

DRAFT

Environmental Impact Statement Guidelines

*The Cornwall Coal Company Pty Ltd
Cullenswood 6, St Marys*

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ENVIRONMENT PROTECTION AUTHORITY

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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 <i>Environmental Management and Pollution Control Act 1994</i> 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	<i>Environmental Management and Pollution Control Act 1994</i>
EMPCS	Environmental Management and Pollution Control System. Objectives found in Schedule 1 of EMPCA.
Environmentally hazardous material	Means 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 and includes fuels, oils, waste and chemicals but excludes sewage.
EPA	Environment Protection Authority. Tasmania's independent principal environmental regulator which administers EMPCA and consists of a Board and a Director.
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)</i>
JAMBA/CAMBA	Japan-Australia and China-Australia Migratory Bird Agreements
LUPAA	<i>Land Use Planning and Approvals Act 1993</i>
MNES	Matters of National Environmental Significance
NCA	<i>Nature Conservation Act 2002</i>
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	<i>Tasmanian Regional Forest Agreement</i>
TSPA	<i>Threatened Species Protection Act 1995</i>

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, classed as requiring 2B or 2C assessments under EMPCA. 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). These systems are designed to facilitate sustainable development.

Further information on the EPA Assessment Process is available on the [EPA website](#).¹

Refer also 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. The EIS 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 information is generally supplied in the form of a supplement to the EIS.

The Board considers the EIS as well as other relevant information in the context of 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. It may approve the proposal with conditions, or in some cases may decide to reject the proposal if the objectives cannot be upheld.

The Environmental Impact Statement Guidelines are adapted for each specific proposal. In general, more detailed studies and information will be required where issues are considered by the Board to involve a higher level of environmental risk.

Other significant matters may emerge while preparing the EIS, from environmental studies, public comments, or other sources. These must also be considered in the EIS. Information collected or generated during the assessment process may also change the understanding of the level of risk associated with some issues. This must also be reflected in the EIS.

¹ See <https://epa.tas.gov.au/Pages/Assessment-Process.aspx>

Planning information

The relevant Planning Authority (local 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
- as a combined planning and environmental report where it is intended to submit an EIS (draft or final) with the planning application. Where this option is selected, the information required for the Board's assessment must be clearly distinguished from that supplied for the purposes of LUPAA.

Australian Government environmental assessment

The Australian Government (Commonwealth) may 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).

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 \(DCCEEW\) website](#),² 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](#).³

² See <https://www.dcceew.gov.au/environment/epbc>

³ See http://www8.austlii.edu.au/cgi-bin/viewdoc/au/legis/cth/consol_reg/epabcr2000697/sch4.html

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.

Proponents are advised to consult the EPA during preparation of the EIS, including in the case of any uncertainty in relation to the requirements set out in these Guidelines.

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.

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](#)⁴.

Recommended systems are:

- Horizontal – Geocentric Datum of Australia 1994⁵ 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 by a suitably qualified person to confirm that it meets the requirements detailed in Guidelines issued for the proposal.

Submission

It is strongly recommended that proponents submit a draft EIS to the EPA for review prior to formal lodgement of the EIS with the Board.

The EIS (and any drafts submitted for review) may be submitted via email to assessments@epa.tas.gov.au and your nominated contact officer. Proponents should contact the EPA if alternative submission methods are deemed necessary.

⁴ See <https://nre.tas.gov.au/land-tasmania/geospatial-infrastructure-surveying/geodetic-survey/coordinate-height-and-tide-datums-tasmania>

⁵ 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 must address all requirements unless otherwise agreed following consultation with the EPA. For clarity, organise content with further headings and subheadings as appropriate.

Title page

The title page must include:

- Name of proponent (legal entity)
- Name of proposal (include “expansion” or “upgrade” where appropriate)
- Proposal address or location
- EIS version number
- 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. The table of contents should include hyperlinks to allow documents to be navigated easily.

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
- ACN (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, including relevant development and operational experience.
- General background information on the proposal, including:
 - current status of the proposal;
 - an overview of the principal components of the proposal;
 - the proposal location;
 - likely markets for the product; and
 - possibilities for future expansion.
- If the proposal is associated with an existing activity, information on current permits, regulatory approvals and/or licences.
- 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, and must include:

- A summary table,
- A detailed description of proposal,
- Definition of the Land,
- Maps, plans and visual information,
- A summary of planning aspects,
- Socio-economic context, and
- Off-site infrastructure.

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; and
- Inputs (e.g. water, materials, energy) and outputs (e.g. products, wastes and emissions).

Refer to *Appendix C* for an example of a 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.

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 I36529/1; or

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 required to adequately identify the Land. If this is the case:

- Provide a plan which clearly shows the boundary of the Land in relation to topographic features or surveyed grid coordinates; and
- 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. Provide detail on the proposed construction, commissioning and operation of the activity, including any ancillary works that are for the purpose of the proposal (e.g. access works).

2.3.1 General

- A description of the resource to be extracted, as currently understood.
- Types and quantities of material(s) to be extracted and processed on a monthly/annual basis, tied into the staged mining plan. Include maximum proposed extraction rates, daily average rates and annual extraction rates.
- An estimate of the projected life of the operation, and expected long-term prospects based on the results of exploration work.
- Specify:
 - Maximum area of the site proposed to be disturbed (un-rehabilitated) at any given time (hectares).
 - Total area of land to be cleared or disturbed over the life of the proposal (hectares).
- Staged mining plans with approximate dates/timeframes for proposed works and areas of disturbance, with a specified outer boundary of disturbance for which approval is being sought in this proposal.
- A step-by-step description of proposed extraction and materials handling methods, direction of works, bench heights, ramping and haulage. Extraction plans should demonstrate the resource will be extracted in a systematic manner that will minimise the area of disturbance and allow for progressive rehabilitation of the site as appropriate.
- The hours of operation for the proposal (hours per day and specific days per week) including any seasonal variations.
- A description of the major items of equipment (including pollution control equipment) and on-site facilities. Detailed technical information on major items of equipment may be included in appendices.
- Raw materials required for the proposal (including water) should be specified. Quantities and characteristics should be detailed.
- Energy requirements for the proposal should be outlined and the means of meeting this demand described.
- The volume, composition, origin, destination, and route for vehicle movements (including road, rail, shipping, and air) likely to be generated during each phase of the proposal, including a break-down for over-dimension and heavy road vehicles.
- If the proposal is associated with an existing activity, describe any current approvals or regulatory conditions.
- Planned land use of the site when mining is complete.

2.3.2 Construction

- A step-by-step description and timetable for significant activities during the site set-up phase of the proposal.
- Indicative timeframes for the completion of major steps, and the likely sequencing of steps (there may be some overlap with section 2.3.1 above).
- An outline of measures to prevent or mitigate impacts from erosion and transport of sediment during site set-up works, including any temporary or permanent removal of vegetation including, stockpiling of vegetation, erosion control measures and the potential transport of pollutants (e.g., suspended solids) from areas of disturbance during site set-up.

2.3.3 Commissioning

- A step-by-step description of major commissioning activities (if any) following site set-up.
- Indicative timeframes for the completion of major steps, and the likely sequencing of steps. The point at which commissioning will be considered completed should be described

2.4 Maps, plans and figures

Provide maps and plans that detail the location of the proposal in relation to the local and wider region. Refer to Part B for spatial and visual information requirements.

2.4.1 General location maps

Provide general location maps of the existing environment and surrounding area (1:25,000 scale or better, as appropriate) which identify:

- 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 uses⁶;
- 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 (including areas of conservation or recreational significance); and
- Surrounding land zoning in the local government planning scheme.

2.4.2 Site Plan

Provide a site plan that 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 (existing and proposed);
- The route of any pipelines, tracks, roads, conveyors, or similar means of transporting on-site materials;
- The location of raw materials storage areas;
- The locations of temporary and permanent storage areas for fuels, oils, reagents and other hazardous goods or chemicals;
- The locations of stormwater collection systems and details of drainage control measures such as cut-off drains and sediment settling ponds, including location of all discharge points (stormwater or other);
- Details of any screening vegetation or bund walls;
- The location of loading or unloading areas; and

⁶ 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.'

- The location(s) of any monitoring sites.

Geospatial data included on the plan(s) should also be provided to the Board in a geospatial vector format (shapefile or DXF). 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, such a survey may be requested during the assessment process.

2.4.3 Figures and flowcharts

Present figures such as process flowcharts and images where they are likely to improve readers' 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 planning 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 contamination⁷, 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 uses⁸ and residential zones within applicable attenuation 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).
- Consider 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.

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.

⁷ Information on potentially contaminating activities and contaminated site assessment can be found online at <https://epa.tas.gov.au/Pages/Land.aspx>

⁸ 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.'

2.7 Offsite infrastructure

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

Briefly describe the use of the Fingal Coal Washery for processing of material.

3. Project Alternatives

Proponents should provide the rationale for the proposal. Alternatives should consider best practice environmental management, including measures listed under section 4(2) of [EMPCA](#).⁹ The rationale should:

- Describe the site selection process and criteria.
- Evaluate any alternative sites considered. Justify the choice of the proposed site in terms of clearly defined environmental, social, economic, and technical considerations.
- Describe the effect of any community consultation on the selection process.
- Identify and provide an assessment of other available technologies, materials, design options or management practices, where relevant. Evaluate the environmental performance of identified alternatives and provide justification for the preferred option.

4. Public Consultation

Describe any public consultation that has taken place during project planning and preparation of the EIS and summarise the results of this consultation. Describe any proposed future public consultation that will take place during project implementation and operation. The Board encourages early community engagement, as it often leads to better outcomes for all parties. Guidance on effective community engagement is available on the [EPA website](#).¹⁰

5. Potential Impacts and Management

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

Address each discrete issue separately, using headings and subheadings where necessary to organise and separate discussions.

Use scientific data to support predictions and evaluate impacts and provide references to the data used. Where specialist reports have been required for key issues, summarise them within the body of the EIS where relevant, and attach the reports as appendices. Detail the qualifications of the authors of any specialist reports. Make sure that the information in the body of the EIS is consistent with the information in the appendices.

General information requirements for each potential impact are described below, and are in addition to any specific information requirements detailed later in this section.

Existing Environment

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

⁹ See: <https://www.legislation.tas.gov.au/view/html/inforce/current/act-1994-044#GS4@EN>

¹⁰ See [https://epa.tas.gov.au/Documents/Guidance on Community Engagement.pdf](https://epa.tas.gov.au/Documents/Guidance%20on%20Community%20Engagement.pdf)

- Analyse the issue in relation to the existing environment.

Methodology

- Describe how the assessment of the impact has been undertaken, such as by survey or desktop study.
- Identify any relevant guidelines and standards used.
- Discuss any choice of methodology over alternatives where relevant.

Assessment

- Clearly articulate 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.
- 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.
- Detail any specialist recommendations which have been/will be implemented. Where specialist recommendations are not to be implemented, justify why. All recommendations made in specialist reports should be addressed.
- Analyse the effectiveness of the mitigation measures. Describe 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.

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 biodiversity and natural values from clearing and other aspects of operation of the proposal.
2. Potential impacts on water quality associated operation of the proposal.
3. Potential impacts on air quality associated with operation of the proposal.

5.1 Key issue 1: Biodiversity and natural values

Discuss impacts of the proposal on biodiversity and nature conservation values (terrestrial and aquatic). Include details on how information has been collected or generated where applicable.

- Specify and map known records of fauna, flora, vegetation communities and habitat, including aquatic as relevant, including reference to:
 - threatened species, communities and habitats, including those listed under the relevant Schedules of the Australian Government *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the Tasmanian *Threatened Species Protection Act 1995* (TSPA)¹¹ and Tasmanian *Nature Conservation Act 2002* (NCA).¹²
- Specify and map known records of weeds, pests and diseases.
- Provide the results of terrestrial and aquatic (as relevant) natural values surveys undertaken by a suitably qualified person(s), in accordance with relevant [survey guidelines](#)¹³.
 - There are several records of flora listed under the TSPA and or the EPBC Act that may have potential habitat within the mining lease (see table below) and be impacted by the proposed works.

Species name	Common name	TSPA	EPBC Act
<i>Desmodium varians</i>	slender ticktrefoil	endangered	Not listed
<i>Desmodium gunnii</i>	southern ticktrefoil	vulnerable	Not listed
<i>Glycine microphylla</i>	small-leaf glycine	vulnerable	Not listed
<i>Glycine latrobeana</i>	clover glycine	vulnerable	Vulnerable
<i>Scleranthus fasciculatus</i>	spreading knawel	vulnerable	Not listed

Surveys should be undertaken at a suitable time to capture the majority of these species during their flowering season to aid identification. Information on optimal surveying times is available for many species on the [Threatened Species Link website](#).¹⁴

- If any listed threatened flora are found on the property and will be impacted by the proposed development, a permit to take under the TSPA will be required.
- There are records of threatened fauna listed under the TSPA or the EPBC Act within 5 km of the mining lease that may have breeding and/or foraging habitat within the proposed works area (see table below).

Species name	Common name	TSPA	EPBC Act
<i>Aquila audax subsp. fleayi</i>	Wedge-tailed eagle	endangered	Endangered

¹¹ See <https://www.legislation.tas.gov.au/view/html/inforce/current/act-1995-083>

¹² See <https://www.legislation.tas.gov.au/view/html/inforce/current/act-2002-063>

¹³ See <https://nre.tas.gov.au/conservation/development-planning-conservation-assessment/survey-guidelines-for-development-assessments>

¹⁴ See <http://www.threatenedspecieslink.tas.gov.au/>

<i>Haliaeetus leucogaster</i>	White-bellied sea-eagle	vulnerable	Not listed
<i>Lathamus discolor</i>	Swift parrot	endangered	Critically Endangered
<i>Accipiter novaehollandiae</i>	Grey goshawk	endangered	Not listed
<i>Sarcophilus harrisii</i>	Tasmanian devil	endangered	Endangered
<i>Dasyurus maculatus</i> <i>subsp. maculatus</i>	Spotted-tail quoll	rare	Vulnerable

The survey should determine if any potential habitat for the above-mentioned species is present within the impact area.

- All areas to be impacted must be surveyed in accordance with the [Tasmanian Devil Survey Guidelines and Management Advice for Development Proposals](#) (the Devil Guidelines).¹⁵
- If any potential dens sites for the Tasmanian devil (*Sarcophilus harrisii*) are found to exist within the site and are likely to be impacted by the proposal, these should be monitored in accordance with the Devil Guidelines. Any dens that cannot be avoided will require a permit to take under the NCA.
- There are several records for eagle nests belonging to the wedge-tailed eagle and white-bellied sea-eagle within 1 km of the mining lease. An eagle nest search around the waterbody north-east of the development to determine if any eagle nests are present must be undertaken by a suitably qualified and experienced person, outside of the breeding season management constraint period (July to January inclusive).
- 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.¹⁶
- Identify any freshwater ecosystems of high conservation management priority using the [Conservation of Freshwater Ecosystem Values \(CFEV\) database](#),¹⁷ 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.
- Describe natural processes of particular importance for the maintenance of the existing environment (e.g. fire, flooding, etc).

Describe potential impacts of the proposal on:

- Flora, vegetation communities and habitat, with reference to threatened species, communities and habitats, including those listed under the relevant Schedules of the EPBC Act, TSPA and NCA, including consideration of:
 - Direct impacts, such as disturbance, clearing, excavation or burning;
 - Indirect impacts, such as changes in hydrogeological flows, fragmentation of populations or introduction of weeds, pests or diseases;
 - Cumulative impacts with other human activity.
- Fauna, with particular reference to threatened species, communities and habitats, including those listed under the relevant Schedules of the EPBC Act, TSPA and NCA, including consideration of:

¹⁵ See <https://nre.tas.gov.au/Documents/Devil%20Survey%20Guidelines%20and%20Advice.pdf>

¹⁶ See <https://www.environment.gov.au/water/wetlands/australian-wetlands-database/directory-important-wetlands>.

¹⁷ See <https://nre.tas.gov.au/water/water-monitoring-and-assessment/cfev-program>

- Direct impacts, such as collision risks from both vehicles¹⁸ and infrastructure, clearing or other physical changes to breeding and hunting or foraging habitat;
- Indirect impacts, such as changes in disturbances to nesting, impacts of noise and light, changes in prey or food availability or introduction of pests or diseases;
- Cumulative impacts with other human activity.
- Existing conservation reserves that may be affected by the proposal, with reference to the management objectives of the reserve(s) and the reserve management plan(s) (if any).
- 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, including high-quality wilderness areas;
 - maintenance of forest communities under the [Permanent Native Forest Estate Policy](#);¹⁹
 - wildlife habitat strips under the [Tasmanian Forest Practices Code 2020](#);²⁰ and
 - non-forest communities.
- Sites of geoconservation significance or natural processes (such as fluvial or coastal features), including sites of geoconservation significance listed on the Tasmanian Geoconservation Database.
- Describe management measures that will be implemented to avoid adverse impacts to threatened fauna, flora and vegetation communities and other natural values, including management of weeds, pests and diseases.
- Include any roadkill management measures as required in the Devil Guidelines.
- Where impacts cannot be avoided, present proposed measures to minimise and mitigate adverse impacts on biodiversity and nature conservation values.
- Identify potential residual impacts²¹.
- Discuss any offset²² proposed for residual impacts, including likely benefits from such an offset.
- 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.

5.2 Key issue 2: Water quality (surface, discharge and groundwater)

Discuss potential impacts of the proposal on water quality (surface, discharge, and groundwater), including methodology where appropriate.

- Provide a description and map of the activity site with respect to topography and preferential surface water flow, existing surface water and stormwater drainage. Identify nearby water bodies and watercourses likely to be impacted by the proposal.
- Provide an overview of the receiving environment. Identify all relevant Protected Environmental Values (PEVs)²³, including:

¹⁸ An increase in night-time (between one hour before sunset and one hour after sunrise as defined by the Bureau of Meteorology) traffic on internal and nearby roads of more than 10% combined with a high abundance of Tasmanian Devils and/or Tasmanian Devil roadkill records in the Natural Values Atlas is considered significant regarding likely impacts on the Tasmanian Devil. See the [Survey Guidelines and Management Advice for Development Proposals that may impact on the Tasmanian Devil \(*Sarcophilus harrisii*\)](#)

¹⁹ See https://www.stategrowth.tas.gov.au/energy_and_resources/forestry/native-forest

²⁰ Available at https://fpa.tas.gov.au/Documents/Forest_Practices_Code_2020.pdf

²¹ As defined in Appendix A of these Guidelines.

²² See Appendix A of these Guidelines under Residual Impacts.

²³ See <https://epa.tas.gov.au/environment/water/pevs-for-tasmanian-surface-waters>

- sensitive uses and associated water quality considerations;
 - seasonal water quality, hydrological characteristics and biological condition of the receiving environment;
 - 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](#).²⁴
- Describe management measures to control surface water and the potential for erosion and sediment loss. Control measures may include; minimisation of areas of disturbance; minimisation of stormwater ingress and sediment mobilisation through the use of perimeter drains, cut-off drains and bunding; sediment basins/ponds or stilling areas to capture entrained sediment; and swales, rock filters, wetlands or vegetated discharge zones to remove suspended sediment.
 - Identify the dimensions, capacity and other relevant design features of key stormwater infrastructure such as drains and bunding; sediment basins/ponds, with reference to design rainfall frequency (average recurrence interval) and intensity. For sediment basins/ponds, provide the sediment capture particle size, settling volume and surface area calculations, and design rational. Stormwater management for the activity (drains and sediment ponds) must have capacity to cope with heavy rain events and ‘wet’ years. Design annual exceedance probabilities for drainage and sediment control infrastructure must be provided. Should the potential exist for fine sediment and clays to be mobilised then the use of flocculants or coagulants should be considered to retain suspended matter on the land.
 - Describe the quality of effluent collected in the sediment basins for at least the following parameters: pH, TSS, conductivity, turbidity, chloride, sulphate and sodium; and the expected discharge volume and frequency of effluent from the sediment basins.
 - Describe management measures to divert clean stormwater from collection and treatment of stormwater runoff within disturbed areas and of any groundwater that may accumulate in the mine pits.
 - Demonstrate effective sediment retention for stormwater prior to discharge from the Land. Ongoing maintenance of sediment ponds to periodically remove accumulated sediments is needed through the life of the mine and until revegetation of rehabilitated areas is completed.
 - Describe potential impacts on the receiving environment and any mitigation measures that will be put in place to avoid or reduce these impacts.
 - A stormwater management plan must be prepared and included in the EIS, including erosion and sediment control plans for stockpiles, mine batters and disturbed area. The erosion and sediment control plans must show works staging, any surface erosion prevention treatments, the location and design of drainage controls, and the location and design of sediment control infrastructure with reference to extraction pits, hardstands, storage area, roads and stockpiles, and include individual plans for each significant stage of the proposed works, from establishment through operations.
 - Details of discharge locations and monitoring program must be provided. Recommended relevant parameters for routine monitoring of stormwater are: pH, TSS, conductivity and turbidity. Periodic screening for metals and hydrocarbons may be useful, particularly following any incidents likely to have contaminated stormwater catchment areas.
 - Provide a conceptual groundwater model for regional and local aquifer flows.
 - Provide a map showing the location of existing groundwater extraction bores nearest to the area impacted by the activity. Refer to [NRE's Groundwater Information Access Portal](#) where relevant.²⁵

²⁴ See [https://epa.tas.gov.au/Documents/Technical%20Guidance%20for%20Water%20Quality%20Objectives%20\(WQOs\)%20Setting%20for%20Tasmania.pdf](https://epa.tas.gov.au/Documents/Technical%20Guidance%20for%20Water%20Quality%20Objectives%20(WQOs)%20Setting%20for%20Tasmania.pdf)

²⁵ See <https://wrt.tas.gov.au/groundwater-info/>

- Identify any surface water and groundwater dependent ecosystems that may receive groundwater from areas impacted by the proposal.
- Discuss the potential impact of the proposal on groundwater (quality and quantity).
- Describe the measures proposed to avoid or mitigate potential adverse impacts to groundwater.
- Justify any potential impact to groundwater in accordance with the principles outlined in the [State Policy on Water Quality Management 1997](#)²⁶ and with reference to likely groundwater community values, associated guideline values and guideline values for receiving surface waters.
- Describe how legacy risks to ground and surface water will be managed.

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](#).²⁷

5.3 Key issue 3: Air quality

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

- Provide a site map that includes the land boundary and the location of nearest sensitive receptors.
- Describe the existing environment. Include details on climatic/meteorological conditions, terrain, land use and air quality in the vicinity of the proposal.
- Provide a figure showing the locations and names of all potential sources of atmospheric emissions from the proposed activity.
- Describe all potential sources of atmospheric emissions (point and fugitive) and the composition of the atmospheric emissions, including odour and dust, that may arise from activity on the site. Include dust generated from:
 - Processes of progressive extraction of coal i.e., emissions from disturbed topsoil, stockpiles, excavating, ripping, drilling, blasting, crushing, screening, loading and hauling carried out at the site and associated with operation of the proposed open-cut pit.
 - Upgrading of haul roads.
 - Transporting of material via haul roads.
 - On-site and off-site vehicle movements.
- Provide details of the equipment used on the site.
- Discuss and assess the potential impact of fugitive dust and particulate matter emissions from the proposed activity on the environment and the likelihood for the activity to cause environmental nuisance or harm at or beyond the site boundary.
- Describe all pollution control equipment and pollution control techniques to be employed to suppress or minimise air emissions, especially during unfavourable meteorological conditions. This may include but not be limited to watering or sealing roads, covering of truck loads, reduced vehicle speed, road surfacing/maintenance details, enclosures, water sprays, windbreaks, and revegetation/stabilisation. Discussion of the ongoing requirement to provide an adequate water supply should be included.
- Provide information about proposed monitoring of dust and particulate matter that would be employed at the site.

²⁶ See <https://epa.tas.gov.au/about-the-epa/policy-legislation-cooperative-arrangements/statutory-policies/state-policies-and-environment-protection-policies/state-policy-on-water-quality-management-1997>

²⁷ See [https://epa.tas.gov.au/Documents/Technical%20Guidance%20for%20Water%20Quality%20Objectives%20\(WQOs\)%20Setting%20for%20Tasmania.pdf](https://epa.tas.gov.au/Documents/Technical%20Guidance%20for%20Water%20Quality%20Objectives%20(WQOs)%20Setting%20for%20Tasmania.pdf)

- Provide information about any dust complaints related to the operation of the existing activities.
- Demonstrate that the assessment is consistent with the requirements of the [Tasmanian Environment Protection Policy \(Air Quality\) 2004](#)²⁸ and any supplementary documents.

5.4 Noise emissions

5.4.1 Existing Environment

Discuss potential impacts of noise emissions for the proposal during construction and operation.

- Provide a map showing 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 other noise-sensitive premises in the vicinity of the boundary of the activity.
- Describe all major sources of noise, including associated:
 - Sizes and power ratings of all major equipment;
 - 1/3 octave source noise data (linear/C-weighted and A-weighted) to assess for low frequency and tonal noise;
 - Noise attenuation features; and
 - Hours of operation.
- Consider the potential for noise emissions (during both construction and operational phases) to cause nuisance for nearby land users, particularly at noise sensitive premises²⁹.
- Discuss noise-related environmental impacts associated with current and altered traffic flows on other road users and on residences adjacent to roads.
- Discuss the potential for noise emissions to affect terrestrial, marine and freshwater wildlife and livestock.
- Describe attenuation measures that will be implemented to avoid or mitigate impacts of noise emitted by the proposal (as relevant).
- Demonstrate that the proposal is consistent with environmental performance requirements, including any identified in the [Environment Protection Policy \(Noise\) 2009](#). **Error! Bookmark not defined.**

5.5 Waste management

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

- Describe the source, nature and quantities of all general wastes likely to be generated by the proposal (liquid, gaseous, solid or other), including general refuse and by-products from the various stages of the process.
- Describe the methods and facilities proposed to collect, store, reuse, treat or dispose of each general waste stream. Describe collection or other maintenance requirements where relevant.

²⁸ See https://epa.tas.gov.au/Documents/EPP_Air_Quality_2004.pdf

²⁹ Noise-sensitive premises are 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.'

- Describe the source, nature, quantity, and method of treatment, storage and disposal for each controlled waste arising from the proposal.³⁰ Describe collection or other maintenance requirements where relevant.
- Demonstrate that any waste management measures follow the following hierarchy of waste management, arranged in decreasing order of desirability:
 - Avoidance,
 - Reuse,
 - Treatment/stabilisation for reuse,
 - Recycling,
 - Energy recovery,
 - Repository storage (for future treatment/recovery),
 - Treatment/stabilisation for disposal,
 - 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 potential impacts of dangerous goods and environmentally hazardous substances used in or 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](#))³¹ 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 to be adopted to prevent or control any accidental releases of dangerous goods and environmentally hazardous materials. Examples include bunding or spill trays.
- Provide contingency plans for when control measures fail, equipment breaks down or accidental releases to the environment otherwise occur. Include detail on proposed emergency and clean-up measures and notification procedures. Identify any safety management requirements for the protection of human health and safety where incidents may affect the community.

5.7 Greenhouse gas emissions, ozone depleting substances and climate change

Discuss potential impacts of the proposal in relation to greenhouse gases, ozone-depleting substances and climate change. The discussion should be proportionate to the significance of the potential impacts.

- Describe the direct and indirect effects of the proposal on greenhouse gas production and ozone-depleting substances, as well as any associated benefits of the proposal.

³⁰ Controlled waste is defined in EMPCA and associated regulations. A non-exhaustive listing of categories of controlled waste can be found at <https://epa.tas.gov.au/business-industry/regulation/waste-management/controlled-waste>

³¹ See <https://www.ntc.gov.au/codes-and-guidelines/australian-dangerous-goods-code>

- Provide an inventory of projected scope 1, scope 2 and total greenhouse gas emissions,³² energy production, and energy consumption for a year of operation. Describe the methods used to develop the inventory³³. Discuss potential annual variation that may occur.
- Provide an estimate of scope 3 emissions that may occur as a consequence of the proposal.
- Demonstrate that the development will use cost-effective, best practice measures to minimise future greenhouse gas emissions.
- Detail measures proposed to minimise emissions and describe 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.
- Estimate ‘whole of life’ greenhouse gas emissions for the proposed development. Include details of the methodology used.
- 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),³⁴ [Tasmania’s Climate Change Action Plan 2023-25](#)³⁵ and the [Climate Change Act 2022](#) (Commonwealth).³⁶

Note: Proponents must determine whether they are required to report to the Commonwealth under the [National Greenhouse and Energy Reporting Act 2007](#).³⁷

5.8 Socio-economic issues

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

- Include 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).
- Provide a summary of 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.

³² More information on categorising emissions can be found at <https://www.cleanenergyregulator.gov.au/NGER/About-the-National-Greenhouse-and-Energy-Reporting-scheme/Greenhouse-gases-and-energy>

³³ Calculators are available on the Australian Government Clean Energy Regulator website. See <http://www.cleanenergyregulator.gov.au/NGER/Forms-and-resources/Calculators#Emissions-and-Energy-Threshold-Calculator-202021-and-user-guide>

³⁴ See <https://www.legislation.tas.gov.au/view/html/inforce/current/act-2008-036>

³⁵ See https://recfit.tas.gov.au/climate/climate_change_action_plan

³⁶ See <https://www.legislation.gov.au/Details/C2022A00037>

³⁷ See <https://www.legislation.gov.au/Details/C2007A00175>

- 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 be adequately supported by 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.

Proposals with higher-level or broader-scale environmental impacts need more comprehensive analysis of economic and social benefits, to allow the Board to evaluate both the benefits and adverse impacts of the proposal. Methods used to model social and economic impacts should be described where relevant. A description of how the local community has been consulted to determine its needs and aspirations in relation to the proposal should also be included. A social impact assessment and/or economic impact assessment may be required.

5.9 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.

5.10 Infrastructure and off-site ancillary facilities

Discuss potential environmental impacts of the proposal on any significant off-site infrastructure or facilities (including increased use of existing infrastructure, such as roads, ports and quarries). Identify measures proposed to avoid and mitigate any possible adverse impacts. Assess the likely overall impacts after 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. Cross-reference to other sections where relevant.

5.11 Cumulative and interactive impacts

Where relevant, this section should contain an assessment of the potential cumulative impacts of the proposal in the context of existing and approved developments in the region, if such impacts have not been addressed in previous sections.

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, should also be considered in that assessment. Uncertainties about potential impacts in such cases should be identified.

Interactions between biophysical, socio-economic, and cultural impacts of the proposal should be discussed.

5.12 Environmental impacts of traffic

- Provide details of the vehicle types, number of vehicle movements, times of movements and route(s).
- Evaluate the potential for transport to and from the site to cause a noise nuisance to residences and other noise sensitive premises in proximity to the Land, considering the type, volume and time of traffic associated with the proposal.
- Evaluate the potential to cause a dust nuisance as a result of traffic in proximity to the Land.
- Will the activity result in a night-time (note that night-time is defined as being from one hour prior to sunset to one hour after sunrise) increase of over 10% on the unnamed quarry entry road off Flowery Gully Road? If so, it would be deemed significant in terms of potential impacts on the Tasmanian devil and proposed roadkill mitigation measures must be described. See the [Survey Guidelines and Management Advice for Development Proposals that may impact on the Tasmanian Devil \(*Sarcophilus harrisii*\)](#)³⁸ for more information.

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³⁸ Available at <https://nre.tas.gov.au/Documents/Devil%20Survey%20Guidelines%20and%20Advice.pdf>

6. Monitoring and Review

Outline 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; and
- Assess the extent to which the potential impacts described in the EIS have eventuated.

7. Decommissioning and Rehabilitation

The EIS should describe an on-going, staged approach to site decommissioning and rehabilitation throughout the proposal life.

- A preliminary Decommissioning and Rehabilitation Plan must be provided, and include:
 - The methods for decommissioning and rehabilitation of the site and proposed final land use.
 - Details of the progressive rehabilitation on-site, with reference to staged development of the open cut mine (refer to Site Plan(s) and Mine Plan as relevant), and how this relates to operation of the mine.
 - The proposed maximum open area at any one time across the mine site.
 - The proposed final landform, drainage, and revegetation to support post mining land use, and how the long-term stability of post closure landforms will be ensured.
 - Consideration of how dispersive soils (sodosols) will be managed and rehabilitated.
 - Consideration of storage and use of topsoil cleared vegetation and other seed sources.
 - Detailed description of how the site would be managed to prevent environmental pollution in the case of an unanticipated closure/temporary suspension of activity.
 - Cost estimates for the planned final closure.

8. Management Measures Table

Provide a summary table listing all management measures detailed throughout the EIS. Each measure must include a reference number, must be an unambiguous statement of intent, must specify when it is to be implemented (including whether it is to be implemented during construction, operation, maintenance or other phases) and must include a cross-reference to where the measure is described in the EIS.

9. Conclusion

Summarise the proposal and present a balanced overview of its net impacts. 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.

Describe how the proposal meets and furthers the objectives of relevant legislation, policies, plans and strategies. Itemise the RMPS and EMPCS objectives and comment on how the proposal addresses each of the objectives.

10. References

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 as appendices. The salient features of the appendices should be included in the main body of the EIS. Technical content of appendices must be consistent with information presented in the EIS itself, unless inconsistencies are carefully explained. The EIS may not be accepted where unexplained inconsistencies exist.

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Appendix A: General principles for assessing environmental impacts

This Appendix summarises general principles for assessing environmental impacts in EIS documents prepared in accordance with EMPCA.

General Approach

When assessing environmental impacts in an EIS, the proponent should:

- Present information in a clear, well-structured manner appropriate to the audience of the EIS.
- Avoid duplication.
- Base assessments and evaluations on scientifically supportable, referenced data.
- Describe methodologies used and provide supporting research and information wherever relevant.
- State any scientific assumptions, simplifications, or judgements, and define uncertainties.
- Describe impacts and their mitigation to a level of detail that is proportionate to potential consequences and to what extent they can be controlled.

Impact assessment

Impact assessment involves 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.
- Clearly state the impacts that are expected 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 to harm or nuisance;
 - Sources of the impacts and pathways by which the impact may occur;
 - Probability of occurrence (if not 100%);
 - The range of scenarios in which the impact may occur, including plausible worst-case consequences;
 - Reversibility of impacts;
 - Any predicted indirect effects; and
 - Any aspects of other proposals examined cumulatively.
- With reference to the project description and alternatives described in the EIS, state what measures to avoid or reduce impacts have been considered as part of this assessment, and which of these have been incorporated into the proposal.

Impact evaluation

Impact evaluation is the determination of the significance of impacts. Proponents should support conclusions about the significance of impacts using a structured argument that clearly describes the magnitude of the impact, the sensitivity of the affected receptors, and how they relate.

Mitigation and Monitoring

Mitigation (planning and design considerations, pollution control technology and management practices) and monitoring are measures additional to those considered during the impact assessment 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 as defined in EMPCA;
- Discuss contingencies for the breakdown/malfunction of equipment or processes;
- Describe any anticipated impacts resulting from the mitigation actions and how these will be addressed; and
- Identify where control measures are to be carried out, operated and/or maintained by a third party, and how this will be achieved.

Residual impacts

Residual impacts are those that remain after all proposed avoidance and mitigation measures have 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, and
- Where required, identify appropriate actions that will offset impacts, based on the relevant guidelines. Offset actions must present a measurable, relevant and ongoing net benefit which would not otherwise have been realised, and which is not accounted for by any other project or proposal.

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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: aboriginalheritage@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 likely presence of potentially acid forming (PAF) material. 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 outlining the proposed timeframe(s) for construction, commissioning and commencement of operations. Include significant milestones 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 that are likely to provide important context as part of this summary.
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ENVIRONMENT PROTECTION AUTHORITY