Hazelwood Rehabilitation Project

ENGIE Hazelwood is rehabilitating the former Hazelwood Mine and Power Station to deliver a safe, stable, sustainable and non-polluting site that enables productive future uses. This fact sheet explains the works proposed to rehabilitate the site, why the mine void cannot be left empty, and how the potential impacts of the project are being assessed.

Rehabilitating the iconic Hazelwood site

The Hazelwood Mine and Power Station produced electricity in the Latrobe Valley for more than five decades until closure in 2017. Works to decommission and demolish major infrastructure and begin early rehabilitation are complete, with the Project ready to move into the next stage.

As the owner and former operator of the Hazelwood Mine and Power Station and surrounding lands, ENGIE Hazelwood has a legal obligation to remediate and rehabilitate the site.

We take our obligations seriously. We're committed to creating a safe, stable and sustainable final landform which can support productive future uses and leave a positive legacy for the Latrobe Valley and Gippsland region.

What does the Hazelwood Rehabilitation Project involve?

The Hazelwood Rehabilitation Project involves final decommissioning activities, earthworks to reprofile steep slopes, reinstatement of water courses to a more natural alignment, and the proposed creation of a pit lake.

A full pit lake is proposed because the weight of the water would push down on the floor and out on the walls of the mine, keeping the large mine void and surrounding

land stable and effectively eliminating the risk of coal fire.

The Project will be assessed through an Environment Effects Statement (EES), Victoria's most robust and comprehensive planning and assessment process. The EES will assess the potential environmental and social effects of the project within the site and more broadly in the Latrobe Valley and Gippsland region.

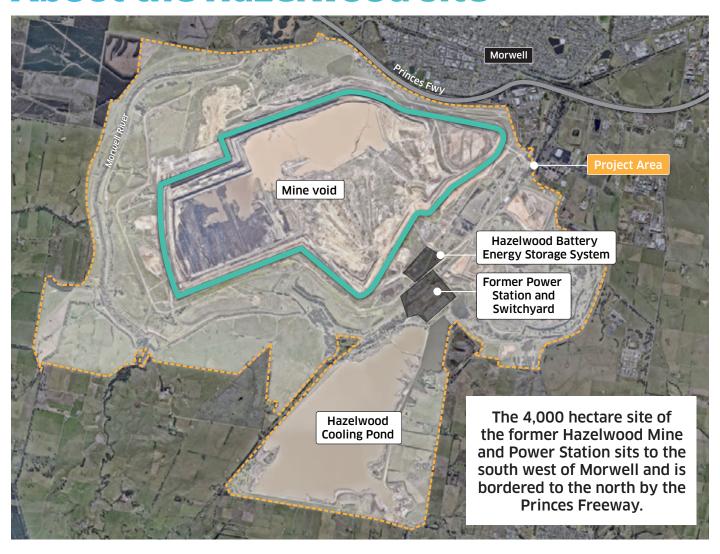
How a mine lake keeps an empty void safe and stable

- the weight of the water provides long term stability to the steep sides of the mine void
- the weight of water in the mine also counteracts the upward pressure of aquifers underneath the mine floor, preventing floor heave
- the water covers exposed coal in the mine void, largely eliminating the risk of fire
- the groundwater which needs to be constantly pumped from beneath the mine could be used to help create the lake
- a full lake would provide opportunities for future interconnection with the Morwell River, with potential water quality benefits and flood mitigation opportunities

ENGIE Hazelwood acknowledges that the Gunaikurnai people are the Traditional Owners and Native Title holders of lands and waters in the Latrobe Valley and broader Gippsland region in which the ENGIE Hazelwood Rehabilitation Project is located, and we pay our respects to Elders past and present.



About the Hazelwood site



Key elements of the site, relevant to the EES:

- A mine void: 6 kilometres long, 3.5 kilometres wide and up to 135 metres deep
- Hazelwood Ash Retention Area (HARA)
- Hazelwood Cooling Pond (HCP): a man-made lake supporting power station and mine operations (with public recreation access closed for safety reasons)
- The ~420 hectare Eastern Overburden Dump, which contains a number of landfills associated with the previous operations onsite.

Other infrastructure which falls outside the EES process:

- The former 1600MW Hazelwood Power Station and associated infrastructure (demolished and being remediated under existing approvals)
- An electrical switchyard owned and operated by AusNet Services
- The 18-hectare Hazelwood Battery Energy Storage System.

Demolition and rehabilitation works so far

- Removing 1.3 million litres of oil for recycling
- Safe handling and removal of asbestos on site, including in the former Power Station
- Safe demolition of the 8 Power Station chimneys, the former Hazelwood Power Station and mine dredgers
- Earthworks on ash ponds and effluent ponds
- Up to 500 people employed during decommissioning, demolition and rehabilitation process.

What is happening now on site?

Preliminary rehabilitation and remediation works continue under existing statutory notices and approvals, including independently-audited work to manage contamination in the former ash ponds and waste disposal areas.

ENGIE Hazelwood has built Australia's largest privately funded and owned battery on site. The 150MW Hazelwood Battery Energy Storage System (HBESS) was commissioned and began operation in June 2023.

Rehabilitation for a safe, stable and sustainable site

The Hazelwood site's size and close proximity to the Princes Freeway and southern part of the Morwell township means that long-term safety and stability are extremely important considerations for its rehabilitation.

The Hazelwood mine void is very large. The safety issues of an empty mine would require long term management and pose ongoing risks across the site and for surrounding areas.

A full lake would not just make the site stable and safe in the long term - it would provide significant potential economic, recreational and flood mitigation benefits to local communities and the region.

Risks of an empty mine void



Aquifer

Open joint in coal

Batters with steep sides can collapse if not managed

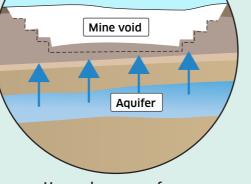
Water levels in coal, if not carefully managed can lead to batter movements

Coal Block

Coal block may slide

in toward

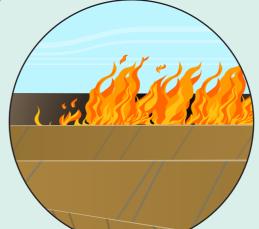
the open cut



Upward pressure from groundwater below, if unmanaged can cause instability of the mine floor called 'floor heave'

Coal facts

- The walls or 'batters' of open cut mines are made up of large sections of coal
- > Brown coal is naturally jointed and contains gaps
- High rainfall can lead to a build up of water and hydrostatic pressure within coal joints, leaving mine walls at risk of movement
- During mine operation, groundwater was pumped away from the void to keep the mine stable
- Ongoing groundwater pumping is needed to stabilise the empty void until it is filled



Coal exposed to oxygen and heat sources poses fire risks

Key elements of the Hazelwood Rehabilitation Project

Creating a full mine lake effectively eliminates the risk of coal fire, and the weight of water within the lake will put outward and downward pressure on the mine sides and floor, stabilising the mine void and surrounding area.



Creating a lake

Filling the mine void over time to just below the natural surface level (RL +45m AHD), using mostly groundwater and surface water and other approved sources.



Reinstating natural water courses

Draining the Hazelwood Cooling Pond (HCP) would allow restoration of the natural alignment of Eel Hole Creek. There is also potential for the Morwell River Diversion to connect with the proposed lake.



Reshaping steep slopes

Further earthworks to smooth out and stablise upper sections of the mine walls for future safe access to the lake.



Decommissioning mine infrastructure

Roads, buildings, pumphouses on the HCP and Hazelwood's connection to the Saline Water Outlet Pipeline (SWOP) would be removed.



Revegetation

Exposed coal on the upper parts of the mine walls would be reprofiled, covered in soil and revegetated to improve amenity for future uses of the site.



Leave a safe site ready for future use

Replace the extensive empty mine void with a lake that allows for recreation and potential for new tourism opportunities and industry for the Valley.



Want to know more about how a full lake would create a safe and stable site?

Scan this QR code to find out more.

Water for the proposed mine lake

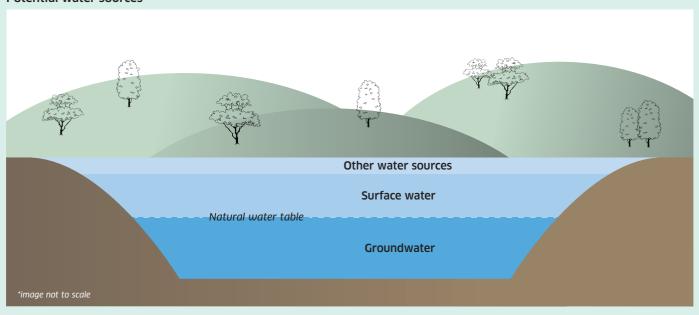
ENGIE is committed to providing a full lake that provides benefits to the Latrobe Valley community, industries and the region.

A full lake at Hazelwood would constitute 637GL (gigalitres) of water. Filling a pit of this size, using the water sources proposed by ENGIE, would take an estimated 10-15 years to complete.

Where would the water come from?

Water sources which achieve good water quality in the pit lake are proposed as the main sources to fill the mine void and create the lake. Other potential water sources will be assessed as part of the EES process.

Potential water sources



Groundwater

It is expected that groundwater would make up around 50 per cent of the total fill, with exact volumes and rates to be determined through the EES process.

The floor of the Hazelwood mine void sits below the level of the natural water table. Over time, groundwater will naturally return to the mine void, and must be managed in a slow and controlled way through groundwater pumping to maintain stability.

Commercially available surface water

ENGIE Hazelwood has existing commercial agreements in place that would allow for the supply of surface water to be used in the fill process.

These agreements are variable, which means that:

- more water can be supplied when local reservoirs and other catchments are full during periods of high rainfall, reducing the risk of dangerous and damaging local flooding; and
- during drier periods, fill from surface water can be scaled down to balance other users' needs for water.

Other water sources

ENGIE is currently assessing other water options. Other possible water sources that might become available in future to assist in fill will also be assessed through the EES.

In early 2022, construction of the Hazelwood Morwell River Flood Diversion (MRFD) was completed to enable the short term diversion of floodwaters from the Morwell River into the mine and enable emergency repairs at the Yallourn mine downstream of Hazelwood.

The EES will assess an option to provide a limited connection between the Morwell River and the pit lake.

This connection would provide an option to use excess floodwaters from the Morwell River during flood events to maintain good water quality and flow through the pit lake.

About the Environment Effects Statement

An EES is a well-established process under the Environment Effects Act 1978, that provides a comprehensive framework for assessing projects with the potential for significant environmental effects.

The EES process is managed by the Victorian Department of Transport and Planning (DTP) on behalf of the Minister for Planning. Information about the process is available on the DTP website at https://dtp.vic.gov.au/

Scoping Requirements established

- Draft Scoping Requirements exhibited by DTP
- Community consultation
- Public submissions on draft Scoping Requirements
- Final Scoping Requirements established by DTP

Prepare the EES

- Specialist studies to address the Scoping Requirements
- Community consultation to inform the preparation of the EES
- TRG advice and review of the EES

EES public exhibition

• EES released for public comment

Inquiry and Advisory Committee hearings

- Appointment of an Inquiry and Advisory Committee (IAC)
- IAC public hearings
- IAC considers the EES, project effects and submissions and provides a report to the Minister for Planning

Minister for Planning's assessment

- Minister's assessment of the environmental effects of the project
- Statutory decision makers will consider the Minister's Assessment in their decisions regarding the Project approvals

Find out more about the EES

Find out more and stay involved

Community and stakeholder input will play an important role in the Hazelwood Rehabilitation Project and the preparation of the EES.

- Sign up for project updates and find the latest information at hazelwoodrehabilitation.com.au
- Email the project team at hazelwood.au@engie.com







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