

# EnergyAustralia Yallourn Declared Mine Rehabilitation Plan

Mining Licences – MIN 5003, MIN 5216, MIN 5304

Summary Document (June 2025)



**EnergyAustralia**

LIGHT THE WAY

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# 1. Purpose

For nearly a century, Yallourn has played a vital role in powering Victoria and supporting the Latrobe Valley community. Recognising this deep connection, EnergyAustralia gave seven years' notice of the planned closure of the Yallourn Power Station and Mine. This early notice reflects its commitment to a responsible and respectful transition for the region.

EnergyAustralia Yallourn (**EAY**) is working to make the Yallourn site a place locals and visitors can enjoy and that provides potential economic opportunities for the Latrobe Valley. At the heart of the plan is the creation of a large lake where the mine once was. This lake will be constructed and managed with a view to achieving lake water quality consistent with EAY's aspiration for a lake that is suitable for recreational use by the community. The public exhibition of the draft Yallourn Declared Mine Rehabilitation Plan (DMRP) is the next step towards achieving the rehabilitation of the Yallourn Mine.

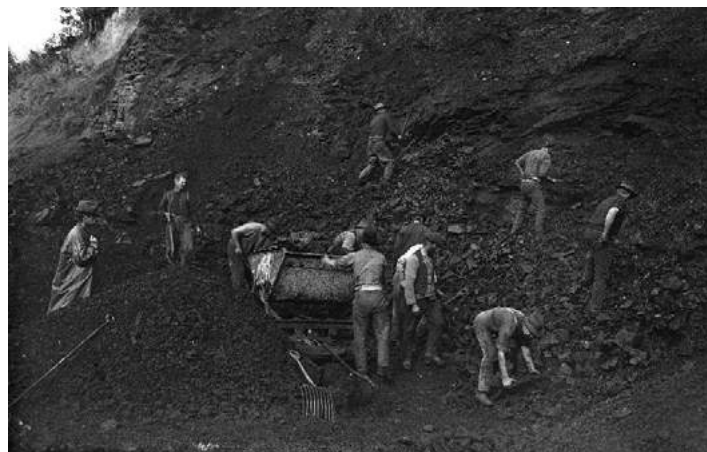
A lake was first proposed by the State Electricity Commission of Victoria (**SECV**) as the rehabilitation solution for the Yallourn mine in the early to mid-1990s. Since then, decades of further modelling and investigations by industry experts and EnergyAustralia Yallourn have supported this approach.

The draft DMRP covers a wide range of areas, including geology, groundwater, surface water, climate, floods, water quality, flora, fauna, cultural heritage, seismic activity, environmental impact, community concerns, and stability risks.

The key features of the proposed DMRP for the Yallourn Mine include:

- Carefully filling the mine voids to approximately reduced level (**RL**) 37 m with water. This will require approximately 665 gigalitres (**GL**) of water in line with the recommendations of, and restrictions proposed by, the Victorian Government's Latrobe Valley Regional Rehabilitation Strategy.
- Maintaining the Morwell River Diversion (**MRD**) in its current location with some improvement works to facilitate longer term stability.
- Works to allow the current conveyor tunnels which run through the MRD to be used as tunnels to transfer water between the pit lake.
- Reshaping the mine walls (batters) to create the final landform.
- Protection of existing conservation areas.
- Removal of surface water barriers that have been required during operations to reinstate natural flow directions which will allow water to enter the pit and improve ground stability.
- Construction of spillways in the MRD to allow Morwell River and Latrobe River flood flows to enter the pit lakes to protect the MRD.
- Construction of a lake overflow in northeast corner of the East Field to direct lake spill to the Latrobe River.

Coal mining in the Yallourn Mine (circa 1920)



Coal mining in the Yallourn Mine today (2025)





## 1. Purpose (continued)

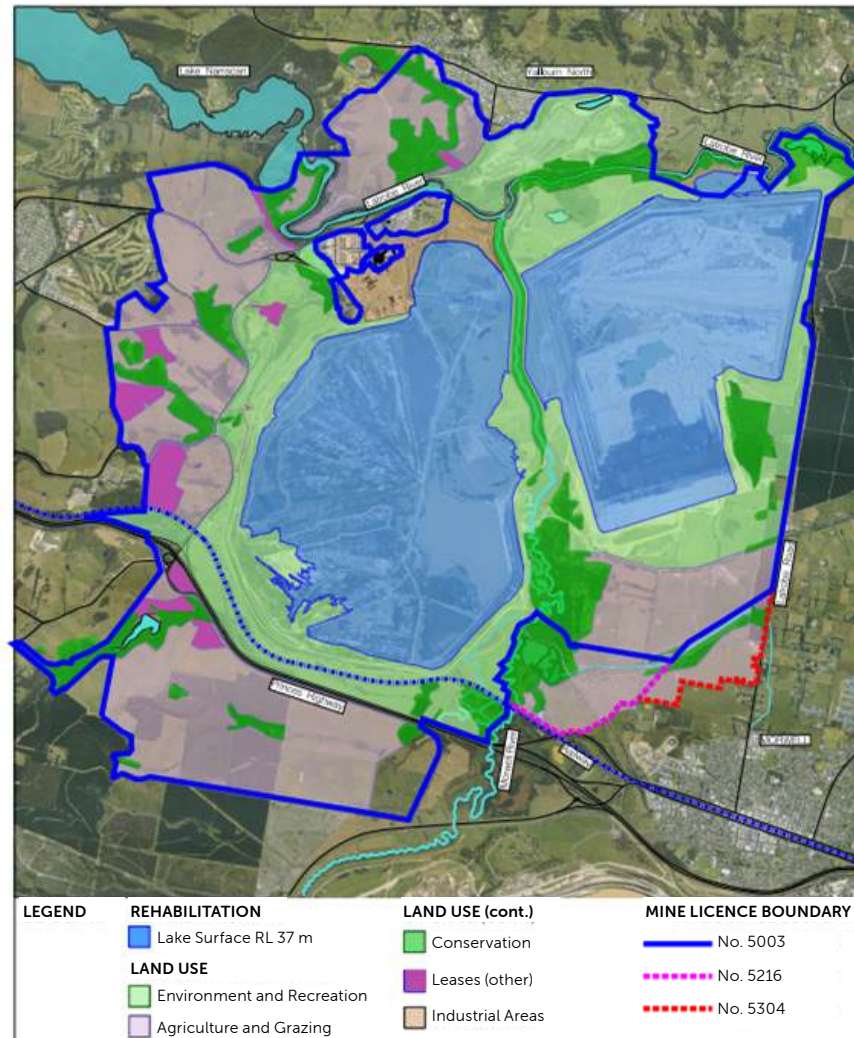
The draft DMRP focuses on the rehabilitation of the coal mine with plans for other parts of the site, including the power station in development. Beyond rehabilitation of the mine site, the Yallourn site offers numerous unique opportunities to the local community. The site has the potential to host new recreation, economic, energy and environment opportunities. EAY's aspiration is to create a site that has the potential to enable these opportunities.

By releasing this draft DMRP, EAY is fulfilling its obligations under the mining licences which cover the Yallourn Mine. This action is consistent with EAY's commitment to engaging with the local community. Over the past year, EAY has hosted site tours, attended events, and opened the Community Hub in Morwell to invite locals and stakeholders to learn more about its plans for the Latrobe Valley.



Refer to Chapter 1 of the DMRP for more information.

**Aerial view of proposed Land Use Plan for Yallourn following rehabilitation**



## 2. Scope

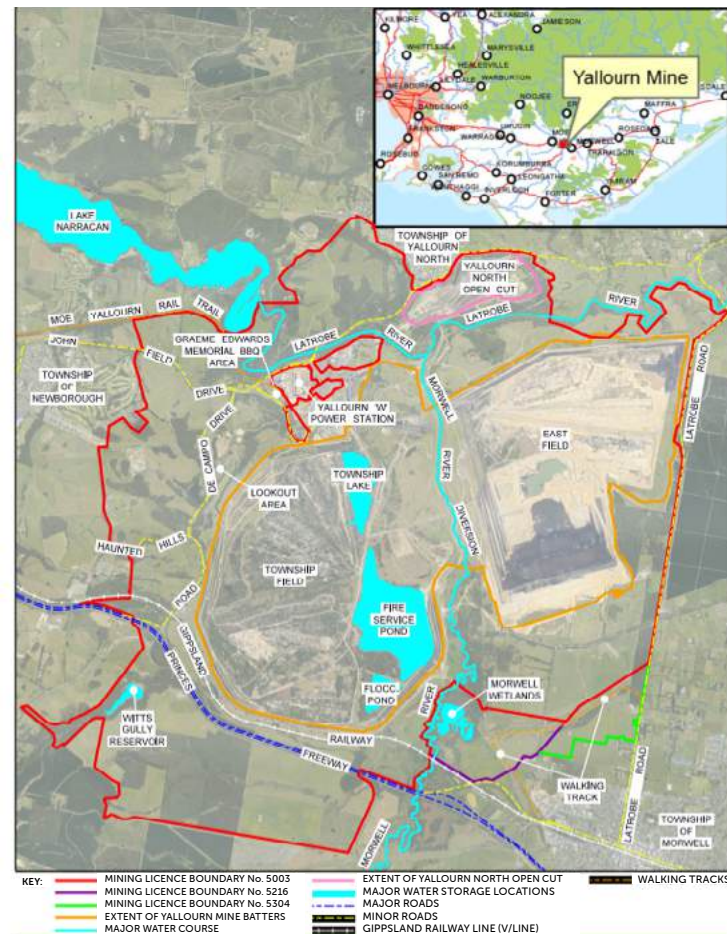
The DMRP outlines the rehabilitation outcomes for all land within EAY's mining licence boundaries, being:

- Mining License MIN 5003 which covers 5173 hectares (Ha) and includes the main mining operation area.
- Mining License MIN 5216 which covers 152 Ha in the southeastern area of the land, and it is predominantly used for conservation and agriculture with no active mining occurring in this area.
- Mining License MIN 5304 which covers 83 Ha and is also used for conservation and agriculture with no active mining occurring in this area.



Refer to Chapter 2 of the DMRP for more information.

### EAY mining licences



### Dozers and feeder breakers used in coal mining

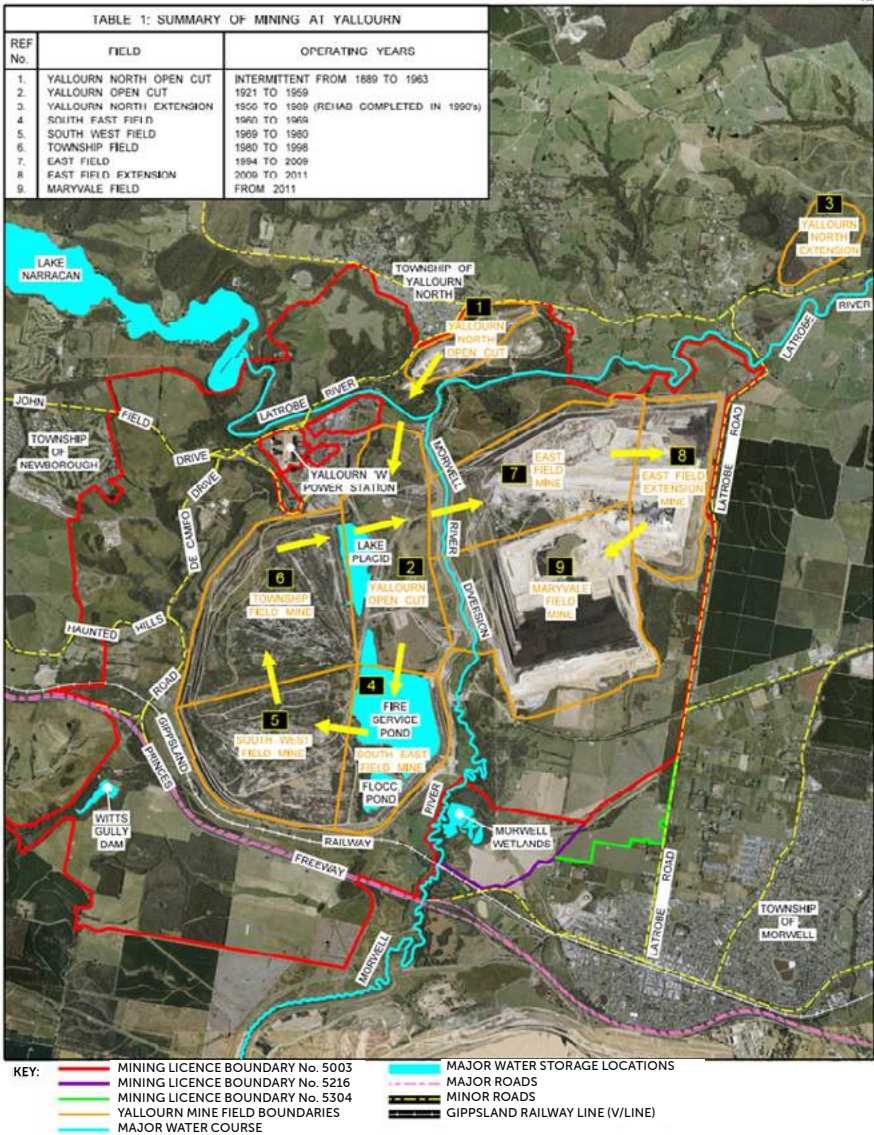


### Dredger 12 previously used in coal mining operations





### 3. Project Overview and History



### History of Mining at Yallourn

Coal mining at Yallourn began in 1888 north of the Latrobe River, initially through tunnelling and later transitioning to open-cut operations. Coal mined at these early stages were used locally and then later made into briquettes for transportation to other localities. The Great Morwell Coal Company managed the early phases before the SECV took control in 1921 and began coal and electricity production in 1924.

The mine expanded south, then west in the 1960s and 1970s, and eventually north in the late 1970s, leading to the removal of the Yallourn Township. This area, now called the Township Field, ceased coal operations in 1997 and now hosts water management infrastructure and ongoing rehabilitation. The East Field was developed in 1991 to continue supplying coal to the Yallourn Power Station, with mining in the East Field Extension completed by 2015.

Current mining is taking place in the Maryvale Field, with operations heading in the southeast direction until mining ceases in 2028.

Historically, mining used dredgers (large machines capable of removing large quantities of material) until the mid-2000s when dozer and feeder breaker methods were introduced, allowing for more stable mine walls and better preparation for rehabilitation. The "truck and shovel" method is also used for thick overburden, providing flexibility for material placement and enhancing Yallourn Mine stability.

Over the years, and as part of planning for closure, EAY has undertaken key technical studies in the areas of geotechnical batter stability, pit lake water quality, erosion, fire management, river systems and the environment, which all support a flooded pit lake as the rehabilitation strategy for the Yallourn Mine.

### 3. Project Overview and History (continued)

The rehabilitation concept of a pit lake is substantially in line with previous approvals obtained for the rehabilitation of the Yallourn Mine including:

- The Environmental Effects Statement (EES) for Maryvale Coal Field Development in 1999
- The Supplementary EES (2001) for Maryvale Coal Field Development
- The Yallourn Mine Rehabilitation Master Plan (RMP) in 2001
- Ministerial Approval of a Work Plan Variation (WPV) in 2011
- The Yallourn Mine Rehabilitation and Closure Plan (RCP) was also approved as part of the 2019 Work Plan Variation.

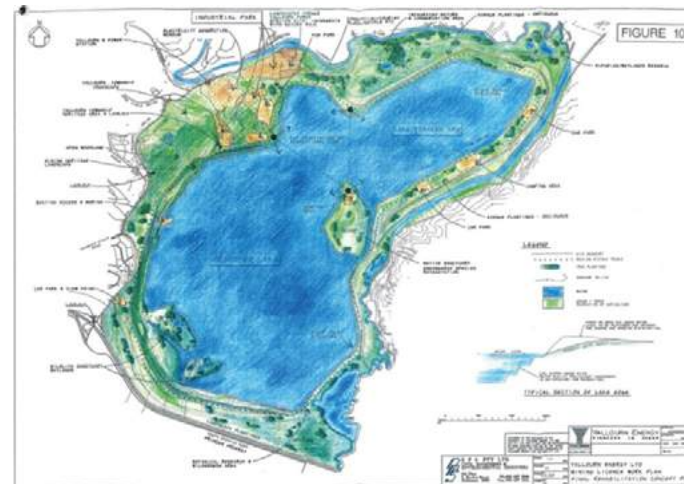
Preparation for implementation of a flooded rehabilitation concept has been occurring at Yallourn since the 1990s, largely through the progressive rehabilitation program. Once coal mining operations stop in mid-2028, the priority shifts to decommissioning and removing infrastructure under lake level and providing geotechnical buttressing at the base of the mine slopes. This is to prepare the site for lake filling.

The lake filling period is expected to take approximately 24 years, over which time the remaining landform reshaping, drainage, revegetation, repurposing, and demolition activities will be completed.



Refer to Chapter 3 of the DMRP for more information.

Mine Rehabilitation Plan for Work Plan (1995)



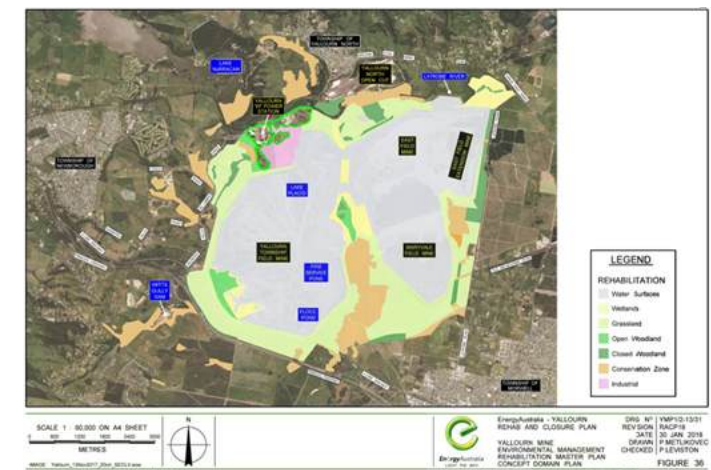
Mine Rehabilitation Plan presented in Rehabilitation Master Plan 2002



Mine Rehabilitation Plan presented in EES 1999



Mine Rehabilitation Plan presented in 2019 Rehabilitation and Closure Plan





## 4. Regulatory Context

Whilst the *Mineral Resources (Sustainable Development) Act 1990* (Vic) (the **MRSDA**) and the *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) (**MRSDMIR**) are the primary legislative tools in relation to the rehabilitation of the Yallourn Mine, the requirements of other legislation and regulations will also apply to aspects of the rehabilitation of the mine. An outline of the primary Commonwealth and State legislative framework is included in the DMRP, including descriptions relating to mine rehabilitation activities. These include:

- *Aboriginal Heritage Act 2006* (Vic)
- *Conservation Forests & Lands Act 1987* (Vic)
- *Crown Land (Reserves) Act 1978* (Vic)
- *Environment Effects Act 1978* (Vic)
- *Environment Protection Act 2017* (Vic), *Environment Protection Regulations 2021* (Vic)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth)
- *Flora and Fauna Guarantee Act 1988* (Vic)
- *Heritage Act 2017* (Vic)
- *Land Act 1958* (Vic)
- *Native Title Act 1993* (Cth) and *Traditional Owner Settlement Act 2010* (Vic)
- *Planning and Environment Act 1987* (Vic)
- *Water Act 1989* (Vic).

EAY maintains systems to ensure compliance with relevant regulatory obligations and holds relevant licences and approvals for operations. These licences and approvals are shown in Chapter 4 of the DMRP with commentary on their relevance to rehabilitation. The transition from operations to rehabilitation may require applying for new approvals to carry out particular activities.

Chapter 4 of the DMRP summarises the guidelines, standards and government strategies that can be utilised to ensure that legal obligations are integrated into operations and planning processes. There is no single document that can address all the requirements for the rehabilitation of the Site. As a result, a variety of documents have been considered.



Refer to Chapter 4 of the DMRP for more information.

Maryvale Field Mine overburden area





## 5. Environmental Setting

The DMRP summarises the environmental setting of the Yallourn Mine and provides data and statistics in relation to key environmental aspects of the mine. The dataset for these environmental aspects is important because it provides the baseline environmental conditions that inform all aspects of the approach to attaining a safe, stable and sustainable rehabilitation. These environmental aspects include:

- Climate
- Topography
- Geology
- Hydrology
- Flora and Fauna.

### Climate

The Latrobe Valley climate is temperate and generally features cool to warm summers and mild to cool winters. The Bureau of Meteorology (**BOM**) has maintained a rainfall record at Latrobe Regional Airport since 1984. Yallourn Mine also currently operates five climate monitoring stations at the mine site. The average annual rainfall recorded by BOM at Latrobe Regional Airport since 1984 is 751 mm per year while the average annual rainfall recorded at the Yallourn Mine is 792 mm per year.

Long-term average annual pan evaporation is 1,233 mm with January experiencing the highest rate of evaporation and June experiencing the lowest rate of evaporation.

The mean monthly evaporation exceeds the mean annual rainfall during the warmer months (October to April), while rainfall exceeds evaporation across the winter period (May to September). The mean number of cloudy days is also higher from May to August (15.6 days/month) than September to April (13.1 days/month), contributing to the lower evaporation rates.

Considering average annual rainfall, evaporation, and the impact of climate change is important as these climate factors influence water availability for rehabilitation, assists with current and future climate adaptation and influence the success of revegetation.

### Topography

The Yallourn area has been significantly altered through historic and current mining activities. The natural terrain has a topographic high at the southwestern boundary of Reduced Level (**RL**) 200 metres Australian Height Datum (**AHD**) and a topographic low of RL 30 m at Thoms Bridge on the Latrobe River. North of the Latrobe River, the topography of the Yallourn North Open Cut mine (**YNOC**) (a former coal mine adjacent to the Yallourn Mine which now contains three Environment Protection Agency landfills) ranges from an elevation of approximately RL 105 m in the western margin of the former YNOC down to RL 40 m at the Latrobe River.

The Yallourn Mine is bounded to the west by a topographical ridge of around RL 190 m and to the east of the mine, the elevation ranges from RL 30 m AHD close to the Latrobe River to RL 100 m near Morwell. The area to the south towards Hazelwood Mine is generally flat between RL 40–70 m.

In-pit overburden placement within the northern and southern portion of Township Field has produced a downslope grade from the southwest (RL 35–40 m AHD) to the east (RL -15 to 30 m AHD) at the Fire Service Pond. At the northern section of Township Field, the mine's downward grade, slopes from east to west towards Township Lake. East Field and the operational Maryvale Field floor range from RL -30 to -50 m AHD with variations in elevation based on geology and the distribution of overburden across the pit floor. Understanding the topography of the Site (both natural and the areas altered by mining) is fundamental to the development of rehabilitated landform that is stable and safe. It also contributes to management approach to surface water.

### Township Lake works



### Fire Service Pond area



## 5. Environmental Setting (continued)

### Geology

The Yallourn area is overlain by the Quaternary Haunted Hills Formation, comprising largely discrete lenses of sands, gravels, silts and clays, which is underlain by the Yallourn Coal Formation. Below the Yallourn seam there are various small splits of the coal seam which are separated by clays, sands and sandy clays. These form part of the Yallourn interseam along with the thicker bands of clays, sands and gravels which are deposited below the Yallourn coal splits. The M1A formation is the next deeper sequence comprising of a coal seam followed by clays, sands and gravels known as the M1A interseam. The M1A interseam sands form the M1A Deep Aquifer System (DAS) with the M1A coal acting as the aquitard layer between the Yallourn and Morwell sequence.

### Hydrology

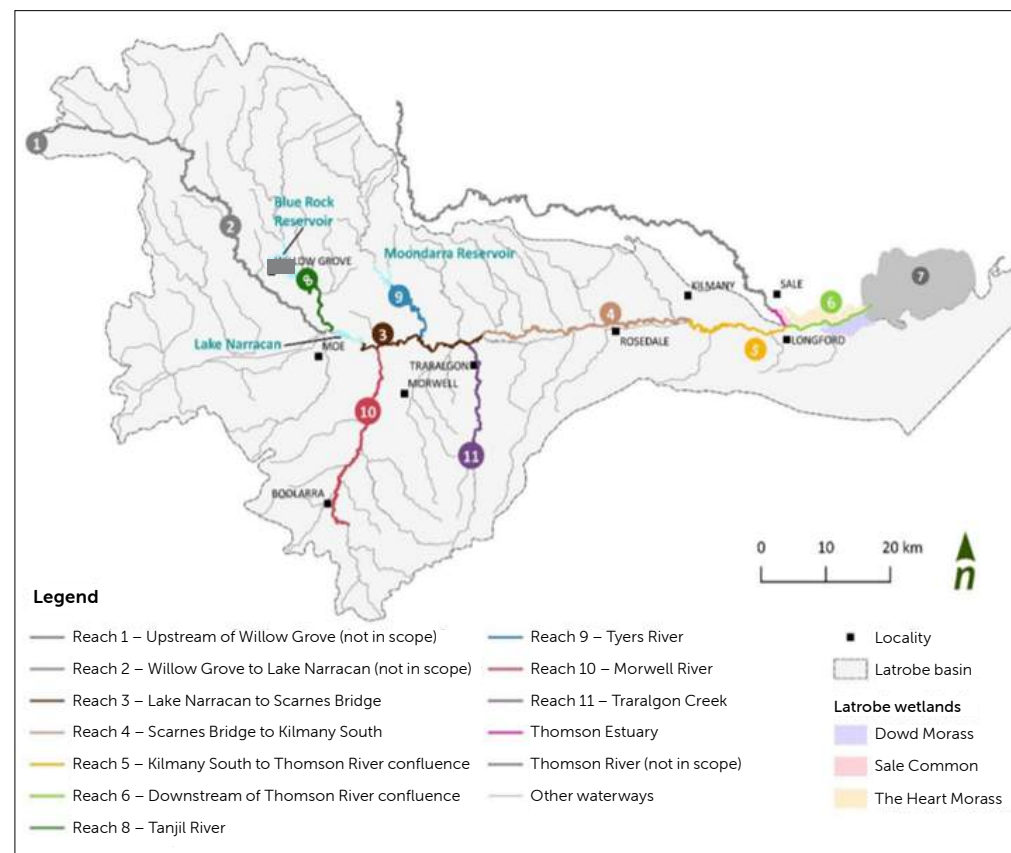
The mine is located immediately upstream of the Morwell River's presently diverted confluence with the Latrobe River. The Morwell River's upstream drainage basin spans 612 km<sup>2</sup>, while the Latrobe River's catchment extends to a size of up to 1,940 km<sup>2</sup>. Approximately 3.5 km upstream from their confluence lies Lake Narracan on the Latrobe River. The important tributaries and the reaches of Latrobe River system are presented in the figure on the right.

The Latrobe River system, including its wetlands, floodplains and estuary, supports a wide range of social, environmental, economic and cultural values and assets. Environmental values include native fish populations, vegetation communities, and the internationally significant wetlands of the Gippsland Lakes that are listed under the Ramsar Convention (including some of the lower Latrobe wetlands and all of Lake Wellington). The river system also supports a diversity of recreational (e.g., boating and angling), cultural and amenity values.

### Morwell River Diversion (MRD) with the Yallourn Power Station in the background



### Reaches of Latrobe River system and important tributaries





## 5. Environmental Setting (continued)

### Flora and Fauna

The Yallourn Mine hosts a wide variety of native vegetation, significant species, and weed species. Fauna survey records identified 26 species of fauna that are considered rare, threatened or protected across the site perimeter. This includes one species protected under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* and ten species protected in Victoria. 22 species are also considered rare in Victoria and eight species are protected under international treaty.



Refer to Chapter 5 of the DMRP for more information.

Vegetation in a conservation management area at Yallourn



A swan with its cygnets on the Morwell River Wetlands at Yallourn



An echidna near the Ash Emplacement Area at Yallourn



## 6. Rehabilitation Vision and Objectives

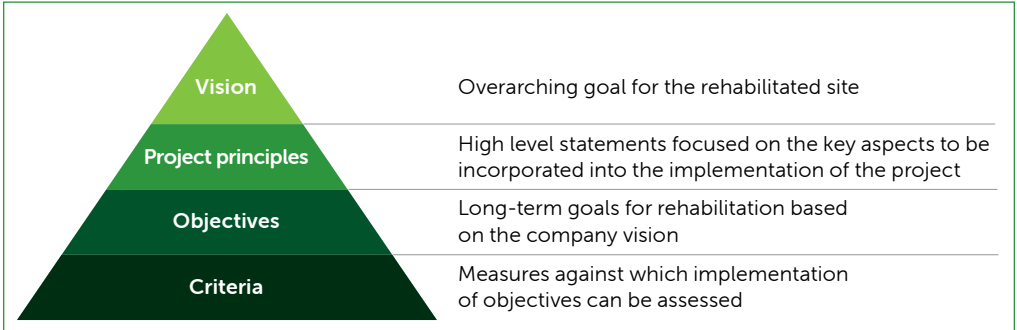
The MRSDA and MRSDMIR focus on a post-mining landform that is “safe, stable and sustainable” to support the post-mining land use. Alongside other legal requirements, technical knowledge, stakeholder engagement, and risk analysis, this underpins the development of the vision, rehabilitation principles, objectives and the resulting criteria for the rehabilitation of the Yallourn Mine.

EAY is committed to honouring Yallourn’s legacy and wants the site to be part of the region’s transition to new economic opportunities, and creating jobs, while providing beneficial future land uses beyond mining.

EAY’s vision for the Yallourn Site is:

**To transform the Yallourn site into a landscape that enables ongoing prosperity and amenity for all. One that is an example of what can be achieved when business, government, communities, and custodians of the land work together.**

### Development of vision, project principles and rehabilitation objectives



Project principle	Definition
Safe	The rehabilitated mine land does not pose a greater risk of harm to humans and the environment than comparable non-mining land uses
Stable	To rehabilitate the mine land such that final landforms are enduring in the long term, with the potential for land movement minimised ensuring the viability of its proposed post-mining land uses
Sustainable	The rehabilitated mine land will remain in a condition that requires minimal intervention to support the nominated post-mining land uses, create a positive legacy, enhance environmental values for both the site and the broader Latrobe Catchment and provide a timely benefit to current and future generations. Execution of rehabilitation works is intended to minimise emissions generated through optimising the use of materials required to develop the rehabilitated landform.

This vision centres around the transformation of the current pit voids into a lake and EAY’s aspiration that it will be capable of supporting recreational uses.

The project principles were founded on achieving a safe, stable and sustainable rehabilitated landform. Further detail in relation to each element is set out in the table below. This detail is designed to help EAY achieve its vision and so will guide the project planning and be reviewed and revised as the knowledge base for the project grows.

To develop site specific rehabilitation objectives a number of inputs were considered, including:

- Consequences of not achieving safe, stable and sustainable
- Regulatory obligations
- Vision statement
- Project principles
- Knowledge base
- Post mining land use
- Risk management
- Stakeholder input.



## 6. Rehabilitation Vision and Objectives (continued)

EAY has developed the following rehabilitation objectives based on these considerations.

Overarching Closure Principle	Aspects	Objectives
<b>Safe</b>	<b>Voids and excavations</b>	All pit voids and other excavations are made safe in preparation for flooding through grading slopes according to approved geotechnical design and ensuring controlled access as required.
	<b>Pit lakes and other water bodies</b>	Pit lakes and water bodies are formed with designated entry points which allow safe ingress and egress.
	<b>Fire management</b>	Exposed coal is managed appropriately to manage the risk of fire in the long term.
	<b>Infrastructure</b>	Remove or make safe all light and industrial infrastructure from the Yallourn Mine with the associated footprint rehabilitated in accordance with the respective post-mining land use.
<b>Stable (Physical Stability)</b>	<b>Voids and excavations</b>	All pit voids and excavations remain stable in the long term both in terms of significant land movements and in terms of erosional processes such as tunnelling, gullyng and rilling.
	<b>Pit lakes and other water bodies</b>	Artificial water bodies remain stable in the long term with consideration to climate change and varying hydrological regimes.
	<b>Pit lakes and other water bodies</b>	Embankments of pit lakes remain stable in the long term with consideration to erosion, both from stormwater drainage and from the effects of wave action.
	<b>Artificial or modified water courses</b>	Artificial or modified water courses and drainage lines are constructed to remain stable in the long term, with consideration to erosion protection, varying hydrological regimes and climate change.
	<b>Downstream hydrological regime</b>	Downstream hydrological performance is improved during the closure and rehabilitation phase through to post-closure compared to baseline.
	<b>Constructed landforms</b>	All constructed landforms remain stable in the long term with acceptable rates of erosion that allow the establishment of a self-sustaining vegetated cover in line with the respective post-mining land use.
<b>Stable (Chemical Stability)</b>	<b>Pit lake chemical stability</b>	Pit lake water quality, although it may fluctuate, does not become a source of water quality that has an unacceptable impact on downstream receptors.
	<b>Overburden stockpiles</b>	Overburden material will not become a source of problematic mine drainage in the future.
	<b>Contaminated land</b>	All potentially contaminated areas are investigated and managed in accordance with statutory guidelines and legislation to ensure that the land supports the respective post-mining land use.
	<b>Watercourses</b>	Surface runoff or seepage from the rehabilitated mine site does not have an unacceptable impact on downstream receptors.

## 6. Rehabilitation Vision and Objectives (continued)

Overarching Closure Principle	Aspects	Objectives
<b>Sustainable (Socioeconomic)</b>	Stakeholder and community engagement	Stakeholders and the community are engaged throughout the closure planning phase.
	Transparency	Stakeholders and the community are kept informed of the closure planning and implementation process.
	Socio-economic transition	The transition to mine closure is undertaken in a manner that proactively manages and mitigates the associated decline in economic activity as far as practicable.
	Visual amenity	Rehabilitated landforms are congruent with the surrounding landscape as far as practicable.
<b>Sustainable (Ecological)</b>	Aquatic ecosystems	The quality and diversity of downstream aquatic ecosystems is not compromised due to seepage, runoff or mixing processes from the rehabilitated mine site.
	Terrestrial ecosystems	Rehabilitated surfaces support a resilient and self-sustaining vegetated ecosystem that is compatible with the post-mining land use.
<b>Sustainable (Post Closure)</b>	Post closure care and maintenance	Post closure care and maintenance requirements are minimised, with no ongoing earthmoving, water treatment or ecosystem management requirements beyond comparable land uses in the broader region.



Refer to Chapter 6 of the DMRP for more information.



## 7. Progressive Rehabilitation

Progressive rehabilitation in the Yallourn Mine is an operational environmental key performance indicator, as these works are targeted at reducing the exposed coal footprint.

Over 1,500 hectares of progressive rehabilitation work at Yallourn has been completed, providing environmental benefits such as reduced fire risk, lower dust emissions, improved water quality, and increased habitat. This has largely been carried out over the last 20 years. It has focused (and continues to focus) on improving methods for land restoration and environmental management.

These rehabilitation activities have helped stabilise landforms, enhance vegetation, and also inform the future sustainable land uses once mining operations cease.

### Key progressive rehabilitation milestones and case studies include:

#### East Field Extension Batter Works (2017)



#### East Field Extension Batter (2017):

A major rehabilitation project reshaped 492,000 m<sup>3</sup> of overburden and established a stable, erosion-resistant landform with grass cover, supported by detailed drainage plans.

#### Township Field Lake (present day)



#### Township Field Pit Lake:

After overburden dumping ceased in Township Field in 2010, progressive rehabilitation included infrastructure removal, reshaping, drainage construction, and pit lake filling. Though a 2012 failure interrupted lake filling, it was nearly complete by 2013, with water quality improving over time. This lake is now fully complete and operational. Vegetation establishment has been positive, improving erosion control and water quality.

#### Mid Field Dump (present day)



#### Mid Field Overburden Dump (2018):

A circular failure caused by excess river flows was addressed through reshaping, topsoil application, and grass seeding, with rock weirs installed to prevent further erosion.



Refer to Chapter 7 of the DMRP for more information.

## 8. Technical Studies

To ensure that the rehabilitated landform minimises long-term risks to a level that is as low as reasonably practicable (**ALARP**), EAY has to date commissioned a wide-ranging suite of robust technical studies to assess, support, test, adjust and expand the extensive existing site knowledge base. These studies address existing risks that have been identified through mining activities and may require mitigation to achieve a safe, stable and sustainable landform. The findings are used to inform final landform design and land use capabilities, risk assessments, and ongoing monitoring and maintenance programs.

To the extent that studies identify unresolved items or new issues, these are captured as knowledge gaps to be addressed at a later date.

These studies are broadly grouped as geology, groundwater, surface water, geotechnical, landform, and wave action studies. However, there is significant overlap across many of these aspects. A summary of the key technical studies is shown in the table below.

Title	Introduction	Methodology	Findings
<b>Geological Investigations and Modelling</b>	Detailed geological investigations of the geology to better understand the Site's geological structure with focus on specific elements that are relevant to support rehabilitation design and planning.	Detailed review of the existing site based on the Minescape Geological Model. Review all data sets from drilling, geological surveys, and data collection stored in the Latrobe Valley Coal Bore Database ( <b>LVCBD</b> ).  Enhance the model for two key study streams – Groundwater Modelling and Geotechnical Modelling.	Developed two comprehensive geological models: <ul style="list-style-type: none"> <li>Groundwater Numerical Model – Here the geology of all previously unmodelled layers was defined to create a model that has all interbedded layers displayed.</li> <li>Geotechnical Modelling and Analysis – This model focused on the upper geological layers only, that are relevant to mine batter stability.</li> </ul>
<b>Groundwater Model and Study Findings</b>	A detailed mine scale hydrogeological conceptualisation considering hydraulic properties, groundwater flows and pathways, hydraulic surface features and dependent ecosystems.  Utilise the conceptualisation to develop a groundwater numerical model, calibrated with historical site data set and past climate data. The calibrated model can then be utilised to test scenarios relevant to rehabilitation design and carry out sensitivity analysis.	Supported by the detailed Geological Models (discussed above), site-based data and regional data, developed a conceptual model of the hydrogeological processes.  The qualified conceptual model was then developed into a numerical groundwater model by calibrating this model to the site-specific data which considers the historical climate data, groundwater data, mine development and all surface features such as water bodies, plantation etc.  The calibrated numerical model provided the ability to create scenarios relevant to the rehabilitation design and analyse the outputs to make future projects. Example being, testing a scenario of a full lake with medium climate change predictions and analysing the generated outputs to test against the identified risks for relevant mine domains.	The conceptual and numerical models were well calibrated and met all project requirements.  All modelling and findings were cross validated by a parallel peer-review process.

## 8. Technical Studies (continued)

Title	Introduction	Methodology	Findings
<b>Latrobe and Morwell River Flood Study</b>	<p>Assessment of regional hydrology and associated processes such as base flow conditions and flood impacts on the mine and surrounding areas.</p> <p>Assessment of downstream impacts linked to the changes in hydraulic processes and pathways due to the proposed rehabilitation lake and the associated regional water quality impacts.</p> <p>The flood modelling of the Latrobe River system (includes Morwell River system) forms a key input to the rehabilitation design of the MRD.</p>	<p>Conceptualise all the regional geomorphic processes, hydrology and implied hydraulic processes.</p> <p>Develop a hydraulic model that is calibrated to the regional hydraulic model with a focus on detailing the mine scale features.</p> <p>Utilise the calibrated hydraulic model to run various flood flows to test the capacity of the system which can then inform the risk management requirements, the overall site design with concerted focus on the MRD rehabilitation design.</p>	<p>The rehabilitation design can adopt design flood flow occurrences and probabilities from this developed model.</p> <p>The proposed design for the remediated MRD can cater for the design flows with no adverse impacts to downstream users. The overall water quality impacts were assessed to have minimal impacts but require further detailed analysis as part of detailed design.</p>
<b>Water Balance and Water Quality Modelling</b>	<p>Modelling the water balance of the mine to ensure it can be filled and maintained at the desired level and prediction of water quality for the future pit lake.</p> <p>Verifying the water balance can deliver the stability objectives and meet the water quality thresholds. Further determine the stages of lake fill where all/most water quality risks are mitigated and reach a passive management stage.</p>	<p>Calculation of inflows, outflows, and storage capacity using hydrological data.</p> <p>Modelling of water quality based on inflows, evaporation, and interactions with groundwater.</p> <p>Review the lake water balance on the west and east of MRD and the interconnections through the MRD tunnels.</p>	<p>Ensured the mine can be filled with water and maintained at the desired level. This modelling is crucial for planning the final landform and ensuring sustainable water management.</p> <p>Predicted water quality suitable for proposed beneficial uses. The model helps in planning measures to maintain or improve water quality in the future pit lake. This can then feed into future detailed assessments on offsite discharge and related regional water quality impacts.</p>



## 8. Technical Studies (continued)

Title	Introduction	Methodology	Findings
<b>Geotechnical Analysis</b>	<p>Stability analyses for geotechnical domains to ensure long-term stability.</p> <p>Ranking and risk profiling of geotechnical domains based on hazard assessments.</p> <p>Determine the stabilisation requirements across the mine to meet target design criteria.</p> <p>MRD remediation design is central to delivering a reliable rehabilitated site. This study focuses on all interacting features and mechanisms relevant to performance of MRD and the subsequent rehabilitation design for MRD.</p> <p>Assess performance against seismic events.</p>	<p>Conducted stability analyses for representative sections of each domain, considering various scenarios.</p> <p>Evaluation of geotechnical hazards for each domain, considering factors such as surface water catchments and geological structure.</p> <p>Conceptual design of buttressing where required, to meet stability criteria.</p> <p>The MRD design is informed by the findings of groundwater modelling, regional and pit scale water balance modelling.</p> <p>Run parallel seismic analysis for all areas.</p>	<p>Most domains are stable with lake water in the pit, but some areas require additional buttressing. These results guide the design of stabilisation measures to ensure long-term safety.</p> <p>Ranked geotechnical domains based on hazard levels, informing stability measures. This ranking helps prioritise areas that need more attention for stability improvements.</p> <p>The lake provides stability for MRD to assist the structure to remain reliable post rehabilitation with ongoing management and maintenance.</p> <p>Proposed buttressing designs to ensure long-term stability of the mine. These designs are essential for reinforcing areas that are less stable.</p>
<b>Peripheral Surface Water Study</b>	<p>Maps all surface drainage features and characterise historical performance around the perimeter of the mine site.</p> <p>Forms a key input in the geotechnical assessment of the site.</p> <p>Informs the surface drainage improvements and design required for long term reliability.</p>	<p>Map all surface drainage features and determine performance based on site analogues.</p> <p>Assess the influence on geotechnical stability considering the risk factors associated with each mine domain.</p> <p>Develop a surface drainage design that is in harmony with the surrounding environment and the site geomorphology.</p>	<p>Surface drainage around the perimeter of the mine requires improvements. These include rediverting the drainage flows into the pit void in a controlled manner.</p> <p>Construct the drains to meet the design flows and stability objectives by dividing the catchment areas and utilising appropriate level of hard and soft engineering approach that can deliver a passively managed geomorphic landform.</p>



Refer to Chapter 8 of the DMRP for more information.

## 9. Post Mining Landform and Land Use

Landform and land use design is an iterative process which needs to balance our safe, stable, sustainable objectives, legal requirements, technical constraints, and stakeholder feedback. Balancing these needs, the post-mining landform selected is a pit lake surrounded by sloping mine batters which terminate at the mine perimeter. Further away from the lake, perimeter landforms are largely consistent with pre-mining landforms (being rivers and floodplains, low elevation hills, and low elevation plateaus). Within the sloping mine batters and perimeter landforms, the land will have capacity to support habitat, biodiversity, recreation, agriculture, commercial, and industrial uses.

This section provides an overview of the key components of the proposed post-rehabilitation landform.

### Landforms

#### Lake Yallourn

The key feature of the rehabilitated landform is the 665 GL Lake Yallourn. The lake will operate at a 37 m above sea level baseline, with slight fluctuations based on local climate and flood conditions. The selected level integrates with the surrounding Morwell and Latrobe Rivers to facilitate the best geotechnical and hydrogeological stability conditions. Lake Yallourn will be split into western and eastern portions, separated by the MRD which runs along a north-south alignment. Key statistics associated with the lakes are shown in the table below.

Parameter	Lake Yallourn West	Lake Yallourn East
Volume (GL)	250	415
Area (ha)	1,062	899
Perimeter (km)	22.5	15.1
Average Depth (m)	23.5	46.2
Max Depth (m)	57	92

#### Mine Batters and Levees

Mine batters are typically defined as the section that connects the mine floor to the mine crest. However, in this rehabilitation context Mine Batters are defined as the section of land from Lake Yallourn to the Mine Crest. Due to mining practices and the pre-mining landform elevation, mine batters range from less than 10 m in elevation to 70 m in elevation to the southwest of the site.

#### Perimeter Low Elevation Hills

Beyond Lake Yallourn, Mine Batters and Levees, the Yallourn mining licence area returns to natural landforms such as Low Elevation Hills. These areas are typically situated on the west and southwestern perimeter situated between Newborough, Yallourn, and Driffield. The Haunted Hills and Hernes Oak localities are within this landform.

#### Perimeter Plateaus and Terraces

Perimeter plateaus and terraces are defined as flat areas between the low elevation hills, floodplains, and mining disturbance. Soil types are mixed with sandy material largely dominant in the east and southeast of the site, whilst clay and sandy clay materials are present within the western portions.

#### Rivers and Floodplains

The Morwell and Latrobe River systems flow through the mining licences and are integral to this DMRP. Adjacent to the river systems are flat alluvial floodplains typically containing well drained soils.

## 9. Post Mining Landform and Landuse (continued)

### Landfills

Three EPA Licenced Landfills are situated within the YNOC. The designations include an Ash Landfill, Hard Waste Landfill, and Asbestos Landfill. The Ash Landfill is designed to replicate the pre-mining contours of the land and allow for a free draining landform whilst the Hard Waste and Asbestos Landfills are domed with relatively flat tops and steeper side slopes. The Hard Waste and Asbestos Landfills are placed on top of previous overburden dump completed in the 1950s. Each of these sites is subject to EPA approval for capping and rehabilitation, however the cap will provide end land uses capable and consistent with the land uses identified further in this section.

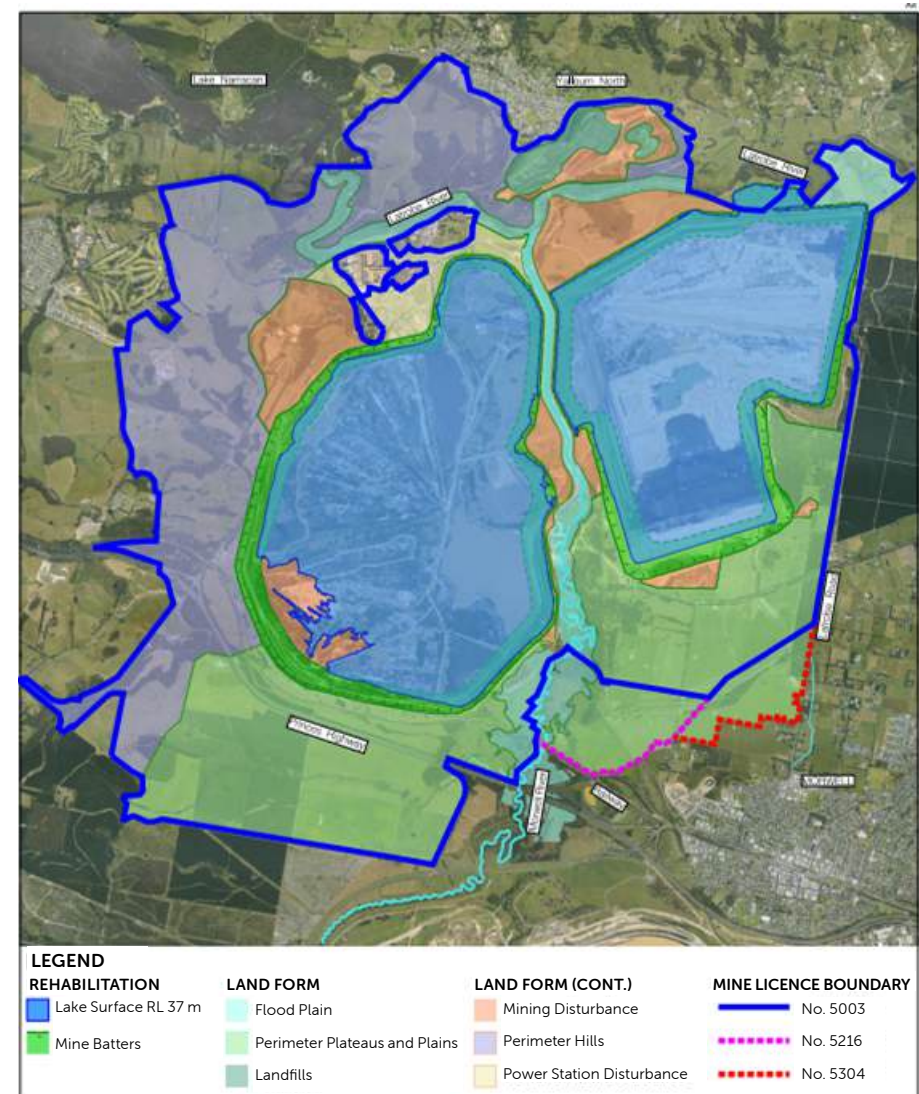
### Progressive rehabilitation works near Maryvale Field with Dredger 12 in the background



### Progressive rehabilitation works near East Field



### Proposed rehabilitated landforms





## 9. Post Mining Landform and Landuse (continued)

### Land uses

Based on the landforms identified above, there are a range of potential post-mining land uses for the Site, and the closure criteria in the DMRP are being developed with these in mind. These are discussed at a high level below.

#### Beneficial Uses for Lake Yallourn

Lake Yallourn has the potential for various beneficial uses beyond recreation, such as supporting water-dependent ecosystems, aiding flood mitigation, and supporting agriculture and industrial activities.

#### Environment and Recreation

The Yallourn Mine rehabilitation planning has prioritised recreational use and public access since 1999. The lake has the potential to support recreational activities, though safety concerns applicable to any large bodies of water, such as high wind events may require specific management restrictions. The mine batter slopes will allow for safe access and egress at dedicated points, and repurposed mine roads may be available for pedestrians and cyclists. Viewing areas will remain throughout the rehabilitation period.

### Environment

Efforts to enhance habitat and biodiversity across the mining area align with local and State conservation strategies. Different habitat types, including conservation zones, open woodlands, closed woodlands, and wetlands, will be established with specific revegetation targets to improve the local ecosystem. These efforts will support native species and contribute to regional biodiversity initiatives.

#### Conservation

The conservation areas are largely remnant patches of vegetation which have been improved through fencing, security, pest control, weed control, and supplementary planting. In contrast to remnant native vegetation patches, some revegetation efforts adjacent the Morwell River, Latrobe River and Morwell West Drain Diversion are also committed as conservation zones, providing additional habitat and aesthetic value to the local area.

### Agriculture

Agricultural practices will continue in areas historically used for farming, with specific precincts for grazing and cropping. Some current areas will be submerged due to the final lake level, while others will support improved grazing and fuel load management. Agricultural leases in the area will focus on land improvement, pest control, and pasture renovation.

#### Commercial/Industrial Use

Existing mine facilities, such as workshops and offices, have potential for industrial reuse. Though detailed plans for sale or lease are yet to be developed, these areas could be repurposed for future industrial activity.

#### Existing Land Use

Public infrastructure, including roads, railways, and utilities, will remain operational, and existing community leases will continue unaffected by the rehabilitation project in accordance with their terms. Cultural heritage sites will be preserved, with protections in place as per relevant heritage laws.

## 9. Post Mining Landform and Landuse (continued)

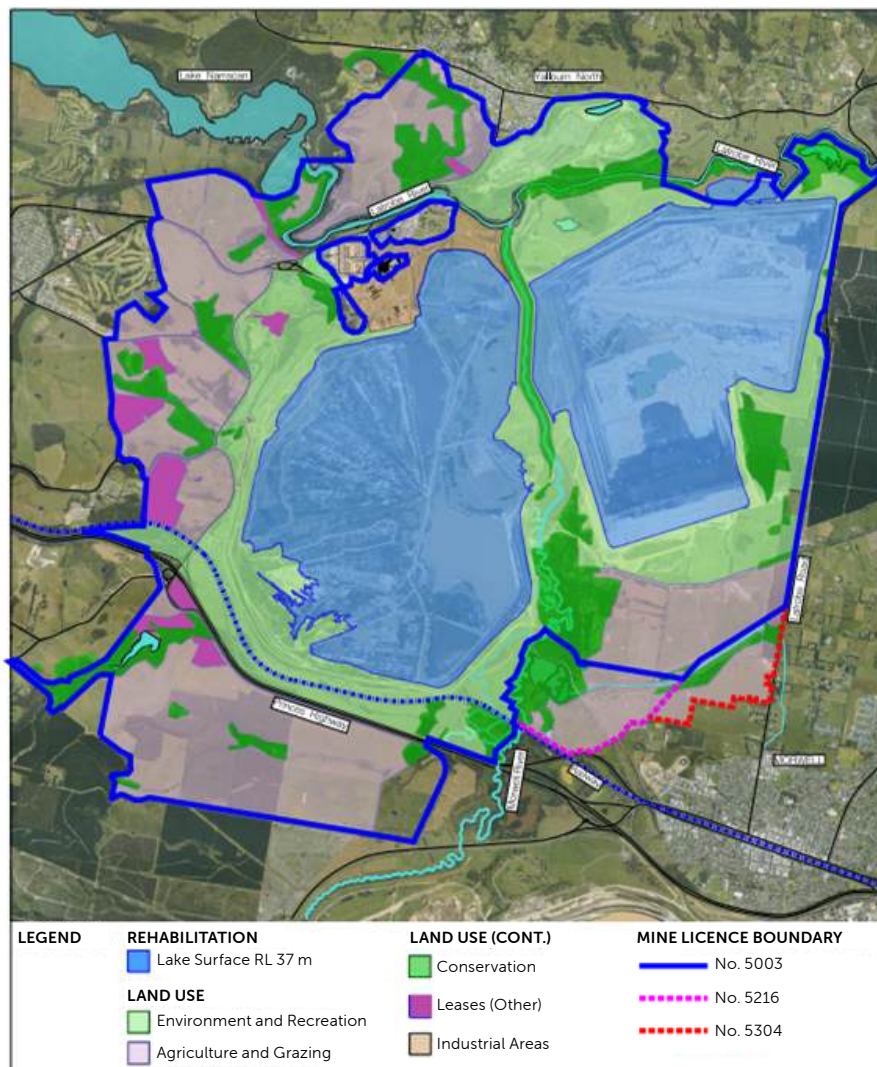
### Capability for Additional Land Use

The perimeter areas of the mining license, primarily used for agriculture, have potential for commercial and industrial development. These areas are less restricted by rehabilitation efforts and can be developed based on business needs.



Refer to Chapter 9 of the DMRP for more information.

### Proposed rehabilitated land use



## 10. Community and Stakeholder Consultation

EAY has a strong history of engaging with the community during its operation of the Yallourn Mine, including ongoing talks about rehabilitation. Giving seven years' notice of closure was important to EAY to ensure enough time for consultation with the community and stakeholders in the lead-up to closure.

To guide these efforts, a Community and Stakeholder Engagement Plan (CSEP) has been created. This plan outlines the strategy for engaging with the community and stakeholders during the 60-day public exhibition period of the DMRP and supports its submission. This aligns with

EnergyAustralia's commitment to consult with the community during the mine's closure and rehabilitation and meets regulatory obligations. The CSEP is included as an appendix to the DMRP.

The CSEP aims to formalise and document the engagement process to meet regulatory requirements and ensure compliance during the 60-day public consultation period. It is based on the principles of providing timely information, maintaining transparency, building strong relationships with stakeholders, and regularly engaging with the community.

Objectives of the CSEP include to:

- Comply with applicable regulations.
- Proactively seek feedback and perspectives.
- Build on existing relationships and create new ones.
- Analyse and manage project issues with strategies to mitigate them.
- Maintain effective communication with the community and key stakeholders.
- Apply the principles of the IAP2 Public Participation Spectrum.
- Provide timely, accurate, and appropriate information on project activities and potential impacts.
- Ensure EnergyAustralia management is available to meet with the community and stakeholders as needed.
- Record and monitor stakeholder engagement in the Project's Consultation Management System (CMS).

The schedule of activities planned for the DMRP exhibition period and beyond can be found [here](#).



Refer to Chapter 10 of the DMRP for more information.

### EnergyAustralia Community Hub in Morwell



### EnergyAustralia Yallourn stall at a community event





# 11. Risk Identification and Management

EAY has an obligation to assess the risks posed by the geotechnical, hydrogeological, water quality or hydrological factors within the declared mine land and provide a risk management plan for the mitigation of any risk that may continue after the cessation of operations.

In preparing the DMRP, EAY has undertaken risk identification, assessment, and management workshops for the rehabilitation of the Yallourn Mine with the objectives to:

- Develop an appropriate process for the assessment of identified risks, accounting for the anticipated timeframe during which rehabilitation activities will be undertaken.
- Identify existing and potential key closure related risks and opportunities and confirm and/or propose risk control measures/actions and responsible parties to achieve a safe, stable, sustainable and non-polluting landform for the duration of rehabilitation activities and upon relinquishment of the land.
- Provide validation for the current rehabilitation strategy for the site and identify improvements as required.
- Identify additional potential opportunities to expedite rehabilitation activities and reduce the timeframe for rehabilitation and subsequent relinquishment.

- Develop a series of recommendations, controls or actions to manage all risks and hazards to an acceptable level and/or realise the identified opportunities.
- Regularly and periodically monitor progress and review the risks, opportunities and actions to determine validity of all risk reduction measures and allow for improvements to be implemented based on updates in knowledge and learnings.

EAY has considered the risks and opportunities associated with the various phases of the rehabilitation of the Yallourn Mine.

These phases are categorised below.

<b>Phase 1</b>	Pre-closure (Operations)
<b>Phase 2</b>	Closure and Decommissioning
<b>Phase 3a</b>	Rehabilitation and Active Management
<b>Phase 3b</b>	Monitoring and Measurement
<b>Phase 4</b>	Relinquishment (including potential post-closure and rehabilitation legacy items that may not be able to be rehabilitated and/or remediated)

The key risk areas identified for consideration were:

- Safety & Health (consideration of potential health and safety impacts to any and all people)
- Environment (impacts with potential to result in harm to the environment)
- Land, Property and Infrastructure (potential impacts to public land, property or infrastructure)
- Cultural Heritage (assessment of potential impacts to areas of cultural significance)
- Community (includes potential financial or societal impacts or impacts to community assets resulting from rehabilitation and closure activities)
- Regulatory & Governance (potential for regulatory breach resulting from the identified risk event/scenario).

The workshops identified a total of 269 risks that were considered across all six phases (including the current operational phase).

## 11. Risk Assessment and Management (continued)

Many of the ranked risks were either rated as low or medium, represented by the green and yellow columns in the plot on the right, respectively. Risks that were not present or no longer applicable within a particular phase were assigned as unranked in this risk assessment. As rehabilitation activities are progressed towards completion, and although some high risks remain, many of the risks transition from medium to low and become negligible. The plot also illustrates that no extreme risks were identified in this assessment.

There were several scenarios that were assigned high risk ratings across various phases during the assessment process. The majority of these ratings reduce to medium or low ratings as proposed works and control implementation occurs in later phases. This risk assessment shows that most risks progressively reduce as rehabilitation is completed. Ultimately, implementation of mine rehabilitation reduces existing mining risks to ALARP, facilitating the achievement of future beneficial uses.

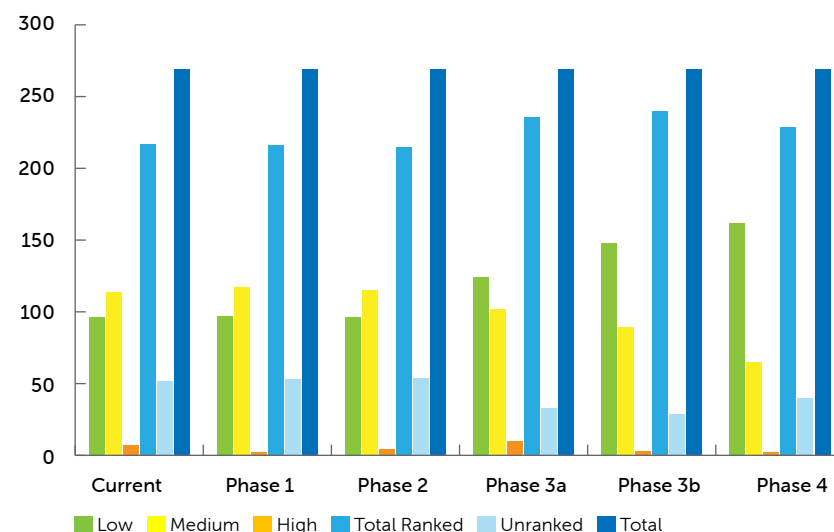


Refer to Chapter 11 of the DMRP for more information.

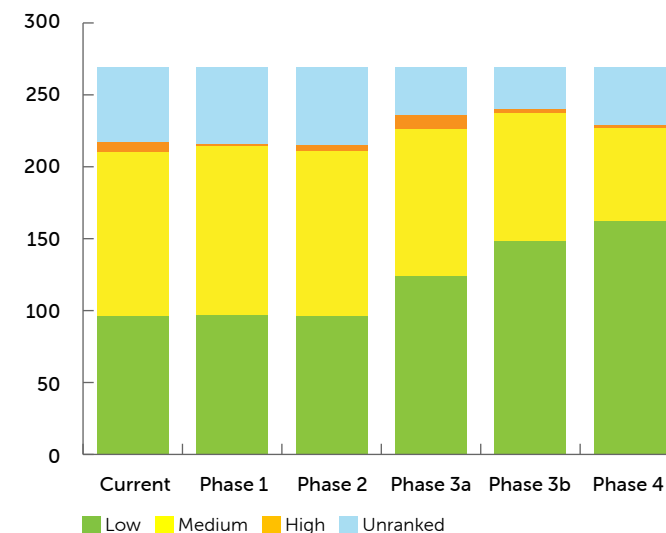
Count of risk ratings across all phases

Rating	Current	Phase 1	Phase 2	Phase 3a	Phase 3b	Phase 4
Extreme	0	0	0	0	0	0
High	7	2	4	10	3	2
Medium	114	117	115	102	89	65
Low	96	97	96	124	148	162
Total Ranked	217	216	215	236	240	229
Unranked	52	53	54	33	29	40
Total Risks	269	269	269	269	269	269

Overview of risks assessed across all phases



Overview of risk ratings across all phases



## 12. Key Activities and Design Considerations

The key activities and design considerations for rehabilitation implementation for the Yallourn Mine are informed by the environmental setting, vision and objectives, progressive rehabilitation learnings, technical studies, and risk control strategies discussed in the DMRP. An outline of the key activities enabling the potential post-mining landform and land uses are shown below.

### Decommissioning and Removal

Prior to filling the mine void with water, operational infrastructure with the potential to contaminate the lake must be removed. This includes large mining equipment, mobile plant, conveyor systems, electrical lines and poles, substations, pump stations, and litter. In addition, some infrastructure used today will be rerouted around the lake to maintain functionality for monitoring or risk control purposes. Infrastructure situated outside of the lake footprint and without future beneficial use will also be removed.

### Water Delivery System

A water delivery system is needed to fill the mine void with water. The existing pump station and hydraulic network currently used for Power Station operations is proposed to deliver this function, however opportunities to optimise the system are being, and will continue to be, investigated.

### Morwell River Diversion

The MRD is integral to the proposed rehabilitation design and success. The Flood and MRD Technical Studies completed highlight the stability challenges if the existing structure is left untreated. The following modifications to the MRD are proposed.

- Tunnel Modifications
- Surface Stabilisation
- Levee Reshaping
- Erosion Protection.

### Geotechnical Stabilisation

Geotechnical stability is critical to delivering rehabilitation objectives for the site. Without geotechnical stability, only limited beneficial land uses are possible, and exclusion zones may be required. Geotechnical studies show that the majority of the Yallourn Mine batters are expected to be stable with water within the mine. However, some areas will require further treatment to create more stable conditions.

### Landform Reshaping and Preparation

Progressive rehabilitation demonstrates, and technical studies confirm, relationships between slope gradient, slope length, soil type, vegetation cover, and erosion potential. Changing one of these variables alone will change the erosion potential. Providing vegetation is established, slope lengths of 120 m and batter gradients of 22 degrees are modelled and monitored to show minimum erosion. These are treated as design limits for future reshaping works.

### Revegetation

Years of progressive rehabilitation and conservation works within the Yallourn Mine have demonstrated successful revegetation programs. On flat areas, direct seeding to native species can be achieved without a topsoil medium. On steeper terrain, topsoil is required to enable fast vegetation establishment. This is normally achieved by seeding to a pasture grass with supplementary revegetation done after establishment to suit the nominated land use.



## 12. Key Activities and Design Considerations (continued)

### Surface Drainage Structures

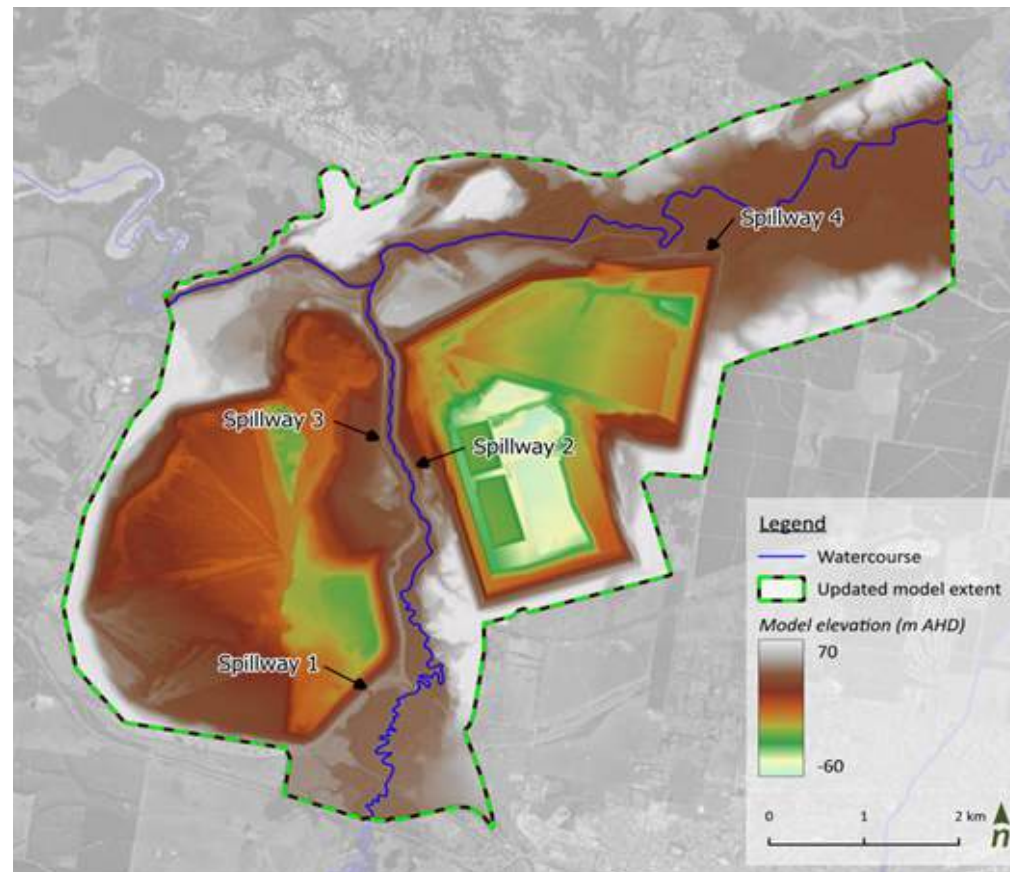
To aid in the management of the risk of surface water systems to geotechnical stability, new or modified surface water works are proposed at the following systems:

- Rifle Range Gully
- Melbourne Swamp Drain
- Latrobe Road Batter.

### Spillways

To control water heights within the MRD which might pose a risk to its stability, a system of four spillways is proposed to be constructed. Three of these spillways will direct flood water from the Morwell and Latrobe River into Lake Yallourn, and the remaining spillway is intended to be the lake overflow at the north-east of the site which returns excess water to the Latrobe River near Thoms Bridge. Concept planning regarding the size of these spillways has been completed with detailed design to be completed.

Proposed location of spillways



## 12. Key Activities and Design Considerations (continued)

### Design Contours and Sections

Combining the learnings from previous monitoring, technical studies, progressive rehabilitation, and risk assessments, the landform design for the Yallourn Mine is shown on the right. This includes a typical section which shows the adopted grades, slope lengths, coal cover, topsoil, vegetation, and erosion protection adopted.



Refer to Chapter 12 of the DMRP for more information.

### Proposed typical lake and batter cross section



## 13. Closure Criteria

Closure criteria for the DMRP set the specific targets for each objective against the nominated land use. If met, these criteria highlight the success of the rehabilitation program in meeting the agreed objective.

Closure criteria should be based on relevant legislation, regulations, guidelines, standards, codes of practice, licenses/permits, plans, commitments, or other references, and be developed in consultation with key stakeholders. There may be several closure criteria that collectively measure the achievement of each rehabilitation objective.

Closure criteria should follow the S.M.A.R.T principle and be:

- **S**pecific enough to reflect a site-specific set of environmental, social, and economic circumstances.
- **M**easurable to demonstrate achievement of rehabilitation objectives.
- **A**chievable in the context of the projected conditions at the estimated time of closure, and flexible enough to adapt to a reasonable range of changing conditions without fundamentally compromising rehabilitation objectives.
- **R**elevant to the outcomes being sought and the risks being managed.
- **T**ime-bound so that monitoring can demonstrate closure criteria have been met, or that conditions are trending toward closure criteria being met at the anticipated rate.

Whilst some closure criteria are published on page 30, EAY acknowledges that further discussions with community, government, and other stakeholders is required to further develop and refine these criteria (consistent with the legislative intent that the DMRP is an iterative document). The full list of closure criteria at this time is shown in Chapter 13 of the DMRP.



## 13. Closure Criteria (continued)

End Land Use	Objective	Closure Criteria	Measurement	Timeframe
Lake Yallourn	All pit voids and other excavations are made safe through backfilling, grading slopes according to approved geotechnical design and ensuring controlled access as required.	Final batters are built to design to enable a stable landform that can withstand fluctuating water levels and wave action.  Geotechnical Design Factor of Safety no less than 1.3 for most areas.  Where FoS of 1.3 is not achievable, exclusion zones to land use may apply.  Construct to Design.	Engineering Design Report based on measurement and modelling with as built report.  Digital survey record of final coal and fill surfaces. Monitoring during filling to ensure landform is consistent with modelling.  Construction QA/QC records are kept.	Assessments completed by 2028.  Live digital survey file available at all times.
	Pit lakes and water bodies are formed with designated entry points which allow safe ingress and egress.	Designated entry points meet the same standards as those for other recreational lakes in surrounding area.	As constructed report by suitably qualified personnel to demonstrate compliance with design.  Construction QA/QC records are kept.	Completed prior to relinquishment of mine licence.
	Exposed coal is managed appropriately to manage the risk of fire in the long term.	Water in Lake Yallourn covers exposed coal within lake footprint.  Management plan in place for any uncovered coal.	Aerial photography included in annual report to show extent of coal coverage.	Completed prior to relinquishment of mine licence.
	Remove or make safe all light and industrial infrastructure from the mine site with the associated footprint rehabilitated in accordance with the respective post-mining land use.	All infrastructure nominated to be removed is removed and records are kept on where the infrastructure has been disposed of or recycled.	Aerial photographs/surveys are undertaken throughout the closure period to demonstrate that any infrastructure nominated to be removed has been removed.	Retreating operation which will occur over the lake fill period with annual checkpoints to ensure ongoing compliance.
Environment and Recreation	Landforms are stable and non-erosive.	No gullies greater than 30 cm erosion depth.  Rilling trend improving.	Erosion Monitoring per Landscape Function Analysis (LFA) program.	Annual assessments to demonstrate trend.
	Rehabilitated landforms are congruent with the surrounding landscape as far as practicable.	Plant density targets to be established.	Point Centred Quarter.  Point Wandering Quarter.	To be established as part of Vegetation Monitoring Program.



Refer to Chapter 13 of the DMRP for more information.

## 14. Implementation Plan and Milestones

### Key Rehabilitation Milestones

Milestones are a useful tool for monitoring project implementation against the nominated schedule. Relevant milestones usually sit on the project's critical path, with any delay to one key milestone forcing a longer duration to the entire project. Key milestones for Yallourn Mine Rehabilitation are shown below:

- Approval of DMRP
- Complete nominated knowledge gaps
- Decommissioning and removal of operational infrastructure preventing lake fill
- MRD Tunnel repurposing complete
- Completion of geotechnical buttressing
- Surface stabilisation of the MRD
- Begin pit lake filling
- Decommission pump bore N6899
- Completion of East Field bulk reshaping
- Pit lake reaches RL 20 m (significant interim measurement point)
- Completion of Maryvale Field bulk reshaping
- Completion of MRD East Spillway
- Completion of Township Field bulk reshaping
- Completion of Topsoil Placement and Revegetation
- Completion of additional spillways
- Lake filling complete

- Reshaping of the MRD Levees
- Monitoring confirms agreed Closure Criteria
- Remove remaining infrastructure that has not been repurposed
- Mining licence relinquishment and
- Post closure management program begins.

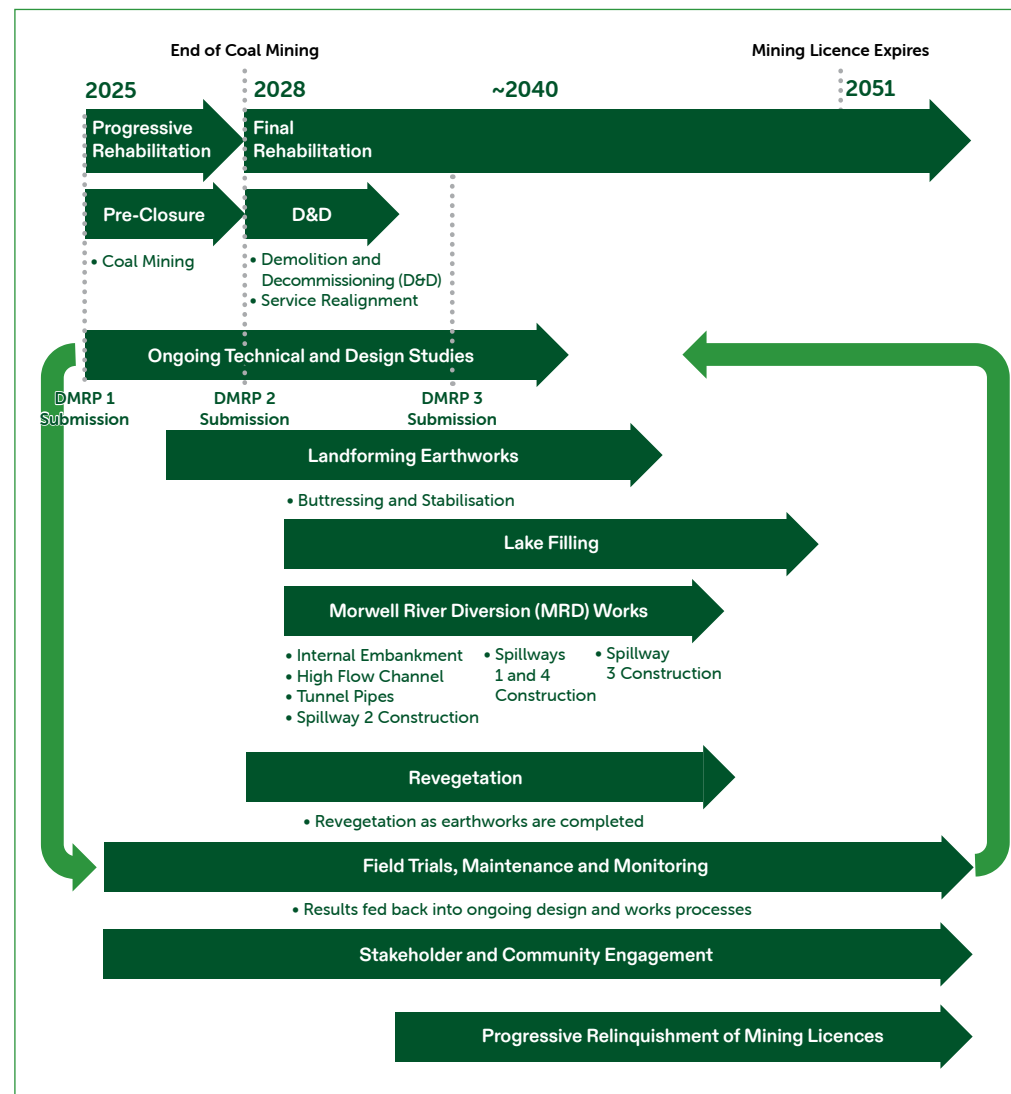
As part of the closure planning, EAY is also expanding its data management system (which is currently focused on mining operational activities) to incorporate mine rehabilitation activities.

The expanded data management system will result in a Common Data Environment (CDE) which centres on integrated models or groups of technology solutions which provide a centralised repository for data storage, access, transfer, and management associated with the many components of the Yallourn Mine rehabilitation. This will allow EAY to continue to efficiently report on key rehabilitation activities at distinct stages of the mine closure and distribute this information to relevant stakeholders.



Refer to Chapter 14 of the DMRP for more information.

### Indicative Mine Rehabilitation Implementation Plan



## 15. Monitoring and Maintenance

With over 135 years of operation at Yallourn, substantial monitoring and maintenance has been completed and recorded. Throughout rehabilitation and closure, many existing monitoring programs will remain in place with slight changes applied to suit the risk and context change from operations to rehabilitation.

After successfully executing and monitoring the requirements of this DMRP, EAY's objective is to successfully relinquish the land within the mining licences, then surrender the mining licences. Therefore, Lake Yallourn and the surrounding land will be available for sequential land management by another party. Some perimeter areas are expected to become available to other third parties ahead of lake filling with risks from rehabilitation activities deemed insignificant. Other perimeter areas will be relinquished to either the Mine Land Rehabilitation Authority (**MLRA**) or third parties after lake filling is completed.

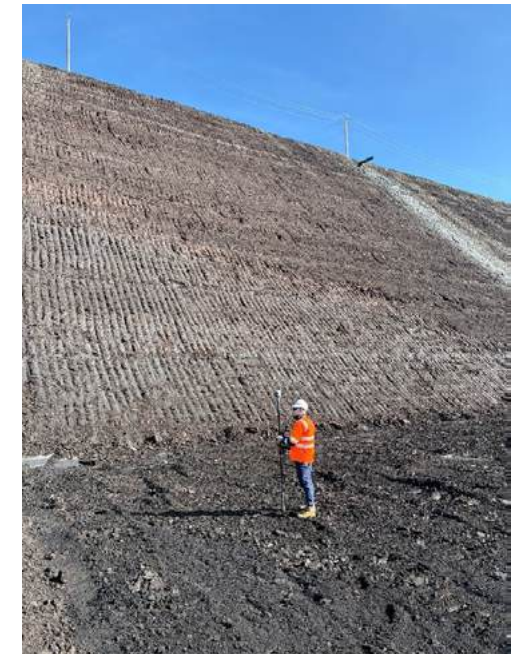
The maintenance and monitoring program will include:

- Geotechnical Monitoring
- Water Quality Monitoring
- Water Quantity Monitoring
- MRD Monitoring
- Land Monitoring
- Flora and Fauna Monitoring
- Air Quality Monitoring and
- Fire Management.



*Refer to Chapter 15 of the DMRP for more information.*

**Surveyors collecting survey data**





## 16. Post Closure Plan

A key objective of the DMRP is to require minimal or no post-closure maintenance, however it is possible that actual monitoring results do not follow the projections of models and technical studies. Furthermore, environmental events outside of the design range, or other unforeseen risks, may result in the need for future remediation work post-closure. To maintain ongoing confidence in the post-closure landform, a post-closure maintenance and monitoring program will be implemented with a trigger, action, response plan (**TARP**). The TARP will nominate a response to an unwanted or unplanned rehabilitation outcome.

The post-closure maintenance and monitoring program will build on the current operational maintenance and monitoring program including:

- Geotechnical Monitoring
- Water Quality Monitoring
- Water Quantity Monitoring
- MRD Monitoring
- Land Monitoring
- Flora and Fauna Monitoring, and
- Air Quality Monitoring.

It is also expected that these maintenance and monitoring plans will be adapted as below to suit the nominated land uses:

- Lake Water Maintenance and Monitoring Plan
- Environmental Area Maintenance and Monitoring
- Recreational Area Maintenance and Monitoring
- Conservation Area Maintenance and Monitoring
- Agricultural Land Maintenance and Monitoring
- Industrial Area Maintenance and Monitoring.



*Refer to Chapter 16 of the DMRP for more information.*

## 17. Knowledge Gaps

Whilst there is currently a strong understanding of mine rehabilitation and the pit lake concept, EAY acknowledges that not all rehabilitation answers are currently known. As part of planning for rehabilitation, EAY has compiled a list of known data/knowledge gaps and identified timelines within which these gaps are intended to be addressed. This is included in Chapter 17 of the DMRP.



*Refer to Chapter 17 of the DMRP for more information.*

**Morwell River Wetlands at Yallourn**



## 18. Conclusion

As indicated above, EAY's mine rehabilitation vision is:

**To transform the Yallourn site into a landscape that enables ongoing prosperity and amenity for all. One that is an example of what can be achieved when business, government, communities, and custodians of the land work together.**

This DMRP addresses the site setting, legal requirements, government policy and decision making, environmental setting, and objectives, which highlight the pit lake as the preferred mine rehabilitation concept for Yallourn. It is EAY's aspiration that the pit lake once developed will be able to support recreational uses.

Enhancing this knowledge base through technical studies, progressive rehabilitation, and detailed risk assessments confirms the pit lake as the preferred concept but also highlights additional design considerations and work packages that are needed to control risk appropriately, and to enable beneficial uses for the community post-closure. This journey of design work and further specialist studies has begun, but as acknowledged in the DMRP there is further work required.

A closure criteria framework with some specific metrics has been developed, with a monitoring program designed to ensure compliance or respond appropriately to triggers and alerts where unexpected results are found. Implementing the design to the nominated closure criteria will be the responsibility of the EAY team, with many expert consultants and third parties engaged to ensure community and regulatory standards are met.

The current expected period for pit lake filling is 24 years, which primarily balances the need for adequate environmental water in the Latrobe River system, against the water volume required for pit lake filling. EAY will investigate to see whether there are viable options to complete this in a shorter period which suits meeting the safe, stable, and sustainable criteria, while allowing the benefits of a pit lake to be enjoyed sooner. Much will depend though on water access arrangements.

We trust that this DMRP meets the expectations of government, our local community, Traditional Owners, and other interested parties. EAY looks forward to transforming the Yallourn Mine into a lake and providing a surrounding landform and land use that honours Yallourn's legacy, whilst contributing to ongoing prosperity for all.

**Township field with the power station in the background**



## Limitation

Both the draft DMRP and this draft summary document (the **Documents**) are being prepared by EAY in satisfaction of its obligations under the MRSDA and the MRSDMIR. The Documents relate to the rehabilitation of the land in and surrounding the Yallourn Mine following the closure of the Yallourn Power Station, and reflect relevant information available to, and the intentions of, EAY as at the date of the Documents. Following a statutory consultation period, the DMRP will be submitted for approval in accordance with the MRSDA and MRSDMIR. The DMRP is an iterative document that will be subject to review and refinement over time to reflect the latest evidence base and status of other regulatory processes.

Statements of fact in the Documents are made as of June 2025 and are subject to change or updating from time to time. These statements are made on, and are applicable as at, June 2025 and no representation is made as to their accuracy, completeness or reliability after this date.

Other than as required by applicable regulations or law, EAY does not undertake any obligation to publicly update, release or review any revisions of the Documents (including as a result of new information or future events), after this date.

To the extent that the Documents contain any forward-looking statements, these are based on the expectations, best estimates, assumptions and intentions of EAY as at the date of preparation of the Documents. However, these may be affected by a range of factors which could cause actual results to differ materially. These include, but are not limited to: environmental conditions; regulatory and policy changes; technological development; changes in regulatory requirements; and the availability of water to EAY for rehabilitation purposes, which may be influenced by environmental and financial factors (noting that access to water to deliver the DMRP has yet to be resolved).

Forward-looking statements are not statements of fact, guarantees, predictions or forecasts of future performance or

outcomes, and are subject to both known and unknown risks, other uncertainties and may involve elements of subjective judgement and assumptions. These statements may be affected by limitations in data or methodologies, inaccurate assumptions or known and unknown risks, many of which may lie beyond EAY's control.

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## We are here to help

Energy Australia values community feedback. If you have an enquiry, would like to raise a complaint, or need any further information on the Yallourn Declared Mine Rehabilitation Plan project, please contact us:



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