corporate policies and objectives relating to the project, in particular environmental policies
 - Specify mechanisms used to ensure that corporate policies will be implemented and adhered to for the project in addition to requirements for Environmental Management Plans
 - Identify key personnel, contractors, and/or subcontractors responsible for preparing the EIS
- Staging and timing of the proposal, including expected dates for construction and operation
- Relevant legislative requirements and approval processes
- Purpose and description of the EIS process

4.4 Need for the Proposal

The EIS should provide a statement of the objectives and justification for the proposal including:

- the specific objectives that the proposal is intended to meet, including market requirements
- expected local, regional and State benefits and costs, including those that cannot be adequately described in monetary or physical terms (e.g. effects on aesthetic amenity)
- a summary of environmental economic and social arguments to support the proposal including the consequences of not proceeding with the proposal.

4.5 Description of the Proposal

The EIS should provide a comprehensive and consolidated description of the proposal for which the proponent is seeking approval, using suitable maps, plans, figures and tables.

The proposal description sets out what the proponent is presenting for assessment and provides the basis for the Commission's evaluation against the Assessment Requirements. As the proposal may have undergone changes since the initial scoping stage (e.g. in response to stakeholder engagement, risk analysis or planning, technical or compliance grounds), it is important that the EIS provides an up to date and comprehensive description of the proposal.

The description of the proposal should address all aspects of the proposed project that are assessed by the EIS, and address the following information:

- Nature of the proposal and location
- Scale and intensity of the project
- Key elements of the receiving environment
- A project plan to outline objectives, constraints, key activity schedule and quality assurance
- Site layout plans (including indicative land division plan if relevant)
- Construction and commissioning timeframes (including staging)
- Description of working hours
- Description of the existing environment (including the immediate and broader location, identifying sensitive receptors and adjacent land uses which may lead to cumulative impacts)
- Description of the current commercial activities occurring in the area
- Details of all buildings and structures associated with the proposal
- Details of any other infrastructure requirements and availability
- Details on the operation of the proposal, including operating hours
- Relevant Zones and Overlays defined by the Planning and Design Code
- Management arrangements for the construction and operational phases (including Environmental Management and Monitoring Plans)
- A contingency plan for delays in construction

4.6 Project Alternatives

Feasible alternatives considered for the proposed project should be presented in the EIS described and evaluated the comparative environmental, social, and economic impacts (including the option of not proceeding).

Each alternative and its potential impacts should be discussed in sufficient detail to enable an understanding of the reasons for preferring certain options and courses of action while rejecting others. This may be used to inform a justification of why the proposed project and preferred options should proceed.

4.7 Summary of Preceding Actions

The EIS should provide a summary of actions and activities that have been undertaken prior to or as part of the preparation of the EIS. These could include prior engagement with the

Commission, government agencies, local councils and other stakeholders, engagement with the local community, the process of project development, pre-feasibility studies and any technical reports which may have bearing on the level of detail required by a relevant Assessment Requirement.

4.8 Matters of National Environmental Significance

[The Bilateral Agreement for impact assessment is no longer in force and projects are being considered on a case-by-case basis. This section should be updated once formal bilateral arrangements between the State and the Commonwealth for assessment of MNES have been put in place]

The EPBC Act ensures that 'nationally significant' animals, plants, habitats and places are identified and any potential significant impacts on them are carefully considered before change in land use or new developments are approved.

There are nine MNES under the EPBC Act:

- Listed threatened species and communities
- Listed migratory species
- Ramsar wetlands of international importance
- Commonwealth marine environment
- World heritage properties
- National heritage places
- The Great Barrier Marine Park
- Nuclear actions
- A water resource, in relation to coal seam gas development and large coal mining development.

An assessment of Matters of National Environmental Significance must be provided that explicitly assesses the potential significant impacts for each MNES. The assessment must provide sufficient information about the existing environment, the action and its relevant impacts, including any avoidance measures, feasible alternatives to the proposed action, mitigation measures, safeguards and offsets.

4.9 Sources of Information

All sources of information (e.g. reference documents, literature services, research projects, authorities consulted) should be fully referenced, and reference should be made to any uncertainties in knowledge. Where judgements are made, or opinions given, these need to be clearly identified as such, and the basis on which these judgements or opinions are made need to be justified. The expertise of those making the judgements including the qualifications of consultants and authorities should also be provided.

Any technical and additional information relevant to the EIS that is not included in the text should be included in appendices.

4.10 Consultation process

The EIS process must include an appropriate public consultation program. The consultation plan must be consistent with, and complement, the notification requirements of the EIS process. The extent to which a proponent consults with relevant persons and organisations is to be proportional to the public interest and significance of the proposed project's potential

environmental, social and economic impacts. Early and sustained consultation with all relevant stakeholders is recommended.

[Describe the proponent's engagement and collaboration strategy with affected stakeholders, the general public and State Government Agencies., having regard to both what has already been proposed and what is required which may not be specifically covered in the Assessment Requirements.]

4.11 Required Plans and Forms

- Current Certificate(s) of Title
- Context and locality plans should illustrate and analyse the existing environment and site conditions and the relationship of the proposal to surrounding land and buildings. Plans should be drawn to a large scale to allow presentation on a single sheet and be readily legible, according to standard mapping conventions. Plans should include:
 - Any neighbouring buildings, infrastructure or facilities, including identification of all nearby sensitive receptors and the likely use of existing or proposed neighbouring buildings (e.g. dwelling, farm outbuildings, shop, office)
 - Locations of any watercourses, surface water bodies (including dams), underground water sources, and any other sensitive environmental receptors/areas in the locality
 - Locations of any State heritage places in relation to the site
 - Existing native vegetation, regulated or significant trees
 - Known sites for State or Nationally listed protected or threatened species (including migratory species) or ecological communities on the site, adjoining land and marine environments
 - Existing roads (public and private)
 - Potential areas of habitat for native fauna, including relevant vegetation communities
 - Any other information that would help to set the context for the locality
- Site plans (drawn at a scale of 1:100 or 1:200) clearly indicating all proposed buildings, structures and works
- Elevations (drawn at a scale of 1:100 or 1:200) showing all sides of buildings, structures and works with levels and height dimensions provided in Australian Height Datum.
- Cross sections of the buildings, structures and works, including stockpile and storage facilities showing ground levels, floor levels, ceiling heights and maximum heights in Australian Height Datum
- Floor plans (drawn at a scale of 1:100 or 1:200) for each building or structure demonstrating what is proposed at each floor, with indicative internal layouts.
- Site survey plan demonstrating the development will be contained within relevant allotment boundaries
- A schedule of construction materials, finishes and colours
- Location and dimensions of any external advertising displays, including information as to whether signs are to be illuminated or contain a moving display.

5 Project Specific Assessment Requirements

[Example only]

Assessment Category: Amenity and Environmental Quality

1. Environmental Attribute: Air Quality

[Address context for the environmental attribute, level of assessment determined (standard and / or detailed), detail of assessment requirements, including depth of study and specialist reports required. Include relevant suggested guidance documents. See Assessment Requirement Library]

Assessment Requirements:

Standard Assessment

1.1: x

1.2: x

1.3: x

Detailed Assessment (including detail of required specialist reports/ studies)

1.1: x

1.2: x

1.3: x

Suggested guidance documents

- X
- X
- x

APPENDIX 3 - ASSESSMENT REQUIREMENTS LIBRARY



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1 Introduction

This Assessment Requirements Library has been developed to assist in the development of Environmental Impact Statement (EIS) assessment requirements for impact assessed development, and in particular to guide the determination and application of 'standard' and 'detailed' assessment requirements.

Section 2 lists the categories of assessment matters and the environmental attributes for which the library of assessment requirements has been provided.

Section 3 lists the key factors to be considered in identifying the matters requiring further assessment in the EIS and whether the assessment requirements should be 'standard' or 'detailed'. The characteristics of 'standard' or 'detailed' levels of assessment are also provided for guidance.

Section 4 sets out the generic structure and content of the assessment requirement examples.

Section 5 provides examples of standard and detailed assessment requirements for the environmental attributes listed in Table 1.

Note that references to legislation and other supporting documents were correct at the time of writing but subject to change as legislation / guidance documents may become outdated or amended.

2 Categories of Assessment Matters

The matters which should be considered in an EIS have been structured into nine assessment categories which incorporate relevant environmental attributes. Example assessment requirements have been prepared for each of the environmental attributes. The example assessment requirements would be applied depending on the nature and location of a proposed development.

The assessment categories and environmental attributes are shown in Table 1. Typical examples of issues for each environmental attribute are also provided.

Table 1: Assessment categories and environmental attributes

Assessment category	Environmental attribute	Typical issues to address
1. Amenity and Environmental Quality	Air Quality	<ul style="list-style-type: none"> • Ground level concentrations (include construction / traffic) • Stack emissions • Odour • Receptors (location and sensitivity)
	Noise / Vibration	<ul style="list-style-type: none"> • Noise type (include traffic noise, underwater noise) • Noise level • Sensitive receptors (includes MNES and terrestrial and marine fauna)
	Transport and Traffic	<ul style="list-style-type: none"> • Changes to traffic flow and volumes - temporary / ongoing • Traffic disruptions- commuter and local, public transport, pedestrians / cyclists • Road / maritime safety • Car parking • Presence of heavy vehicles • Road pavement impacts

Assessment Requirement Library

Assessment category	Environmental attribute	Typical issues to address
		<ul style="list-style-type: none"> • Marine traffic / shipping
	Visual Amenity, Landscape and Open Space	<ul style="list-style-type: none"> • Interface with adjoining land • Landscape changes • Built form / open space • Light spill
2. Biological Environment	Biosecurity	<ul style="list-style-type: none"> • Weeds • Pest species (including marine pests) • Diseases and pathogens (including marine)
	EPBC Act - Matters of National Environmental Significance	<ul style="list-style-type: none"> • Nationally threatened species and communities • Migratory species • Wetlands of national importance (Ramsar) • Commonwealth marine areas
	Marine Flora and Fauna	<ul style="list-style-type: none"> • Marine protected areas • threatened species • Communities/ ecosystems • Seagrass clearance or loss • Biodiversity loss
	Terrestrial and Aquatic Flora and Fauna	<ul style="list-style-type: none"> • Protected areas • Threatened species / communities • Native vegetation clearance • Habitat loss - clearing, fire, fragmentation • Biodiversity loss • Impacts from lighting
3. Climate Change and Resource Use Efficiency	Climate Change Adaptation	<ul style="list-style-type: none"> • Climate change adaptation guideline – risk assessment
	Greenhouse Gas Emissions	<ul style="list-style-type: none"> • Emissions reduction targets, emissions estimates, NGER reporting • Cumulative impacts of proposed project on overall state and national greenhouse gas (GHG) inventories and targets.
	Sustainable Use of Resources	<ul style="list-style-type: none"> • Products / materials – sustainable procurement • Energy efficiency
	Waste Management	<ul style="list-style-type: none"> • Waste hierarchy
4. Economic Environment	Local, regional and state economies	<ul style="list-style-type: none"> • Economic impact assessment <ul style="list-style-type: none"> ○ workforce / employment ○ existing economic land and marine uses (primary production, tourism, ports, fisheries) ○ infrastructure - utilities (energy, water), telecommunications, ports, rail ○ displacement, competition, opportunities, temporary and ongoing for existing businesses / industries ○ property and land values
5. Hazards and Risks	Hazards and Risk Management	<ul style="list-style-type: none"> • Hazard risk assessment
	Bushfire / Flooding	<ul style="list-style-type: none"> • Planning Code Overlays • Management planning

Assessment category	Environmental attribute	Typical issues to address
	Dangerous goods	<ul style="list-style-type: none"> • Transport, storage, management
	Land / water contamination	<ul style="list-style-type: none"> • Site and groundwater contamination
6. Land	Land Tenure, Land Use and Protected Areas	<ul style="list-style-type: none"> • Generalised land use • Population centres • Major infrastructure and utilities (including marine infrastructure) • Planning Code Overlays and Zones • Land tenure (freehold, pastoral lease, mining, oil and gas, native title, crown land) • Reserved and protected areas (including marine parks) • Changes / displacement of existing land uses
7. Physical Environment	Coastal and Marine	<ul style="list-style-type: none"> • Coastal land systems - dunes, estuaries, beaches • Islands • Marine water quality
	Soils, Landform and Geology	<ul style="list-style-type: none"> • Erosion and sedimentation • Soil compaction and inversion • Land subsidence • Contamination (spills) • Acid sulfate soils
	Surface Water and Groundwater	<ul style="list-style-type: none"> • Surface water quality– sedimentation, wastewater, spills • Use of surface water • Use of groundwater • Groundwater quality– contamination
8. Social and Community	Aboriginal cultural heritage	<ul style="list-style-type: none"> • Known and unknown Aboriginal sites, objects and remains
	Community wellbeing	<ul style="list-style-type: none"> • Social impact assessment addressing: <ul style="list-style-type: none"> ○ impacts to specific groups (Aboriginal people, disability, aged etc) ○ impacts to services ○ impacts to residential areas ○ public safety (including perceptions) ○ recreation and public space amenity
	Historic heritage	<ul style="list-style-type: none"> • Listed national, state and local heritage sites

3 Determination of Level of Assessment

The impact assessed development may result in significant impacts on an environmental attribute, including cumulative impacts. The detail in which the EIS deals with matters relevant to the development which require further assessment must be proportionate to the scale of the impacts on environmental attributes. The determination of standard or detailed Assessment Requirements provides guidance to proponents on the level of assessment expected for an environmental attribute or potential impact.

3.1 Key Factors to Consider

The following key factors should be considered in identifying whether the level of assessment required for an environmental attribute in the context of specific project is ‘standard’ or ‘detailed’:

- scale of the impact taking into account intensity, geographical extent and duration
- nature of the impact which should consider direct, indirect, cumulative and perceived impacts
- sensitivity of the receiving environment
- the ability to avoid, minimise and/or offset the impacts of the project, to the extent known at the scoping application stage
- the complexity of technical assessments and investigations required to identify and assess mitigation measures.

Cumulative impacts

Cumulative impacts of the proposed project on environmental attributes are characterised by impacts which are:

- impacts to environmental values over time or in combination with other impacts in the dimensions of scale, intensity, duration or frequency of the impacts
- created by the activities on other adjacent, upstream and downstream developments and infrastructure, and landholders.

Description and examples of the key factors is provided in Table 2.

Table 2: Description and examples of key factors to consider during scoping

Key factor	Components of factor	Description of example
Scale of the Impact	Severity	The scale or degree of the impact relative to the current situation or adopted standards or performance measures. The intensity may be measured quantitatively and compared to reference values (e.g. area of vegetation cleared, air and water quality, noise levels, change or disruption to ecological community function) or qualitatively.
	Geographical extent	The geographical reach of the impacts of the development or the range within which the impacts are observable
	Duration	The timeframe over which the impact occurs (e.g. for a short period, during construction only; during operations permanently). It may also refer to the period/s in which the impacts are observable and the regularity of the impacts (e.g. irregular, intermittent, regularly during operations.)
Nature of the Impact	Direct impacts	Impacts caused directly by the development. They usually occur at the same time as the development and within the vicinity of the site (e.g. vegetation clearing, air emissions).
	Indirect impacts	Impacts that occur as a consequence of the development or its direct impacts. Impacts may be delayed and happen further away from the site (e.g. project changes water table,

Key factor	Components of factor	Description of example
		changes affect wetland and causes an impact on groundwater dependent ecosystems). Impacts may also occur due to growth or land use changes facilitated by the project (e.g. a new transmission line may open up new areas for renewable energy generation).
	Cumulative impacts	The combined impacts of the project on a matter combined with other relevant existing and future projects (e.g. marine impacts from multiple port developments).
	Perceived impacts	There are range of perceptions of the same impacts by people or groups
Sensitivity of the Receiving Environment	Existing regulations and guidance	The degree of sensitivity expressed in legislation or relative to adopted standards and performance measures (e.g. Guidelines for the use of the <i>Environment Protection (Noise) Policy 2007</i>)
	Value to society	<u>Environmental value</u> : e.g. water quality, natural habitat). <u>Social value</u> : e.g. community value, landscape, recreation, lifestyle disturbance, water quality, cultural heritage, amenity. <u>Economic value</u> : e.g. water supply, critical transport routes
	Vulnerability / resilience to change	The degree of vulnerability of the environment to the impacts of the project or resilience to cope with change. Regard should be had to the likely scale and nature of the impacts of the development and the sensitivity and adaptive capacity of the environment.

3.2 Assessment Level Characteristics

The level of assessment required for an environmental attribute in the context of a specific project will be determined as ‘standard’ or ‘detailed’ based on the. scale of the project, nature of the impacts, sensitivity of the receiving environment, ability to avoid, minimise and/or offset the impacts and complexity of technical assessment required. When project impacts are well understood and not likely to be significant if managed through conventional management and mitigation measures, it is expected that standard assessment would be appropriate and detailed investigations would not be warranted.

‘Detailed’ requirements would supplement standard requirements and be applied where significant or cumulative impacts are likely or there is sufficient complexity, uncertainty or need for further investigation. In some cases, it may be quite simple to determine that an aspect of a development is likely to have a significant impact and therefore require detailed assessment (e.g. dredging for a new port development, visual impacts from a transmission line in a rural area, extensive removal of native vegetation). Other activities will require full consideration of the key factors identified in Table 2 to determine whether detailed assessment is required.

Characteristics of ‘standard’ and ‘detailed’ levels of assessment are provided in Table 3. A detailed level of assessment is required if the impact of the development has one or more of the characteristics set out in Table 3.

Detailed Assessment Requirements should generally be read as supplementing the Standard Assessment Requirements.

Table 3: Characteristics of detailed and standard assessment

Level of Assessment	Characteristic of the impact of the development
<p>Standard</p>	<ul style="list-style-type: none"> • The project is unlikely to result in significant impacts on the environmental attribute if managed through conventional management and mitigation measures, including cumulative impacts. • While the assessment of the impacts of the development on the environmental attribute will involve technical specialists, these impacts are likely to be: <ul style="list-style-type: none"> ○ well understood by regulators and stakeholders ○ relatively easy to predict using standard methods ○ capable of being mitigated to comply with relevant standards or performance measures. • The assessments will be supported by quantitative assessment methods, although the focus and coverage may be on specific project components or project locations • The assessment is unlikely to involve any significant uncertainties, or require any detailed cumulative impact assessment.
<p>Detailed</p>	<ul style="list-style-type: none"> • The development has a high / medium probability of causing significant environmental impact on the environmental attribute, including cumulative impacts. • There is a high / medium probability of impacts on the development from external environmental factors such as those associated with climate change (sea-level rise, increased frequency of bushfire, floods etc) • It is considered important by the Commission, and/or there is a public perception that an activity has the potential to cause significant impacts on the environmental attribute (even though this may be mistaken), or the activity has been the subject of extensive media coverage. • Potential impacts to a Matter of National Environmental Significance (MNES) are likely to require referral and approval under the <i>Environment Protection Biodiversity and Conservation Act 1999</i>. The development raises requirements under other legislation applicable for the development (e.g. prescribed activities of environmental significance under the <i>Environment Protection Act 1993</i>). • Assessment of the impacts of the development on the environmental attribute will require detailed studies and investigations to be carried out by technical specialists. During this assessment, these specialists may need to: <ul style="list-style-type: none"> ○ work closely with specialists assessing the impacts of the project on other environmental attributes to determine the likely indirect impacts of the project ○ undertake a detailed cumulative impact assessment for the project. • Assessment is likely to involve several uncertainties in relation to one or more of the following and specific strategies may be required to address these uncertainties (e.g. further monitoring, review, technical investigations and adaptive management). <ul style="list-style-type: none"> ○ data collection (e.g. baseline information, availability of data for cumulative impacts assessment) ○ identifying the specific mitigation measures or suitable offsets for the project ○ the methods available for predicting the impacts of the project, including the indirect and cumulative impacts

Level of Assessment	Characteristic of the impact of the development
	<ul style="list-style-type: none"> ○ criteria for evaluating the acceptability of the impacts of the project. ○ specific strategies may be required to address these uncertainties (e.g. further monitoring, review, technical investigations and adaptive management).

4 Structure of the Assessment Requirements Examples

The Assessment Requirements (ARs) library comprises example ARs and templates for other ARs based on a list of environmental attributes that would ordinarily be addressed in an EIS.

Table 4: Structure of example Assessment Requirements

AR element	Content
Objective	An environmental objective for each environmental attribute should be identified which identifies the desired outcome. The EIS should demonstrate how the project will meet this objective.
Context	This section sets out the context for the environmental attribute. This may include the legislative framework, the scope of the potential issues, importance of the issue to the South Australian community, or any relevant broader context (national / international).
Considerations	This section sets out the baseline or minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Such considerations may include evidence that publicly available databases have been searched, identification of important matters under State and Commonwealth legislation, basic overview of existing / known environmental, social and economic conditions has been provided, and a preliminary desktop assessment of potential issues has been undertaken.
Assessment Requirements	<p>Example standard and detailed assessment requirements which may apply following consideration of the key scoping factors (see Table 2) and align with the characteristics in Table 3.</p> <p>For some environmental attributes, only examples of detailed assessment requirements have been provided as the nature and scale of projects typically assessed by EIS would generally require detailed assessment (e.g. social and economic impact assessments).</p>
Suggested guidance documents	This is a suggested (and not exhaustive) list of existing legislation, policies, guidelines, standards etc. that should be considered by the proponent in the assessment.

5 Assessment Requirement Library Example Documents

5.1 Amenity and Environmental Quality - Air Quality (example)

[Italicised text indicates guidance for assessors]

Objective

To ensure the development does not have unacceptable adverse air quality impacts on the surrounding receiving environment, in particular sensitive receivers in proximity to polluting development.

Context

Emissions from a development which impact on air quality have the potential to adversely affect human health and amenity, terrestrial and marine fauna and other sensitive receivers. The extent of impacts is also affected by the ability of the surrounding environment and local and regional meteorology to influence the dispersal of contaminants and assimilate additional contaminants.

Impacts to air quality from or to a proposed development can be caused by emissions (e.g. particulates, dust or odour) from a variety of sources. These sources include point sources such as chimney stacks, process flares, crushers, storage bins, stockpiles and biological treatment lagoons), diffuse sources such as dust from unsealed areas of the site, and fugitive emissions such as leaks from containment vessels).

The *Environment Protection (Air Quality) Policy 2016* (Air Quality EPP) sets out the air quality standards adopted by SA EPA, and should be read in conjunction with the the EPA's Ambient Air Quality Assessment 2016 guideline. Guidance on meeting requirements in the Air Quality EPP is provided in *the Evaluation distances of effective air quality and noise management* which provides recommended evaluation distances between polluting activities and sensitive receivers within which potential adverse impacts need to be assessed.

[The Assessment Requirements for Greenhouse Gas Emissions address emissions reduction and National Greenhouse and Energy Reporting for the development]

Considerations for air quality

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the potential impacts to air quality from or to a development should consider:

- Description of the activities likely to generate emissions with potential to impact air quality (including odour) and identification of the likely nature and level of those emissions (diffuse, point source or fugitive).
- Whether the development involves a prescribed activity of environmental significance under the *Environment Protection Act 1993*
- Description of the existing character, land uses and environmental values of the receiving air environment and any nearby sensitive places and receivers
- Whether the development is defined as a sensitive use in the guidance document for evaluation distances and likely to be impacted by nearby uses. If so, whether there is likely to be an interface issue (based on application of evaluation distances)?
- The likelihood of air quality impacts on the health and biodiversity of ecosystems
- Overview of potential impacts to air quality during construction and operation.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for air quality impact assessment should be prepared to assist proponents]

1. Describe the existing air environment at the proposed development site and the surrounding area and airshed, including local and regional meteorology, existing sources of contaminants and background / ambient levels of air contaminants.
2. Provide an emissions inventory and description of the characteristics of contaminants or materials that would be released from point and diffuse sources and fugitive emissions when carrying out the development activity. This should address construction, commissioning, operation, upset conditions, and closure of the proposed development.
3. Provide an assessment of predicted impacts of emissions on environmental values of the receiving environment in accordance with the Air Quality EPP. Assessment should take into account the sensitivity and assimilative capacity of the receiving environment and the practices and procedures that would be used to avoid or minimise impacts.
4. Provide an assessment of the compatibility of the development's air emissions with existing or potential land uses in surrounding areas and the cumulative impact of emissions with other known releases of contaminants, materials or wastes associated with existing development and possible future development (i.e. as described by approved plans and existing project approvals).
5. Describe the proposed mitigation measures to protect the environmental values for air quality, how the relevant standards and indicators may be achieved. If required, revisit project design and construction methodologies to reduce air quality impacts to demonstrate that the Air Quality EPP will be met.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to air quality may be required]:

- The preliminary assessment indicates that there is high or medium probability that significant air emissions from the development will be dispersed beyond the development's site boundaries.
- There is a public perception that the development has the potential to cause significant air quality impacts, and /or these potential impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.
- The preliminary assessment indicates that there is high or medium probability that air quality impacts from the proposed development will exceed the Air Quality EPP criteria (including criteria for odour or ground level concentrations).
- The preliminary assessment indicates that there is high or medium probability that the development will be impacted by significant air emissions from surrounding uses.
- A proposed activity is likely to be classed as a prescribed activity of environmental significance under the Environment Protection Act.
- The potential impacts to a MNES (e.g. nationally threatened species) are likely to require referral and approval under the *Environment Protection Biodiversity and Conservation Act 1999*.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. Provide an air quality impact assessment prepared by an appropriately qualified specialist for all potential sources of dust / particles and gaseous pollutants associated with the construction and ongoing operation of the proposed development.
3. The impact assessment must include modelling undertaken in accordance with the *Environment Protection (Air Quality) Policy 2016* and the EPA's *Ambient Air Quality Assessment 2016* guidance document. Techniques used to obtain the predictions should be referenced and key assumptions and data sets explained.
4. Impact assessment must outline the impacts of dust / particles and gaseous pollutants on existing commercial operations and any other identified nearby sensitive receivers in the vicinity of the proposed development, including cumulative impacts.
5. Provide a health and amenity impact assessment to identify any known or potential human health and amenity effects of air emissions (including point source and diffuse sources) on the residential population and local businesses and describe how these would be mitigated, minimised, managed and monitored.
6. If potential impacts of air emissions on MNES require approval under the EPBC Act, an assessment of air quality impacts on the affected MNES must be prepared by an appropriately qualified specialist. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*

Suggested guidance documents

[Provide links to these documents where possible]

[Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- [State Planning Policy 16: Emissions and Hazardous Activities](#)
- *Environment Protection Act 1993*
- *Environment Protection (Air Quality) Policy 2016*
- Evaluation distances of effective air quality and noise management (SA EPA)
- Ambient Air Quality Assessment 2016 (SA EPA)
- Emission Testing Methodology for Air Pollution 2012 (SA EPA)

5.2 Amenity and Environmental Quality - Noise / Vibration (Example)

[Italicised text indicates guidance for assessors]

Objective

To ensure the development does not have unacceptable adverse noise or vibration impacts on the surrounding environment, in particular sensitive receivers in proximity to noise sources.

Context

Noise or vibration from a development has the potential to adversely affect human health and amenity, terrestrial and marine fauna and other sensitive receivers such as vibration-sensitive equipment.

The main legislation relevant to noise is the *Environment Protection Act 1993* (EP Act), which creates a general environmental duty (GED) to take all reasonable and practical steps to prevent or minimise any resulting environmental harm.

The *Environment Protection (Noise) Policy 2007* (Noise EPP) establishes criteria for the assessment and management of various noise sources, including industrial, mechanical noise, construction noise. As not all noise sources are managed by the Noise EPP, where the Noise EPP does not address the noise source the GED under the EP Act is used.

The Noise EPP provides a legal framework for the assessment of a wide range of complex noise issues, balancing legitimate activities which cause noise, with the rights of people who are exposed to and potentially affected by the noise. The Noise EPP should be read in conjunction with the *Guidelines for the use of the Environment Protection (Noise) Policy 2007*. Noise is often commonly defined as unwanted sound and can include underwater noise and groundborne noise/vibration.

Guidance on meeting requirements in the Noise EPP is provided in the *Evaluation distances of effective air quality and noise management*. This document provides recommended evaluation distances between polluting activities and sensitive receivers within which adverse impacts need to be assessed.

Noise that impacts matters of national environmental significance (MNES) such as nationally listed fauna species may have implications under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

[The Assessment Requirements for Land address land use, land tenure and protected areas.]

Considerations for noise and vibration

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the potential impacts of noise and vibration from a development should consider:

- Description of the activities likely to generate noise / vibration and identification of the likely nature and level of noise (including development related traffic).
- Description of the existing character, land use, land use category and environmental values of the receiving environment and any nearby sensitive places and receivers (including MNES).
- Whether the development is defined as a sensitive use in the guidance document for evaluation distances and likely to be impacted by nearby uses
- Whether the noise / vibration impacts are of a type that would be covered by the Noise EPP
- Identification of activities which are excluded from the Noise EPP and may be regulated under the GED of the EP Act.
- The likelihood of noise / vibration impacts on the health and biodiversity of ecosystems.
- Overview of potential noise / vibration impacts during construction and operation.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for noise modelling should be prepared to assist proponents]

1. Describe and illustrate the locations of any noise and vibration sensitive receivers both proposed or existing (including marine and terrestrial fauna). Also describe any other environmental values that could be impacted by noise emitted from or to the development.
2. Describe current background noise and vibration levels at sensitive receivers.
3. Describe sources and characteristics of noise and vibration that would be emitted during the construction, commissioning, operation, upset conditions, and closure of the development.
4. If MNES have been identified, undertake an assessment of potential noise impacts to MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*
5. Provide an assessment of the compatibility of the development's noise emissions with existing or potential land uses in surrounding areas and the cumulative impact of emissions with other known noise / vibration emissions associated with existing development and possible future development (i.e. as described by approved plans and existing project approvals).
6. Describe noise emission and vibration impacts on native fauna, including nocturnal species, and how these impacts will be managed.
7. Describe and design strategies to mitigate noise and vibration impacts and how environmental management objectives for noise and vibrations would be achieved. If required, revisit project design and construction methodologies to reduce noise/vibration impacts to demonstrate that the Noise EPP and/or environmental duty will be met.

Underwater noise

8. Describe how underwater noise from the development (including piling, dredging, drilling, shipping movements and onshore blasting etc) could impact marine fauna.
9. Undertake assessment of underwater noise and demonstrate how the development will meet the General Environmental Duty under the *Environment Protection Act 1993*.
10. Describe and design environmental management strategies to mitigate noise and vibration impacts of underwater noise on marine fauna.

Categorisation of Matters Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to noise and vibration may be required]:

- The preliminary assessment indicates that there is high or medium probability that noise / vibration impacts from the proposed development on sensitive receivers, or on the proposed development from existing noise sources, will exceed the Noise EPP or not meet the General Environmental Duty under the *Environment Protection Act 1993*.
- There is a public perception that the development has the potential to cause significant noise or vibration impacts, and /or these potential impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.
- A proposed activity is likely to be classed as a prescribed activity of environmental significance under the *Environment Protection Act 1993*.
- The potential impacts to a MNES (e.g. nationally threatened species) are likely to require referral and approval under the *Environment Protection Biodiversity and Conservation Act 1999*.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.]

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. Provide an impact assessment of noise / vibration from or on the proposed development, prepared in accordance with the *Guidelines for the use of the Environment Protection (Noise) Policy 2007* by a suitably experienced, professional acoustic engineering consultant.
3. The assessment should describe changes to background noise and vibration levels as a result of the development (during both the construction and operational phases). Sufficient data should be gathered to provide baseline information for comparison with any future monitoring undertaken during the construction and operational phases.
4. The noise assessment should include noise contours from a suitable acoustic model for all significant noise generating activities operating under worst case acoustic and meteorological (and or oceanographic for marine underwater noise) conditions for the transmission of noise from source to receivers.
5. If potential impacts of noise and vibration on MNES require approval under the EPBC Act, an assessment of noise / vibration impacts on the affected MNES must be prepared by a suitably experienced, professional acoustic engineering consultant. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*
6. Provide a vibration assessment prepared by a suitably experienced, professional acoustic engineering consultant, assessing the worst case predicted vibration from the development. The report must describe what reasonable and practicable measures will be taken to minimise vibration impacts on sensitive receivers, including marine mammals where relevant, and the likely effectiveness of these measures, with a view to demonstrating how the 'General Environmental Duty' (as described in section 25 of the *Environment Protection Act 1993*) will be met.
7. Underwater noise modelling must be undertaken by suitably experienced specialist. Modelling must include modelling of bed substrates (acoustically reflective or acoustically absorptive) to understand the propagation beyond the proximity of the noise source (e.g. piling). The assessment must identify the distance to which there would be a biological impact to aquatic species.
8. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
9. Describe how environmental management objectives for noise and vibrations would be achieved, monitored, audited and reported, and how corrective actions would be managed.
10. Propose environmental management strategies that will avoid long-term impacts of underwater noise on marine fauna and describe how objectives would be monitored and audited, and how corrective actions would be managed.

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- [State Planning Policy 16: Emissions and Hazardous Activities](#)
- *Environment Protection Act 1993*
- *Environment Protection (Noise) Policy 2007*
- Evaluation distances of effective air quality and noise management (SA EPA)

Assessment Requirement Library

- *Guidelines for the use of the Environment Protection (Noise) Policy 2007*
- [Department for Infrastructure and Transport Underwater Piling Noise Guidelines](#) (new version in prep).
- [Guidelines for the assessment of noise from rail infrastructure](#) (SA EPA Guideline)
- [Road Traffic Noise Guidelines](#) (DIT Guideline)

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5.3 Amenity and Environmental Quality – Transport and Traffic (Example)

[Italicised text indicates guidance for assessors]

Objective

To ensure impacts to the safety and efficiency of transport modes and the broader transport and traffic system and infrastructure are avoided or mitigated.

Context

Movement of plant, equipment, materials and workers during the construction phase of a development lead to impacts on local and regional transport and traffic infrastructure. Impacts can range from traffic disruption, changes to traffic flow and volume, road safety, car parking, the presence of heavy vehicles and impacts to road pavements. There also may be ongoing impacts from operations and maintenance activities for some projects.

[The Assessment Requirements for Air Quality address air quality impacts to amenity and liveability due to transport and traffic (e.g. dust and fuel emissions)]

[The Assessment Requirements for Noise and Vibration address noise and vibration impacts to amenity and liveability from traffic and transport.]

Considerations for transport and traffic

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the potential impacts to transport and traffic from a development should consider:

- Description of materials to be transported, anticipated timing, sources of materials, routes, number and methods of transport (e.g. shipping, heavy vehicles, rail, air)
- Whether the development involves a prescribed activity of environmental significance under the *Environment Protection Act 1993* (e.g. railway operations, aerodromes, bulk shipping, helicopter landing facilities)
- Identification of key potential impacts to:
 - transport and traffic infrastructure during both construction and operational phases (temporary or permanent)
 - access to arterial or local roads, rail, air or port facilities
 - road safety impacts
 - pedestrians, cyclists or public transport
 - car parking.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for transport impact assessment should be prepared to assist proponents]

1. A Transport and Access Impact Assessment should be prepared by a suitably qualified traffic and access engineer, evaluating current and proposed access arrangements including the effect on the arterial road network and car parking, and vehicle interface with the local road network. Any assessment must address implications for the entire supply chain and the traffic and access impact for the construction, operation, maintenance and decommissioning phases.

2. The assessment should determine the transport system asset improvements, asset management / maintenance requirements, and operational management requirements to accommodate the increase in movements and/or vehicle sizes/mass for affected transport assets and services across all modes for the proposal's construction / implementation and operational phases. The assessment should provide where relevant:
 - A summary of the transport task for the development (including workforce and end-to-end supply chain (input and output)) during construction, operations and decommissioning phases of the development. This should address predicted traffic volumes, proposed vehicle types, number/frequencies, hours of activity and traffic peaks, any requirements that are outside of the current gazetted heavy vehicle networks, and any measures required to ensure compliance with the 'Heavy Vehicle National Law'.
 - A description of the existing transport and traffic environment (using traffic data, accident statistics) and include (where relevant) public transport networks, car parking, school bus routes, and public pedestrian, cycle pathways or trails.
 - Any operational management measures to minimise delays and ensure safety for other transport users (e.g. temporary road closures/detours), including transport of plant and equipment to/from the site.
 - Requirements for temporary or permanent modifications to roads or rail infrastructure (including rail crossings and bridges), upgrades to road surfaces, access on arterial and / or local roads and car parking as a result of the development including any increase (temporary or ongoing) in maintenance requirements of transport assets.
 - Any management measures for transport of hazardous materials.
 - Describe how identified impacts to transport and access will be mitigated. Mitigation strategies may include works, contributions or other strategies that can be documented in a traffic management plan. Strategies must be prepared in close consultation with relevant transport authorities, including local government.

Maritime operations (if relevant)

3. Describe expected marine traffic volumes to and from port / wharves, including expected boat/ship movements, timing and patterns.
4. Describe marine traffic impacts associated with these movements (e.g. interaction with other vessels, impacts to navigation aids) including to existing operators (e.g. tourist operators, ferry services, recreational users).
5. Discuss the measures that will be undertaken to mitigate these impacts and any safety measures that will be implemented to ensure public safety.

Rail operations (if relevant)

6. Assess the potential impacts of any temporary or permanent disruption of existing freight and passenger rail services that would be due to either track works, increased rail traffic, or subsidence.
7. Discuss the measures that will be undertaken to mitigate these impacts.

Air operations (if relevant)

8. Assess the capacity of existing airports or airfields to handle the demand for air transport of people and/or freight. If existing facilities do not have sufficient capacity, describe and illustrate the requirements for any new or altered air transport facilities (e.g. runways, radar, lights and/or beacons).
9. Describe the likely additional number of flights, size of aircraft, their frequency and timing, particularly noting any increase in night arrivals or take-offs. Describe and illustrate any air routes that would take new or increased air traffic.
10. Describe any features of the project that could impact on air transport, such as the placement of waste dumps, stacks or flares beneath flight paths.

11. Discuss the measures that will be undertaken to mitigate these impacts.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to traffic and transport may be required]:

- The preliminary assessment indicates that there is high or medium probability of large scale and significant ongoing disruption or modification to traffic movement and/ or infrastructure.
- The preliminary assessment indicates there is high or medium probability for extensive and ongoing direct and indirect impacts to transport systems (including rail, road and maritime systems).
- There is a public perception that the development has the potential to cause large scale and ongoing disruption to transport and traffic and / or potential transport and traffic impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.
- A proposed activity is likely to be classed as a prescribed activity of environmental significance under the Environment Protection Act (e.g. railway operations, aerodromes, bulk shipping, helicopter landing facilities)

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.]

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. The scope of a transport and traffic impact assessment requiring detailed assessment will build on the Standard Assessment Requirements and be driven by the scale, nature and location of the development and the anticipated transport and traffic impacts. It is expected that the content of the assessment would be determined in consultation with state and local government and other transport infrastructure operators.
3. The detailed transport and traffic impact assessment report must be prepared by a suitably qualified planner/engineer and will address end-to-end supply chain (input and output) potential impacts to road, rail, maritime and air transport operations (where relevant). The transport and traffic impact assessment must address each proposed project-affected mode (e.g. road, rail, air, port and sea) for each phase of the proposed project.

Suggested guidance documents

[Provide links to these documents where possible] [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy 11: Strategic Transport Infrastructure
- Relevant Regional Plans
- Planning and Design Code (online)
- AUSTROADS Guide to Road Design
- AUSTROADS Guide to Traffic Management
- Highway Capacity Manual Volume 2 (HCM)
- Heavy Vehicle National Law (schedule to the Heavy Vehicle National Law Act 2012 (Qld).
- Australian Level Crossing Assessment Model (ALCAM 2020).

5.4 Amenity and Environmental Quality – Visual Amenity, Landscape and Open Space (example)

[Italicised text indicates guidance for assessors]

Objective

To ensure adverse effects on visual amenity, landscape and open space values are avoided or minimised and opportunities to enhance these values are maximised.

Context

Perceived impacts to visual amenity can be subjective and are driven by the sensitivity of the viewpoint and the perspective of the viewer. Scenic quality is an important aspect of visual amenity and is a significant environmental and community resource. Locations potentially sensitive to changes in visual amenity include residential dwellings, locations of public and private importance, tourist destinations and heritage sites and major roads.

Potential impacts at sensitive locations result from the presence of temporary and permanent development infrastructure and alteration or removal of public open space, landscape buffers and vegetation which affect enjoyment of open space. Light spillage from temporary and permanent infrastructure can also decrease the amenity of adjacent neighbourhoods, parks and community facilities.

The Planning and Design Code provides for performance outcomes designed to enhance the visual appearance of development and minimise aesthetic impacts of the design and siting of structures on residential areas and townships, rural vistas, the natural environment, existing public views to landscape from key vantage points, scenic routes and public roads. A planning assessment undertaken for the development would address the required performance outcomes for visual amenity under the Code.

[The Assessment Requirements for Community Wellbeing / Social Impact Assessment address potential temporary or permanent effects of developments on the use of open space and the enjoyment of passive and active recreational opportunities.]

Considerations for visual amenity, landscape and open space

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. [Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Currently, there is no formalised standard methodology at local, state or federal government levels for visual assessment. Preliminary assessment in the proponent's scoping application of the potential impacts to visual amenity, landscape and open space from a development should consider:

- A description of the elements of the development (including activities and infrastructure) likely to result in temporary or permanent impacts to visual amenity in terms of landscape and open space values (including night lighting).
- An overview of the existing landscape character and the likely sensitive locations and landscapes / open space which would be the focus of further detailed visual impact assessment (including areas covered by the Significant Landscape Protection Overlay of the Code)
- A description of the likely impacts of the development (both temporary and permanent) on surrounding sensitive locations, scenic or significant vistas, including light spill.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for visual impact assessment should be prepared to assist proponents]

1. Provide a description of the landscape character, features and values of the development area and its environs. This should address (where relevant):
 - components of the development that may result in impacts to visual amenity
 - public and private viewsheds to the development and the visual values of the area
 - viewsheds in which the development features, including from nearby residences, public lookouts, tourist attractions, roads and key vantage points in the vicinity
 - existing built features within the landscape and their impact on the existing landscape and visual setting.
2. Describe the effects of the development on visual amenity and landscape quality for residents and visitors for both near and distant views, from important viewing points, including from the land and sea. This should include construction, operations and closure / rehabilitation aspects of the proposal and address light spill from the development.
3. If required, provide a visual analysis of the development from key viewpoints, including photomontages or perspectives showing the proposed and likely future development.
4. Describe the rationale for the major design elements of the proposed development and measures to mitigate their visual impact.
5. Describe how the design and construction of all buildings and structures will be controlled to ensure cohesive visual amenity, including details of construction materials, colours and landscaping for all buildings and structures.
6. Describe the use of screening / amenity / landscape plantings and potential broad scale revegetation, including the opportunities for the use of locally endemic species.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to visual amenity may be required]:

- The preliminary assessment indicates that there is high or medium probability of significant visual impact on sensitive visual receptors from the project including on scenic landscape quality or the visual amenity of an urban landscape.
- There is a public perception that the development has the potential to cause significant visual impact on sensitive visual receptors and / or potential visual impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Provide a visual impact assessment (VIA) undertaken by an appropriately qualified specialist that addresses the visual impacts of the development on sensitive visual receptors. This should include:
 - A quantitative desktop assessment to determine the theoretical visual impact of the development, including determination of the Theoretical Zone of Visual Influence (TZVI) to

assist in defining the visual impact study area, and a description of the landscape character, features and values of the project area and its environs.

- Determination of the TZVI and visual impacts study area using spatial data analysis and photomontages to model the visual impact. Photomontages should be selected to provide a variety of views toward the development in a variety of landscape contexts.
 - A qualitative assessment of the photomontage to verify and support the quantitative analysis and assess the level of visual impact.
2. In response to the VIA, describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.

Urban landscapes

3. Provide a visual impact assessment (VIA) undertaken by an appropriately qualified specialist that addresses the visual impacts of the development on sensitive visual receptors *[in accordance with the requirements above]*. The VIA should describe the proximity of proposed structures to the nearest dwellings and any potential impacts of the proposal on quality of lifestyle and how the visual landscape and amenity will be altered by the development, for residents and visitors.
4. Outline and evaluate potential design and siting options that could avoid and minimise potential effects on landscape, open space and visual amenity of neighbouring residences and communities and additional management strategies that may further minimise potential effects.
5. Demonstrate that the development provides a high-quality design that complements natural landscaped settings, open space and surrounding locality.
6. Provide details of the interfaces of the development and demonstrate how the landscape integrates and merges into the built form to minimise the visual impact.
7. Describe alternative measures for minimising potential loss of visual amenity (for example structural design and placement and screening) and detail any compensatory and site rehabilitation measures that will be undertaken to minimise visual impacts as a result of vegetation clearance.

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy 2 Design Quality
- [Principles of Good Design](#)
- Guidance Note for Landscape and Visual Assessment (2018)
- Guidelines for Landscape and Visual Impact Assessment (Third Edition) (2013), Landscape Institute;
- Visual Landscape Planning in Western Australia. (2007). A manual for evaluation, assessment, siting and design, Western Australian Planning Commission;
- Swanwick, C. (2013). Guidelines for Landscape and Visual Impact Assessment. 3rd ed.

5.5 Biological Environment – Biosecurity (template)

[Italicised text indicates guidance for assessors]

Objective

To ensure that construction and operation of the development avoids the introduction or spread of biosecurity threats including pest or nuisance animal and plant species (including marine pests), diseases and pathogens.

Context

Biosecurity is the protection of terrestrial and marine environments, agricultural industries and human health from the adverse impacts of biological threats, such as invasive pest animal and plant species, diseases and pathogens. Development can pose biosecurity risks through the introduction or spread of these threats to local and regional areas or State waters.

Pest plants (weeds) compete with crops, pasture, livestock and native flora and fauna, contaminate crops and seeds, degrade production resources and the value of the natural environment. Pest species such as Queensland Fruit Fly and diseases such as Pacific Oyster Mortality Syndrome (POMS) have the potential for significant impacts to important primary industries in South Australia.

Declared and noxious exotic plant and animal species are regulated under the *Landscape South Australia Act 2019* and the *Fisheries Management Act 2007*. The Commonwealth *Biosecurity Act 2015* regulates biosecurity risks associated with goods, people and conveyances entering Australia.

[Note: South Australia's proposed Biosecurity Act was still in draft form at the time of writing these Assessment Requirements].

Considerations for biosecurity

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the potential biosecurity threats from a development should consider:

- Description of the activities with potential to introduce or spread exotic, pest or nuisance animal and plant species, diseases and pathogens to terrestrial, aquatic and marine environments
- An overview of existing exotic, pest or nuisance plant and animal species, and diseases and pathogens in the development's terrestrial, aquatic and marine environs
- An overview of existing uses and environmental values of the development's terrestrial, aquatic and marine environs and any sensitive places and receivers (including MNES) which may be impacted by biosecurity threats.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for biosecurity impact assessment should be prepared to assist proponents]

Terrestrial / Aquatic

1. Describe the extent and significance of existing exotic, pest or nuisance plant and animal species, diseases and pathogens in the development's terrestrial and aquatic environs.
2. Describe the existing uses and environmental values of the development's terrestrial and aquatic environs and any sensitive places and receivers (including MNES) which may be impacted by introduced biosecurity threats.

3. If MNES have been identified, undertake an assessment of potential biosecurity threats to MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*
4. Identify the potential for the introduction or dispersal of new exotic, pest or nuisance plant and animal species, diseases and pathogens, and the associated implications for native species, habitat, agricultural land and other environmental values.
5. Identify the potential for increased distribution and abundance of existing exotic, pest or nuisance plant and animal species, disease and pathogens, and the associated implications for native species, habitat, agricultural land and other environmental values.
6. Propose measures to remove, control and limit the introduction or spread of exotic, pest or nuisance plants and animals, diseases and pathogens on the development site and any areas under the proponent's control (e.g. decontamination of vehicles, mobile plant, equipment and materials), having regard to the effectiveness of such mitigation measures in the past. This includes declared plants and animals under relevant State and Commonwealth legislation.

Marine

7. Describe the extent and significance of existing exotic, pest or nuisance plant and animal species, diseases and pathogens in the development's marine environs.
8. Describe the existing uses and environmental values of the development's marine environs and any sensitive places and receivers (including MNES) which may be impacted by introduced biosecurity threats.
9. If MNES have been identified, undertake an assessment of potential biosecurity threats to MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*
10. Provide a biosecurity risk analysis that outlines the potential risk of introduction of exotic marine organisms and disease (e.g. through vessel ballast water, bilge and/or biofouling) and measures proposed to eliminate this risk.
11. Outline strategies to prevent the introduction of exotic marine organisms and disease (including from incoming ship ballast and bilge waters or biofouling).
12. Detail the response procedure that will be followed in the event of a new exotic organism being detected.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to biosecurity may be required]:

- The preliminary assessment indicates that there is a high probability that the development will result in exposure to declared plant and animal pest species (including marine pests) diseases and pathogens.
- The development involves shipping operations and is proposed to be a first port of call for international ships travelling to Australian waters.
- There is a public perception that the development has the potential to cause a significant biosecurity threat and / or potential biosecurity impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.
- The potential impacts to a MNES (e.g. nationally threatened or migratory species) are likely to require referral and approval under the *Environment Protection Biodiversity and Conservation Act 1999*.
- The proposal is located on Kangaroo Island requiring consideration of the *Biosecurity Strategy for Kangaroo Island 2017–2027*

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. If potential biosecurity impacts on MNES require approval under the EPBC Act, an assessment of the potential impacts on the affected MNES must be prepared by a suitably experienced and professional specialist. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*
3. Describe how the proposal is consistent with the *Biosecurity Strategy for Kangaroo Island 2017–2027* (where relevant).
4. Detail a monitoring program that would audit the success of biosecurity measures, identify whether objectives have been met, and describe corrective actions to be used if monitoring indicates objectives are not being met.

Marine

5. Provide information on the proposed management techniques for incoming ship ballast and bilge waters.
6. Describe how the introduction of exotic marine organisms or notifiable pathogens (disease) will be avoided or managed.
7. Outline strategies to monitor for the early detection of marine exotic organisms at or near the site, especially on and around marine infrastructure (e.g. wharf, jetty)
8. Outline measures to ensure consistency with the Australian Ballast Water Management Requirements (and national biofouling management guidelines)
9. Outline strategies to monitor and prevent the introduction of vermin and other nuisance species that can be attracted to port facilities, and measures to manage and monitor such species.
10. Outline strategies to monitor, control and manage biofouling of wetted surfaces.
11. Describe how the proposal is consistent with the *Biosecurity Strategy for Kangaroo Island 2017–2027* (where relevant).

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy 8: Primary Industry; State Planning Policy 4: Biodiversity
- Relevant Regional Plans
- *Landscape South Australia Act 2019*
- *Fisheries Management Act 2007*
- *Biosecurity Act 2015* (Cth)
- [Biosecurity Strategy for Kangaroo Island 2017–2027](#)
- [South Australia's Biosecurity Policy 2020-2023](#)
- [Declared Plant Policies - Landscape South Australia Act 2019](#)
- [Australian Pest Animal Strategy 2017-2027](#)
- [State Landscape Strategy](#)

- [Marine Pest Plan 2018-202: The national strategic plan for marine pest biosecurity](#)
- [National biofouling management guidelines](#)

DRAFT

5.6 Biological Environment – EPBC Act - Matters of National Environmental Significance (Example)

[Intentionally left blank for PLUS to populate in consultation with DAWE]

[Italicised text indicates guidance for assessors]

Objective

XXXXX

Context

Xxxxxx

[Refer to other Assessment Requirements which may be relevant]

Considerations for MNES

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for air quality impact assessment should be prepared to assist proponents]

12. xxx

13. xxx

14. xxx

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to MNES may be required]:

- xxx
- xxxx
- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

- xxx.
- xxx

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy
- Relevant Regional Plans
- Legislation
- Regulator guidelines, policies
- Other standards

DRAFT

5.7 Biological Environment – Marine Flora and Fauna (Example)

[Italicised text indicates guidance for assessors]

Objective

To ensure that the nature and scale of the development avoids or minimises adverse effects on biodiversity, threatened and protected marine flora and fauna species, their ecological communities and habitat.

Context

The large, sheltered tidal gulf ecosystems of Gulf St Vincent and Spencer Gulf and the far west coast region from Streaky Bay to Davenport provide habitat for some of the largest areas of temperate mangrove, seagrass and tidal saltmarsh communities in Australia. Marine fauna and flora of South Australia includes both the typical cold temperate biota of Tasmania, Victoria and southern New South Wales and the transitional warm to cool temperate biota of southern Western Australia. South Australia has many fish species of conservation significance, including seadragons, seahorses and pipefish, as well as the world's largest known breeding aggregation of Australian giant cuttlefish. Southern Bluefin Tuna are listed as conservation dependent and are a commercially important species whose offshore feeding and migration paths are of importance to the industry. Our waters are feeding, breeding and calving grounds for endangered blue whales, bottlenose dolphins, sperm and pilot whales, and southern right whales.

The *Marine Parks Act 2007* protects a variety of habitats, from sandy beaches and sheltered seagrass beds to mud habitats on the abyssal plain. Marine national park and sanctuary zones established under the Act are the core conservation areas, protecting vital feeding, breeding, nursery and resting areas for marine plants and animals.

Marine fish, some marine invertebrates and crustaceans are protected under the *Fisheries Management Act 2007*, while marine mammals (e.g. seals, whales and dolphins) are protected under the *National Parks and Wildlife Act 1972*. Seagrass is protected under the *Native Vegetation Act 1992*.

The *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* protects Matters of National Environmental Significance which include nationally threatened species and ecological communities, migratory species and Commonwealth marine areas.

[The Assessment Requirements for Noise address potential impacts of underwater noise on marine fauna.]

[The assessment Requirements for Biosecurity address the potential impact of marine pests, ballast water and biofouling].

Considerations for native fauna

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

State and Commonwealth government databases provide publicly available spatial data relevant to marine flora and fauna. The Code includes Overlays for Coastal Areas, Marine Parks and the Coastal Waters and Offshore Islands Zone. Preliminary assessment in the proponent's scoping application of marine flora and fauna should consider important habitat features, conservation significant species and public and private protected areas including but not limited to:

- Identification of marine protected areas (including aquatic reserves, marine parks (State and Commonwealth), special purpose areas, Adelaide Dolphin Sanctuary and rock lobster sanctuaries)
- Identification of State listed threatened marine species from review of the Biological Database of South Australia
- Identification of nationally listed threatened marine and / or migratory species from review of the EPBC Act protected matters database

- Identification of fauna colonies (sealions, fur seals, coastal wader birds, shorebirds and seabird sites)
- Identification of relevant coastal and marine Code Overlays applicable to the development.
- Description of the development activities with the potential to impact on marine flora or fauna species
- Whether the development involves a prescribed activity of environmental significance under the *Environment Protection Act 1993* (e.g. dredging, desalination plants etc)
- Overview of potential impacts to the coastal and marine water environment during construction and operation
- Preliminary assessment of the potential for significant impacts to Matters of National Environmental Significance (MNES) protected under the EPBC Act.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for marine flora and fauna impact assessment should be prepared to assist proponents]

[Marine developments often intersect the coastal zone and therefore their assessment will require consideration of the interconnectivity of this environment including the use of other relevant assessments for the specific development, e.g. underwater noise assessment for construction of a port]

1. Describe the location of marine protected areas (State and Commonwealth), sanctuaries and fisheries which may be impacted by the development.
2. Describe the location, extent, condition and significance of native marine fauna populations, including individual species and communities in the surrounding area (on land, cliffs and adjoining waters, including islands). Include listed threatened and migratory fauna species in the development's environs and identify those that are likely to be disturbed during construction and / or maintenance.
3. Identify and characterise the nearshore, benthic and offshore marine environment. Quantify and detail the extent, condition and significance of the marine flora and fauna (including individual species and communities) that currently exist on site, and within the immediately adjacent sites. Address any sensitive receptors including seagrasses, macro algae and other reef habitat and marine benthic biota and macrofauna.
4. Describe the development activities with the potential to impact on marine species, habitats and listed threatened and migratory fauna species and provide an assessment of how those impacts will be avoided or mitigated. Address discharge to marine waters, seabed disturbance and creation of artificial habitat (e.g. presence of development infrastructure).
5. Identify the potential impacts of shipping, transshipping and barge movements on estuarine and marine species. Address vessel interactions with marine megafauna.
6. If MNES have been identified, undertake an assessment of impacts to MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth].*
7. Identify all potential sources of light pollution from the construction and operation of the proposed development. Describe their impacts on marine species, including nocturnal species and how these impacts will be managed.
8. Detail appropriate buffer distances that would be required between proposed development (including coastal access points) and threatened marine species, including feeding areas, nesting / breeding and roosting sites.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to marine flora and fauna may be required]:

- The preliminary assessment indicates a high or medium probability that the development has the potential to cause significant impacts to marine protected areas or State listed vulnerable and endangered marine species
- There is a public perception that the development has the potential to cause significant impacts to marine protected areas, State listed vulnerable and endangered marine species or these potential impacts have been the subject of extensive media coverage
- A proposed activity is likely to be classed as a prescribed activity of environmental significance under the Environment Protection Act (e.g. dredging)
- The potential impacts to a Matter of National Environmental Significance (MNES)(e.g. nationally listed threatened, migratory species, Commonwealth marine environment) are likely to require referral and assessment under the *Environment Protection Biodiversity and Conservation Act 1999*)
- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. If potential impacts on MNES require approval under the EPBC Act, an assessment of impacts on the affected MNES must be prepared by an appropriately qualified specialist. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*
3. Describe the nature and extent of the impacts likely to affect listed threatened native marine fauna species and populations during both construction and operation. Describe the ability of communities and individual species to recover, especially threatened or significant species (including those listed under the *National Parks and Wildlife Act 1972*). Detail any residual impacts that cannot be avoided and propose measures to offset the residual loss.
4. Assess the potential impacts of the proposed project's activities in the coastal zone. Model the spread and assess the impacts of any sediment plume to be created by dredging, construction or excavations. Assess the potential loss of habitat or diversity that could result from the activity and assess any potential impacts on commercial or recreational fisheries, including impacts that could arise from the loss of nursery habitat (e.g. seagrass beds, reefs, or, mangroves) of target species (such as prawns and fish). Assess the potential short-term or long-term impacts of noise on marine fauna, particularly cetaceans.
5. Detail the potential impact, including cumulative impacts, (such as any likely increase in vessel numbers, or habitat fragmentation and loss) on marine fauna, both during construction and operation, including ecologically and economically important species (e.g. fisheries)
6. The assessment will also need to take into consideration the outputs of any underwater noise assessment, physical coastal and marine assessment, biosecurity assessment for potential impacts and incorporation of suitable mitigation measures in line with those and other relevant assessments for the development.
7. Prepare a Marine and Coastal Environment Management Plan, prepared by a suitably qualified coast and marine expert, which details the existing environment, identifies any coastal hazards (e.g. sand drift) and significant coastal or marine features or habitats. The report should also assess the impacts of the proposed operations and documents the environmental protection controls and

measures to be implemented and monitored. The plan is to accord with the *Marine Parks Act 2007* and any relevant Marine Park management plan. The plan should address impacts on marine organisms from development activities (including noise, vibration, and water quality).

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy
- Relevant Regional Plans
- Legislation
- [National Strategy for Reducing Vessel Strike on Cetaceans and other Marine Megafauna](#)
- Other standards

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5.8 Biological Environment – Terrestrial and Aquatic Flora and Fauna (Example)

[Italicised text indicates guidance for assessors]

Objective

To ensure that the nature and scale of the development avoids or minimises adverse effects on biodiversity, threatened and protected terrestrial and aquatic flora and fauna species, their ecological communities and habitat.

Context

South Australia's protected area system comprises protected areas on public, private and Aboriginal lands, and covers nearly one third of the State. It conserves most of the remaining native vegetation in the State's agricultural zone and large areas of native vegetation in the pastoral region. Protected areas in South Australia are generally reserved under the *National Parks and Wildlife Act 1972*, *Wilderness Protection Act 1992*, *Crown Land Management Act 2009* and *Forestry Act 1950*, and Indigenous Protected Areas.

Many ongoing pressures on local ecosystems continue to threaten biodiversity. Threats include widespread clearance of native vegetation, weed invasion and predation by exotic pest species, pollution and soil degradation, inappropriate fire regimes, destruction of habitat and more recently climate change. Numerous native species and communities are in decline and many are threatened and facing extinction. A significant number of local extinctions have already occurred, especially amongst small mammal species, birds and plants species.

South Australia's threatened plants and animals are listed under the threatened species schedules of the *National Parks and Wildlife Act 1972* while freshwater and marine fish, some marine invertebrates and crustaceans are protected under the *Fisheries Management Act 2007*. As part of protections for ecological communities of conservation concern, clearance of native vegetation is regulated under the *Native Vegetation Act 1991* and incentives and assistance are provided to landholders to help them preserve, enhance and manage native vegetation.

The *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* protects Matters of National Environmental Significance which include nationally threatened species and ecological communities, migratory species and wetlands of international importance (Ramsar wetlands).

[The Assessment Requirements for Marine Flora and Fauna address potential impacts on marine species.]

Considerations for terrestrial and aquatic flora and fauna

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

State and Commonwealth government databases provide publicly available spatial data relevant to native vegetation, protected areas and threatened species. The Code includes Overlays addressing Landscape and Vegetation. Preliminary assessment in the proponent's scoping application of terrestrial flora and fauna should consider important habitat features, conservation significant species and public and private protected areas including but not limited to:

- Identification of protected areas reserved under the *National Parks and Wildlife Act 1972*, *Wilderness Protection Act 1992*, *Crown Land Management Act 2009* and *Forestry Act 1950*, and Indigenous Protected Areas
- Identification of areas protected under Heritage Agreements under the *Native Vegetation Act 1991*
- Identification of key areas of native vegetation relevant to the development
- Identification of State listed threatened flora and fauna species from review of the Biological Database of South Australia

- Identification of nationally listed threatened flora and fauna and / or migratory species from review of the EPBC Act protected matters database
- Identification of nationally significant wetlands including Ramsar wetlands
- Identification of relevant Code Overlays applicable to the development.
- Description of the development activities with the potential to impact on threatened flora or fauna species or native vegetation
- Overview of potential impacts to terrestrial flora and fauna during construction and operation.
- Preliminary assessment of the potential for significant impacts to Matters of National Environmental Significance (MNES) protected under the EPBC Act

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for terrestrial and aquatic flora and fauna impact assessment should be prepared to assist proponents]

Protected areas

1. Describe the location of public or private protected areas reserved under the *National Parks and Wildlife Act 1972*, *Wilderness Protection Act 1992*, *Crown Land Management Act 2009* and *Forestry Act 1950*, and Indigenous Protected Areas which may be impacted by the development. Include reference to areas under Heritage Agreements through the *Native Vegetation Act 1991*.
2. Assess the impacts on public and private protected areas from the development including management of interface issues (e.g. biosecurity, fire management, access) and any implications for Heritage Agreements.

Flora and Native Vegetation

3. Describe the location, extent, condition and significance of native vegetation, including listed threatened flora species and ecological communities in the development's environs, and identify those that may need to be cleared or disturbed during construction and / or maintenance.
4. Identify and characterise any wetlands or groundwater dependant ecosystems that may be affected by altering the hydrogeological environment.
5. Describe the development activities with the potential to impact on native vegetation and listed threatened flora species and ecological communities, and provide an assessment of how those impacts will be avoided, mitigated or offset.
6. If MNES have been identified, undertake an assessment of impacts to MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth].*
7. If required, prepare a Native Vegetation Clearance Data Report prepared by an Accredited Consultant approved by the Native Vegetation Council. The assessment should undertake a survey of the vegetation and fauna (including EPBC Act Listed threatened species and communities), detail compliance with the impact mitigation hierarchy and describe how the significant environmental benefit would be achieved.
8. Detail potential impacts of fire on native vegetation, and the effects of fire risk management processes during construction, operation and maintenance.
9. Outline measures to mitigate effects on native vegetation by addressing the mitigation hierarchy, including any compensatory activities in already degraded areas and use of existing easements. Refer to guidelines produced by the Native Vegetation Council and outline the likely effectiveness of any mitigation measures adopted during both construction and maintenance.

Fauna

10. Describe the location, extent, condition and significance of native fauna populations (including aquatic and subterranean fauna such as stygofauna) and listed threatened and migratory fauna species in the development's environs, and identify those that are likely to be disturbed during construction and / or maintenance.
11. Describe the development activities with the potential to impact on native fauna species and listed threatened and migratory fauna species and habitats, and provide an assessment of how those impacts will be avoided or mitigated.
12. If MNES have been identified, undertake an assessment of impacts to MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth].*
13. Identify all potential sources of light pollution from the construction and operation of the proposed development. Describe their impacts on native fauna, including nocturnal species, and how these impacts will be managed.
14. Detail appropriate buffer distances that would be required between the proposed development and threatened species, including feeding areas, nesting sites and roosting sites.
15. Identify the potential impact of fire / explosion on native fauna, and the effects of fire risk management processes during both construction, operation and maintenance.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to native flora may be required]:

- The preliminary assessment indicates a high or medium probability that the development has the potential to cause significant impacts to public or private protected areas, State listed vulnerable and endangered flora and / fauna, and / or significant native vegetation clearance.
- There is a public perception that the development has the potential to cause significant impacts to public or private protected areas, State listed vulnerable and endangered flora and / fauna and / or significant native vegetation clearance and / or these potential impacts have been the subject of extensive media coverage.
- The potential impacts to a Matter of National Environmental Significance (MNES)(e.g. nationally listed threatened species, Ramsar Wetland) are likely to require referral and assessment under the *Environment Protection Biodiversity and Conservation Act 1999*.
- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. If potential impacts on MNES require approval under the EPBC Act, an assessment of impacts on the affected MNES must be prepared by an appropriately qualified specialist. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth].*
3. Prepare a Native Vegetation Clearance Data Report prepared by an Accredited Consultant approved by the Native Vegetation Council. The assessment should undertake a survey of the vegetation and fauna (including EPBC Act Listed threatened species and communities), detail compliance with the impact mitigation hierarchy and describe how the significant environmental benefit would be achieved.

4. Provide an assessment undertaken by an appropriately qualified specialist of the direct and indirect effects of the development on listed threatened flora species and ecological communities and populations, habitat and native vegetation that may occur over the life of the development:
 - Describe the location, extent, condition and significance of listed threatened native fauna species and populations that may be affected during construction and operation.
 - Describe the extent location, extent, condition, significance and habitat value of native vegetation species and communities proposed to be cleared by the development.
 - Identify significant wildlife habitat and characterise wildlife movement within the broader development area that could be directly or indirectly impacted by the development including alteration of habitat conditions (e.g. habitat fragmentation, severance of wildlife corridors or habitat linkages) that may occur over the life of the development. Assess the potential impacts on habitat connectivity of listed or other protected fauna species including but not limited to migratory species.
 - Include alteration of conditions that may directly or indirectly impact wetland, riparian and in-stream environments and undertake an assessment of the impacts of the development on aquatic ecology including impacts on key fish habitat and threatened species of fish (where relevant).
 - Describe the ability of communities, populations or individual species to recover, regenerate or be rehabilitated during construction and operation including maintenance.
 - Assess the ability of habitat to recover, especially for resident or migratory shore birds and listed threatened or significant species.
 - Describe the measures that will be taken to address displaced native fauna (if any).
 - Detail any residual impacts that cannot be avoided, and propose measures to offset the residual loss.
5. Detail any changes in biological diversity that may result at the interface between the development and existing native vegetation (i.e. the 'edge effect') during construction and over the life of the development.
6. Describe the monitoring measures, reporting regimes and audits for native flora and fauna that will be undertaken to measures implemented to mitigate impacts to flora and fauna are effective.

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy 4: Biodiversity
- Relevant Regional Plans
- *National Parks and Wildlife Act 1972*
- *Fisheries Management Act 2007*
- *Native Vegetation Act 1991*
- *Landscape South Australia Act 2019*
- [South Australian Arid Lands Biodiversity Strategy](#)
- Other standards.

5.9 Climate Change and Resource Efficiency - Climate Change Adaptation (Example)

[Italicised text indicates guidance for assessors]

Objective

To ensure that development and design are climate resilient and risks from climate change are reduced.

Context

In the context of climate change, it is important that measures are taken to reduce greenhouse gas emissions associated with a development, but also protect proposed development from the impacts of a changing climate in the longer term.

Adapting to the changing climate is also essential to ensure the State's environment, businesses and communities have the resilience to cope with the changes. Priorities for climate change adaptation are set out in the *South Australian Government Climate Change Action Plan 2021 – 2025* and include urban greening and water sensitive urban design, securing the coastal environment against increased coastal erosion and flooding and reducing risk and building resilience to more frequent and severe bushfires, storms, floods and heatwaves.

The *Landscape South Australia Act 2019* expressly recognises the significance of climate change in managing landscapes and natural resources, including the need for both mitigation and adaptation. State Planning Policy 5 Climate Change notes that the planning system has a role enabling future adaptation through the appropriate location of development and inclusion of risk mitigation measures.

[The Assessment Requirements for Greenhouse Gas Emissions address emissions reduction and National Greenhouse and Energy Reporting for the development]

[The Assessment Requirements for Sustainable Use of Resources addresses the use of resources to lower greenhouse gas emissions]

Considerations for Climate Change Adaptation

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the potential impacts from climate change on the development should consider:

- An overview of the development's vulnerabilities (including activities or structures) to South Australian climate change projections (e.g. increasing temperatures, extreme heat and heat waves, decline in rainfall, increased drought, extreme rainfall events, harsher fire weather, and sea level rise).
- The overview should consider the decision lifetime of the development (i.e. taking into account the period from construction time to the end of its useful life / replacement).

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for climate change adaptation should be prepared to assist proponents]

1. Undertake an assessment of the relevant potential impacts on the development of projected climate change to 2070 using the median prediction of emissions scenario (e.g. increasing temperatures, extreme heat and heat waves, decline in rainfall, increased drought, extreme rainfall events, harsher fire weather, and sea level rise). Include proposed adaptive management strategies
2. Examine the potential cumulative effects of climate change from a risk management perspective (including adaptive management strategies).

3. Where relevant, outline the potential effects of predicted sea level rise as per Coast Protection Board allowances from a risk management perspective, including adaptive management strategies.
4. Where relevant, identify strategies to protect coastal infrastructure from extreme weather events, including a 1 in 50-year event. Include mitigation strategies should the structure not withstand such an event.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to climate change may be required]:

- The preliminary assessment of the development's vulnerabilities to aspects of projected climate change indicates that a high probability of significant impacts to the proposed development.
- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. Undertake a detailed climate change risk assessment to ensure that climate risks are fully taken into account and adaptation options are adequately assessed during the development's planning and design phase. Risk assessment should consider:
 - Whether past extreme events caused physical damage or impacted similar developments or operations.
 - Direct and indirect impacts on the development or its operations e.g. failure of local power supply during severe storm or heatwave, drought related drying of water wells, road closures due to flooding impacts, bushfire and whether the development can avoid or mitigate risks from those impacts
 - Whether detailed modelling is required to inform the risk / adaptation response (e.g. hydrological modelling)
 - Possible adaptation treatments such as:
 - building to maintain standards and level of service for the climate change scenario expected at end of life
 - plan an upgrade program to progressively adapt infrastructure as climate change occurs
 - redesign and reconstruct as required in response to verified climate change as part of existing maintenance or project upgrades.

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy 5 Climate Change
- Relevant Regional Plans
- *Climate Change and Greenhouse Gas Emissions Reduction Act 2007*
- [Guide to climate projections for risk assessment and planning in South Australia](#)
- [Climate Change Adaptation Guideline](#) (DIT)
- [South Australian Government Climate Change Action Plan 2021-2025](#)

5.10 Climate Change and Resource Use Efficiency – Greenhouse gas emissions (Example)

[Italicised text indicates guidance for assessors]

Objective

To ensure the development minimises greenhouse gas emissions associated with its construction and operation so as to meet South Australia's goal to reduce greenhouse gas emissions by more than 50% below 2005 levels by 2030 and achieve net zero emissions by 2050.

Context

Under the PDI Act an EIS for a major development must include an analysis of the expected, predicted or potential effects of a development on the climate (i.e. through greenhouse gas emissions) and any proposed measures designed to mitigate or address those effects.

The *Climate Change and Greenhouse Emissions Reduction Act 2007* sets out State's greenhouse gas emission reduction targets the framework for government to work with business and the community to reduce emissions and build resilience to the impacts of climate change. In South Australia the main sectors contributing as emissions sources are energy, agriculture, industrial processes and waste.

Some developments will be required to track and report greenhouse gas emissions as required under the *National Greenhouse and Energy Reporting Act 2007* (NGER Act), which establishes the national reporting framework for corporations and facilities required to report their energy use and greenhouse gas emissions.

[The Assessment Requirements for Climate Adaptation address climate change adaption and risk assessment]

[The Assessment Requirements for Sustainable Use of Resources addresses the use of resources to reduce greenhouse gas emissions]

Considerations for greenhouse gas emissions

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the potential impacts of the development's greenhouse gas emission should consider:

- Description of the activities likely to generate greenhouse gases (GHG) and a description by type.
- An overview of the likely nature of Scope 1, Scope 2 and Scope 3 GHG emissions from the development

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for greenhouse gas emissions should be prepared to assist proponents]

1. Undertake a greenhouse gas assessment that:
 - identifies all sources GHG emissions that would be generated
 - provides the estimated annual GHG emissions from each source
 - provides an estimate of yearly net GHG emissions and emissions intensity, including an uncertainty assessment

- provide an inventory of projected annual Scope 1 and Scope 2 emissions for each GHG over the life of the development. Provide an estimate of annual Scope 3 GHG emissions for the life of the development.
2. Describe how the project will contribute to South Australia's emissions targets i.e. 100% renewable energy target by 2030, 50% emissions reduction below 2005 level by 2030 and zero net emissions by 2050.
 3. Describe measures to minimise, reduce and ameliorate greenhouse gas emissions, particularly the use of alternative or renewable energy sources and off-sets, energy efficiency and energy conservation measures, and identify barriers to implementation.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to biosecurity may be required]:

- The preliminary assessment indicates that there is a high to medium probability that the development will generate significant greenhouse gas emissions
- There is a public perception that the development has the potential to result in significant greenhouse gas emissions and /or these potential impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Explain feasible alternatives that were considered to avoid or reduce the project's emissions as well as the alternative of not proceeding with the proposed project. Address conceptual, technological, locality, configuration, scale and individual elements or components.
2. Undertake a detailed greenhouse gas emissions assessment for the development which describes:
 - measures (preferred and alternatives) proposed to avoid and/or minimise Scope 1 and Scope 2 GHG emissions of the development
 - options for avoiding and/or mitigating Scope 3 emissions (e.g. working with supply chain and customers).
3. The assessment should include:
 - opportunities and commitments for offsetting GHG emissions through accredited and verified offsets that represent genuine emissions reductions within Australia (i.e. will be recognised in the National Greenhouse Accounts)
 - opportunities to reduce greenhouse emissions through renewable energy use and innovation
 - any voluntary initiatives, such as projects undertaken as a component of the national Greenhouse Challenge Plus program, or research into reducing the lifecycle and embodied energy carbon intensity of the proposed project's processes or products
 - any additional carbon offsetting options for emissions that cannot be reduced (including, but not limited to, through carbon offsets, vegetation management).
4. Quantify the emissions expected to be abated for each avoidance and mitigation measure.
5. Compare preferred measures for emission controls and energy consumption with best practice International environmental management in the relevant industry sector.
6. Describe and commit to:
 - periodic energy audits that measure progress towards improving energy efficiency

Assessment Requirement Library

- a process for regularly reviewing new technologies to identify opportunities to further reduce GHG emissions and use energy efficiently, consistent with best practice environmental management
- monitoring, auditing and transparent public reporting on: GHG emissions from all relevant activities; the success of mitigation measures; and, the project's contribution to achieving South Australia and Australia's greenhouse gas commitments.
- ongoing training and capacity building around decarbonisation options, technology and reporting

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy 5: Climate Change
- Relevant Regional Plans
- *Climate Change and Greenhouse Gas Emissions Reduction Act 2007*
- *National Greenhouse and Energy Reporting Act 2007*
- [South Australian Government Climate Change Action Plan 2021-2025](#)
- [Greenhouse gases and energy - scope 1, 2 and 3 emissions](#)

5.11 Climate Change and Resource Use Efficiency – Sustainable Use of Resources

[Italicised text indicates guidance for assessors]

Objective

To ensure opportunities to procure and use resources efficiently and sustainably are maximised, supporting South Australia's transition to the circular economy.

Context

It is a sustainability principle of the PDI Act that policies and practices should promote sustainable resource use, reuse and renewal and minimise the impact of human activities on natural systems that support life and biodiversity.

Sustainable procurement and use of resources requires consideration of inputs of natural resources, energy and water and the pollution produced from the manufacture, use and disposal of goods (such as the toxicity of the materials used and greenhouse gas emissions), and biodiversity loss resulting from removal or alteration of natural resources.

The concept of the 'circular economy' is set out in the *Green Industries SA Act 2004* and *South Australia's Waste Strategy 2020-2025*. The circular economy is a self-sustaining system which aims to keep materials in use, or 'circulating', for as long as possible. It extracts the maximum value from materials while in use, then recovers and reuses them in other forms. A sustainable approach to the use of resources will reduce the demand on raw materials with a higher environmental footprint, contributing to lowering greenhouse gas emissions, water and energy use, fewer impacts to biodiversity and a reduction in waste production.

[The Assessment Requirements for Greenhouse Gas Emissions addresses emissions reduction targets, estimates of greenhouse gas emissions and National Greenhouse gas reporting]

Considerations for sustainable use of resources

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the sustainable use of resources should consider:

- An overview of the development activities where sustainable use of resources is being considered including:
 - embodied energy in construction materials and consumables during operation (e.g. quarry products, concrete, asphalt, metals, fuels)
 - extraction, production, transportation of fuels
 - transportation of purchased materials and waste
 - disposal of waste
 - electricity use
 - use of renewable or alternative technologies
 - materials and resources minimisation
 - energy and water efficiency

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for assessment of sustainable resource use should be prepared to assist proponents]

1. Describe the sustainability objectives of the development and the approach and methodology used to achieve these objectives.
2. Describe design guidelines for aspects of the development (including transport options) that would be adopted to ensure sustainability.
3. Describe how sustainability of the development will be audited.
4. Identify ways in which power use can be minimised or supplemented, especially using alternative energy sources, energy efficient measures and energy conservation.
5. Describe the proposed approach to matters such as design, construction methods, materials and equipment to reduce energy use (including vehicle emissions), disposal of waste, water use efficiency during construction and operation over the life of the project.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of greenhouse gas emissions may be required]:

- The preliminary assessment indicates that there is a high probability that the development will generate significant greenhouse gas emissions
- There is a public perception that the development has the potential to result in significant greenhouse gas emissions and /or these potential impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Undertake a high-level estimate of whole of life greenhouse gas emissions associated with the construction and operation of the development and outline measures to minimise emissions through material selection including recycled products, operating methods and offsets. Estimates should cover Scope 1, 2 and 3 emissions and include:
 - embodied emissions of construction materials used in construction of the facility and consumables during operation (e.g. quarry products, concrete, asphalt, metals, fuels)
 - extraction, production, transportation of fuels
 - transportation of purchased materials and waste
 - disposal of waste; and
 - electricity use.
- Prepare a sustainability assessment prepared by a suitably qualified environmental expert. The assessment should measure the ecological footprint of the development and address sources of greenhouse gas emissions, the use of renewable or alternative technologies, materials and resources minimisation, energy and water efficiency measures, greenhouse gas reductions and other sustainability initiatives during construction and operational phases.
- Where relevant, provide details of Environmentally Sustainable Design (ESD) techniques proposed for the development including holistic solutions to building performance and services. Demonstrate if and how the development achieves the following:
 - incorporates integrated passive design principles and climate-responsive techniques and features such as building and window orientation, use of eaves, verandahs and shading

structures, water harvesting, at ground landscaping, green walls, green roofs and photovoltaic cells

- is sited and designed to maximise passive environmental performance and minimise energy consumption and reliance on mechanical systems, such as heating and cooling
- is sited, oriented and designed to maximise natural sunlight access and ventilation to main activity areas, habitable rooms, common areas and open space.

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy
- Relevant Regional Plans
- *Green Industries SA Act 2001*
- *Climate Change and Greenhouse Gas Emissions Reduction Act 2007*
- Regulator guidelines, policies
- Other standards

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5.12 Climate Change and Resource Use Efficiency – Waste Management

[Italicised text indicates guidance for assessors]

Objective

To ensure that waste generated, transported or received as part of the development is managed in accordance with the waste hierarchy and in a manner that protects all environmental values.

Context

Management of waste is regulated by the EPA through implementation of the waste management hierarchy set out in the *Environment Protection Act 1993* (EP Act) and the *Environment Protection (Waste to Resources) Policy 2010*. The waste management hierarchy prioritises various waste management approaches where avoiding the waste generation is most preferable and disposal of waste is the least preferable and should only occur where other waste management options, such as recycling, are not possible.

An EPA licence is required for most activities involving the transport, storage, recovery, processing, disposal or treatment of solid waste and most hazardous wastes are banned from disposal to landfill under the Waste to Resources EPP. Many activities producing listed waste (which are defined in 'Schedule 1 of the EP Act) are also required to be licensed by the EPA.

[The Assessment Requirements for Sustainable Use of Resources addresses the circular economy and the sustainable procurement and use of resources.]

Considerations for waste management

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the potential impacts of waste from a development should consider:

- An overview of the activities likely to generate waste during construction and operation
- Overview of types of waste likely to be generated during construction and operation
- Whether the development involves a prescribed activity of environmental significance under the *Environment Protection Act 1993* (e.g. an activity involving a listed waste).

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for waste management should be prepared to assist proponents]

1. Identify, quantify and classify all the expected waste streams to be generated from the proposed project activities during the construction, operation, rehabilitation and decommissioning phases of the development.
2. Assess and describe the proposed management measures against the waste management hierarchy, namely: avoid and reduce waste generation, recycle, reuse, recover, treatment and disposal. This includes the generation, storage and transport of waste.
3. Prepare a waste management and minimisation plan (for demolition, construction and operation where relevant), detailing the sources of waste, the location of waste storage (including separation of waste streams, such as recyclables, hard waste and e-waste) and disposal facilities on the site or development -related sites (e.g. laydowns) and provide details of how these facilities will be serviced.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of waste management may be required]:

- The preliminary assessment indicates that there is a high probability that the development will generate a significant or hazardous waste stream.
- The development involves a prescribed activity of environmental significance under the *Environment Protection Act 1993* (e.g. an activity involving a listed waste)
- The issue is considered by the Commission to warrant detailed assessment

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe the quantity, and physical and chemical characteristics of each hazardous waste, any attributes that may affect its dispersal in the environment, and its associated risk of causing environmental harm.
2. Describe the location (including temporary and final locations), design, construction and operation of proposed waste management storage, stockpiling, treatment (including the separation of waste streams, such as recyclables, hard waste, hazardous waste) and disposal facilities and areas and provide details of how these facilities will be serviced and managed to avoid causing any unacceptable environmental harm. Include reference to which type of wastes (including hazardous and radioactive wastes) will be located in which facilities. Include details of design and management measures that will be used to minimise the risk of leakages/spills and prevent site contamination.
3. Describe contingency and monitoring measures in the event of incidents or equipment or operational failures (including loss of containment) from proposed waste storage or disposal facilities.
4. If there is no available licenced waste management pathway, identify contingency measures for dealing with or disposing of all types of hazardous or listed wastes generated in the course of operations (including but not limited to wastes containing asbestos, cyanides, hydrocarbons and organic compounds and per- and poly-fluoroalkyl substances).

Radioactive waste

5. Quantify the volume and radiological characteristics (including radionuclide activity concentrations) of the solid and liquid radioactive waste from all relevant components of the proposal.
6. Describe the method of storage of the solid and liquid radioactive waste from all relevant components of the proposal during ongoing operations.
7. Describe the method of disposal of the solid and liquid radioactive waste from all relevant components of the proposal after operations are completed.

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy
- Relevant Regional Plans
- *Environment Protection Act 1993*
- *Green Industries SA Act 2004*
- *Environment Protection (Waste to Resources) Policy 2010*
- *Environment Protection (Movement of Controlled Waste) Policy 2014*
- South Australia's Waste Strategy 2020-2025.

5.13 Economic Environment –Local, Regional and State Economies / Economic Impact Assessment (Example)

[Italicised text indicates guidance for assessors]

Objective

To ensure adverse economic impacts arising from construction and operation of the development are avoided or mitigated, and net economic benefits to the region and state are created.

Context

Major projects and developments have the potential for significant job creation and an economic stimulus for the local area, the region and the state. Impacts, both positive and negative may be experienced in the local and State economies during construction and operations with the potential for immediate and long terms effects on residents, businesses and surrounding uses.

[The Assessment Requirements for Community Wellbeing / Social Impact Assessment address the social impacts of a development.]

[The Assessment Requirements for Land addresses land use, land tenure and protected areas]

Considerations for economic impact assessment

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

The preliminary assessment provided in the scoping application should consider a high-level baseline description of the local and regional economic environment (i.e. without the development), against which further assessment of the positive and negative impacts of the development are to be measured. Information would include a **brief overview** of:

- key economic stakeholders and communities
- key local, regional, state and national industries and businesses
- other resource and infrastructure projects in the area, both planned and currently operating, based on publicly accessible information
- relevant local and state government economic plans and strategies
- potential economic impacts and benefits.

Assessment Requirements

Categorisation of Impacts Requiring Detailed Assessment

[Detailed assessment requirements for economic impact would generally be required for impact assessed projects due to the nature and scale of the potential economic impacts, the unique set of economic factors and the complexity and uncertainties inherent in economic impact assessment. Consequently standard assessment requirements have not been developed.]

Detailed Assessment Requirements

[The following provides guidance for possible Detailed Assessment Requirements to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements of an economic impact assessment should be prepared to assist proponents]

1. Provide a full economic analysis of the development including the long-term economic viability and efficiency of the operational aspects of the development, incorporating a regional impact analysis (RIA) and cost-benefit (risk return) analysis (CBA).
2. The RIA should focus on the direct impact of the project on the local, regional and state economies. The identification of economic impacts should include the prediction of spending on goods, services, taxes etc. during construction and operation of the project and the distribution of income generated by the project.

3. The CBA should assess the impact of the project on the economic welfare of the economies of interest by estimating a dollar value for as many economic, social and environmental benefits and costs as can reasonably be predicted.
4. Consideration of regional economic impacts should include:
 - An outline of the skill level requirements of any new workforce, the component of the workforce that is expected to be hired locally, and the type of employment this would entail (e.g. full time, permanent, sub-contractors, casual, skilled labour, truck drivers etc) and identify if this employment would be continuous/year round.
 - Description of the existing significant economic activities and facilities in the areas (e.g. industrial, commercial, primary production (e.g. mining, agriculture, horticulture, viticulture, aquaculture, fishery), tourism) in the project area.
 - Identification of the impacts of the development will have on existing users of distribution networks for gas, electricity, waste, potable water, sewerage, and communication systems.
5. Describe any potential economic effects locally and regionally and the potential to attract value add development and commercial ventures including:
 - potential employment opportunities and the expected impacts on the local workforce during construction and operational stages and flow-on impacts on local business
 - information on local and indigenous employment and training opportunities associated with the proposal
 - the economic effect of the construction and on-going workforce regionally. Include consideration of impact of development on existing industries and local businesses if workers change employment e.g. mining taking skilled workers from trades and agriculture due to higher wages.
 - effects on accommodation supply and demand
 - an analysis of existing supply chain and prospective suppliers, as well as any gaps in the supply chain
 - secondary economic effects, including property and land values, potential to attract new industries and commercial ventures. Describe the positive and negative effects on existing businesses / industries (e.g. displacement, competition or opportunities)
 - the proposal's anticipated effect on State and local investment, research and development, educational effects, employment generation and flow-on impacts on business.
 - the proposal's anticipated effect on State and local investment and the region as a whole identifying employment and investment opportunities, including the 'multiplier effect' for the local area, the broader regional economy and community and South Australia.
 - any economic implications for the State and the region if the development does not proceed.

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy 1: Integrated Planning; State Planning Policy 8; Primary Industry; State Planning Policy 9: Employment Lands; State Planning Policy 10: Key Resources; State Planning Policy 11: Strategic Transport Infrastructure; State Planning Policy 12: Energy
- Relevant Regional Plans
- Relevant Landscape Board Landscape Plans
- [20 Year State Infrastructure Strategy](#)
- [Regional Development Strategy](#)

5.14 Hazards and Risks (Example)

- Bushfire
- Flooding
- Site and groundwater contamination
- Dangerous substances

[Italicised text indicates guidance for assessors]

Objective

To ensure the risk of, and adverse impacts from natural and man-made hazards from the development are avoided, minimised or mitigated to protect people, property and the environment.

Context

Developments can present a range of hazards and risks derived from infrastructure or activities associated with the site (e.g. transmission lines, gas pipelines, storage and transport of dangerous substances). Hazards can also include the development's vulnerability to or enhancement of existing risks such as bushfire or flooding, site and groundwater contamination. Risk assessments are undertaken to describe the potential risks to people and property associated with all components of the development, and evaluate the safeguards that would reduce the likelihood and severity of hazards, consequences and risks to people and the environment, within and adjacent to the development.

Major bushfire risks are addressed in the *South Australia State Bushfire Management Plan 2020-2025* prepared under the *Fire and Emergency Services Act 2005*, which sets out the governance arrangements for bushfire management in South Australia including requirements for preparation and implementation of Bushfire Management Area Plans.

Management of the risks of contaminated sites under the *Environment Protection Act 1993* requires known or suspected groundwater contamination to be reported to the EPA for assessment, and if necessary remediation to treat, contain, remove or manage the contamination.

Dangerous goods are substances and articles which, because of their chemical or physical properties, pose hazards requiring special controls and licensing under the *Dangerous Substances Act 1979* for their safe transport and storage.

[The Assessment Requirements for Climate Adaptation address climate change adaptation and risk assessment]

Considerations for assessment of hazards

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

The South Australian Property and Planning Atlas (SAPPA) maps the Code overlays for bushfire and flooding hazards. Other publicly available spatial datasets include bushfire management areas, fire history, flood mapping, groundwater prohibition areas (GPAs) and section 83A notifications for contamination of underground water.

Preliminary assessment in the proponent's scoping application of the potential impacts from hazard(s) on the proposed development should consider the following:

- Identification of relevant bushfire and flooding hazard Code Overlays applicable to the development.
- Identification of the relevant Bushfire Management Area.
- An overview of any previous or existing land uses that might have affected or contaminated the land or groundwater

- Identification of any groundwater prohibition areas or any notifications under section 83A of the EP Act
- Whether the development involves a change in land use to a more sensitive use (in the context of site contamination) for the purposes of the Planning and Design Code.
- Overview of the development activities likely to involve transport and storage of dangerous substances and the likely nature of those substances.
- Identification of any other potential hazards associated with the development which are likely to require further risk assessment (e.g. the development is likely to be classed as a major hazard facility)

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for assessment of hazards and risks should be prepared to assist proponents]

Hazard assessment

1. Undertake a risk assessment which describes the potential risks to people and property that may be associated with the proposed project for all components of the development. The assessment must address the following matters (where relevant):
 - Potential hazards (e.g. those associated with transmission lines, petroleum and gas pipelines, storage and use of dangerous substances and explosives), accidents, fire, occurrence of contaminated land and abnormal events that may occur during all stages of the proposed project, including estimated probabilities of occurrence. Describe measures that would be taken to minimise the risks of these events.
 - Assess the vulnerability of the area to natural and induced hazards, including floods, bushfires and storm events. Consider the relative frequency and magnitude of these events together with the risk they pose to the construction, operation and decommissioning of the proposed project, as well as the rehabilitation of the site. Describe measures that would be taken to minimise the risks of these events.
 - Evaluate the risk of fire, explosion, containment facility failure or other high consequence events at the site and any potential impacts on human health and to the environment. This should include a description of the critical controls (and how they will be maintained) that will be used to minimise the risks and mitigate the impacts from these catastrophic risks.
 - Assess how siting, layout and operation of the development will avoid or mitigate risks, particularly with regard to the release of hazardous materials during natural hazard events (e.g. bushfire or flooding).
2. Hazard analysis and risk assessment in accordance with *AS/NZS ISO 31000:2018 Risk management guidelines* and with *HB203:2006 Environmental risk management principles and processes*
3. The hazard assessment should address the following (where relevant):
 - Bushfire
 - Evaluate and identify any bushfire risks on the site, in particular how risks from bushfire will be minimised with regards to the potential for uncontrolled bushfire events, high levels and exposure to ember attack, impact from burning debris, radiant heat, likelihood and direct exposure to flames from a fire front.
 - Explain how the buildings and structures will be designed, configured, sited and the use of materials in order to reduce the impact of bushfire (i.e. buildings should reduce the potential for trapping burning debris against or underneath the building or structure, or between the

ground and building floor level in the case of buildings on stilts and located on flatter sites and away from vegetated areas that pose an unacceptable bushfire risk).

- Flooding
 - Describe the history of flooding onsite and in proximity to the development site. Describe current flood risk for a range of annual exceedance probabilities up to the probable maximum flood for the proposed project site. Use flood modelling to assess how the proposed project may potentially change flooding and run-off characteristics on-site and both upstream and downstream of the site. The assessment must consider all infrastructure associated with the proposed project including levees, roads, and linear infrastructure, and all proposed measures to avoid or minimise impacts.
 - Identify the potential impacts on people, property, infrastructure and the environment from potential flood risk (where relevant).
 - Evidence must be provided to demonstrate that the securing of storage containers of hazardous contaminants during flood events meets relevant requirements of the *Environment Protection Act 1993*.
- Site and Groundwater Contamination
 - Describe the historical land use and potential for contamination of soils and sediments and describe any known or suspected soil contamination that could be re-suspended, released or otherwise disturbed as a result of the development
 - Detail any known or potential sources of contaminated groundwater that could be impacted by the development.
 - Detail procedures to be adopted to confirm whether site contamination exists (such as site history, site audit, and site contamination reporting) and any remedial measures proposed.
 - Detail management measures that will be required during construction and operation to prevent site contamination.
- Dangerous substances and hazardous materials
 - Identify all dangerous and hazardous substances and any explosives to be used, transported, stored, processed or produced and the rate of usage.
 - Describe the use, handling and disposal of these materials during construction and operation, with reference to storage (including any associated fire protection facilities).
 - Describe how hazardous contaminants and waste substances produced by the development will be treated or contained until their disposal at an approved facility.
 - Evaluate the potential effects of any accidents involving dangerous substances on the environment and public health in the vicinity of the site.
 - Evaluate the risks associated with the secure storage, use and transportation of explosives in accordance with the *Explosives Act 1936* and codes and standards including Australian Standard AS2187.1 Explosives - Storage, transport and use - storage.
- Electromagnetic fields
 - Provide an assessment of potential hazards and risks associated with electric and magnetic fields (EMF) having regard to the latest advice of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA);
- Emergency Management
 - Describe the emergency response plan in the event of an emergency, including evacuation measures and arrangements for coordination with the responsible response organisations, including exercise and training plans for emergency response.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of hazards and risk may be required]:

- The preliminary assessment indicates a high to medium probability that there are significant hazards or risks associated with the development.
- There is a high / medium probability of impacts on the development from external environmental factors such as those associated with climate change (sea-level rise, increased frequency of bushfire, floods etc).
- There is a public perception that the development has the potential to present a significant hazard or risk to the surrounding environment / community and / or potential for significant hazard or risk has been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment
- The proposed development includes an activity that would require a major hazard facility licence.
- The change of land use is to a more sensitive use and the preliminary assessment indicates high or medium probability of site contamination being present on the site as a result of a class 1 potential contamination activity having occurred on the site (refer Practice Direction14)
- The preliminary assessment indicates that the development is located within a High or Medium bushfire or flooding Overlay.
- The preliminary assessment indicates that the development is located within a groundwater prohibition area or area subject to section 83A notification.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

Risk Assessment and Hazard Management

1. Undertake an assessment of the risks to public safety, paying particular attention to bushfire and flooding risks, emergency egress and evacuation, the handling and use of any dangerous substances and potential impacts to high pressure gas pipelines.
2. Prepare a Hazard Management Plan that considers the risks and hazards associated with all components of, and activities associated with, the proposed development. The plan should address public and workplace safety, emergency response strategies and identify third party restricted and exclusion zones.
3. Prepare a Fire Hazard Management Plan that considers requirements both during the construction and operations phases, including measures to minimise fire risk at and to/from the site, resources and training required, sources of water to fight fires (and how this water will be accessed), options to utilise and coordinate with other operations in the region/area, and cost recovery.
4. Describe the application of the major hazard facility provisions of the *Work Health and Safety Regulations 2012* to the development.
5. Undertake a Quantitative Risk Assessment of the major hazard facility to identify the hazards associated with the facility, determine the potential frequencies and consequences of the identified hazards, determine the systems availability of the protection systems and quantify the risks associated with a facility

Site / groundwater contamination (where relevant)

6. Describe the approach for obtaining a statement of site suitability statement as it applies to the development (if required). Identify additional investigations proposed or likely to be required.

Radiation (where relevant)

7. Describe the measures to control and minimise releases and subsequent exposure of radionuclides to the environment, members of the public and non-human biota from relevant components of the development during ongoing operations and after rehabilitation of the site.
8. Describe the measures to control and minimise radiation exposures to workers from relevant components of the development during ongoing operations.
9. Describe and assess the radiation exposure pathways to workers, the public and non-human biota from relevant components of the development during ongoing operations and after rehabilitation of the site.
10. Outline how the radiation exposure pathways to workers, the public and the environment from relevant components of the development would be monitored during construction, operation and closure/rehabilitation of the site.

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy 16: Emissions and Hazardous Activities
- Relevant Regional Plans
- *Fire and Emergency Services Act 2005*
- *Emergency Management act 2004*
- *Environment Protection Act 1993*
- *Dangerous Substances Act 1979.*
- [South Australia State Bushfire Management Plan 2020-2025](#)
- [Guidelines for the assessment and remediation of site contamination](#)
- [Australian Code for the Transport of Dangerous Goods by Road and Rail](#)

5.15 Land - Land Use, Land Tenure, and Protected Areas (example)

[Italicised text indicates guidance for assessors]

Objective

To ensure that the impacts of development on environmental, social and economic values of adjoining land uses, land tenures and protected areas are avoided or minimised.

Context

The potential impact of development is considered in the context of the existing land uses, land tenure and protected areas which surround them. Once the general land use context is defined, the broader social and economic impacts of development on adjoining land uses, and the local impacts such as traffic access, noise and visual impacts can be assessed.

Consideration should also be given to protection of state significant, viable and established developments (such as large-scale mining, manufacturing, chemical handling, waste management and energy generation) from encroachment by incompatible adjoining development.

Land tenure is the legal relationship which identifies rights to use and occupy an area of land. Land tenures can be overlapping and developments may require consideration of impacts on a range of different tenures. Land tenures relevant to a development in South Australia include freehold title, Crown land, pastoral leases, mining and petroleum tenements, Native Title and agreements with traditional owners, native vegetation heritage agreements, and a range of other leases or licences. A fundamental consideration when assessing activities on Crown land is whether native title has been extinguished.

Protected areas to be considered include nationally protected areas such as Ramsar wetlands, wilderness protection areas, national parks, conservation parks, regional reserves, game reserves and recreation parks established under the *National Parks and Wildlife Act 1972* and *Wilderness Protection Act 1992* to protect environmentally and culturally significant areas. Similarly, ocean-based parks established under the *Marine Parks Act 2007* protect a variety of marine habitats and species, and conserve places with strong cultural heritage associations. The *Forestry Act 1950* provides for management of areas reserved for native and plantation forestry.

Special Legislative Schemes are set out under the State Planning Policies for areas protected under legislation as being of significant environmental importance to the state. These include the *River Murray Act 2003*, the *Adelaide Dolphin Sanctuary Act 2005*, the *Marine Parks Act 2007*, *Arkaroola Protection Act 2012*, *Character Preservation (Barossa Valley) Act 2012*, *Character Preservation (McLaren Vale) Act 2012*.

[The Assessment Requirements for Economic Impacts address economic impacts on land use e.g. property and land values.]

[The Assessment Requirements for Community Wellbeing / Social Impact Assessment address the social impacts of development on adjoining land uses]

[The Assessment Requirements for Air Quality address air quality impacts to adjoining land uses (e.g. dust and fuel emissions)]

[The Assessment Requirements for Noise and Vibration address noise and vibration impacts to adjoining land uses.]

[The Assessment Requirements for Visual Impact address impacts to visual amenity, landscape and open space.]

[The Assessment Requirements for Transport and Traffic address impacts to safety and efficiency of transport and traffic systems and infrastructure.]

[The Assessment Requirements for Terrestrial and Aquatic Flora and Fauna address impacts to the ecosystems, habitats, and species in protected areas]

Considerations for land tenure, land use and Protected Areas

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

The South Australian Property and Planning Atlas (SAPPA) and other government databases provide publicly available spatial data relevant to land use, land tenure and protected areas. Preliminary assessment in the proponent's scoping application of the potential impacts of the development should consider identification of key land uses and land tenures in the region surrounding and at the interface with the development including but not limited to:

- location / footprint of the proposed development
- location of population centres
- significant existing industrial or other facilities
- existing major infrastructure and utilities (e.g. roads, rail, transmission lines, electricity transmission lines, power stations, oil, gas and water transmission pipelines, storage reservoirs, desalination plants, airstrips)
- generalised land uses in the region
- land uses adjoining the development
- land tenure (e.g. freehold title, Crown land, pastoral leases, mining and petroleum tenements, native title and agreements with traditional owners, native vegetation heritage agreements)
- relevant Planning and Design Code Overlays and Zones
- areas subject to Special Legislative Schemes under the State Planning Policies
- areas reserved for conservation purposes and other protected areas (State and Commonwealth) including marine parks, state forests and Indigenous Protected Areas

The preliminary assessment should also identify key potential impacts to existing / adjoining land use and activities including property access, privacy and enjoyment and conduct of regular or seasonal activities.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for impact assessment for land use, land tenure and protected areas should be prepared to assist proponents]

1. Provide details of the existing land uses (including relevant Planning Code Overlays and Zones), land tenures and protected areas at, overlapping or adjoining the development site. *[Note this information will form the basis of the 'existing environment' description for other environmental attributes addressed in the EIS].*
2. Provide details of site services and infrastructure including utility services (water, gas, electricity, sewerage disposal, wastewater, drainage, trenches or conduits); location of ground and roof plant and equipment (electricity transformers; air conditioning; solar panels etc). *[Note this information will form the basis of the 'existing environment' description for other environmental attributes addressed in the EIS].*
3. Provide details of the development (activities or structures) with the potential to impact on existing land uses, land tenures and protected areas that overlap, adjoin or are in the region of the development *[Note this information will form the basis of the existing environment description for other environmental attributes addressed in the EIS].*

4. Describe existing or potential native title rights, claims and interests which may be impacted by the development (including with the use of maps) the following native title considerations:
 - land or waters where native title has been determined to exist by the Federal Court
 - land or waters that are covered by a native title determination application
 - land or waters that are covered by a registered Indigenous Land Use Agreement.
5. Describe in general terms the potential impacts of the development on existing or adjoining land use. *[Note that many impacts and mitigation measures will be addressed under Assessment Requirements for other environmental attributes and should be cross-referenced accordingly in the EIS].*
6. Describe (where relevant) potential impacts of the development for Crown land, pastoral leases, petroleum and mining tenements and Native Vegetation Heritage Agreements or any other relevant land tenures (including leases and licences). *[Note that many impacts and mitigation measures will be addressed under Assessment Requirements for other environmental attributes and should be cross-referenced accordingly in the EIS].*
7. Describe (where relevant) potential impacts of the development or areas protected under legislation or Special Legislative Schemes. *[Note that many impacts and mitigation measures will be addressed under Assessment Requirements for other environmental attributes and should be cross-referenced accordingly in the EIS].*
8. Provide an assessment of local impacts to adjoining land uses identified in the scoping application (e.g. property access (fencing, gates), privacy and enjoyment, conduct of regular or seasonal activities (e.g. grape vintage, sowing, harvesting, mustering, spraying, lambing) and describe any measures to mitigate these impacts.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to land tenure, land use and protected areas may be required]:

- The preliminary assessment indicates that a high probability of significant impacts to an area protected under the *National Parks and Wildlife Act 1972*, the *Wilderness Protection Act 1992* or by a Special Legislative Scheme.
- Native Title has not been extinguished at the site of the development.
- There is a public perception that the development has the potential to cause significant impacts to a protected area and / or potential impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. Describe the potential impact on the relevant Native Title Claimants and ongoing enjoyment of native title rights (if any) by native titleholders, and the proposed management of potential impacts through an Indigenous Land Use Agreement, or other measure in accordance with the *Native Title Act 1994*
3. Provide a summary assessment of the potential impacts to the protected area or land tenure and how these would be addressed, with cross reference to the outcomes of the detailed assessment undertaken for the relevant key environmental attributes under other Assessment Requirements.

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- [State Planning Policies for South Australia Special Legislative Schemes](#)
- State Planning Policy 9: Employment Lands
- Relevant Regional Plans
- *Adelaide Dolphin Sanctuary Act 2005*
- *Arkaroola Protection Act 2012*
- *Character Preservation (Barossa Valley) Act 2012*
- *Character Preservation (McLaren Vale) Act 2012*
- *Coast Protection Act 1972*
- *Crown Land Management Act 2009*
- *Forestry Act 1950*
- *Landscape South Australia Act 2019*
- *Marine Parks Act 2007*
- *Mining Act 1971*
- *National Parks and Wildlife Act 1972*
- *Native Title Act 1993 (Cth)*
- *Native Title Act 1994 (SA)*
- *Pastoral Land Management and Conservation Act 1989*
- *Petroleum and Geothermal Energy Act 2000*
- *River Murray Act 2003*
- *Wilderness Protection Act 1992.*

5.16 Physical Environment – Coastal and Marine (Example)

[Italicised text indicates guidance for assessors]

Objective

To ensure the natural features and processes of coastal systems are protected so that the environmental values of the coast are maintained.

To ensure the quality and productivity of marine waters, sediment and biota are protected so that environmental values are maintained.

Context

The South Australian coastal and marine environment has high intrinsic, aesthetic, social, environmental and economic values. It includes beaches, islands, oceans, dune systems, tidal waters, wetlands and cliffs. The natural features of the coastal environment provide vital habitat, contribute to biodiversity and play an important role in protecting development and human occupation from flooding and erosion. Substantial economic benefits are also derived from sustainable coast-dependent development such as aquaculture and ports.

The interface between sea and land is dynamic and subject to coastal hazards such as flooding, erosion, sand dune drift and acid sulfate soils. Climate change and ongoing sea level rise has increased risks for coastal developments and the viability of tide dependent ecosystems and aquaculture and fisheries industries. Onshore development can have significant land-based impacts to marine habitats (e.g. reefs and seagrasses) from nutrients and sediments, stormwater, wastewater and industrial discharges.

The Coast Protection Board is responsible for protecting and restoring the coast and development for aesthetic and other purposes under the *Coast Protection Act 1972*.

[The Assessment Requirements for Native Flora and Native Fauna address the provision of information about coastal and marine flora, fauna and ecosystems].

[The Assessment Requirements for Biosecurity address marine pests and biofouling].

[The Assessment Requirements for Historic Heritage address historic shipwrecks.]

[The Assessment Requirements for Soil, Landform and Geology address acid sulfate soils]

Considerations for coastal and marine

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

The South Australian Property and Planning Atlas (SAPPA) provides spatial data for coastal and marine waters related matters including Code overlays for Coastal Areas, Coastal Flooding, Marine Parks and the Coastal Waters and Offshore Islands Zone.

Other publicly available coastal and marine related spatial datasets include mapping of aquatic reserves, the Adelaide Dolphin Sanctuary, rock lobster sanctuaries, the State marine park network and zones and associated data (e.g. special purpose areas).

Preliminary assessment in the proponent's scoping application of the potential impacts to the coastal and marine environment should consider:

- Description of known uses of the coastal area and marine waters in the development environs
- Description of the coastal and marine water features and environmental values and any nearby sensitive places and receivers (including MNES).
- Identification of relevant coastal and marine Code Overlays applicable to the development.
- Whether the development involves a prescribed activity of environmental significance under the *Environment Protection Act 1993* (e.g. dredging)

- Description of the development activities with potential to impact on coastal systems and marine water quality
- Overview of potential impacts to the coastal and marine water environment during construction and operation.
- Preliminary assessment of the potential for significant impacts to Matters of National Environmental Significance (MNES) protected under the EPBC Act.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for assessment of impacts to the coastal and marine environment should be prepared to assist proponents]

Coastal systems

1. Describe existing coastal environmental values including estuarine, littoral and marine environmental values (e.g. water quality, benthos, aquatic flora and fauna, mangrove areas, salt marsh, and amenity) that could be impacted by construction or operation of the development.
2. Describe current processes and recently historical estuarine, littoral and marine morphology with a description of the processes shaping the coastal system (e.g. tides, rivers, floods, coastal currents, sediment transport, major storms, rocky headlands, or islands)
3. If MNES have been identified, undertake an assessment of potential impacts relevant to the MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*
4. Describe the legislative, regulatory and planning contexts for coastal systems that apply to the development including marine parks.
5. Describe existing residential, commercial or recreational uses of the coastal system that could be impacted by construction or operation of the development.
6. Provide details of proposed works with potential to affect coastal processes including buildings and infrastructure to be built on the shore or on land close to the shore and excavations on or near the shore.
7. Identify the flooding and erosion risks to the site (including flooding and erosion exacerbated by sea level rise and extreme weather events) and measures to reduce the risks.
8. Provide details of how natural processes and the protective function of landforms and vegetation will be maintained in sea erosion and storm tide inundation areas.
9. Identify any potential for Coastal Acid Sulfate Soils (CASS) to be encountered on the site and how this might be mitigated (refer to the Coast Protection Board policy on CASS).
10. Assess the potential impacts to the coastal system and existing uses from the development and propose mitigation measures to avoid or minimise those impacts during construction and operation.

Marine waters

11. Provide a description of the physical oceanography within the study area including surface and subsurface current patterns, current velocities, waves, storm surges, longshore drift processes, tidal patterns, and tide levels for the site, in proximity to the site, and along marine shipping routes.
12. Provide bathymetric information for the study area and along marine shipping routes.

13. Describe seasonal marine water quality including water temperature, turbidity, total suspended solids, salinity and pH.
14. Describe historical marine uses and the potential for contamination of sediments and describe any known or suspected sediment contamination within the study area that could be re-suspended released or otherwise disturbed as a result of the project.
15. Provide details of proposed works with potential to affect marine waters and current uses. The description should include the following matters (where relevant):
 - potential impacts of shipping and offshore transshipping operations on the marine environment
 - any jetties, bunds, harbour walls, groynes, channel markers, or other infrastructure, to be built in waters
 - any proposals to undertake transshipping of material in state waters or the Commonwealth marine area
16. If the development requires the construction of structures on or adjacent to coastal geological formations:
 - describe the underlying geology and the nature of the soils with special reference to coastal landforms
 - identify geological, seabed and substrate impacts that may occur as a result of any dredging activity that will be undertaken during the construction phase. Detail measures for managing these impacts.
 - identify the total 'in water' footprint of the proposed development (including all areas to be dredged and/or altered)
 - Describe the potential for pollution (e.g. sediment plumes, spills to land and water, discharge of stormwater and wastewater) of marine waters during construction and operation. Identify locations where discharge to marine waters or land may occur during construction, operation or decommissioning of the development.
17. Assess the potential impacts of the proposed project's activities in marine waters including any potential impacts on marine parks, commercial or recreational fisheries effects of the development on nursery habitat (e.g. seagrass beds, reefs, or, mangroves) of target species (such as prawns and fish). Include spills of fuels and chemicals from water and land-based activities, run-off / discharge from land-based activities and propose mitigation measures to avoid or minimise those impacts during construction and operation.

18. Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to coastal and marine may be required]:

- The preliminary assessment indicates that a high or medium probability of significant impacts to the coastal and/or marine environment from the development.
- There is a high or medium probability of impacts on the development from external environmental factors such as those associated with climate change (.e.g. sea-level rise,)
- A proposed activity is likely to be classed as a prescribed activity of environmental significance under the Environment Protection Act.
- There is a public perception that the development has the potential to cause significant impacts to coastal systems and / or marine waters (including marine parks) and those impacts have or are likely to be the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment

- Potential impacts to a MNES (e.g. Ramsar Wetland, Commonwealth marine area) are likely to require referral and approval under the *Environment Protection Biodiversity and Conservation Act 1999*.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. Describe coastal engineering requirements for the location, orientation and type of infrastructure (e.g. causeway and/or jetty and wharf structures).
3. Describe materials that will be used to construct the infrastructure (e.g. causeway, jetty), including any treatment that the materials may have been subject to, prior to immersion in water.
4. Describe the impacts of infrastructure construction (port, wharf, jetty, berthing pocket, rock wall, retaining structures and mooring dolphins) on foreshore, intertidal, seabed and benthic communities (especially any nursery/spawning areas). Describe measures that will be undertaken to mitigate these impacts.
5. Describe, and provide baseline information on, the existing seabed profile, bathymetry, sedimentary profiles (including particle sizes), sand movement, water flow and tidal movement patterns through and around the proposed infrastructure.
6. Identify any possible changes to the seabed, bathymetry, sedimentary profiles (including particle sizes), and sand movement water flow and tidal movement patterns as a result of the development during both the construction and operational phases. Identify the impacts this may have on sensitive marine flora and fauna and commercial aquaculture activities in the region, and outline mitigation strategies.
7. Describe the contaminants and toxicants that may accumulate on the site and the risks during stormwater events (where not managed) to the adjacent aquatic environments and commercial industries (e.g. fisheries and aquaculture) that rely on those environments.
8. Identify the risks from the exposure of fine sediments or clays that would impact adversely on water quality (turbidity and light penetration) and contribute to the production of sediment plumes in the region during both construction and operation phases. Outline the impacts this may have on commercial aquaculture activities in the region.
9. Detail measures to protect foreshore areas during and after construction, including potential marine and terrestrial protection areas and associated buffers.

Dredging

10. Describe any capital dredging for navigation channels, berths, swing basins or harbours, maintenance dredging for navigation channels, berths, swing basins or harbours.
11. Describe the volume, chemical and physical characteristics of the dredged or excavated material, with particular regard to acid sulfate soils
12. Describe the proposed disposal or placement options for dredged or excavated material, including an assessment of whether disposal in waters or for land reclamation would be likely to receive approval.
13. Describe any dredging activity that will be undertaken during the construction phase. Outline impacts that dredging may have on sediment loads and the neighbouring commercial aquaculture operation. Detail measures for managing these impacts, including management of dredge spoil in accordance with EPA guidelines.

14. Identify potential impacts of dredging, bed levelling, and/or the potential impacts of shipping and offshore transshipping operations on the marine environment. The impact assessment must also address changes in water quality, including increased water turbidity or other contaminants, due to the disturbance of benthic sediments or the disposal and/or relocation of material. Consider potential ecological impacts due to changes in water quality or the disturbance of the benthos. Provide strategies to avoid, mitigate and manage potential impacts.
15. Identify geological, seabed and substrate impacts that may occur as a result of any dredging activity that will be undertaken during the construction phase. Detail measures for managing these impacts.
16. Detail a monitoring program that would audit the success of mitigation measures, measure whether objectives have been met, and describe corrective actions to be used if monitoring shows that objectives are not being met.

Shipping

17. Describe the potential impacts on marine parks (State) from the construction and operation of the development, including the passageway of ships to and from any port / wharf development and determine appropriate measures to manage, offset or mitigate these impacts.
18. Outline measures to protect water quality and the marine environment from shipping activities, especially turbulence during docking and manoeuvring.
19. Detail measures for managing solid waste, black water and grey water from ships.

MNES

20. If potential impacts of noise and vibration on MNES require approval under the EPBC Act, an assessment of impacts on the affected MNES must be prepared by a suitably experienced, specialist consultant. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy 13: Coastal Environment
- Relevant Regional Plans
- *Coast Protection Act 1972*
- *Environment Protection Biodiversity and Conservation Act 1999*
- *Aquaculture Act 2001*
- *Adelaide Dolphin Sanctuary Act 2005*
- *Fisheries Management Act 2007*
- *Marine Parks Act 2007*
- [A Strategy for Implementing CPB Policies on Coastal Acid Sulfate Soils in South Australia](#)

5.17 Physical Environment – Soil, Landform and Geology (Example)

[Italicised text indicates guidance for assessors]

Objective

To ensure development is undertaken in a manner that protects the productivity and quality land including, soil, subsoil and landform and avoids impact to other environmental values.

Context

Challenges to the sustainable use and management of soil and land resources include wind and water erosion, soil acidification, soil salinisation and soil structure decline. The topographical position of a soil in the landscape influences different rates of erosion and deposition, drainage, and leaching. Removal of vegetation, disturbance of soil and changes to landform from development can result in soil erosion, exposure of subsoil and loss of the ability of soil to store water and nutrients. Downstream effects of soil erosion include siltation of watercourses and water storages and reduction on water quality in creeks, rivers and coastal areas.

Acid sulfate soils have elevated concentrations of metal sulfides and generate acidic conditions when exposed to oxygen. If incorrectly handled, these soils may potentially impact on human health and the environment, and may also result in damage to infrastructure constructed on acid sulfate soil material.

The *Landscape South Australia Act 2019* provides for the protection and management of the State's natural resources, including provisions relating to land and water resource management. Regional landscape plans and control policies are in force under the Act to guide management of water and soil by Landscape Boards. Soils are one of the seven priorities in the State Landscape Strategy.

[The Assessment Requirements for Surface water and Groundwater address surface and groundwater quality.]

[The Assessment Requirements for Coastal and Marine address marine water quality.]

Considerations for soil, landform and geology

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Publicly available soil and landform spatial datasets include landscape mapping of bioregions, land systems, soils classes, soil attributes (e.g. erosion, potential salinity, acid sulfate soils), geology and earthquake data. Preliminary assessment in the proponent's scoping application of the potential impacts soil, landform and geology from a development should consider:

- Description of the development activities with potential to impact on soils, landform or geology
- Description of the nature and condition of the existing physical environment in the proposal's study area, including reference to soil characteristics, landform, land systems and geology.
- Identification of the application of the acid sulfate soil Code Overlay to the development.
- Identification of potential acid sulfate soils applicable to the development
- Identification of relevant Landscape Board plans and strategies for soil and landform applicable to the development
- Overview of potential impacts to soil and landform from the development during construction and operation.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for impact assessment of soil, landform and geology should be prepared to assist proponents]

1. Provide a detailed description of the soils, landform and geology in the area of the development including the potential for water and wind erosion, soil salinity, acid sulfate soils and soil contamination. The description should:
 - Characterise soil types and structures in the development area and identify the potential location and disturbance of dispersive, acid sulfate, saline or potentially contaminated soils, or soils of other special characteristics that could affect or be affected by the development.
 - Identify hydrological, geomorphic or meteorological conditions that may contribute to susceptibility to erosion (e.g., channels, steep slopes, wind).
 - Identify any areas of ground instability and any ground conditions that may be susceptible to subsidence from development activities (e.g. tunnelling, deep excavation, dewatering) and direct and indirect changes to vegetative cover. Identify properties, structures and infrastructure that may be susceptible to subsidence.
2. Describe the development activities with potential to impact on soils and ground stability.
3. Address the implications of seismicity in the area in relation to both the construction and operation of the development.
4. Prepare a Soil Erosion and Drainage Management Plan which describes the site characteristics, including the existing topography and runoff characteristics. The plan should describe the measures proposed to prevent soil erosion and contaminated runoff from leaving the site during construction, operations and closure / decommissioning (including any opportunities for retention and reuse). Include inspection, maintenance and monitoring of effectiveness of soil erosion measures.
5. Describe measures for storage and management of stockpiled topsoil and subsoils to minimise potential adverse effects on local hydrology and water quality, restoring soil profiles, drainage and productivity, as well as landscape rehabilitation in the context of decommissioning of earth structures. Include sediment and erosion controls where required (e.g. temporary berms, controlling water movement into and around the site, stockpile management and stabilisation of non-paved operational areas).
6. Identify the risks of contamination of land from spills of fuel (or other toxic substances). Describe measures for the prevention and containment of spills, describe the contingency plans to be implemented in the event of spills, and comment on their expected effectiveness.
7. If acid sulfate soils would be disturbed or unexpectedly encountered during construction, describe measures to avoid oxidation of the sulfides, treat and neutralise the acid if it forms and manage any excavated material.
8. Ensure that appropriate soil contamination investigations have been undertaken and that soil generated from earthworks is managed in accordance with EPA guidelines, including for re-use on site or removal of material off-site for re-use, treatment or disposal.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to soils, landform and geology may be required]:

- The preliminary assessment indicates that a high or medium probability of significant erosion and / or land subsidence may occur as a result of the development including during construction.
- There is a public perception that the development has the potential to cause significant impacts to soils or landform and / or potential impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. Describe how all potential high-impact elements of the development (e.g. spoil dumps, water management dams, creek and watercourse diversions and crossings, right of ways and easements, subsidence areas and borrow pits) are capable of being managed and rehabilitated to achieve the agreed final land use and topography. The proposed final landform should be
 - safe and structurally stable, with no environmental harm being caused by anything on or in the land and able to sustain a post development land use.
 - a functional hydrologic system that prevents erosion, maximises connectivity and prevents upstream and downstream surface and groundwater contamination in the long term should be re-established
 - be consistent with the surrounding natural topography and landscape.
3. For developments likely to cause land subsidence, assess and provide comprehensive surface subsidence predictions using tools or techniques that enable the location, extent and scale of subsidence, and its effect over time on surface landforms and hydrology to be understood. Propose detailed mitigation measures for any significant impacts that would result from subsidence including impacts on infrastructure, land, hydrology, flora and fauna.

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy
- Relevant Regional Plans
- *Landscape South Australia Act 2019*
- *Environment Protection Act 1993*
- [Site Contamination - acid sulfate soil materials](#)
- [State Landscape Strategy](#)
- [Stormwater pollution prevention - Code of Practice for the building and construction industry \(EPA\)](#)
- [Environmental management of dewatering during construction activities \(EPA\)](#)
- [Construction environmental management plan \(EPA\)](#)

5.18 Physical Environment - Surface Water and Groundwater (Example)

[Italicised text indicates guidance for assessors]

Objective

To ensure the quality of groundwater and surface water is protected so that environmental values including ecological health, land uses and the welfare and amenity of people are maintained.

Context

South Australia's low rainfall limits the state's ability to capture water meaning the state is heavily reliant on the River Murray system for much of our water supply. Reservoirs in the Mount Lofty Ranges catchment area are also an important source of water for metropolitan Adelaide, while regional areas rely on water supplied via one of the large pipelines from the River Murray, small rural reservoirs or from local dams and groundwater bores.

Groundwater is critical to the health of ecological communities and the viability of many agricultural, pastoral, mining and tourism industries. Groundwater is also used for domestic water supply, irrigated horticulture, industrial applications and irrigation of recreational and sports fields throughout the metropolitan area.

Some surface and groundwater resources across South Australia are prescribed and managed through the water licensing system under the *Landscape South Australia Act 2019* to ensure water use remains sustainable. Protection of natural waters and the stormwater system from pollution is managed through the *Environment Protection Act 1993* and the *Environment Protection (Water Quality) Policy 2015* (Water Quality EPP).

Noise that impacts matters of national environmental significance (MNES) such as Ramsar Wetlands may have implications under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

[The Assessment Requirements for Coastal and Marine address marine water quality.]

[The Assessment Requirements for Soil, Landform and Geology address soil erosion and acid sulfate soils.]

[The Assessment Requirements for Hazards and Risks address flooding hazard.]

[The Assessment Requirements for Native Flora and Native Fauna address groundwater dependent flora, fauna and ecosystems].

Considerations for surface water and groundwater

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

The South Australian Property and Planning Atlas (SAPPA) provides spatial data for water resource related matters including Code overlays for the Mount Lofty Ranges water supply catchments, the Murray Darling Basin, prescribed surface water areas, prescribed water resources areas, prescribed watercourses and prescribed wells areas.

Other publicly available water related spatial datasets include mapping of surface water catchment, watercourse and water bodies, groundwater basins and aquifers, shallow standing water levels and groundwater prohibition areas. Preliminary assessment of surface and groundwater in the proponent's scoping application should consider where relevant:

- Description of the development activities with potential to impact on the quality of surface and groundwater (including disposal of wastewater).
- Whether the development involves a prescribed activity of environmental significance under the *Environment Protection Act 1993*
- Description of known users of surface water and groundwater resources.

- Overview of the existing surface water and groundwater features and environmental values of the receiving environment and any nearby sensitive places and receivers (including MNES).
- Identification of relevant water-related Code Overlays applicable to the development.
- Identification of relevant Landscape Board Water Allocation Plans and Water Affecting Activity Policies applicable to the development.
- Overview of potential impacts to surface and groundwater from the development during construction and operation.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for impact assessment for surface water and groundwater should be prepared to assist proponents]

Surface water

1. Describe existing surface water environmental conditions upstream and downstream of the site (including seasonal variations and variations with flow) of waterbodies, watercourses, drainage channels, wetlands and floodplains. Water quality, any existing site contamination and potential sources of surface water pollution should be addressed.
2. Describe present and potential users and uses of water in areas which may be affected by the development, including residential, municipal, agricultural, industrial, recreational and environmental uses of water.
3. If MNES have been identified, undertake an assessment of potential impacts to surface and groundwater relevant to the MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*
4. Describe the legislative, regulatory and planning contexts for surface water that apply to the development.
5. Describe the potential for pollution (e.g. sediment plumes, spills to land and water, discharge of stormwater and wastewater, dewatering) of water bodies, watercourses, drainage channels, wetlands and floodplains during construction and operation. Identify locations where discharge to surface waters or land may occur during construction, operation or decommissioning of the development.
6. Describe potential alteration to surface water flows as a result of the development (including to waterbodies, watercourses, wetlands, floodplains, beds and banks) and include details of the nature of the works. Discuss the implications of these changes for downstream water uses and describe how these impacts will be minimised.
7. Describe the options for supplying water to the development including potable water (if relevant) and temporary demands during the construction period. Describe on-site storage and treatment requirements for wastewater from accommodation and/or offices and workshops.
8. Identify the risks of contamination of land from spills of fuel (or other toxic substances). Describe measures for the prevention and containment of spills, describe the contingency plans to be implemented in the event of spills, and comment on their expected effectiveness.
9. Describe the proposed mitigation measures to protect the environmental values for surface water quality, how the relevant standards and indicators may be achieved, to protect surface water during construction and operation. Provide details of proposed wastewater and stormwater management, as well as any retention and reuse as part of the development. If required, revisit project design and construction methodologies to reduce impacts surface water quality to demonstrate that the Water Quality EPP will be met.

Groundwater

10. Describe the known groundwater related environmental conditions including quality and significance of groundwater in the area of the development and any surrounding area potentially affected by the proposed development's activities. Include the following (where relevant):
 - describe the nature, type, geology / stratigraphy and depth to and thickness of the aquifers, hydraulic properties and value as water supply sources
 - any existing site contamination, and any identified potential sources of groundwater pollution
 - characterise the quality and volume of the groundwater including seasonal variations of groundwater levels
 - describe existing groundwater supply infrastructure (e.g. bores, wells, or excavations).
11. Describe the legislative, regulatory and planning contexts for groundwater that apply to the development.
12. Describe present and potential users and uses of groundwater water in areas potentially affected by the development, including residential, municipal, agricultural, industrial, recreational and environmental uses of water including groundwater dependent ecosystems (GDE).
13. Describe the potential changes to hydrology (including water quality), as a result of the proposal, and the implications of these changes. Water quality impacts should consider any parameters (e.g. metals, non-metal inorganics) considered important for existing groundwater users / uses in the vicinity of the projected area of impact.
14. Where groundwater would be taken by the development, quantify the volume of water that would be taken, the timeframe over which the take would occur and the potential impact on groundwater users.
15. Describe stormwater and wastewater management and the potential impact on groundwater resources in particular with regard to fuel and chemicals used in construction and / or operation of the development. Describe measures proposed for management of stormwater and wastewater during construction and operation to avoid impacts to groundwater.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to surface and groundwater may be required]:

- The preliminary assessment indicates that there is high or medium probability that water quality impacts from the proposed development will result in a breach of the Water Quality EPP mandatory provisions or related Code of Practice.
- The preliminary assessment indicates that there is high or medium probability the development has the potential to cause significant impacts to current or future water uses.
- There is a public perception that the development has the potential to cause significant impacts to water quality or to current or future water uses and these potential impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment
- The development is located in the area subject to the *Special Legislative Schemes River Murray Act 2003*.
- A proposed activity is likely to be classed as a prescribed activity of environmental significance under the Environment Protection Act.
- A proposed activity will require a licence or permit under relevant Landscape Board Water Allocation Plans and Water Affecting Activity Policies

- Potential impacts to a MNES (e.g. Ramsar Wetland) are likely to require referral and approval under the *Environment Protection Biodiversity and Conservation Act 1999*.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

Surface water

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. *Surface Water Management Plan*: may be required to ensure activities meet requirements set out in the relevant Landscape Board water affecting activity / water allocation plan. The plan must:
 - describe activities such as construction, modification or removal of dams or basins on activities on watercourses, lakes, floodplains, springs, wetlands, waterholes and surface water storage structures
 - detail how these activities will be carried out, materials to be used (including specifications) and machinery/tools required to carry out the works and
 - detail the anticipated impacts of the activities and the measures and actions proposed to reduce or mitigate the impact on the stability and integrity of the water resources are to be addressed
3. *Integrated Water Management Plan (IWMP)*: that incorporates measures and actions to address (but not be limited to) the following issues may be required:
 - Site plan identifying all water related features and infrastructure for the storage, treatment and/or reuse of potable water, stormwater, wastewater and irrigation water.
 - Water balance information, including the total water needs of all components of the development.
 - Total wastewater generation from the development (based on projected wastewater volumes per day).
 - A description of how all wastewater is collected, managed and relayed/discharged (including computations to demonstrate acceptable control discharge to effluent treatment facilities and details of any upgrades to the system that may be required).
 - Predicted stormwater generation volumes and details of stormwater quality improvements, including the location and sizing of bio-retention swales and basins, anticipated quality improvements and details of any other proposed stormwater quality treatment features.
 - Contingencies to address any detrimental effects, especially on local hydrology.

Discharge of Wastewater (where relevant)

4. Identify the quantity, quality and location of all potential discharges of water and contaminants by the proposed project, including treated wastewater and sewage. Describe whether the discharges would be from point sources (whether uncontrolled and controlled discharges) or diffuse sources (such as irrigation to land of treated wastewater/sewage effluent), and describe the receiving environment (such as land or surface waters).
5. Provide a risk assessment of the potential impacts on waters, in the near-field or far-field, resulting from controlled or uncontrolled discharges from the site. Address the following matters with regard to every potential discharge of contaminated water:
 - Describe the circumstances in which controlled and uncontrolled discharges might occur.

- Provide stream flow data and information on discharge water quality, including any potential variation in discharge water quality that will be used in combination with proposed discharge rates to estimate in-stream dilution and water quality. Chemical and physical properties of any wastewater, including concentrations of constituents, at the point of entering natural surface waters must be discussed along with toxicity of effluent constituents to human health, flora and fauna.
- Provide an assessment of the available assimilative capacity of the receiving waters given existing water quality and other potential point source discharges in the catchment. Options for controlled discharge at times of natural stream flow must be investigated to ensure that adequate flushing of wastewater is achieved.
- Provide water quality limits that are appropriate to maintain background water quality and protect other water uses.
- Describe the necessary streamflow conditions in receiving waters under which controlled discharges will be allowed.

Groundwater

6. Provide an assessment and groundwater model that demonstrates the impact on the relevant groundwater resource (e.g. Great Artesian Basin), including other uses. The assessment and groundwater model should incorporate current information from government agencies, the relevant Water Allocation Plan and strategic or regional plan. The model should identify (where relevant):
 - the impact of the proposed extraction of the additional water on the groundwater resource including:
 - a description in the context of the existing monitoring information, presented as groundwater contour maps, hydrographs, concentration plots and in tabulated form.
 - impact of the extraction on each aquifer described in terms of water pressure and water quality at the local and regional level.
 - groundwater contour maps of source aquifers should be provided overlain with GDEs (including EPBC-listed springs) and bores.
 - the impact of the proposed extraction of the additional water on the other aquifers, described in terms of water pressure and water quality at the local and regional level.

MNES

7. If potential impacts to a MNES require approval under the EPBC Act, an assessment of impacts on the affected MNES must be prepared by a suitably experienced, professional acoustic engineering consultant. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policies: Special Legislative Schemes. SPP 17 Special Legislative Scheme River Murray Act 2003
- [State Planning Policy 14: Water Security and Quality](#) : includes planning principles, objectives and policy to protect South Australia's water supply catchments and water dependent ecosystems.
- *Environment Protection Act 1993*
- *Environment Protection (Water Quality) Policy*
- *Stormwater Code of Practice.*
- Landscape Board Water Allocation Plans and Water Affecting Activity Policies
- [State Landscape Strategy.](#)

5.19 Social and Community – Aboriginal Cultural Heritage (Example)

[Italicised text indicates guidance for assessors]

Objective

Avoid adverse effects on Aboriginal cultural heritage values and maximise opportunities to appropriately complement and preserve these values.

Context

South Australia is home to over 30 Aboriginal groups, with distinct beliefs, cultural practices and languages. There are many places across the state that have great spiritual significance to Aboriginal first nations. Many significant areas of traditional Aboriginal land use and occupation in South Australia have never been archaeologically or anthropologically surveyed.

Aboriginal heritage is protected under the *Aboriginal Heritage Act 1988*. Development planned for locations with known Aboriginal heritage significance has the potential to damage, disturb or interfere with Aboriginal sites, objects and remains. Unknown Aboriginal heritage may also be uncovered or discovered at development sites during ground disturbance and project works. There are penalties under the Aboriginal Heritage Act for unauthorised impact on Aboriginal heritage.

To ensure that the appropriate level of engagement with First Peoples groups is carried out, it is beneficial to prepare a Stakeholder Engagement Plan very early in the process that identifies the appropriate stakeholders, the issues they are likely to be interested in (many of which can be taken from the key risks and impacts identified in the EIS assessments) and describes the proposed timing and mechanisms for engagement.

[The Assessment Requirements for Land address matters relating to Native Title.]

Considerations for Aboriginal cultural heritage

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Unauthorised impact to known or unknown Aboriginal cultural heritage can be avoided through consultation with relevant Aboriginal parties and appropriate assessment undertaken early in a project's development. Consultation and assessment also informs the controls to manage the potential for impact on Aboriginal cultural heritage during development activities. Preliminary assessment of Aboriginal heritage in the proponent's scoping application should consider where relevant:

- Preliminary assessment of recorded Aboriginal heritage (e.g. a search of the Central Archive) and the potential for unrecorded Aboriginal cultural heritage by an appropriately qualified archaeologist
- Initial early contact with Aboriginal Affairs and Reconciliation to identify relevant Aboriginal representatives
- Early consultation with the Registered Aboriginal Representative Body (RARB) (where relevant)
- Where there is no appointed RARB, early consultation with the recognised representatives of the relevant Aboriginal heritage or native title organisation or committee in the project area.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for undertaking consultation with Traditional Owners and preparation of CHMP or Heritage Agreement should be prepared to assist proponents]

Assessment Requirement Library

1. Describe any consultation with the relevant Aboriginal representatives with an interest in the project area. Details of Aboriginal heritage provided by Traditional Owners during consultation or discussed in the EIS must remain confidential and are not to be disclosed or published by the proponent.
2. Describe any searches and other assessments of the potential for recorded and unrecorded Aboriginal cultural heritage in the project area. If an Aboriginal cultural heritage study is undertaken it must be done by an appropriately qualified heritage expert.
3. Identify any potential impacts to recorded or unrecorded sites of Aboriginal cultural heritage significance in the project area (noting that the location and cultural nature of any sites, objects and remains must not be identified in the EIS).
4. Outline measures to avoid or minimise impacts to recorded and unrecorded Aboriginal sites, objects and remains in the project area during construction and operations phases.
5. Preparation of a discovery plan or Cultural Heritage Management Plan (if required) to protect cultural heritage values during all phases of the project.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to noise and vibration may be required]:

- The preliminary assessment indicates that there is high or medium probability of causing a significant impact to known Aboriginal cultural heritage.
- The preliminary assessment indicates that there is high or medium probability of causing significant impact to unknown Aboriginal cultural heritage.
- There is a public perception that the development has the potential to cause significant impact to Aboriginal cultural heritage and / or potential impacts to Aboriginal heritage have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.]

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. A comprehensive Aboriginal cultural heritage study and impact assessment of the potential impacts of the development must be undertaken by an appropriately qualified heritage expert. Details of Aboriginal heritage provided by Traditional Owners during consultation or discussed in the assessment must remain confidential and are not to be publicly disclosed by the proponent.
3. A Cultural Heritage Management Plan (CHMP) must be prepared by an appropriately qualified heritage expert in consultation with the recognised Aboriginal representatives that addresses the impact assessment of the development on known and unknown Aboriginal culture heritage.
4. The CHMP must outline measures agreed with the recognised Aboriginal representatives to be taken before, during and after the proposed development in order to manage and protect Aboriginal cultural heritage. The CHMP should include a cultural heritage survey identifying any archaeological, anthropological or historical sites, or sites of significance according to Aboriginal tradition and a discovery plan. Measures for how these sites will be protected should be addressed (e.g. identification of no-go zones, conditional access areas, assessed areas.) noting that the location and cultural nature of any sites, objects and remains must not be made public.

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy 7: Cultural Heritage
- Relevant Regional Plans
- *Aboriginal Heritage Act 1988*
- *Native Title Act 1993 (Cth)*
- *Native Title Act 1994 (SA)*
- Guideline 1- Recognised Aboriginal Representative Bodies (DPC-AAR)
- Guideline 2- Division A2 Agreements (DPC-AAR)
- Guideline 3 - Local Heritage Agreements (DPC-AAR)
- Guideline 4 - Aboriginal heritage registers (DPC-AAR)
- Discovery of Aboriginal Sites and Objects Fact Sheet (DPC-AAR)
- Project Planning and Aboriginal Heritage Fact Sheet (DPC-AAR)
- Aboriginal Heritage Discovery Protocol (DPC-AAR)

5.20 Social and Community – Community Wellbeing / Social Impact Assessment (Example)

[Italicised text indicates guidance for assessors]

Objective

To ensure adverse effects on the community near the development are avoided or minimised including with regard to community cohesion, access to services and facilities and health impacts and capitalise on opportunities to enhance benefits for communities.

Context

Major projects and developments have the potential to significantly change the way a community functions and how people live, work, play and interact with one another on a day-to-day basis. This can include impacts to physical and mental health, social, cultural and economic well-being, access to and quality of infrastructure, services and facilities, access to and control over resources, impacts on peoples' jobs, properties or businesses and impacts to physical safety, exposure to hazards or risks.

There is significant value in collaboration of proponents with stakeholders to achieve integrated development and informed decision making and identification of relevant stakeholders is a key part of the scoping phase of social impact assessment (SIA).

Effective engagement with relevant stakeholders enables them to have ownership in the decision making process and incorporating stakeholder ownership of the SIA process, through their “buy-in” to the process, is key to effective stakeholder engagement. To ensure that the appropriate level of engagement is carried out, it is beneficial to prepare a Stakeholder Engagement Plan very early in the SIA process that identifies the appropriate stakeholders, the issues they are likely to be interested in (many of which can be taken from the key risks and impacts identified in the EIS assessments) and describes the proposed timing and mechanisms for engagement.

SIA is particularly important in areas of Aboriginal cultural heritage or historic heritage, native title, pastoral leases or any land use and ownership with direct linkages between community livelihoods, primary industry, natural resource conditions and sustainable development. It is essential to engage in a meaningful, culturally appropriate, way with the different groups to promote social accountability and reduce the potential for future conflicts.

[The Assessment Requirements for Economic Impacts address the economic impacts.]

[The Assessment Requirements for Land address land use, land tenure and protected areas.]

[The Assessment Requirements for Air Quality address air quality impacts to amenity and liveability (e.g. dust and fuel emissions)]

[The Assessment Requirements for Noise and Vibration address noise and vibration impacts to amenity and liveability.]

[The Assessment Requirements for Visual Impact address impacts to visual amenity, landscape and open space.]

[The Assessment Requirements for Transport and Traffic address impacts to safety and efficiency of transport and traffic systems and infrastructure.]

[The Assessment Requirements for Aboriginal Cultural Heritage address matters relating to protection Aboriginal sites, objects and remains.]

[The Assessment Requirements for Hazards and Risk address matters relating to public safety and risk management.]

Considerations for social impact assessment

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

The preliminary assessment in the proponent's scoping application of the impacts to community wellbeing from a development should consider a high-level baseline description of the existing social conditions within an indicative social impact study area. Information would include a **brief overview** of:

- the proposed study area which identifies the social and geographic boundaries of the social impact assessment
- the location, character and basic demography of potentially affected communities (including nearby regional communities)
- existing industries and land uses, infrastructure, facilities and services, including education, health and emergency services
- nature of existing housing and accommodation
- key potential social impacts and benefits.

Assessment Requirements

Categorisation of Impacts Requiring Detailed Assessment

[Detailed assessment requirements for social impact would generally be required for impact assessed projects due to the nature and scale of the potential social impacts, the unique set of social factors and the complexity and uncertainties inherent in social impact assessment. Consequently standard assessment requirements have not been developed.]

Detailed Assessment Requirements

[The following provides guidance for possible Detailed Assessment Requirements to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements of a social impact assessment should be prepared to assist proponents]

1. Provide a social impact assessment (SIA) of the development which addresses:
 - the existing social environment of communities potentially impacted by the project
 - the potential social impacts (both positive and negative) of the project, and how they will be managed and monitored
2. The SIA should include social baseline information which includes but is not limited to:
 - a demographic profile of potentially affected communities
 - an analysis of community characteristics (e.g. community history and culture, land / property ownership)
 - an overview of land use, key industries in the region, and relevant local and state government plans
 - an overview of the capacity and accessibility of infrastructure, facilities and services, including education, health and emergency services
 - an analysis of the existing housing and accommodation market, including availability, capacity and affordability
 - a profile of the local and regional labour market, including likely availability of personnel with skills relevant to the project
 - details of other resource, infrastructure and major projects in the area (planned and currently operating).
3. Key matters to be addressed by the SIA (for both construction and operation) are:

Workforce Management incorporating (where relevant)-

- a summary workforce profile, including the estimated proportion of FIFO workers
- an analysis of the local and regional labour market, and an assessment of potential social impacts, including employment opportunities, training and development opportunities and possible labour shortages within local communities due to project demand. Include analysis of impact on labour market of skilled workers changing employment.
- an assessment of opportunities for local workers to commute to and from work
- workforce management measures which *[may]* include:
 - measures to enhance potential employment opportunities for local and regional communities, and to mitigate potential negative social impacts
 - provisions to prioritise recruitment of workers from local and regional communities, then workers who will live in regional communities
 - proposed training and development initiatives to improve local and regional skills and capacity including, where relevant, initiatives for traditionally under-represented groups.

Housing and Accommodation incorporating (where relevant):

- proposed workforce accommodation arrangements including details of any proposed project workforce accommodation facilities or purpose-built housing developments
- an analysis of the local and regional housing and accommodation market, and an assessment of potential social impacts, including:
 - potential impacts to availability and affordability of housing (open market and rental) and other forms of accommodation
 - consequences of project induced housing market changes for local residents
 - potential opportunities for local accommodation providers
- workforce housing and accommodation management measures which *[may]* include:
 - measures to enhance potential benefits for project workers and the community, and to mitigate potential negative social impacts
 - policies regarding housing and accommodation support to be provided to project workers and their families who wish to live locally.

Local Business and Industry Procurement incorporating (where relevant):

- a profile of the skills, services and materials required by the project
- an analysis of local and regional supplier capability and capacity relevant to the project, and an assessment of potential social impacts, including opportunities to enhance the capacity of local businesses and supply chains and risks associated with monopolisation of goods and services by the project
- local business and industry procurement plan for construction and operation which *[may]* include:
 - procurement strategies and initiatives for local and nearby regional suppliers, including Aboriginal and Torres Strait Islander owned businesses, and actions to facilitate participation
 - proposed policies and programs to build local and regional capacity and capability, and reduce barriers to entry
 - processes that embed the local business and industry procurement strategies into the contracting model for the project
 - measures to mitigate any potential negative social impacts on local industries

- details of any established industry guidelines or codes of practice which the proponent has committed to complying with.

Health and Community Well-being incorporating (where relevant):

- an analysis of the availability, accessibility and capacity of, and an assessment of potential project impacts on, existing social services, facilities and infrastructure such as healthcare and emergency response, transport and utilities, education and childcare, and community support services
- an analysis of the health and well-being of potentially impacted communities (in particular relevant disadvantaged groups e.g. Aboriginal people, disability, elderly), and an assessment of potential social impacts, including:
 - community health, safety and security
 - livelihoods, economic well-being and access to resources
 - community lifestyles and cultural practices, amenity value, social character, and community cohesion
 - potential temporary or permanent effects on community recreational facilities, affecting the use of open space and the enjoyment of passive and active recreational opportunities.
- health and community wellbeing management measures which *[may]* include:
 - measures to ensure that the level of service provided to the local community by existing social services, facilities and infrastructure is not reduced
 - measures to mitigate potential health and well-being impacts on local communities, and enhance potential benefits
 - the level of on-site health services to be provided for workers
 - details of any workforce code of conduct to govern worker interactions with local communities
 - emergency response arrangements and management measures agreed with emergency service providers, for incidents both on and off the project site
 - details of any community development programs to be implemented, and the outcomes to be achieved.

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policies
- Relevant Regional Plans
- Landscape Board Landscape Plans

5.21 Social and Community – Historic Heritage (Example)

[Italicised text indicates guidance for assessors]

Objective

To ensure that the nature and scale of the development does not compromise the recognised heritage significance of a heritage place or heritage area.

Context

Cultural heritage significance may be recognised at the national, state-wide or local government level and can be associated with aesthetic, archaeological, architectural, cultural, scientific or social attributes of a place.

South Australian State Heritage areas, places and objects are listed and protected under the *Heritage Places Act 1993* and the Planning and Design Code (the Code). Local heritage places are also protected under the Code.

South Australia's historic shipwrecks and relics in marine and inland waters are protected either under the *Historic Shipwrecks Act 1981* (SA waters) or the *Underwater Cultural Heritage Act 2018* (Cth waters).

Commonwealth Heritage Places are natural, Indigenous and historic heritage places on Commonwealth land and waters or under Australian Government control. National Heritage Places are natural, historic or indigenous places with outstanding value to the Australian nation, outside of Commonwealth land. Commonwealth Heritage, National Heritage and World Heritage, are protected under the *Environment Protection Biodiversity and Conservation Act 1999*.

[The Assessment Requirements for Visual Impact address impacts to visual amenity, landscape and open space.]

[The Assessment Requirements for Land addresses land use, land tenure and protected areas]

Considerations for historic heritage

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

The South Australian Property and Planning Atlas (SAPPA) provides spatial data for heritage-related matters including locations of State heritage places and areas and indicative footprints, National and Commonwealth heritage places, and historic shipwrecks in South Australian and Commonwealth waters. Code Overlays for State Heritage Places, State Heritage Areas, Local Heritage Places, Heritage Adjacency, Historic Areas and Character Areas are also mapped.

Preliminary assessment in the proponent's scoping application of the potential impacts to historic heritage from a development should consider:

- Identification of listed or nominated State, National, Commonwealth or World heritage places and areas in the development area
- Identification of relevant Code heritage Overlays and Zones applicable to the development
- Identification of historic shipwreck sites (marine and inland waters) (State and Commonwealth)
- Identification of key potential impacts by an appropriately qualified heritage consultant (depending on the location and nature of the heritage sites identified).

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for heritage impact assessment should be prepared to assist proponents]

1. Provide details of the location, nature and known potential heritage values of all historic heritage potentially affected by the development particularly State and Commonwealth-listed places and areas (including shipwrecks).
2. Provide an assessment of potential impacts from the development on all State heritage and other listed historic heritage places and areas (including shipwrecks). If applicable, this study should be undertaken.
3. If Commonwealth, National and World Heritage places have been identified, undertake an assessment of potential impacts to heritage values.
4. Provide design, management and site protection strategies (prepared by an appropriately qualified heritage consultant in accordance with the PDI Code if relevant) to avoid, mitigate or manage negative impacts on heritage values and enhance any positive impacts.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 3.1 of this document), the following are examples where detailed assessment of potential impacts to historic heritage may be required]:

- The preliminary assessment indicates a high or medium probability of significant impacts to the heritage significance of a heritage place, heritage area or historic shipwreck from the development.
- The potential impacts to a Commonwealth, National or World heritage place are likely to require referral and approval under the Environment Protection Biodiversity and Conservation Act 1999.
- There is a public perception that the development has the potential to cause significant impacts to the heritage significance of a place and / or potential heritage impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. Provide a heritage impact assessment undertaken by an appropriately qualified heritage expert of the potential impacts of the development against relevant Code provisions including any relevant Statement of Significance, Heritage Guidelines, Heritage Standards, Historic Area Statement or Character Area Statement.
3. If potential impacts on heritage values of a Commonwealth, National and World heritage place require approval under the EPBC Act, a heritage impact assessment must be undertaken by an appropriately qualified heritage consultant.

Suggested guidance documents

[Provide links to these documents where possible]. [Proponents should be advised that this list should not be regarded as definitive or exhaustive.]

- State Planning Policy 7: Cultural Heritage
- Relevant Regional Plans
- *Heritage Places Act 1993 (SA)*
- *Historic Shipwrecks Act 1981 (SA)*
- *Underwater Cultural Heritage Act 2018 (Cth)*
- *Environment Protection and Biodiversity Act 1999 (Cth)*
- Heritage Impact Statement Guidelines for State Heritage Places
- Relevant Statements of Significance, Heritage Guidelines, Heritage Standards, Historic Area Statements or Character Area Statements under the PDI Code.

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