Guidelines for preparing an Environmental Impact Statement

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Glossary and abbreviations

Term	Definition
Board	Board of the Environment Protection Authority
Case for assessment	Information required for environmental impact assessment, prepared according to the Board's requirements.
Director	Means the Director, Environment Protection Authority holding office under Section 18 of *Environmental Management and Pollution Control Act 1994* and includes a delegate or person authorised in writing by the Director to exercise a power or function on the Director's behalf.
EIS	Environmental Impact Statement
EMPCA	*Environmental Management and Pollution Control Act 1994*
EMPCS	Environmental Management and Pollution Control System. Objectives found in Schedule 1 of EMPCA.
EPA	Tasmania's independent principal environmental regulator which administers EMPCA and consists of a Board and a Director.
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
JAMBA/CAMBA	Japan-Australia and China-Australia Migratory Bird Agreements
LUPAA	*Land Use Planning and Approvals Act 1993*
MNES	Matters of National Environmental Significance
NCA	*Nature Conservation Act 2002*
Noise sensitive premises	Residences and residential zones (whether occupied or not), schools, hospitals, caravan parks and similar land uses involving the presence of individual people for extended periods, except in the course of their employment or for recreation.
Planning Authority	Council for relevant local government area
RMPS	Resource Management and Planning System, Tasmania. Objectives found in Schedule 1 of EMPCA.
Suitably qualified person	Means suitably qualified person in the opinion of the Director
RFA	Tasmanian Regional Forest Agreement
TSPA	*Threatened Species Protection Act 1995*

Part A. Introduction

These guidelines provide instructions for proponents on how to prepare an Environmental Impact Statement (EIS) for an activity being assessed in Tasmania by the Board of the Environment Protection Authority (the Board). The Board uses an EIS as a 'case for assessment', to assess the environmental impact of an activity, as required under the *Environmental Management and Pollution Control Act 1994* (EMPCA).

The role of the EIS

An EIS is generally required for larger scale developments described in EMPCA, classed as 2B or 2C. It is a document that provides information about a proposal, its potential impacts and proposed mitigation measures. As a publicly available document, an EIS should facilitate public consultation and informed comment and should contain sufficient information to establish the conditions of approval by authorities, if approved.

The EIS should demonstrate that the proposal is consistent with the objectives of relevant laws and policies, including the Tasmanian Resource Management and Planning System (RMPS) and the Environmental Management and Pollution Control System (EMPCS), which are focussed on the concept of sustainable development.

Note: Further information on the EPA Assessment Process is available on the website.

Refer to Appendix A *General principles for assessing environmental impacts*, for further information on EIS principles.

How the Board uses the EIS

The Board uses the EIS to inform decision making as part of the environmental impact assessment process. It must be prepared in accordance with guidance provided by the Board under section 74(4) of EMPCA. The staff of the EPA support the Board during the assessment process.

The EIS will be advertised publicly to allow for public consultation. The proponent may then be required to supply additional information in response to public and government agency submissions. This generally takes the form of a supplement to the EIS.

The Board considers the EIS as well as other relevant information against the objectives of the RMPS and EMPCS. These objectives aim to sustain the environment and avoid or mitigate adverse effects, while considering the economic and social needs of people now and in the future. The Board will endeavour to make the decision which best furthers the objectives of the RMPS and EMPCS, and may approve the proposal with conditions, or in some cases, may decide to reject the proposal if the objectives cannot be upheld.

The Guidelines for Preparing an EIS are adapted for each specific proposal. More detailed studies and information will be required in the EIS for issues considered by the Board to have a higher risk of environmental impact.

Other significant matters may emerge while preparing the EIS from environmental studies, public comments, or other sources. These must be factored into the EIS in addition to these guideline requirements. The assessment process may also change the understanding of the level of risk associated with some of the issues, and this must also be reflected in the EIS.

Planning information

The relevant Planning Authority (Council) will assess planning information if the *Land Use Planning and Approvals Act 1993* (LUPAA) applies. Information solely for the purpose of assessment under the relevant Planning Scheme should be supplied to the Planning Authority either:

- as required under section 54 of LUPAA where the planning application has started the environmental assessment process; or
- a combined planning and environmental report can be prepared where it is intended to submit an EIS (draft or final) with the planning application. However, the information required for the Board's assessment must be distinguished from that supplied for the purposes of LUPAA.

Australian Government environmental assessment

The Australian Government (Commonwealth) may also have a role in the environmental assessment and approval of the proposal in addition to Tasmanian requirements. Approval under the Australian *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is required for an action which has, will have, or is likely to have, a significant impact on a matter of national environmental significance (MNES) or on Australian land.

The nine MNES are:

- world heritage properties
- national heritage places
- wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed)
- nationally threatened species and ecological communities
- migratory species
- Commonwealth marine areas
- the Great Barrier Reef Marine Park
- nuclear actions (including uranium mining)
- a water resource, in relation to coal seam gas development and large coal mining development.

Information on the EPBC Act can be obtained from the Australian Government, Department of Climate Change, Energy, the Environment and Water (DCEEW) website Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) - DCCEEW, or by calling 1800 803 772.

The Australian and Tasmanian Governments have signed a bilateral agreement for environmental impact assessment under section 45 of the EPBC Act, which accredits the Tasmanian assessment process. This allows a proposal that has been determined to be a controlled action under the EPBC Act to be assessed by the Board on behalf of the Australian Government.

If a proponent elects to have their proposal assessed under the bilateral agreement, the EIS should specifically describe the implications of the proposal for the relevant EPBC Act controlling provisions. It must also contain a summary table showing that it addresses the matters specified in Schedule 4 of the Commonwealth *Environment Protection and Biodiversity Conservation Regulations 2000*.

Part B. Instructions

The EIS must present information in a way that can be easily understood. It should provide summaries in non-technical language to give readers a general understanding of the proposal. It must also provide technical detail to allow analysis and understanding of impacts and mitigation measures by technical specialists, regulatory bodies, and people with an interest in specific matters arising from the proposal.

Section C of these guidelines sets out the structure and **minimum** content requirements of the EIS.

General requirements

- Avoid technical terminology where possible in the main body of the EIS. It should be able to be read as an independent document which provides a general understanding of the proposal.
- Include any detailed technical data or supplementary reports as appendices.
- Consider document accessibility. The Australian Government Style Manual provides information about inclusion and accessibility.
- Use cross referencing to prevent unnecessary duplication between sections.
- Reference all sources of information using a consistent style.
- Define all key terms and words used.
- Information in the EIS must be relevant.
    - Show reasoning for arguments. Support conclusions with referenced evidence.
    - Indicate how current information is, how reliability has been tested, and the degree of confidence attached to any predictions.
    - Sufficient technical detail must be provided to allow for environmental impact assessment, even when details are not final at the time of preparation.
    - If information is currently unavailable, estimates and alternative options should be provided, however the limitations of available information must be evaluated.
- Provide any sensitive commercial or corporate information in a confidential appendix. Provide a comment in the EIS if this has been done.

Note: the EIS must not include information that is known to be false or misleading and nothing should be omitted if it is known that without it the EIS would be false or misleading (section 43A of EMPCA).

Spatial and visual information requirements

- Present information in maps, plans, diagrams, and photographs where necessary, to enhance understanding.
- Images must be high quality and reproducible in monochrome, with all text and relevant features clearly visible.
- Maps and plans should include a north arrow and scale.
- Use a consistent base plan throughout the EIS where appropriate, to allow elements to be overlaid and compared. Ensure that detailed information is clear and visible, particularly when using satellite images as background layers. This is best achieved using a geographical information system (GIS).

- Specify the coordinate reference system when providing or referring to spatial information, including maps, plans, grid coordinates and heights. Further information on coordinate reference systems used in Tasmania can be found on the Land Tasmania website.

  Recommended systems are:

  - Horizontal – Geocentric Datum of Australia 1994[1] Map Grid of Australia Zone 55 (GDA94 MGA55)
  - Vertical – Australian Height Datum (Tasmania) (AHD83).

Independent Review

For large proposals, such as Class 2C activities, prior to submission to the EPA, the draft EIS should be independently reviewed against the Project Specific Guidelines issued for the proposal, by a suitably qualified person. The independent review must be provided with the draft EIS, including any feedback addressed and incorporated into the draft EIS.

[1] Geocentric Datum of Australia 2020 (GDA2020) is the new official datum for recording the horizontal location of spatial information in Australia, but is not yet fully implemented in Tasmania.

Part C. EIS structure and content

The EIS must follow the structure set out below and address all requirements. For clarity organise content with further headings and subheadings, where appropriate.

Title page

The title page must include:

- the proponent's name (legal entity)
- the activity name (include "expansion" or "upgrade" where appropriate)
- the proposal address or location
- the EIS version number (where relevant)
- the month and year of submission.

Executive summary

The executive summary must provide a clear and concise overview of the proposal, its environmental implications, and the function of the EIS in the context of the assessment process. For a larger EIS, the executive summary must be written as a stand-alone document for people who may not wish to read or acquire the full EIS.

Table of contents

The EIS must include a table of contents and a list of figures and tables to allow the reader to easily locate information. Ensure that the table of contents is hyperlinked, particularly for large documents.

Glossary and abbreviations

Provide a list of abbreviations and acronyms and a glossary which clearly defines any technical terms used in the EIS.

Proponent information

- Proponent details:
    - name of proponent (legal entity)
    - name of proponent (trading name)
    - registered address of proponent
    - postal address of proponent
    - ABN number
    - ACN number (where relevant).
- Contact person's details:
    - name
    - telephone
    - email address.

Activity Operator details must be provided if the operator will be a different entity to the proponent.

1. Introduction

The introduction should provide:

- General background information on the proponent, such as relevant development and operational experience.
- General background information on the proposal:
    - current status of the proposal
    - an overview of the principal components of the proposal
    - the proposal location
    - likely markets for the product
    - possibilities for future expansion.
- Any information on current regulatory approvals or licences if the proposal is associated with an existing activity.
- A discussion about how the proposal relates to any other proposals that have been or are being developed in the same region as the proposal.
- 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.

2. Proposal description

The scope of the proposal must be clearly described. It should include the following information:

- Summary table
- Detailed description of proposal
- Definition of the Land
- Maps, plans and visual information
- Planning aspects
- Socio-economic context
- Off-site infrastructure.

Note: Where a proposal will require a permit application under LUPAA, the proposal description and specification of the site must be consistent with the intended or current permit application.

2.1 Summary table

The summary table provides an overview of the proposal and identifies the key characteristics, including:

- Location and planning context
- Existing site information, including topography, local climate, geology, geomorphology, soils (e.g., erodibility and acid sulphate soils), vegetation, fauna, groundwater, and surface drainage (e.g., waterways, lakes, wetlands, coastal areas)
- Proposed infrastructure
- Proposed timeline
- Inputs (i.e., water, materials, energy) and outputs (i.e., wastes and emissions).

Refer to Appendix B for an example of the content of the project description summary table.

2.2 Definition of the Land

Provide a definition of the Land on which the activity will take place. The boundary must be consistent with any intended or current permit application under LUPAA. Information requirements will vary depending on how the Land is defined.

Refer to Part B for spatial and visual information requirements for detailed mapping instructions.

2.2.1 Existing defined boundary

If the Land is delineated by an existing defined boundary, the definition of the Land may be indicated by:

- Cadastral boundaries (Title Reference, Property ID), e.g., Title Reference 136529/1
- Lease boundaries (Mining Lease, Crown Lease, Marine Farming Lease), e.g., Mining Lease 9011P/M.

2.2.2 Other boundary

If the Land is not delineated by an existing defined boundary, it may be necessary to define a new boundary by reference to specific topographic features and/or surveyed grid coordinates. A boundary survey may be requested during the assessment process if it is required to adequately identify the Land. In this case:

- Provide a plan which clearly shows the boundary of the Land in relation to topographic features or surveyed grid coordinates.
- Provide the boundary of the Land in a geospatial vector format (shapefile or DXF).

2.3 Detailed description of proposal

This section should include information that has not been included in the summary table, or that requires further explanation. Detail on proposed construction, commissioning and operation must be provided. Any ancillary works or activities that are for the purpose of the proposal (e.g., access works) must be described.

2.3.1 Project Components

- Describe the physical components required for the proposal to function up to closure, referring to maps and plans.
- Describe the major items of equipment (including pollution control equipment) and onsite facilities. Include detailed technical information on major items of equipment as appendices.
- Detail the total footprint of the proposal.

2.3.2 Construction

- Provide a step-by-step description of significant activities during the construction phase of the proposal.
- Provide details of the total construction footprint.
- Provide an indicative timetable for completing major stages of construction.
- Define the hours of construction for the proposal (hours per day and specific days per week).
- Describe the volume, composition, origin, destination, and route for vehicle movements (road, rail, shipping, and air) during construction, including details of the current usage of these roads. Include a break down for over dimension and heavy road vehicles.

2.3.3 Commissioning

- Provide a step-by-step description of significant commissioning activities (if any) following installation of equipment.
- Provide an indicative timetable for completing major stages of commissioning and describe the point at which commissioning will be considered complete.

2.3.4 Operation

- Describe the process(es) of operation in a step-by-step manner, using explanatory diagrams and flow charts where appropriate.

- Outline all raw materials (including water) required for operation, detailing source, quantities, and characteristics.
- Identify and quantify all emissions / wastes produced.
- Outline all energy requirements for operation, including a description of the measures to meet demand.
- Define the production capacity and rate for relevant processes, including peak rates, daily average rates and annual production rates.
- Define the hours of operation for the proposal (hours per day and specific days per week) specifying any seasonal variations.
- Describe the volume, composition, origin, destination, and route for vehicle movements (road, rail, shipping, and air) likely to occur, including timing of traffic flows. Include a break down for over dimension and heavy road vehicles. Include details on the current usage of these roads.
- Describe any current approvals or regulatory conditions if the proposal is associated with an existing activity.

2.4 Maps, plans and figures

Maps and plans must be provided in the project description which detail the location of the proposal as part of the local and wider region. Multiple maps and plans may be required for clarity, depending on detail of the site.

Refer to Part B for spatial and visual information requirements for detailed mapping instructions.

2.4.1 General location map

Provide a general location map(s) of the existing environment and surrounding area (1:25,000 scale or better, as appropriate) which identifies:

- The location of the proposal site
- Boundaries of the property on which the proposal is located
- Road access to and from the site
- The distance(s) to any nearby sensitive uses (such as residences)
- Topographical features, aspect, and direction of drainage
- Location of waterways and drains (including ephemeral waterbodies and water courses)
- Electricity transmission lines
- Surrounding land tenure
- Surrounding land use (identify areas of conservation or recreational significance)
- Surrounding land zoning in the local government planning scheme.

2.4.2 Site Plan

Provide a site plan which includes existing and proposed conditions and features of the site. This may include:

- Elevation contours and levels
- The position of topographic features including roads, tracks, waterways, and drains
- The position of facilities, buildings, structures, major items of equipment, storage areas and loading or unloading areas
- Geospatial data included on the plan(s) should also be provided to the Board in a geospatial vector format (shapefile or DXF)
- If applicable, provide a construction layout plan with details described above.

Note: If the site plan is not based on a feature and level survey and the Board determines that this information is needed to adequately assess the proposal, one may be requested during the assessment process.

2.4.3 Figures and flowcharts

Present any figures such as process flowcharts and images which will enhance understanding of the site and proposal. Any images and photos used must be high quality, with an accurate description and date.

2.5 Planning aspects

The planning aspects description should include any additional information and data not included in the summary table.

- If a permit is required under LUPAA provide Use Class and Permissibility of the proposed activity under the applicable Planning Scheme.
- Detail land tenure and property boundaries of the proposed site, with certificate of title details.
- Detail land zonings for the proposed site and surrounding areas.
- Describe any rights of way, easements and covenants affecting the site.
- Discuss land use and planning history of the site, including the potential for site contamination[2], present use and any existing buildings and significant structures.
- Describe land use and ownership in the vicinity of the site and those areas which may be affected by the proposal.
- Provide the location and nature of industrial facilities.
- Detail sensitive uses[3] or residential zones within distances including the location of individual residences, schools, hospitals, caravan parks and similar sensitive uses, and the location of any tourist or recreation facilities or routes (such as camping areas, picnic areas, walking tracks, historic routes).
- Any proposed or potentially sensitive uses within applicable attenuation distances from the proposal site, which have been or are likely to be granted approval under the local planning scheme, should also be considered.

2.6 Socio-economic context

Briefly describe the existing social and economic environment that may be affected by the proposal. This may include:

- A summary of the social or demographic characteristics of the population living in the vicinity of the proposal site, identifying any special characteristics which may make people more sensitive to impacts from the proposal than might otherwise be expected.
- A summary of the characteristics of the local and regional economy.

2.7 Offsite infrastructure

Describe any new infrastructure or offsite ancillary facilities required to allow the proposal to proceed, such as water supply, electricity supply, roads or other transport infrastructure.

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[2] Information on potentially contaminating activities and contaminated site assessment can be found online at https://epa.tas.gov.au/Pages/Land.aspx

[3] Defined in the State Planning Provisions as 'a residential use or a use involving the presence of people for extended periods except in the course of their employment such as a caravan park, childcare centre, dwelling, hospital or school.'

3. Project Alternatives

Proponents should provide the rationale for the project proposed. Alternatives should consider best practice environmental management, including measures listed under section 4(2) of EMPCA. The rationale should:

- Describe the site selection process and criteria.
- Evaluate any alternative sites considered and justify the choice of the proposed site using clearly defined environmental, social, economic, and technical considerations.
- Describe the effect of any community consultation on the selection process.
- Provide an assessment of other available technologies, where relevant. Include reasons for selecting the preferred technology, including from an environmental perspective.
- Identify any alternative technologies, materials, design options or management practices relevant for any part of the proposal.
- Evaluate the environmental performance of any identified alternatives and provide justification for the preferred choice.

4. Public Consultation

This section should describe any public consultation that has taken place during project planning and preparation of the EIS, and the results of this consultation. Proponents should also describe any proposed future public consultation which will take place during project implementation and operation. The Board encourages early community engagement, which often leads to better outcomes for all parties. Guidance on Community Engagement is available on the EPA website, detailing approaches for effective public consultation.

5. Potential Impacts and Management

The EIS should evaluate all potential impacts of the proposal, however the level of detail provided on each issue should reflect its level of significance. While key issues are identified for the proposal, this section must identify all potential environmental impacts and describe the proposed measures to avoid, mitigate or offset adverse consequences. Other issues that emerge as significant while preparing the EIS, through environmental studies, public comments or otherwise, must be considered and addressed.

Each discrete issue must be addressed separately. It may be beneficial to further organise content using headings and subheadings. Integrate the following details when addressing each potential impact in addition to specific requirements:

Existing Environment

- Describe the existing environment in relation to the impact, including the vulnerability of the potentially affected environment.
- Analyse the issue in relation to the existing environment.

Methodology

- Describe how the impact assessment has been performed. For example, surveys or desktop studies.
- Identify any relevant guidelines and standards used.
- Discuss any choice of methodology over alternatives where relevant.

Assessment

- Clearly articulate the potential impacts, using tables and figures to aid communication where possible.
- Support assertions and assumptions with adequate argument and/or evidence.
- Identify plausible worst-case scenarios and the reversibility of the impact.
- Detail any specialist recommendations which have/will be implemented or justify otherwise.
- Summarise the proposal's contribution to any cumulative impacts, where appropriate.

Avoidance and Mitigation Measures

- Describe the measures proposed to avoid, mitigate or offset potential adverse impacts.
- Analyse how and to what degree the impacts will have been avoided, minimised or offset.
- Discuss any residual impacts, referring to relevant guidelines or standards.
- Discuss any contingency measures related to pollution control equipment.

Use scientific, referenced data to support predictions and evaluate impacts. Where specialist reports have been required for key issues, summarise them within the body of the EIS when responding to requirements, and attach the reports as appendices. Detail the suitability/qualification of the authors of any specialist reports.

Refer to *Appendix A: General principles for assessing environmental impacts*.

Key issues

The key issues identified for this proposal, which should be the focus of the EIS, are:

1. Potential impacts on air quality associated with construction and/or operation of the proposal.
2. Potential impacts on water quality associated with construction and/or operation of the proposal.
3. Potential noise impacts on sensitive receptors associated with construction and/or operation of the proposal.
4. Potential impacts on flora and fauna from habitat clearing for the proposal.

5.1 Air quality

Discuss potential impacts of the proposal on the local and regional air environment during construction and operation stages, including methodology where appropriate.

5.1.1 Existing Environment

- Provide a site map including the land boundary and the location of nearest sensitive receptors.
- Describe the existing environment including climatic/meteorological conditions, terrain, land use and air quality in the vicinity of the proposal.

5.1.2 Assessment

- Provide a figure showing the locations and names of all potential sources of atmospheric emissions from the proposed activity.
- Describe all potential sources (point and fugitive) of atmospheric emissions and the composition of the atmospheric emissions, including odour and dust, that may arise from activity on the site as well as from loading, unloading, and transport of materials.
- Describe and assess the potential impacts of the atmospheric emissions from the proposed activity on the environment in a context of the existing environment (local meteorology, terrain) and land use (particularly proximity of sensitive receptors).
- Describe how the future climate may impact the local meteorology and air emissions from the proposal.
- Demonstrate that the assessment is consistent with the requirements of the *Tasmanian Environment Protection Policy (Air Quality) 2004* and any supplementary documents.

5.1.3 Avoidance and Mitigation Measures

- Describe measures to be implemented to mitigate all atmospheric emissions from the site that may cause environmental nuisance or harm at or beyond the site boundary.

5.2 Water quality

Discuss potential impacts of the proposal on surface water during construction and operation, including methodology where appropriate.

5.2.1 Existing Environment

- Provide a description of the activity site with respect to topography and preferential surface water flow, existing surface water, stormwater drainage and identify nearby watercourses likely to be impacted by the proposal.

- Provide an overview of the receiving environment identifying all relevant Protected Environmental Values (PEVs)[4], including:
    - sensitive uses and associated water quality considerations.
    - seasonal water quality, hydrological characteristics and biological condition of the receiving environment as relevant to the proposal.
    - reference to published or determined (site specific) water quality guideline values for receiving environments. For information about the water quality management framework and evaluation criteria in Tasmania refer to *Technical Guidance for Water Quality Objectives (WQOs) Setting for Tasmania, August 2020.*
- Describe baseline water quality, biological and sediment monitoring undertaken. Detail any other relevant information for assessing potential impacts such as ecotoxicological data or potential hydrological changes.

5.2.2 Assessment

- Identify and characterise all liquid emissions which could arise from the proposal including from industrial processes, waste treatment processes, fuelling, domestic/office or stormwater.
- Describe any existing wastewater and/or stormwater treatment on the site and, where available, provide an analysis of wastewater or stormwater quality discharged from the existing activity.
- Describe any proposed new or improved wastewater and/or stormwater treatment for the development, including a description of the selected technology, the likely effluent/water quality and volumes which will be produced and fate.
- Provide details of any agreement with the operator of the municipal sewerage system if discharge of trade waste or sewage to the system is anticipated.
- Describe proposed stormwater management (including during reasonably foreseeable flood events) including an assessment of the potential for pollutants to become entrained in stormwater and details of drainage control measures such as cut-off drains and sediment settling ponds.
- Provide details of point source discharge, including:
    - length, depth and diffuser details (if relevant) of the outfall infrastructure.
    - a discussion of the discharge regime frequency and rate of discharge. Where flowrate varies this may need to consider different flow rate statistics.
- Provide details and a map(s) depicting:
    - proposed wastewater discharge locations
    - preferential flow of stormwater arising from rainfall on the proposal site
    - location of stormwater collection system.
- Evaluate the water quality impacts associated with effluent discharge considering effluent quality, volumes and discharge regime in conjunction with the receiving environment conditions. The evaluation should include seasonal variations in effluent and receiving environment water quality.
- Undertake dilution/dispersion modelling. This must consider:
    - initial mixing/near-field, including toxicant parameters (e.g. relevant metals, ammonia, disinfection products, and faecal indicator bacteria such as E.coli and enterococci); and
    - secondary mixing to potential far-field impacts (e.g. nutrient enrichment).

[4] Information available at https://epa.tas.gov.au/Pages/PEVs-for-Tasmanian-Surface-Waters.aspx

5.2.3 Avoidance and mitigation measures

- Provide an assessment of the available options for improved effluent management according to the hierarchy set out in State Policy on Water Quality Management 1997 Division 2: 'Management of Point Sources of Pollution' to minimise wastewater discharge to receiving waters. Viable reduction or reuse options identified must be implemented. The assessment must include:
    - Details of any investigations to identify options for beneficially reusing effluent.
    - Justification for any proposed emission of contaminants to surface water in accordance with the principles under the *State Policy on Water Quality Management 1997.*
- Describe the proposed construction method for the outfall detailing any likely disturbance to the seabed in [receiving environment] and appropriate management methods to minimise ecological damage.
- Provide details of proposed monitoring during commissioning to assess new outfall plume dynamics and validate the modelled dilution. Detail what further actions will be considered if the expected modelled mixing is not achieved.
- Provide details of an ambient monitoring plan to assess the impact of the discharge following commissioning of the new outfall. This ambient monitoring plan must complement and consider previous ambient monitoring.

For information about water quality management framework and evaluation criteria in Tasmania refer to Technical Guidance for Water Quality Objectives (WQOs) Setting for Tasmania, August 2020.

5.3 Groundwater

Discuss potential impacts of the proposal on groundwater (quality and quantity) during construction and operation, including methodology where appropriate.

5.3.1 Existing Environment

- Provide a conceptual groundwater model for regional and local aquifer flows, where potential groundwater contamination could arise as a result of the activity or groundwater extraction is required.
- Provide a map showing the location of existing groundwater extraction bores nearest to the area impacted by the activity. Refer to the DPIPWE Groundwater Information Access Portal.
- Identify any surface water and groundwater dependant ecosystems that may receive groundwater from areas impacted by the proposal.
- Provide details of any baseline groundwater quality monitoring undertaken.

5.3.2 Assessment

- Discuss the potential impact of the proposal on groundwater (quality and quantity) with reference to groundwater assessments undertaken where appropriate, including
    - a map showing the location of any groundwater bores.
    - a conceptual groundwater model for regional and local aquifer flows.

5.3.3 Avoidance and mitigation measures

- Describe the measures proposed to avoid or mitigate potential adverse impacts to groundwater
- Provide justification for any potential impact to groundwater in accordance with the principles under the *State Policy on Water Quality Management 1997* and with reference to likely groundwater community values, associated guideline values and guideline values for receiving surface waters.

For information about water quality management framework and evaluation criteria in Tasmania refer to Technical Guidance for Water Quality Objectives (WQOs) Setting for Tasmania, August 2020.

5.4 Noise emissions

Discuss impacts of the proposal on existing (surrounding) noise levels during construction and operation, including methodology where appropriate.

5.4.1 Existing Environment

- Provide a map of the location of all major sources of noise and the closest noise sensitive premises in the vicinity of the boundary of the activity.
- Provide a list of nearby identified residences and NSPs in the vicinity of the boundary of the activity.

5.4.2 Assessment

- Describe all major sources of noise, including
    - Size and power rating
    - Associated 1/3 octave source noise data (linear/C-weighted and A-weighted) to assess for low frequency and tonal noise
    - Noise attenuation and hours of operation.
- Analyse the potential for noise emissions (during both the construction and operational phases) to cause nuisance for nearby land users, particularly at noise sensitive premises (NSP)
    - 'noise sensitive premise' is defined as residences and residential zones (whether occupied or not), schools, hospitals, caravan parks and similar land uses involving the presence of individual people for extended periods, except in the course of their employment or for recreation.
    - When assessing nuisance at the NSPs, discuss the *Environment Protection Policy (Noise) 2009* and the existing acoustic environment.
- Discuss noise related environmental impacts associated with current and altered traffic flows on other roads users and residences adjacent to roads.
- Discuss the potential for noise emissions to affect terrestrial, marine and freshwater wildlife and livestock.
- Noise modelling is required, including noise contour maps.

5.4.3 Avoidance and mitigation measures

- Describe attenuation measures that will be implemented (as relevant).
- Demonstrate that the proposal is consistent with environmental performance requirements, including any identified in the *Environment Protection Policy (Noise) 2009.*

5.5 Waste management

Discuss the impacts of waste generated by the proposal during construction and operation.

5.5.1 Existing Environment

- Describe the existing environment in relation to the impact of waste generated by the activity.
- Describe the source, nature and quantities of all wastes, (liquid, atmospheric or solid) including general refuse and by-products from the various stages of the process likely to be generated.

5.5.2 Assessment

- Describe the methods and facilities proposed to collect, store, reuse, treat or dispose of each waste stream, including maintenance requirements.
- Describe the source, nature, quantity, and method of treatment, storage and disposal for each controlled waste. Controlled waste is defined in EMPCA and associated regulations. A non-exhaustive listing of categories of controlled waste can be found under Controlled Waste on the EPA Website.

5.5.3 Avoidance and mitigation measures

- Demonstrate that any waste management measures follow the following hierarchy of waste management, arranged in decreasing order of desirability:
    - Avoidance
    - Reuse
    - Recycling
    - Energy recovery
    - Repository storage (for future treatment/recovery)
    - Treatment
    - Disposal/permanent containment.

5.6 Dangerous goods and environmentally hazardous materials

Dangerous goods and environmentally hazardous materials are any substance or mixture of substances of a nature or held in quantities which present a reasonably foreseeable risk of causing serious or material environmental harm if released to the environment. This includes fuels, oils, waste and chemicals.

Discuss the impacts of these materials generated by the proposal. The discussion should:

- Describe the nature, quantity and storage location of all environmentally hazardous materials including Dangerous Goods (as defined in the Australian Code for the Transport of Dangerous Goods by Road and Rail) that will be used during the construction and operation of the proposal.
- Provide a map showing the location of temporary and permanent storage areas for fuels, oils, and other dangerous goods or chemicals.
- Detail measures (such as bunded areas or spill trays) to be adopted to prevent or control any accidental releases of dangerous goods and environmentally hazardous materials.
- Provide contingency plans for when control measures, equipment breakdowns or accidental releases to the environment occur, including proposed emergency and clean-up measures and notification procedures. Identify any safety management requirements for the protection of human health and safety affecting the community.

5.7 Biodiversity and Natural Values

Discuss impacts of the proposal on biodiversity and nature conservation values (terrestrial and aquatic), including methodology, where applicable.

5.7.1 Existing Environment

- Specify and map known records of flora, vegetation communities and habitat, with particular reference to threatened species, communities and habitats, including those listed under the relevant Schedules of the Australian Government EPBC Act and the Tasmanian *Threatened Species Protection Act 1995* (TSPA) and Tasmanian *Nature Conservation Act 2002* (NCA).
- Where there is the potential for threatened species or vegetation communities to be present, provide the results of a natural values assessment, undertaken by a suitably qualified person.
- Identify any known occurrences of aquatic species of conservation significance, threatened aquatic fauna or flora species or potential habitat in the vicinity of the proposed development footprint. If relevant aquatic species are identified, a detailed survey may be required, and the results should be presented in the EIS.
- Identified areas or habitats of conservation significance, including designated conservation areas, areas relating to the requirements of international treaties (e.g. Japan-Australia and China-Australia Migratory

Bird Agreements (JAMBA/CAMBA) and Ramsar (wetlands) Convention), or wetlands listed in Directory of Important Wetlands in Australia[5].

- Identify any freshwater ecosystems of high conservation management priority using the Conservation of Freshwater Ecosystem Values (CFEV) database[6], including values in the vicinity of the proposal. The specific CFEV information should be Conservation Management Priority Potential.
- Specify and map known sites of geoconservation significance or natural processes (such as fluvial or coastal features), including sites of geoconservation significance listed on the Tasmanian Geoconservation Database.
- Demonstrate that any surveys comply with requirements in *Guidelines for Natural Values Surveys*[7].
- Describe natural processes of particular importance for the maintenance of the existing environment (e.g. fire, flooding, etc).

5.7.2 Assessment

- Describe potential impacts on flora, vegetation communities and habitat, with particular reference to threatened species, communities and habitats, including those listed under the relevant Schedules of the EPBC Act, TSPA and NCA.
- Describe potential impacts on fauna, including impacts on species, communities and habitats. Provide details of impacts to threatened species, migratory species, communities and habitats, including those listed under the relevant Schedules of the EPBC Act, TSPA and NCA.
- Impact assessment may also include noise and light impacts on fauna.
- Discuss environmental impacts associated with vehicle movements during construction and operation on fauna. An increase in night-time (dusk to dawn) traffic on internal and nearby roads of more than 10% is considered significant regarding likely impacts on the Tasmanian devil.
- Include any roadkill management measures as required in the Survey Guidelines and Management Advice for Development Proposals that may impact on the Tasmanian Devil (*Sarcophilus harrisii*).
- Discuss impacts on existing conservation reserves which may be affected by the proposal, with reference to the management objectives of the reserve(s) and the reserve management plan(s) (if any).
- Discuss impacts on any high-quality wilderness areas identified in the Tasmanian Regional Forest Agreement (Tasmanian RFA) which may be affected by the proposal.
- Discuss impacts on other species, sites or areas of special conservation significance, including areas of wilderness or scientific value.
- Discuss potential impacts on:
    - the reserve system identified as part of the Tasmanian RFA
    - maintenance of forest communities under the *Permanent Native Forest Estate Policy*
    - wildlife habitat strips under the Tasmanian Forest Practices Code 2015[8]
    - non-forest communities.
- Discuss the potential introduction or spread of pests, weeds and plant and animal diseases as a result of construction and operation of the proposal.

[5] Available at https://www.environment.gov.au/water/wetlands/australian-wetlands-database/directory-important-wetlands
[6] Available at https://nre.tas.gov.au/water/water-monitoring-and-assessment/cfev-program
[7] Available on the internet at: at: https://nre.tas.gov.au/conservation/development-planning-conservation-assessment/survey-guidelines-for-development-assessments.
[8] Available at https://fpa.tas.gov.au/

- Discuss impacts on sites of geoconservation significance or natural processes (such as fluvial or coastal features), including sites of geoconservation significance listed on the Tasmanian Geoconservation Database.

5.7.3 Avoidance and Mitigation Measures

- Describe management measures to mitigate adverse impacts to threatened fauna, flora and vegetation communities and other natural values where they cannot be avoided, including management of weeds, pests and diseases.
- Where impacts cannot be avoided, present proposed measures to mitigate and/or compensate adverse impacts on biodiversity and nature conservation values.
- Discuss rehabilitation of disturbed areas following the completion of construction activities and cessation of the activity, including any proposed seed collection and progressive rehabilitation program.

5.8 Marine and Coastal

If not addressed in other sections, discuss impacts of the proposal on marine and coastal areas.

- Provide measures to avoid and mitigate any possible adverse impacts.
- Assess the overall residual impacts on marine and coastal areas following implementation of the proposed avoidance and mitigation measures.
- Use cross referencing with other relevant sections dealing with conservation values (marine flora and fauna, geoconservation) and coastal impacts.
- Demonstrate that the proposal is consistent with the objectives and requirements of all relevant marine and coastal policies and legislation, including the *Living Marine Resources Management Act 1995*, *State Policy on Water Quality Management 1997* and the *Tasmanian State Coastal Policy 1996*.

5.9 Greenhouse gas emissions, ozone depleting substances and climate change

Discuss impacts of the proposal in relation to greenhouse gases. As a minimum, this should:

- Describe the direct and indirect effects of the proposal on greenhouse gas production and ozone depleting substances and any greenhouse benefits of the proposal.
- Provide an inventory of projected scope 1, scope 2 and total greenhouse gas emissions, energy production, and energy consumption for a year of operation. Describe the methods used to develop the inventory. Note that calculators are available on the Australian Government Clean Energy Regulator website[9]. Discuss potential annual variation that may occur.
- Provide an estimate of scope 3 emissions which occur as a consequence of the activity.
- Consideration should be given to the generation of carbon dioxide as a result of the use of lime products to treat Acid Sulfate Soils (ASS), both in production and transport as well as spreading and neutralisation reactions. Refer to the *Tasmanian Acid Sulfate Soil Management Guidelines*[10] for more information.
- Demonstrate that the development will use cost-effective best practice measures to minimise future greenhouse gas emissions.

[9] Available at http://www.cleanenergyregulator.gov.au/NGER/Forms-and-resources/Calculators#Emissions-and-Energy-Threshold-Calculator-202021-and-user-guide

[10] ASS-Guidelines-FINAL.pdf (nre.tas.gov.au)

- Include details of proposed measures to minimise emissions and the anticipated effectiveness of these measures. Where less emissions-intensive options are not adopted, provide sufficient justification and/or mechanisms to offset greenhouse gas emissions.
- Provide a competent estimate for 'whole of life' greenhouse gas emissions for the proposed development.
- Describe the potential impacts of climate change upon the proposal. For example, it may be appropriate to plan for more intense storm events, more severe fire weather, and/or long-term sea level rise.
- Discuss impacts of the proposal in terms of the evolving national response to climate change and greenhouse gas emissions and the targets set in the *Climate Change (State Action) Act 2008* (Tas), Tasmania's Climate Change Action Plan (Tas)[2] and the *Climate Change Act 2022* (Commonwealth).[11]

Note: Proponents must determine whether they are required to report to the Commonwealth under the *National Greenhouse and Energy Reporting Act 2007*[12].

5.10 Socio-economic issues

Discuss the social and economic impacts of the proposal. This discussion may:

- Provide an estimate of total capital investment for the proposal and where that capital will be expended (particularly in relation to the source of large capital items of processing equipment).
- Describe operational expenditures and revenues.
- Describe impacts on local and state labour markets for both the construction and operational phases of the proposal. The number and nature of direct and indirect jobs arising from the proposal must be detailed. Skills and training opportunities should also be discussed.
- Describe impacts on upstream/downstream industries, both locally and for the State.
- Detail the extent to which raw materials, equipment, goods and services will be sourced locally.
- Provide a qualitative assessment of impacts on local social amenity and community infrastructure, including recreational, cultural, health and sporting facilities and services. Any proposals to enhance or provide additional community services or facilities should be described.
- Describe community demographic impacts (changes to cultural background, occupation and incomes).
- Describe impacts on land values, and demand for land and housing.
- Describe impacts on the local, regional, state and national economies.
- Detail any publicly funded subsidies or services to be relied upon for the construction or operation of the proposal.
- Detail any impacts on local, state and federal government rate, taxation and royalty revenues.

The extent to which socio-economic considerations need to be described depends on the nature and extent of any negative impacts or risks to the environment from the proposal.

Modest proposals with relatively low level and localised environmental impacts or risks may only need details of intended capital expenditure, operational expenditures, revenues and employment (distinguishing between direct and indirect employment) and a qualitative discussion of other socio-economic aspects of particular relevance.

[11] Available at http://www.dpac.tas.gov.au/divisions/climatechange/tasmanias_climate_change_action_plan_20172021
[12] Available at https://www.legislation.gov.au/Details/C2007A00175

Proposals with higher level or broader scale environmental impacts will need a more comprehensive analysis of economic and social benefits to allow the Board to assess the benefits and adverse impacts of the proposal. This may include an explanation of the methods used to model impacts and describe the manner and results of engagement with the local community to determine their needs and aspirations in relation to the proposal.

For larger more complex proposals a social impact assessment and/or economic impact assessment may be required.

5.11 Fire risk

Discuss the potential fire risk associated with the proposal, including:

- Consideration of fire within the site, fire escaping from the site and the impact of wildfire originating outside the development and the environmental impacts that could result from such an event.
- The objectives and management principles to be adopted to prevent and respond to potential fire events.
- Where a fire response plan is appropriate, it should be fully integrated with other relevant documents, such as a Tasmania Fire Service Local Area Fire Management Plan, a Sustainable Timber Tasmania Fire Management Plan and a Parks and Wildlife Service Fire Action Plan for relevant districts.

5.12 Infrastructure and off-site ancillary facilities

Discuss potential environmental impacts of the proposal on any significant off-site or infrastructure facilities (including increased use of existing infrastructure, such as roads, ports and quarries), identify measures to avoid and mitigate any possible adverse impacts and assess the overall impacts following implementation of the proposed avoidance and mitigation measures.

Identify roads and other infrastructure to be used by vehicles for the proposal (during both construction and operation). Potential environmental impacts associated with construction and use of such infrastructure should be assessed.

6. Monitoring and Review

This section outlines any proposed monitoring, review and reporting programs for the proposal.

Include a table of proposed monitoring locations, parameters and frequencies, and a map showing the location of all monitoring sites. Monitoring, review and reporting programs should be designed to:

- Assess compliance with the proposed management measures.
- Assess compliance with emission standards and other identified performance requirements.
- Assess the effectiveness of the performance requirements and environmental safeguards in achieving environmental quality objectives.
- Assess the extent to which the predictions of environmental impacts in the EIS have eventuated.

7. Decommissioning and Rehabilitation

Outline a preliminary Decommissioning and Rehabilitation Plan or Closure Plan for the proposal. The EIS should describe an on-going, staged approach to site decommissioning and rehabilitation throughout the proposal life.

Discuss rehabilitation of disturbed areas following the completion of construction activities and cessation of the activity, including any proposed seed collection and progressive rehabilitation program.

8. Management Measures Table

This section must include a table listing all sequentially numbered management measures, previously detailed throughout the EIS. Each measure must be an unambiguous statement of intent and specify when it is to be implemented.

9. Conclusion

This section should present a balanced overview of the proposal's net impacts. Describe the proposal and draw together the critical environmental, social and economic impacts. Evaluate the extent to which negative impacts can be avoided, mitigated, remediated or compensated and positive impacts promoted and sustained.

The conclusion should also describe how the proposal meets and furthers the objectives of relevant legislation, policies, plans and strategies. This should be done by itemising the RMPS and EMPCS objectives and providing a commentary about how the proposal addresses each of the objectives.

10. References

This section should provide details of authorities consulted, reference documents and other information sources, using a consistent referencing style.

11. Appendices

Detailed technical information which supports the EIS should be included in appendices. The salient features of the appendices should be included in the main body of the EIS. Care should be taken to avoid inconsistencies between technical content of Appendices and the EIS itself, unless carefully explained.

Appendix A: General principles for assessing environmental impacts

This Appendix provides a summary of principles for assessing environmental impacts in EIS documents prepared under EMPCA.

General Approach

When assessing environmental impacts in an EIS the proponent should:

- Present information in a clear, well-structured manner that avoids duplication and presents technical information appropriate to its audience.
- Base assessments and evaluations on scientifically supportable, referenced data.
- Describe methodologies used and provide supporting research and investigations.
- State any scientific assumptions, simplifications, or judgements, and define uncertainties.
- Describe impacts and mitigation to a level of detail appropriate to their consequences and their ability to be controlled.

Impact assessment

Impact assessment is the identification and characterization of the effects of a proposal. When undertaking impact assessment, the proponent should:

- Explain methodologies used to identify and characterise impacts.
- State clearly the impacts that are predicted to result from the development in terms of the aspect of the proposal involved and the environmental receptor affected.
- Characterise those impacts in terms of:
    - The magnitude of impacts, quantified where possible, including spatial extent and timeframe.
    - The vulnerability of the affected environmental receptors.
    - Sources and pathways for the impact to occur.
    - Probability of occurrence (if not 100%).
    - Scenarios for the impacts' occurrence including plausible worst-case consequences.
    - Reversibility of impacts.
    - Any predicted indirect effects.
    - Any aspects of other proposals examined cumulatively.
- With reference to the project description and alternatives descriptions of the EIS, state what measures to avoid or reduce impacts are considered as part of this assessment.

Impact evaluation

Impact evaluation is the determination of the 'significance' of impacts. When undertaking impact evaluation proponents should support conclusions about the significance of the impact as characterized using a structured argument which focuses on the magnitude of the impact and the sensitivity of the affected receptors.

Mitigation and Monitoring

Mitigation (planning and design considerations, pollution control technology and management practices) and monitoring are measures on top of those considered during the impact assessment above to reduce the impact of the proposal. In presenting mitigation and monitoring the proponent should:

- Describe the measures proposed.
- Describe how mitigation measures function to avoid or reduce the impacts.
- Explain how measures accord with existing guidance, accepted practice or best practice environmental management defined in EMPCA.
- Discuss contingencies for the breakdown/malfunction of equipment or processes.
- Describe any anticipated impacts resulting the mitigation actions and how these will be addressed.
- Identify if proponent proposes control measures to be performed by a third party, and how this will be achieved.

Residual impacts

Residual impacts are those that remain after mitigation has been taken into account. When assessing residual impacts the proponent should:

- Revisit the first evaluation of impact, taking into account the effects of the measures to reduce the magnitude of the impacts and present a revised statement of significance.
- Where required, identify appropriate offsetting, based on the relevant guidelines.

Appendix B: Other issues and agency contacts

In addition to a permit under LUPAA and EMPCA, there may be other legal requirements to allow your proposal to proceed, including other permits, licences or landowner consent. You may also need to contact other Government agencies to obtain information for the purpose of assessment.

Your proposal may have been referred to other agencies by EPA. If assessments or approvals outside of the Board's responsibilities are required, you should engage with the respective agency to progress them. The following list identifies some of the agencies you may need to contact:

Conservation Assessments

Department of Natural Resources and Environment Tasmania
Telephone: (03) 6165 4396
Email: conservationassessments@nre.tas.gov.au
Website: www.nre.tas.gov.au/conservation

Purpose: Natural values including flora, fauna, and geoconservation values, or permits to deal with threatened species.

Heritage Tasmania

Department of Natural Resources and Environment Tasmania
Telephone: (03) 6165 3700
Email: enquiries@heritage.tas.gov.au
Website: www.heritage.tas.gov.au

Purpose: Historic cultural heritage, including State-level site listings, impacts and permits as required under the *Historic Cultural Heritage Act 1995*. Where works are proposed in or near a heritage place entered on the Tasmanian Heritage Register or likely to be of heritage significance to the whole of Tasmania, and a permit is required under the *Land Use Planning and Approvals Act 1993*, the proposal will be referred to Heritage Tasmania by the planning authority. There may also be additional sites listed under local planning schemes, impacts on which are assessed by the relevant planning authority.

Aboriginal Heritage Tasmania

Department of Premier and Cabinet
Telephone: 1300 487 045
Email: aboriginal@dpac.tas.gov.au
Website: www.aboriginalheritage.tas.gov.au

Purpose: Aboriginal heritage, including desktop assessment, artefact survey requirements, permits and advice.

Parks and Wildlife – Property Services

Department of Natural Resources and Environment Tasmania
Telephone: (03) 6169 9015
Email: PropertyServices@parks.tas.gov.au
Website: www.parks.tas.gov.au

Purpose: Impacts on parks and reserves managed by Parks and Wildlife, or Crown land.

Agriculture and Water

Department of Natural Resources and Environment Tasmania
Telephone: 1300 368 550
Email: Water.Enquiries@nre.tas.gov.au
Website: www.nre.tas.gov.au/water

Purpose: Water licences and works impacting natural waterway flow (e.g., dams or fords).

Transport Services

Department of State Growth
Telephone: (03) 6166 3369
Email: permits@stategrowth.tas.gov.au
Website: www.transport.tas.gov.au

Purpose: State roads, including where any proposal requires works on or access from a State-managed road.

Mineral Resources Tasmania

Department of State Growth
Telephone: (03) 6165 4800
Email: info@mrt.tas.gov.au
Website: www.mrt.tas.gov.au

Purpose: Mining Leases

Appendix C: Example of project description summary table

Location and Planning Context

Location	State the address of the site, and CTs and PIDs (as applicable) for all titles on which the activity will take place.
Land zoning	Describe the land zoning of the site and surrounds. If rezoning of the site is required, provide details.
Land tenure	Provide the land tenure of the proposal.
Use Class and Permissibility	If a permit is required under LUPAA, provide the Use Class of the proposed activity and Permissibility of the activity with reference to the relevant Planning Scheme.

For extractive industries only, delete if not required

Mining lease	
Lease area	
Bond	State the amount of any bond required by MRT (for extractive industries)

Existing site

Land Use	Describe the existing land use of the site and surrounds.
Topography	Describe the topography of the site and surrounds.
Geology	Describe the geology of the site, including the likelihood that potentially acid forming (PAF) material will be found on site. Describe any geoconservation values on or near the site, e.g., karst.
Soils	Describe the potential to encounter acid sulphate soils and or contaminated soil (from past activities, as relevant).
Hydrology	Describe groundwater and surface drainage (including waterways, lakes, wetlands and coastal areas) Describe the waterbodies and aquatic values on site and in the surrounding area. State the distance from the activity to the nearest waterbody.
Natural Values	List the threatened fauna, flora and vegetation communities, including potential habitat for any such species, that are known to occur on or near the site (use the Natural Values Atlas, TASVEG 4.0 or results of any relevant survey). State the vegetation types on and near the site.
Potential Hazards	Provide a brief assessment of the vulnerability of the site to natural hazards (e.g. flooding, seismic activity, fire, landslips or strong winds) or climate change.

Local Region

Climate	State the annual rainfall and predominant wind direction.
Surrounding land zoning, tenure and uses	Describe the surrounding land use, distance to the nearest residences in other ownership, note any conservation reserves or recreation areas in the area, and provide a coastal description if the coast is nearby.
Species, sites or areas of conservation significance	Provide information on species, sites or areas of landscape, aesthetic, wilderness, scientific or otherwise special conservation significance which may be affected by the proposal. Relevant information resources include the LIST (*www.thelist.tas.gov.au*) and the Natural Values Atlas (*https://www.naturalvaluesatlas.tas.gov.au*).

Proposed Infrastructure

Major equipment	List all existing and proposed plant, machinery, or other major equipment (distinguish between existing and proposed).
Other infrastructure	List the existing and proposed buildings, structures, access roads, internal haul roads (can refer to the Site Plan) (distinguish between existing and proposed).

Inputs

Water	Include quantities and characteristics
Energy	Include quantities and characteristics
Other raw materials	Include quantities and characteristics

Wastes and Emissions

Liquid	Include quantities and characteristics
Atmospheric	Include quantities and characteristics
Solid	Include quantities and characteristics
Controlled wastes	Include quantities and characteristics
Noise	Include major sources of noise emissions
Greenhouse gases	Provide a brief description of changes to greenhouse gas emissions that will be caused by the proposal.

Construction, Commissioning and Operations

Proposal timetable	Provide a brief timetable for construction, commissioning and commencement of operations, with stages if applicable.
Construction hours	e.g. xx-xx Monday to Friday xx-xx Saturday
Operating hours (ongoing)	e.g. xx-xx Monday to Friday xx-xx Saturday

Other Key Characteristics

Other	Describe any additional characteristics relevant to the proposal/environment which will provide increased understanding as part of this existing environment summary.

ENVIRONMENT PROTECTION AUTHORITY