

Scoping Requirements Hazelwood Mine Rehabilitation Project EES

Environment Effects Act 1978

OCTOBER 2023

Acknowledgement



The Victorian Government acknowledges Aboriginal and Torres Strait Islander people as the Traditional Custodians of the land and acknowledges and pays respect to their Elders, past and present.

Queries about the Hazelwood Mine Rehabilitation Project should be directed to the proponent:

Hazelwood Rehabilitation Project
Telephone: (03) 5135 5000
Email: hazelwood.au@engie.com
Website: hazelwoodrehabilitation.com.au/

Queries about the EES process and draft scoping requirements should be directed to the department:

Impact Assessment Unit
Telephone: (03) 8622 7633
Email: environment.assessment@delwp.vic.gov.au

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List of abbreviations

CHMP	Cultural heritage management plan
DEECA	Department of Energy, Environment and Climate Action (Vic)
DTP	Department of Transport and Planning (Vic)
EE Act	<i>Environment Effects Act 1978</i> (Vic)
EES	Environment effects statement
EMF	Environmental management framework
EP Act	<i>Environment Protection Act 2017</i> (Vic)
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
FFG Act	<i>Flora and Fauna Guarantee Act 1988</i> (Vic)
MNES	Matters of national environmental significance
MRSD Act	<i>Mineral Resources (Sustainable Development) Act 1990</i> (Vic)
P&E Act	<i>Planning and Environment Act 1987</i> (Vic)
Project	Hazelwood Mine Rehabilitation Project
RAP	Registered Aboriginal Parties
TRG	Technical reference group
Water Act	<i>Water Act 1989</i>



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1. Introduction

In light of the potential for significant environmental effects of the proposed rehabilitation of Hazelwood mine (the project), on 3 February 2022 the Minister for Planning determined under the *Environment Effects Act 1978* (EE Act) that Hazelwood Power Corporation Pty Ltd and the Hazelwood Power Partnership (Hazelwood Pacific Pty Ltd, Australian Power Partners B.V, Hazelwood Churchill Pty Ltd and National Power Investments Ltd), hereafter ENGIE Hazelwood, is to prepare an environment effects statement (EES). The purpose of the EES is to provide a sufficiently detailed description of the project, assess its potential effects on the environment¹ and assess alternative project layouts, designs and approaches to avoid and mitigate effects. The EES will inform and seek feedback from the public and stakeholders. The Minister will issue an assessment of the project's environmental effects under the EE Act to conclude the EES process. The Minister's assessment will then inform statutory decision-makers responsible for making decisions about the project.

These *Scoping Requirements for the Hazelwood Mine Rehabilitation Project Environment Effects Statement* set out the specific matters to be investigated and documented in the EES. These scoping requirements were finalised following consideration of submissions received during the public exhibition of the draft scoping requirements between April and May 2023.

While the scoping requirements are intended to cover all relevant matters, the EES will also need to address other relevant issues that emerge during the EES investigations, especially potential impacts and environmental issues relevant to statutory decisions that will be informed by the assessment.

1.2 The project and setting

The project involves the rehabilitation of the former Hazelwood Mine to a safe, stable and sustainable landform² capable of supporting productive land uses. The proposed final landform for the former Hazelwood Mine void is a lake up to a relative level (RL) of +45 metres Australian Height Datum (+45m AHD). The site of the former Hazelwood Power Station and Mine is on Gunaikurnai Country in the Latrobe Valley in Victoria, immediately south of the township of Morwell, approximately 150 kilometres east of Melbourne (Figure 1).

The project consists of the following proposed components and activities:

- filling of the mine void to a final level of up to RL +45m AHD, with a maximum depth of 116m and covering an area of 1,145 hectares, using predominately groundwater, surface water and any other approved water sources;
- final rehabilitation and re-profiling works on the upper mine batters (i.e. above the surface of the future mine lake) to construct geotechnically sound and stable landforms and to ensure adequate surface and sub-surface drainage;
- final decommissioning and drainage of the Hazelwood Cooling Pond and restoration of the natural alignment of Eel Hole Creek;
- decommissioning remaining redundant infrastructure, such as redundant roads, car parks, buildings, pumphouses on the Hazelwood Cooling Pond and Saline Water Outlet Pipeline; and
- construction and operation of infrastructure necessary to maintain lake depth and water quality following completion of fill including potential Morwell River interconnection.

The project proposes a target mine filling period of between 10 and 20 years with a fill of up to 35 years under a worst-case scenario. The lake filling would require approximately 637GL of water for the full pit lake option (+45m AHD).

¹ For assessment of environmental effects under the EE Act, the meaning of 'environment' includes physical, biological, heritage, cultural, social, health, safety and economic aspects (Ministerial Guidelines, p. 2).

² Under the *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* safe, stable and sustainable means: (a) is not likely to cause injury or illness; and (b) structurally, geotechnically and hydrogeologically sound; and (c) non-polluting; and (d) aligns with the principles of sustainable development.



A range of activities at the site are currently approved and being progressed under previous and separate regulatory approvals and therefore are separate to the project, although will be examined within the EES where there is potential for interactions with the final rehabilitated landform or cumulative impacts, including:

- demolition of the Hazelwood Power Block (Station) and redundant infrastructure;
- construction of the existing Hazelwood Morwell River Flood Diversion emergency flood diversion infrastructure, to assist in safeguarding the Yallourn Mine. Approvals granted for activities under emergency powers to enable these works will expire at the earliest on 30 June 2023 or once the Morwell River Diversion repairs have been verified as complete;
- construction of the Hazelwood Battery Energy Storage System;
- ongoing site management activities, including:
 - water management (collection, treatment, monitoring, reporting);
 - hydrogeological and geotechnical monitoring and reporting;
 - maintaining and operating infrastructure necessary to maintain safe and stable conditions (e.g. fire service pumps, aquifer bores and pumps);
 - management of landfills and related audits and reporting to EPA Victoria under existing EPA Licence OL0046436; and
 - environmental monitoring and management.
- previously approved batter reprofiling works, surcharge construction works, and overburden dump earthworks;
- environmental investigations and remediation works being undertaken pursuant to post-closure clean up notices issued by EPA Victoria, which require Environmental audits for the mine void and remainder of the site, prepared in accordance with section 208 of the Environment Protection Act 2017 (EP Act) and consistent with the audit scopes that have been accepted by EPA Victoria; and
- landfill remediation works including the Hazelwood Ash Retention Area (HARA) ash landfill.

1.3 Minister's requirements for this EES

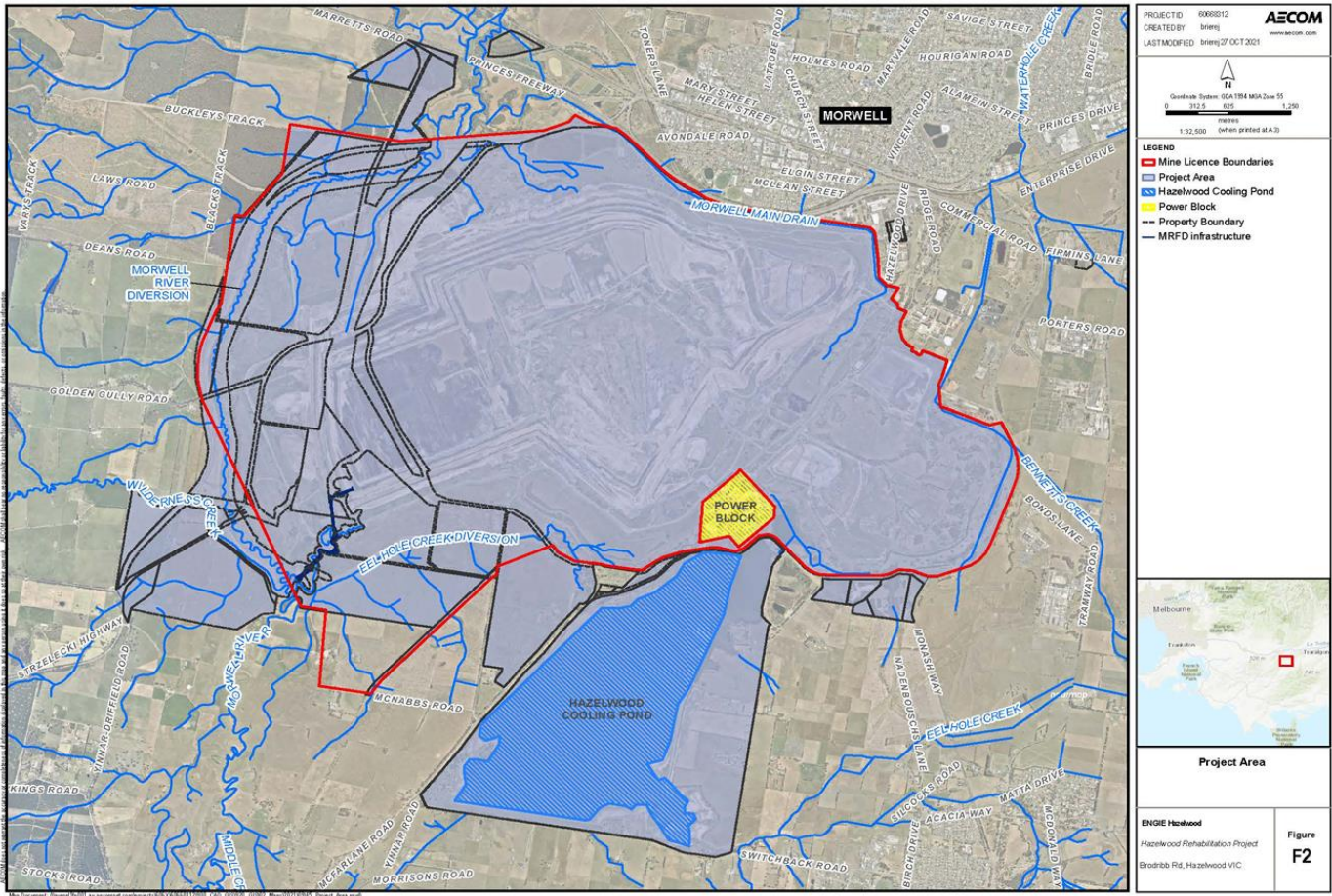
The former Minister for Planning decided that an EES is required to assess the potential environmental effects of the project, due to the potential for significant environmental effects. The Minister published procedures and requirements applicable to the preparation of the EES, in accordance with section 8B(5) of the Environment Effects Act (see Appendix A). As set out within these: The investigations and assessments are to include relevant alternatives, as well as associated avoidance, mitigation, and management measures. In particular the EES needs to address:

- potential effects on surface water and groundwater resources, including hydrology, water quality, availability and associated environmental values;
- existing land uses and landscape values;
- the Gippsland Lakes Ramsar site;
- native vegetation, ecological communities and species of flora and fauna listed under the *Flora and Fauna Guarantee Act 1988 (FFG Act)* and the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*; and
- Aboriginal and non-Aboriginal heritage values.

These scoping requirements provide further detail on the matters to be investigated in the EES as required by the *Ministerial guidelines for assessment of environmental effects under the Environment Effects Act 1978* (Ministerial Guidelines).



Figure 1: Location of the Hazelwood Mine Rehabilitation Project (source: AECOM).





2. Assessment process and required approvals

2.1 What is an EES?

An EES describes a project, its rationale/benefit and its potential environmental effects. It should enable stakeholders and decision-makers to understand how the project is proposed to be implemented and the likely environmental effects of doing so. An EES has two main components:

- i. The EES main report – an integrated, plain English document that assesses the potential impacts of the project and examines avoidance, mitigation or other measures to reduce the environmental effects and assesses residual effects. The main report draws on technical studies, data and statutory requirements and policy relevant to the environment and should clearly identify which components of the scope are being addressed throughout.
- ii. The EES technical reports – specialist studies, investigations and analysis that provide the basis for the EES main report. These reports will be exhibited in full, as appendices to the main report.

2.2 The EES process

The proponent is responsible for preparing an EES, including conducting technical studies and undertaking appropriate stakeholder consultation. The Department of Transport and Planning (DTP) is responsible for managing the EES process³. The EES process has the following steps:

- preparation of a draft study program and draft schedule by the proponent;
- preparation and exhibition of draft scoping requirements by DTP on behalf of the Minister with public comments received during the advertised exhibition period;
- finalisation and issuing of scoping requirements by the Minister (this document);
- review of the proponent's EES studies and draft documentation by DTP and a technical reference group (TRG);⁴
- completion of the EES by the proponent;
- review of the complete EES by DTP to establish its adequacy for public exhibition;
- exhibition of the proponent's EES and invitation for public comment by DTP on behalf of the Minister;
- appointment of an inquiry panel by the Minister to review the EES and public submissions received, conduct public hearings and provide a report to the Minister; and
- following receipt of the inquiry report, preparation of an assessment on whether the project's environmental effects are acceptable by the Minister for the consideration of statutory decision-makers.

Technical reference group

DTP has convened a TRG of state government agencies, the Registered Aboriginal Party (RAP) and local council. The TRG will be used for the EES process to facilitate the provision of advice from relevant agencies to DTP and the proponent on:

- applicable policies, strategies and statutory provisions;
- the scoping requirements for the EES;
- the design and adequacy of EES technical studies;
- the proponent's public information and stakeholder consultation program for the EES process;
- responses to issues arising from the EES investigations;

³ Further information on the EES process can be found at planning.vic.gov.au/environment-assessment/what-is-the-ees-process-in-victoria.

⁴ For critical components of the EES studies, peer review by an external, independent expert (or panel of experts) may be appropriate.



- the technical adequacy and completeness of draft EES documentation; and
- coordination of statutory processes.

EES consultation

The proponent is responsible for informing and engaging the public and stakeholders during the EES process, in order to inform them about the project, the EES process and EES studies. The proponent's EES consultation should enable feedback to be inputted on the project and its potential environmental effects, as well as respond to issues raised. Stakeholders include potentially affected parties, traditional owner groups, any interested community organisations/groups and government bodies.

Through its EES consultation plan the proponent needs to undertake effective engagement that enables the public and stakeholders to understand both the EES process and where there are opportunities for engagement. The proponent needs to provide appropriate opportunities for input and feedback from different stakeholders on the project and EES investigations.

The proponent is responsible for preparing and implementing an EES consultation plan that sets out the approach to engagement. The consultation plan is reviewed and amended in consultation with DTP and the TRG before it is published on the Planning website. The consultation plan will:

- identify stakeholders;
- characterise public and stakeholders' interests, concerns and consultation needs, local knowledge and inputs;
- describe consultation methods and schedule; and
- outline how public and stakeholder inputs will be recorded, considered and/or addressed in the preparation of the EES.

Traditional Owner engagement

The EES should be developed with acknowledgement of and respect for Traditional Owners' care for and connection to Country. Through the EES, the proponent should seek to understand the direct and indirect ways in which the project could affect these interests. To this end, the EES should be informed by engagement with Traditional Owners.

The proponent should support and enable culturally appropriate, informed and meaningful engagement with Traditional Owners including by asking communities about the engagement processes they want; endeavouring to develop strong working relationships; taking into account and respecting the cultural and communication needs and protocols of communities; engaging early and providing appropriate timeframes to consider and respond to information; and genuinely seeking input and expertise.


The EES consultation plan should set out the mechanisms to be established by the proponent to support and enable Traditional Owner engagement and should outline how the views and expertise offered by Traditional Owners will be integrated into the EES.

Statutory approvals and the EES process

The project will require a range of approvals under Victorian legislation if it is to proceed. DTP coordinates the EES process as closely as practicable with approvals, procedures, consultation and public notice requirements.

The key approvals required under Victorian legislation are an approved declared mine rehabilitation plan under the *Mineral Resources (Sustainable Development) (Mineral Industries) Amendment Regulations 2022*; potential permissions under the *Environment Protection Act 2017* (EP Act); an approved cultural heritage management plan (CHMP) under the *Aboriginal Heritage Act 2006*; and various licences under the *Water Act 1989* (Water Act).

No planning permit under the *Planning and Environment Act 1987* (P&E Act) will be required for mining-related works within the mining licence area, provided the requirements of section 42(7) of the MRSD Act are fulfilled. However, the project may require planning approvals for proposed works outside of the mining licence area.



To facilitate the integrated consideration of issues assessed within the EES and the timely completion of required approval processes, the EES should include key information that will be required to support statutory decision-making, including preparation of a draft declared mine rehabilitation plan in-line with the requirements of the *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019*.

Other approvals may be required; these will be identified in the EES.

2.3 Accreditation of the EES process under the EPBC Act

The project has been referred to the Commonwealth under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). A delegate for the Commonwealth Minister for the Environment and Water determined on 20 February 2023 that the project is a controlled action (EPBC 2022/09239), as it is likely to have a significant impact on the following matters of national environmental significance (MNES), which are protected under Part 3 of the EPBC Act:

- Ramsar wetlands (sections 16 & 17B);
- listed threatened species and communities (sections 18 & 18A);
- listed migratory species (sections 20 & 20A); and
- a water resource, in relation to coal seam gas or a large coal mining development (sections 24D & 24E).

The EES will need to be prepared in accordance with the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development's *Information guidelines for proponents preparing coal seam gas and large coal mining development proposals* (2018).

The EES process is accredited to assess impacts on MNES under the EPBC Act through the Bilateral Assessment Agreement between the Commonwealth and the State of Victoria.

The Commonwealth Minister or delegate will decide whether the project is approved, approved with conditions or refused under the EPBC Act, after having considered the Minister for Planning's assessment under the Environment Effects Act at the conclusion of the EES process. The Commonwealth Minister or delegate must also obtain advice from the IESC before deciding whether or not to approve the taking of the action.

3. Matters to be addressed in the EES

3.1 General approach

Preparation of the EES should be consistent with a systems approach and a risk-based approach when identifying issues for assessment. The EES needs to put forward a sound rationale for the level of assessment and analysis undertaken for any environmental effect or combination of environmental effects⁵ arising from all components and stages of the project. The EES needs to provide an analysis of the significance of the potential effects of the project, with consideration of:

- the potential effects on individual environmental assets/values– including considering magnitude, extent, duration and significance of change in the values of each asset/value;
- the likelihood of adverse effects, including those caused indirectly as a result of proposed activities, and associated uncertainty of available predictions or estimates;
- proposed avoidance or mitigation measures to reduce predicted effects;
- likely residual effects and their significance that are likely to occur assuming the proposed measures to avoid and mitigate environmental effects are implemented; and
- proposed approach to managing and monitoring environmental performance and contingency planning.

3.2 Content and style

Together with the Minister's reasons for decision, the published procedures and requirements and the Ministerial Guidelines, the content of the EES and related investigations is to be guided by these scoping requirements. To facilitate decisions on required approvals, the EES should address statutory requirements associated with approvals that will be informed by the Minister's assessment, including decision-making under the MRSD Act, the EP Act, the P&E Act, the Water Act and other applicable legislation. The EES should also address any other significant issues that emerge during the investigations. Ultimately, it is the proponent's responsibility to ensure that adequate studies are undertaken and reported to support the assessment of environmental effects arising from the project.

The EES should provide a clear, objective and well-integrated analysis of the potential effects of the proposed project, including proposed avoidance, mitigation and management measures, as well as feasible alternatives. Overall, the main report should include:

- an executive summary;
- a description of the entire project, including its objectives, rationale, key components, any relevant existing approved works/ infrastructure;
- a description of the proponent and their environmental performance credentials, including experience in developing, operating and rehabilitation of projects and their health, safety and environmental policies, environmental and community engagement policies, ability to build trusted relationships with stakeholders and Traditional Owner groups;
- a description of the approvals required for the project to proceed, including the status of those approvals/applications, and their relationship to relevant laws, policies, strategies, guidelines and standards;
- a description of feasible alternatives capable of substantially meeting the project's objectives that may also offer environmental or other benefits (as well as the basis for the choice where a preferred alternative is nominated);
- identify knowledge gaps in scientific understanding and baseline status of the environment, and demonstrate how and where these knowledge gaps will be addressed, as appropriate;
- a description of the scope, timing and method for studies or surveys used to provide information on the values of the project areas. This needs to be identified in consultation with the TRG. Surveys should be undertaken by suitably qualified persons and adhere to Commonwealth and/or DELWP survey guidelines where relevant. Records and other data from local sources should also be gathered and considered as appropriate;

⁵ Effects include direct, indirect, combined, cumulative, short- and long-term, beneficial and adverse effects.



- descriptions of the existing environment, where this is relevant to the assessment of potential effects;
- appropriately detailed assessments⁶ of potential effects of the project (and feasible alternatives) on environmental assets, values and uses, relative to baseline conditions, together with an estimation of likelihood and degree of uncertainty associated with predictions;
- clear, active measures for avoiding, minimising, managing and monitoring effects of the project, including a statement of commitment to implement these measures;
- predictions of residual effects of the project assuming implementation of proposed environmental management measures;
- any proposed offset measures where avoidance and other mitigation measures will not adequately address effects of the project on environmental values;
- assessment of cumulative impacts with other existing and proposed developments in the region, including closure of the Yallourn Mine and Loy Yang Mine;
- documentation of the process and results of the consultation undertaken by the proponent during the preparation of the EES, including the issues raised by stakeholders, Traditional Owners and the public and the proponent's responses to these issues, in the context of the EES studies and the associated consideration of mitigation measures;
- evaluation of the project against the principles and objectives of ecologically sustainable development; and
- conclusions on the significance of impacts of the project on local, regional, state and federal matters.

The EES should also include an outline of a program for community consultation, stakeholder engagement and communications for implementation during rehabilitation and post-closure phases, including opportunities for local stakeholders to engage with the proponent to seek responses to issues that might arise during project implementation.

The EES should also outline an approach to furthering Traditional Owner engagement and partnerships during project implementation including, as appropriate, inclusion in the management of Country, prior to and during rehabilitation and post-closure.

The proponent may choose to prepare a website with interactive functionality to provide an alternative form of access to EES information, which may complement the conventional EES chapters and technical documents. Such an approach should be discussed with DTP Impact Assessment Unit and should be integrated with the preparation of the EES package, including review of the EES by the TRG.

The proponent must also prepare a concise, graphical-based non-technical summary document (hard copy A4, no more than 25 pages) for free distribution to interested parties. The EES summary document should include details of the EES exhibition, public submission process and availability of documentation.

3.3 Project description and rationale

The EES is to describe the project in sufficient detail both to allow an understanding of all components, processes and development stages, and to enable assessment of their likely potential environmental effects. The project description should canvass the following:

- objectives and rationale for the project, including its relationship to statutory policies, plans and strategies, and implications of the project not proceeding.
- characterisation of physical and chemical properties of the project materials, wastes and products with potential environmental, rehabilitation or public health implications.
- land use activities (including beneficial and sensitive uses and environmental values) in the project area, as well as impacts downstream and upstream, supported by plans and maps drawn at an appropriate scale that show:

⁶ Assessments of assets, values and potential effects must be adequately timed to ensure they take account of seasonal weather patterns of the area.



- the location of relevant sensitive receptors;
- the extent of Crown and private lands and waterways; and
- the general layout of the project components, including associated facilities and infrastructure.
- predictions of energy use and greenhouse gas emissions associated with the project;
- an overview of the project life (i.e. rehabilitation works and design life of landforms and infrastructure);
- predictions of climate change and the:
 - impact on the availability of water, and subsequent effects on waterways and groundwater aquifers;
 - impact of increased intensity of rainfall events (erosion, turbidity);
 - capacity to exacerbate the impacts from other stressors; and
 - impact of increased fire weather.
- details of the project including:
 - location, disturbance footprint, layout and access arrangements during rehabilitation and post-closure phases;
 - design, methods, staging and scheduling of the proposed rehabilitation works;
- proposed rehabilitation techniques;
- function and design principles and capacity of main components of works;
- water management, including a water balance, details on usage, supply and storage provisions, the period of time for the proposed fill, water management and treatment infrastructure for rehabilitation and post-closure phases;
- necessary works directly associated with the project, such as provision of or changes to roads, infrastructure or services;
- solid waste, wastewater and hazardous material generation and management, including transportation, storage and disposal of waste material on-site and off-site;
- potential sale/transfer of material to other sites;
- key transport type, schedule and route of material(s) to/from the site;
- electricity and/or gas requirements;
- lighting, telecommunications, safety and security requirements;
- workforce accommodation facilities including location, size and required services; and
- hours of operation, workforce requirements (total work force) and recruitment policies.

3.4 Rehabilitation

The EES will include information on the purpose, scope and approach to developing the declared mine rehabilitation plan and how it will be informed by the findings of the EES. It will need to describe the proposed declared mine rehabilitation plan structure, closure risk assessment, draft closure criteria and the key steps from preparation of the EES to completion of the declared mine rehabilitation plan for approval. The EES should include a draft rehabilitation plan with consideration of the requirements of the *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019*.

3.5 Project alternatives

The EES needs to document the proponent's identification and assessment of alternatives, including the preferred alternative(s) and design and the basis for this preference. This will need to encompass an explanation of how and why specific alternatives were selected for detailed evaluation within the EES. The assessment of feasible alternatives and their effects is required to be documented in the EES and include:

- the basis for selecting the preferred rehabilitation alternative(s);



- identification of methods and evaluation criteria for identifying alternatives, comparing them and for selection of preferred alternative(s);
- description of how information arising during the EES process was used to refine the preferred rehabilitation alternative(s) and any other project alternative(s);
- description of how information gathered during the EES process, including from consultation with Traditional Owner groups, stakeholders and the general public, was used to inform the assessment of project alternative(s) and refine the preferred alternative(s);
- description of the technical feasibility and environmental implications of alternative construction, management and rehabilitation methods; and
- assessment and comparison of the technical feasibility and environmental implications, including in the context of potential climate change scenarios, of alternative options considered.

The EES needs to document the assessment of likely environmental effects of feasible alternatives, particularly where these offer a potential to avoid and/or minimise significant environmental effects whilst meeting the objectives of the project. In doing so, the assessment of environmental effects of relevant feasible alternatives needs to address the matters set out in section 4 of these scoping requirements, as appropriate.

Key aspects of the project, for which the EES will need to demonstrate consideration of feasible alternatives, include:

- final rehabilitated landform;
- the source(s) of water proposed to be used for the pit lake, and different approaches/ timing of filling the pit lake with the different sources of water;
- interconnection with Morwell River;
- other feasible alternatives raised through feedback from Traditional Owner Groups, stakeholders and the community.

3.6 Applicable legislation, policies and strategies

In addition to the EE Act and the EPBC Act, the EES will need to identify relevant legislation, policies, guidelines and standards, and assess their specific requirements or implications for the project, particularly in relation to required approvals. Please note the recent changes in the:

- *Environment Protection Act 2017* which came into effect on 1 July 2021, and any subsequent updates to subordinate legislation;
- *Flora and Fauna Guarantee Amendment Act 2019*, which came into effect on 1 June 2020, was amended to provide a modern and strengthened framework for the protection of Victoria's biodiversity; and
- *Mineral Resources (Sustainable Development) (Mineral Industries) Amendment Regulations 2022*, which came into effect on 30 September 2022, and were amended to include amended regulations for Declared Mines.

The proponent will also need to identify and address other relevant policies, strategies, subordinate legislation and related management or planning processes that may be relevant to the assessment of the project. These include but are not limited to the Latrobe Valley Regional Rehabilitation Strategy (June, 2020), Hazelwood Rehabilitation Investigation Report (June, 2022), Victorian guidelines for vegetation removal, EPBC Act policy statements, conservation advice, threat abatement plans, recovery plans for nationally listed threatened species and communities, Ramsar Management Plans and Ecological Character Descriptions, as well as any agreements (including international agreements) or plans that cover impacts to MNES.



3.7 Evaluation objectives

Evaluation objectives are provided in Section 4 for each of the topics to be addressed in the EES. The evaluation objectives identify desired outcomes in the context of key legislative and statutory policies, as well as the principles and objectives of ecologically sustainable development and environment protection, including net community benefit and healing Country. In accordance with the Ministerial Guidelines, they provide a framework to guide an integrated assessment of environmental effects and for evaluating the overall implications of the project.

3.8 Environmental management framework

Competent management of environmental performance during project rehabilitation and post-closure phases is required to meet statutory requirements, achieve necessary environmental outcomes, protect environmental values and sustain stakeholder confidence. Hence, a proposed environmental management framework (EMF) is to be included in the EES for rehabilitation and post-closure phases of the project. The EMF will articulate clear requirements and accountabilities for managing and monitoring environmental effects and risks associated with all project components and phases and outline how this will be reflected in the approvals required for the project, including the declared mine rehabilitation plan. The entities responsible for development of and approval of environmental management plans should be specified.

The EMF should reference or address the source baseline environmental conditions against which the evaluation of the residual environmental effects of the project will occur, as well as the efficacy of applied environmental management and contingency measures. The EMF needs to include the following:

- required approvals and consents, including any anticipated requirements for related environmental management plans, whether for project phases or components;
- how the project would be integrated into the existing site environmental management system;
- organisational responsibilities and accountabilities for environmental management;
- the detailed environmental management measures proposed in the EES to address specific issues, including commitments to avoid or mitigate adverse effects, enhance environmental outcomes and implement contingency measures, with regard for the general environmental duty under the EP Act. Justification needs to be provided for any aspects where management measures are not proposed;
- a register of environmental risks associated with each phase of the project which would need to be maintained during project implementation and integrated into the existing site risk register;
- reference to the baseline environmental conditions against which the evaluation of the residual environmental effects of the project will occur;
- arrangements for management of, and access to, baseline and monitoring data, to ensure transparency and accountability and to contribute to the improvement of environmental knowledge;
- integration of the project into existing site frameworks for management of any environmental incidents and emergencies; and
- a proposed monitoring and reporting program including monitoring objectives, indicators and requirements (e.g. parameters, locations, frequency and auditing, performance criteria and corrective actions). Justification needs to be provided for any aspects where monitoring is not proposed.

The EMF will propose a program for community consultation, stakeholder engagement and communications for all stages of the project, that would need to be integrated into existing site consultation plans. This will include opportunities for local stakeholders to engage with the proponent to seek responses to issues that might arise during project implementation and a process for complaints recording and resolution.

The EMF will set the scope for later development and review of environmental management plans for all project phases.

The EMF will outline internal and external auditing and reporting requirements to review and continuously improve the effectiveness of environmental management and to ensure compliance with statutory conditions.

4. Assessment of specific environmental effects

Preparation of the EES and the necessary investigation of effects should be proportional to the environmental risks posed by the project, as outlined in the Ministerial Guidelines (p. 14). The Minister's decision requiring an EES (Appendix A) articulates the primary matters/potentially significant effects that need to be examined in the EES. A systems and risk-based approach should be adopted during the design of EES studies, so that a greater level of effort is directed at investigating and managing those matters that pose relatively higher risk of adverse effects as outlined in the Ministerial Guidelines (p. 14). For those effects that can be demonstrated to have lower levels of risk of environment effects, the EES should describe and analyse these impacts at a level of detail commensurate with their level of environmental risk.

The matters to be investigated and documented within the EES are presented in the sections below, grouped by investigation theme. Each theme is presented with an evaluation objective. The following structure sets out how the EES should document its assessment of effects for each evaluation objective.

1. **Identify key issues or risks** that the project poses to the achievement of the evaluation objective.
2. **Characterise the environment** and identify relevant environmental values to underpin impact assessments, having regard to the systems and risk-based approach.
3. **Identify the potential effects** of the project on the environment (pre-mitigation) considering aspects such as magnitude, extent, duration, likelihood and significance.
4. **Present design and mitigation measures** that could avoid, substantially reduce and/or mitigate the likelihood, extent and/or duration of potential effects. All design and mitigation measures must apply the mitigation hierarchy with justification of why higher order measures cannot be applied.
 - a. Avoidance: measures taken to avoid the potential for adverse effects from the outset, such as careful spatial or temporal placement of infrastructure or disturbance.
 - b. Minimisation: measures taken to reduce the duration, intensity and extent of impacts that cannot be completely avoided.
 - c. Rehabilitation/restoration: measures taken to improve degraded or removed ecosystems following exposure to impacts that cannot be completely avoided or minimised.
 - d. Offsets: measures taken to compensate for any residual, adverse impacts after full implementation of the previous three steps of the mitigation hierarchy.
5. **Assess the likely residual effects** of the project on the environment and evaluate their significance, taking into account the likely effectiveness of the proposed mitigation measures.
6. **Propose an environmental performance approach, including criteria, monitoring and evaluation** to check whether the predicted outcomes are achieved, and the project's effects continue to be minimised as far as practicable, as well as contingency approaches if they are needed.

The description and assessment of the project's effects must consider the potential of the project to impact on upstream and downstream environmental, cultural, recreational and agricultural values and uses of water resources, including but not limited to, Morwell River, Gippsland Lakes Ramsar site, Wilderness Creek, Eel Hole Creek and groundwater across the hydrological landscape. In addition, the cumulative effect of the project and other existing and planned activities in the broader area/region should be assessed for all significant adverse effects and be considered in design of mitigation measures and monitoring programs.

4.1 Water Resources and Environmental Values

Evaluation objective

Avoid and, where avoidance is not possible, minimise adverse effects on water resources and their environmental values (including existing and potential future values downstream of the project area) and uses (including cultural, recreational and agricultural) including licenced uses of surface water, groundwater and related catchment values over the short and long-term.

Key issues

- Potential for adverse effects on licenced users and the environment, including future users and uses of water, recreational uses, agricultural uses and groundwater and surface water environments during rehabilitation and post-closure.
- Potential for adverse effects on Gunaikurnai Country and Aboriginal cultural heritage values associated with water resources (tangible, intangible, known and unknown).
- Potential effects on water quality downstream of the project area including those arising from erosion, sedimentation, nutrients, other contaminants and pollutants, acid sulphate soils, acid/metalliferous drainage formation, or salinity relating to the:
 - source of water used to fill the pit lake;
 - potential influence of overburden, ash dumps (including the HARA), landfills and pit wall-rock on water quality;
 - hydrological processes and potential interactions of the pit water with contaminated areas within the mine pit;
 - dewatering of the Hazelwood Cooling Pond; and
 - interconnection with Morwell River.
- Potential hydrodynamic (e.g. temperature, density) processes within the proposed pit lake and their influence on pit water quality, including offsite diversions.
- Potential for cumulative impacts with respect to future climate change scenarios on water resources/ uses and environmental values related to existing and known, planned developments and activities in the region.

Existing environment

- Identify and characterise existing groundwater and surface water environments potentially impacted by the project in terms of their existing and future environmental values (including the impacts of climate change over the proposed filling period and post-closure), existing drainage functions and behaviours and catchments in accordance with relevant Commonwealth, State and/or best practice guidelines.
- Characterise the ground and surface water relationships between the project area and any potential groundwater dependent ecosystems.
- Identify existing groundwater and surface water users, allocations and water related values in the broader area (including licenced and future uses of water, environmental, cultural, recreational and agricultural uses and values), including downstream of the mine site and in areas where there is potential for surface or groundwater impacts during rehabilitation and post-closure.
- Characterise the interaction between surface water and groundwater.
- Model the area's hydrology and hydrogeology with the current allocations, extractions and uses of groundwater and surface water (e.g. irrigation use, stock and domestic use and environmental flows) in the broader area of the mine site and downstream of the site.
- Characterise existing surface water and groundwater quality.
- Characterise the physical and chemical properties of the project area soils, mine and waste materials (including waste areas such as the HARA) and the potential environmental risks (e.g. potential for erosion, salinity, nutrients (including from rehabilitated mine surfaces), contamination and acidification).

Likely effects

- Develop a water balance model (both quantity and quality) to quantify the project's effects, and inform feasible alternatives, demand on groundwater and/or surface water resources, including volume to be extracted, stored and released during the rehabilitation and post-closure phases.
- Use appropriate methods, including modelling, to identify and evaluate effects (spatially and temporally) of the project on groundwater and surface water (including the pit lake, Morwell River, downstream waterways and the Gippsland Lakes Ramsar site) environments during rehabilitation and post-closure, accounting for climate risks and the potential effects of climate change, including:
 - the likely extent, magnitude and duration of groundwater level drawdown in the vicinity of the mine and regionally during rehabilitation and post-closure, and the expected timing and scale of recovery of groundwater levels post-closure (spatial and temporal groundwater modelling) with consideration to the effects of other major groundwater users in the region and changes in those uses;
 - impacts on the hydrology and/or water quality of watercourses and wetlands;
 - changes to availability of surface water and groundwater for environmental values (including cultural, recreational and agricultural) and uses, including from drawdown and rebound of groundwater levels (e.g. licenced users and/or ecological values), accounting for climate risks and the potential effects of climate change;
 - the likely extent, magnitude and duration of impacts to flora and fauna and habitat that may be groundwater or surface water dependent;
 - risks associated with re-saturation of saline or potential acid forming materials (soil and rock) that may have been disturbed or exposed by mining or dewatering activities;
 - risks associated with potential run-off or drainage from contaminated land (e.g. overburden dumps, ash dumps and landfills) or inundation of contaminated land or in pit waste disposal areas (e.g. HARA); and
 - changes to groundwater and surface water quality during rehabilitation and post-closure, including to or from salinity, metals, nutrients, chemical reactions, and other analytes, as well as effects on licenced users and the environment (assessed on the basis of risk and benchmarked against applicable environmental values, where appropriate).
- Impacts on water quality in Eel Hole Creek and surrounding watercourses and wetlands associated with dewatering the Hazelwood Cooling Pond.
- For other feasible landform options considered, sufficient detail should be provided to understand the potential impacts of these options.
- Cumulative impact of known, planned developments and activities in the region, including closure of the Yallourn Mine and Loy Yang Mine on surface and groundwater quantity and quality and associated uses and values.

Mitigation

- Describe proposed design options and measures that could avoid or minimise adverse effects on environmental values, (including cultural, recreational and agricultural) and uses related to surface water, groundwater and downstream water environments, accounting for climate risks and the potential effects of climate change and changes in impacts over time.
- Identify relevant guidelines, standards and policies to be met for management of water quality, discharges, stormwater runoff, erosion and sediment control, flood risk and environmental flows, including consistency with the Australian Ramsar management principles set out in the EPBC Regulations.

Performance

- Describe monitoring programs and appropriate monitoring activities with specific, measurable, attainable, relevant, time-based indicators for monitoring and thresholds for action to be implemented to ensure prompt detection of any adverse water and catchment effects associated with the project.
- Describe possible contingency actions to respond to adverse effects identified through the monitoring program as well as for cases where risks to achieving project benefits/objectives are identified.

4.2 Landform Safety and Stability

Evaluation objective

Achieve a safe and stable landform in an environmentally sustainable way that protects public safety, current and planned infrastructure and supports proposed outcomes for future land uses.

Key issues

- Efficient and environmentally sustainable development of safe, stable (including erosional stable) and where possible, productive final landforms.
- Protection of public safety, existing and planned infrastructure and land-uses near and surrounding the mine site.
- Best use of the land's resources considering environmental, cultural, social and economic values.

Existing environment

- Provide an evaluation of the stability of existing void slopes, landforms and embankments.
- Characterise on-site and regional geological strata and their properties in particular in relation to the potential for subsidence or settlement.

Likely effects

- Characterise the requirements to achieve weight balance within the mine void to address the risk of floor heave and batter instability as groundwater levels rebound.
- Provide an evaluation of stability of the proposed final void slopes and other landforms (e.g. water storage embankments, HARA) including failure during rehabilitation, extreme events or over the long-term post-closure.
- Assess the potential impacts of groundwater extraction and rebound on local and regional land subsidence during the rehabilitation and post-closure phases of the project.
- Assess the potential hazards and risks to public safety and existing and planned infrastructure and land-uses within, near and surrounding the mine site associated with the project.

Mitigation

- Describe proposed approach for management and monitoring of the stability of landforms during rehabilitation and post-closure.
- Describe proposed approach to management and monitoring of local and regional subsidence during groundwater extraction and recovery.
- Describe proposed approach to optimise rehabilitation, including potential for future productive land uses.

Performance

- Describe monitoring programs and appropriate monitoring activities with specific, measurable, attainable, relevant, time-based indicators for monitoring and thresholds for action to be implemented to ensure prompt detection and response to any landform instability or ground movement associated with the project.
- Describe possible contingency actions to respond to adverse effects identified through the monitoring program as well as for cases where risks to achieving project benefits/objectives are identified.

4.3 Biodiversity and ecological values

Evaluation objectives

Avoid, and where avoidance is not possible, minimise potential adverse effects on native vegetation, species of flora and fauna (particularly listed threatened species and their habitat and listed ecological communities), as well as address offset requirements (if required) consistent with state and Commonwealth policies.

Key issues

- Loss or degradation of native vegetation and listed communities, including those listed under the EPBC Act and/or the FFG Act.
- Loss or degradation of habitat for flora and fauna listed under the EPBC Act and/or the FFG Act.
- Disturbance or degradation of adjacent or nearby habitat that may support listed species or communities, native vegetation or native species, including but not limited to Morwell River, Latrobe River, Eel Hole Creek and Gippsland Lakes Ramsar site.
- Habitat loss or degradation resulting from other changes, such as edge effects, surface water or groundwater quality or hydrological changes, groundwater drawdown or rebound, dust deposition, traffic, noise, vibration, light, or the introduction of weeds/pathogens.
- Disruption to the movement of fauna between areas of habitat across the broader landscape.
- Potential for adverse effects on environmental and cultural values and uses associated with the Gippsland Lakes Ramsar site.
- Cumulative impacts on biodiversity, listed species and communities and habitat.
- The availability of suitable offsets for the loss of native vegetation and habitat for listed threatened species, communities and migratory species under the FFG Act and/or EPBC Act.

Existing environment

- Characterise the type, distribution and condition of native vegetation, terrestrial, aquatic and estuarine habitat and habitat corridors or linkages that could be impacted by the project and address identified knowledge gaps, as appropriate.
- Identify the existing or potential presence of any species and their habitat listed under the EPBC Act and FFG Act that could be impacted by the project, as well as declared weeds, pathogens and pest animals.
- Identify the existing or likely presence of ecological communities listed under the EPBC Act and/or FFG Act.
- Identify and characterise any areas of native vegetation and groundwater dependant ecosystems and species that may be affected by groundwater drawdown, rebound or changes to groundwater chemistry.
- Describe the biodiversity values that could be affected by the project. Investigation effort should focus on:
 - native vegetation and communities listed under the EPBC Act and/or FFG Act;
 - presence of, or suitable habitats for, native flora and fauna species, in particular, species listed under the EPBC Act and FFG Act; and
 - large old trees as defined by the Guidelines for the Removal, Destruction or Lopping of Native Vegetation (DELWP, 2017).
- Describe the existing threats to biodiversity values, including:
 - removal of listed species or destruction of habitat;
 - historical or ongoing disturbance or alteration of habitat conditions (e.g. habitat fragmentation, severance of wildlife corridors or habitat linkages, changes to water quantity or quality, fire hazards, etc.);
 - any declared weeds, pathogens and pest animals within and near the project area; and



- any other threatening processes that may affect biodiversity values, including climate change.
- Characterisation of the existing environment is to be informed by a literature review and appropriate seasonal or targeted surveys of the potential and actual presence of threatened species and communities, in line with Commonwealth and state survey guidelines, conservation advice and threatened species recovery plans. Where surveys do not identify a listed species, but past records and/or habitat analysis suggest that it may occur locally, justification will need to be provided if further investigations or mitigation measures are not proposed.

Likely effects

- Assess effects (direct, indirect and cumulative) of the project and feasible alternatives, including transport route / upgrades and use, on native fauna and flora, EPBC Act and FFG Act listed communities, other protected species, and biodiversity values, accounting for climate risks and the potential effects of climate change.
- The assessed effects should include, but are not limited to:
 - direct removal of individuals or destruction of habitat;
 - disturbance or alteration of habitat conditions (e.g. habitat fragmentation, severance of wildlife corridors or habitat linkages, changes to water quantity or quality, fire hazards, etc.);
 - ability of the species to recover, as well as increased mortality rate of listed threatened fauna;
 - the creation of ecological traps, where migratory species are harmed (e.g. highly acidic water);
 - the presence of any declared weeds, pathogens and pest animals within and in the vicinity of the project area; and
 - downstream impacts (including to the Gippsland Lakes Ramsar site and Morwell River wetlands) such as changes in surface water and groundwater regimes or quality, impacts on land and watercourses from discharge of mine water, and alterations to flow regimes of the Morwell River and its tributaries.
- Assess potential cumulative effects on biodiversity-related values and associated cultural values from the project (including cumulative effects of approved components of the mine site and other approved or proposed projects and other threatening processes in the region such as bushfires), accounting for climate risks and the potential effects of climate change.
- Assess the residual effects of the project on biodiversity values and associated cultural values and apply the precautionary principle to assume the worst-case scenario where the effectiveness or viability of mitigation measures is uncertain.

Mitigation

- Identify potential alternatives and proposed design options and measures that could avoid or minimise impacts on biodiversity values and associated cultural values.
- Develop hygiene controls for vehicle and machinery movement to minimise the spread of pathogens and weeds.
- Describe measures to avoid and minimise impacts on remaining biodiversity and native vegetation values and assess the consistency of these measures with relevant statutory or policy requirements, such as relevant threat abatement plans and recovery plans for listed threatened species and communities and relevant conventions and agreements under which migratory species are listed.
- Justify and describe the assumptions and level of uncertainty associated with the proposed measures achieving their desired outcomes, including timeframes for achieving these outcomes.
- Evaluate the feasibility and limitations of implementing mitigation measures proposed and describe and justify the level of uncertainty associated with whether they are expected to achieve their desired outcomes.

Performance

- Describe and evaluate proposed measures to manage residual effects of the project on biodiversity values, including an offset strategy and offset management plan that sets out and includes evidence of the offsets proposed to be secured to satisfy both Commonwealth and Victorian offset policy or guideline requirements.

- Describe how the offset/s will be secured, managed and monitored, including management actions, responsibility, timing, performance measures and the specific environmental outcomes to be achieved. Proposed EPBC Act offsets (if required) must meet the requirements of the EPBC Act Environmental Offsets Policy (October 2012).
- Describe a framework for identifying and responding to unexpected effects on biodiversity values.
- Describe any further measures that are proposed to rehabilitate or enhance degraded or removed ecosystems.

4.4 Cultural heritage

Evaluation objective

Identify and maximise opportunities for potential beneficial outcomes related to Aboriginal and historic cultural heritage values and protect, avoid, or minimise where avoidance is not possible, adverse effects on historic cultural heritage values and tangible and intangible Aboriginal cultural heritage values, in partnership with Traditional Owners.

Key issues

- Recognition of Gunaikurnai Traditional Owners' continuing connection to and use of Country, and their intentions to heal and restore Gunaikurnai Country through the Whole of Country plan (2015).
- Destruction or disturbance of sites or places of Aboriginal or historical cultural heritage significance.
- Potential for adverse effects (direct or indirect) on Gunaikurnai Country and Aboriginal cultural heritage values (tangible, intangible, known and unknown).

Existing environment

- Review land use history, the Gunaikurnai Whole of Country Plan and previous studies and relevant registers to identify areas with Aboriginal cultural heritage value or potential Aboriginal cultural heritage value.
- Informed by meaningful engagement with Registered Aboriginal Parties and Traditional Owner groups, identify and characterise any Aboriginal cultural heritage sites, areas of sensitivity, cultural landscapes or other intangible cultural heritage potentially impacted, directly or indirectly by the project.
- Identify Aboriginal cultural heritage values (tangible, intangible, known and unknown) within the project area, and areas of Gunaikurnai Country that are to be directly or indirectly impacted by the project.
- Identify and document any known and previously unidentified places and sites of historical cultural heritage significance within the project area and its vicinity, including any necessary investigations to supplement past studies. Assessments are to be undertaken in accordance with the Heritage Act 2017 and Heritage Victoria's Guidelines for Conducting Archaeological Surveys (2020) or updates.

Likely effects

- Assess direct and indirect effects of the project on identified Aboriginal cultural heritage values (tangible, intangible, known and unknown) within the project area, and areas of Gunaikurnai Country that have the potential to be directly or indirectly impacted by the project.
- Assess cumulative effects on the health and condition of Country including any Aboriginal cultural heritage values associated with the project area.
- Assess direct and indirect effects of the project on sites and places of historical cultural heritage significance, having regard to Heritage Victoria's Guidelines for Investigating Historical Archaeological Artefacts and Sites (2015) or updates.

Mitigation

- Describe any plan(s) or partnerships with Traditional Owners, including any opportunities to respond to the Gunaikurnai Whole of Country Plan and to protect Aboriginal cultural heritage values (tangible, intangible, known and unknown).



- Describe and evaluate proposed design, management and site protection measures that could avoid or minimise impacts on Aboriginal and historical cultural heritage values, including a framework for identifying and responding to unexpected Aboriginal cultural heritage effects.
- Develop a CHMP to the satisfaction of Gunaikurnai Land and Waters Aboriginal Corporation.
- Develop an Archaeology Management Plan which includes the details of relevant Heritage Act 2017 requirements; current assessments of known sites; a survey of all areas of proposed works to identify currently unrecorded sites; recommendations for any required site avoidance, mitigation or site investigation processes; and the development of an Unexpected Finds Protocol, all conducted by a qualified and experienced historical archaeologist.

Performance

- Describe the approach to ensuring opportunities for ongoing Traditional Owner participation during project implementation.
- Describe the framework for monitoring and evaluating the measures implemented to mitigate effects on the health and condition of Country including Aboriginal cultural heritage as well as historic heritage effects and contingencies.

4.5 Amenity, socio-economic and land use

Evaluation objective

Protect the health and wellbeing of the community, and avoid or minimise, where avoidance is not possible, potential amenity, greenhouse gas emissions and land use effects.

Key issues

- Potential for adverse effects and benefits for the existing and future beneficial uses of the land.
- Potential for positive and/or adverse effects (including cumulative impacts of approved components of the mine site rehabilitation or other approved or proposed projects) on socio-economic, amenity and land use values of the region.

Existing environment

- Describe the physical and chemical characteristics of topsoil, ore, overburden, ash dumps, landfills and pit wall-rock for proposed project components relevant to air quality.
- Identify dwellings and any other potentially sensitive receptors (e.g. community centres, schools, recreation facilities, rainwater tanks) that could be affected by the project's potential effects (including potential cumulative effects associated with existing mine operations) on air quality, noise, vibration and lighting.
- Monitor and characterise background air quality, dust, noise, vibration and lighting in the vicinity of the project, including adjacent sensitive receptors.
- Compile representative meteorological data to support amenity impact assessments.
- Describe policies and provisions of the Latrobe Planning Scheme and other land use planning strategies and identify implications for the project.
- Characterise the current transport infrastructure including traffic conditions, road infrastructure and road users in terms of capacity, condition and structural integrity, travel times, safety and accessibility.
- As they may change from the current operations, describe proposed transport routes during rehabilitation (for project-related transportation). This should include description of the capacity for existing roads to accommodate project traffic.
- Describe existing fire and emergency response infrastructure, resources, plans and procedures.
- Characterise the existing socioeconomic setting (e.g. demographics, socioeconomic values) of the region.
- Describe community attitudes to the existing environment and the potential changes brought by the project.
- Describe the mine fire hazard (including from bushfire) for the project area.



- Identify and describe any land use constraints with potential implications for the project.
- Identify existing and reasonably foreseeable land uses, adjacent to, or otherwise affected by impacts from the project.
- Identify visual and landscape values near the project including public and private vantage points, from which components of the project may be visible.

Likely effects

- Predict quantitatively likely air pollutant concentrations and greenhouse gas emissions, in surrounding areas during all project phases using an air quality and greenhouse gas emissions impact assessment considering the frameworks within EPA publication 1961: Guidelines for Assessing and Minimising Air Pollution and EPA publication 2048: Guideline for minimising greenhouse gas emissions.
- Predict likely noise, vibration (including from mine induced seismic events) and lighting increases and assess impacts at sensitive receptors in the vicinity of the project.
- Evaluate the consistency of the project with the policies and provisions of the Latrobe Planning Scheme and other land use planning strategies.
- As they may change from the existing operations, predict likely traffic volume increase in the vicinity of the project and along proposed transport routes due to the different project phases.
- Assess impacts to existing infrastructure for residential use, water supply, irrigation, wastewater collection and power supply, etc.
- Assess effects of the project on the structural condition of public roads and use of existing transport infrastructure having regard to relevant design standards in the context of historical and predicted future use.
- Assess implications of the project on public safety from any change in the risk of mine fire (including bushfire), accounting for climate risks and the potential effects of climate change.
- Describe the likely extent and duration of any temporary disruption to existing land use, land access (including access for emergency services) and infrastructure.
- Assess potential visual and landscape impacts of the project.
- Assess the social and economic effects of the project during rehabilitation and post-closure phases, including effects on socioeconomic values, social cohesion, health and well-being of the communities in the vicinity of the project, employment and the local and regional economy.
- Assess potential safety hazards to the public arising from rehabilitation and post-closure.
- Assess the potential for cumulative impacts on socio-economic, amenity and land use values in conjunction with any other existing or planned projects and land uses.

Mitigation

- Identify potential and proposed design responses and/or other mitigation measures in accordance with best management practice, to avoid, reduce and/or manage significant effects for sensitive receptors, during all project phases, arising from:
 - Air pollution;
 - Greenhouse gas emissions
 - Noise, vibration and lighting;
 - Public safety hazards; and
 - Landscape and visual changes.
- Outline and assess design and mitigation measures that address the potential for adverse land use effects including protecting land stability and managing erosion.



- Outline any additional maintenance or traffic management required to protect public safety and address operational performance of the existing transport infrastructure.
- Outline measures to avoid, minimise or mitigate potential adverse effects of the project on local communities, productive land and enhance benefits to local communities and the local and regional economy.
- Outline measures to prevent fires at the mine and minimise the risk from external bushfires or flooding events associated with the project and protect public safety.

Performance

- Describe the approach to monitor effects and develop contingency measures to be implemented in the event of adverse residual effects on social, amenity, greenhouse gas emissions and land use values and infrastructure requiring further management.
- Describe any further measures that are proposed to enhance socioeconomic, amenity and land use outcomes, to form part of the EMF (see Section 3.8).

Appendix A Procedures and Requirements

Procedures and requirements under section 8B(5) of the Environment Effects Act 1978

The procedures and requirements applying to the EES process, in accordance with both section 8B(5) of the Act and the *Ministerial guidelines for assessment of environmental effects under the Environment Effects Act 1978* (Ministerial Guidelines), are as follows:

The procedures and requirements applying to the EES process, in accordance with both section 8B(5) of the Act and the Ministerial guidelines for assessment of environmental effects under the Environment Effects Act 1978 (Ministerial Guidelines), are as follows:

- i. The EES is to document investigations of potential environmental effects of the proposed project, including for any relevant alternatives, as well as feasible avoidance, environmental mitigation and management measures, in particular for:
 - a. potential effects on surface water and groundwater resources, including hydrology, water quality, availability and associated environmental values;
 - b. existing land uses and landscape values;
 - c. the Gippsland Lakes Ramsar site;
 - d. native vegetation, ecological communities and species of flora and fauna listed under the Flora and Fauna Guarantee Act 1988 and the Environment Protection and Biodiversity Conservation Act 1999; and
 - e. Aboriginal and non-Aboriginal heritage values.
- ii. The matters to be investigated and documented in the EES will be set out more fully in scoping requirements prepared by the Department of Environment, Land, Water and Planning (DELWP). Draft scoping requirements will be exhibited for 15 business days for public comment, before final scoping requirements are issued by the Minister for Planning.
- iii. The proponent is to prepare and submit to DELWP an adequate draft EES study program to inform the preparation of scoping requirements.
- iv. The level of detail of investigation for the EES studies should be consistent with the approach set out in the scoping requirements and be adequate to inform a robust assessment of the significance and acceptability of its potential environmental effects, including for any feasible relevant alternatives, in the context of the Ministerial Guidelines.
- v. DELWP will convene an inter-agency Technical Reference Group (TRG) to advise the Department and the proponent, as appropriate, during the preparation of the EES on the scoping requirements, the design and adequacy of the EES studies, and coordination with statutory approval processes.
- vi. The proponent is to prepare and submit to DELWP its proposed EES consultation plan for consulting the public and engaging with stakeholders during the preparation of the EES. Once completed to the satisfaction of DELWP, the EES consultation plan is to be implemented by the proponent, having regard to advice from DELWP and the TRG.
- vii. The proponent is also to prepare and submit to DELWP its proposed schedule for the completion of studies, preparation and exhibition of the EES, following confirmation of the draft scoping requirements. This is to enable effective management of the EES process and EES' development based on agreed alignment of the proponent's and DELWP's timeframes, including for TRG review of technical studies for the EES and the main EES documentation.
- viii. The proponent is to apply appropriate peer review and quality management procedures to enable the completion of EES studies to a satisfactory standard.
- ix. The EES is to be exhibited for a period of 30 business days for public comment, unless the exhibition period spans the Christmas–New Year period, in which case 40 business days will apply.
- x. An inquiry will be appointed under the Environment Effects Act 1978 to consider environmental effects of the proposal.