CHAPTER 16

Progressive, Interim and Final Rehabilitation and Milestones

1. Introduction

Throughout the operating life of the Hazelwood mine, ENGIE Hazelwood progressively rehabilitated a number of worked out coal batters, together with substantial external overburden dumps. The need to execute progressive rehabilitation was a key outcome of the Hazelwood Mine Fire Inquiry, and today a significant portion of progressive rehabilitation has been completed at Hazelwood.

Rehabilitation of work on site generally falls into the following categories:

- Progressive rehabilitation works undertaken over the course of mining operations (which is now no longer the case);
- Interim rehabilitation works undertaken in the period since operational closure in March 2017; and
- Final rehabilitation works that ENGIE Hazelwood will implement following the approval of the DMRP.

Following the cessation of mining operations in March 2017, ENGIE Hazelwood plans and executes interim rehabilitation works on an annual budgetary cycle, in accordance with the approved 2017 WPV. At the beginning of each year the rehabilitation schedule is updated and corresponding budget allocated to ensure the scheduled rehabilitation activities are undertaken. The schedule considers:

- Demolition and decommissioning;
- Alterations to the mine fire services system (relocate pumps and/or pipework, decommissioning infrastructure);
- Rehabilitation earthworks (coal capping, stability earthworks, topsoiling, ripping etc);
- Revegetation (fertiliser application, seeding, planting tube stock etc); and
- Maintenance activities (mulching, slashing, weed control).

Following the approval of this DMRP, ENGIE Hazelwood will commence implementation of the "*final*" rehabilitation works for the Hazelwood Mine (i.e. rather than "*progressive*" or "*interim*" rehabilitation works).

2. Rehabilitation Phases and Milestones

Rehabilitation of the Hazelwood site has been categorised into the following three phases as described in Table 16.1.

Table 16.1: Rehabilitation phases

Phase 1 **Active Rehabilitation**	Physical activities that will be carried out to achieve the landform in accordance with the approved rehabilitation plan and whilst activities, landforms and risk mitigation systems are actively maintained through human intervention. Lake filling to +45mRL is achieved during phase 1.
Phase 2 **Passive Rehabilitation**	The period of time when the site is monitored and periodically maintained, however, active management is no longer required (or limited as far as reasonably practicable) and active filling has ceased. Pit Lake level management commences through this phase. Moderated alternative land use such as grazing could occur during this phase.
Phase 3 **Post Relinquishment**	The period of time when land management responsibility has been relinquished to the future land manager and alternative funds are used to monitor and maintain the landforms. This phase is identified as post closure in the DMRP regulations.

There are three key milestones which mark the transition between each phase including:

Milestone 1: Operational Mine Closure
Milestone 2: Pit lake filled (to RL 45m)
Milestone 3: Relinquishment

These phases and milestones are diagrammatically shown in *Chapter 2 - Project Summary Figure 2.7*.

It is important to recognise that these three phases do not align with the project scope for the EES process. The active rehabilitation phase includes both matters relevant to the EES and matters that have been approved elsewhere and are subject to existing works. The terms active and passive should be read literally and differentiate between the periods where ENGIE Hazelwood is actively managing the site to achieve its preferred final landform and the period after where monitoring and maintenance occurs.

3. Aims of interim rehabilitation

Since cessation of mining and power generation in 2017, ENGIE Hazelwood have progressively advanced rehabilitation efforts. Despite being required to prepare an EES to assess the impacts of the proposed rehabilitation concept, significant progress is being made.

ENGIE Hazelwood have carried out select interim rehabilitation activities based on achieving several key criteria:

- Improvements to the visual amenity of surrounding landscapes and communities;
- A reduction in total area of disturbance that can contribute to dust emissions to air;
- Decommissioning infrastructure that is no longer required for post mining land use (PMLU);
- Rehabilitation activities that will be required irrespective of the outcome of changes to the final pit lake level (+45mRL);
- Rehabilitation of landforms that can be available for PMLU in advance of relinquishment (i.e. grazing lease);
- Activities that make use of existing secondary consents;
- Activities that reduce the likelihood or consequence of risk events with a rating of high or very high;
- Activities that can be used to trial or validate specific rehabilitation methodologies;
- Direction given by the Chief Inspector to undertake certain activities; and
- Specific requirements contained in compensation or land access agreements with landowners or managers.

4. Plans for interim and final rehabilitation

ENGIE Hazelwood maintains a closure roadmap that tracks key activities and milestones to be achieved during the active and passive rehabilitation phases of the project. The rehabilitation component of the roadmap, shown in Figure 16.1 provides an outline of the sequence of events required to complete the rehabilitation project.

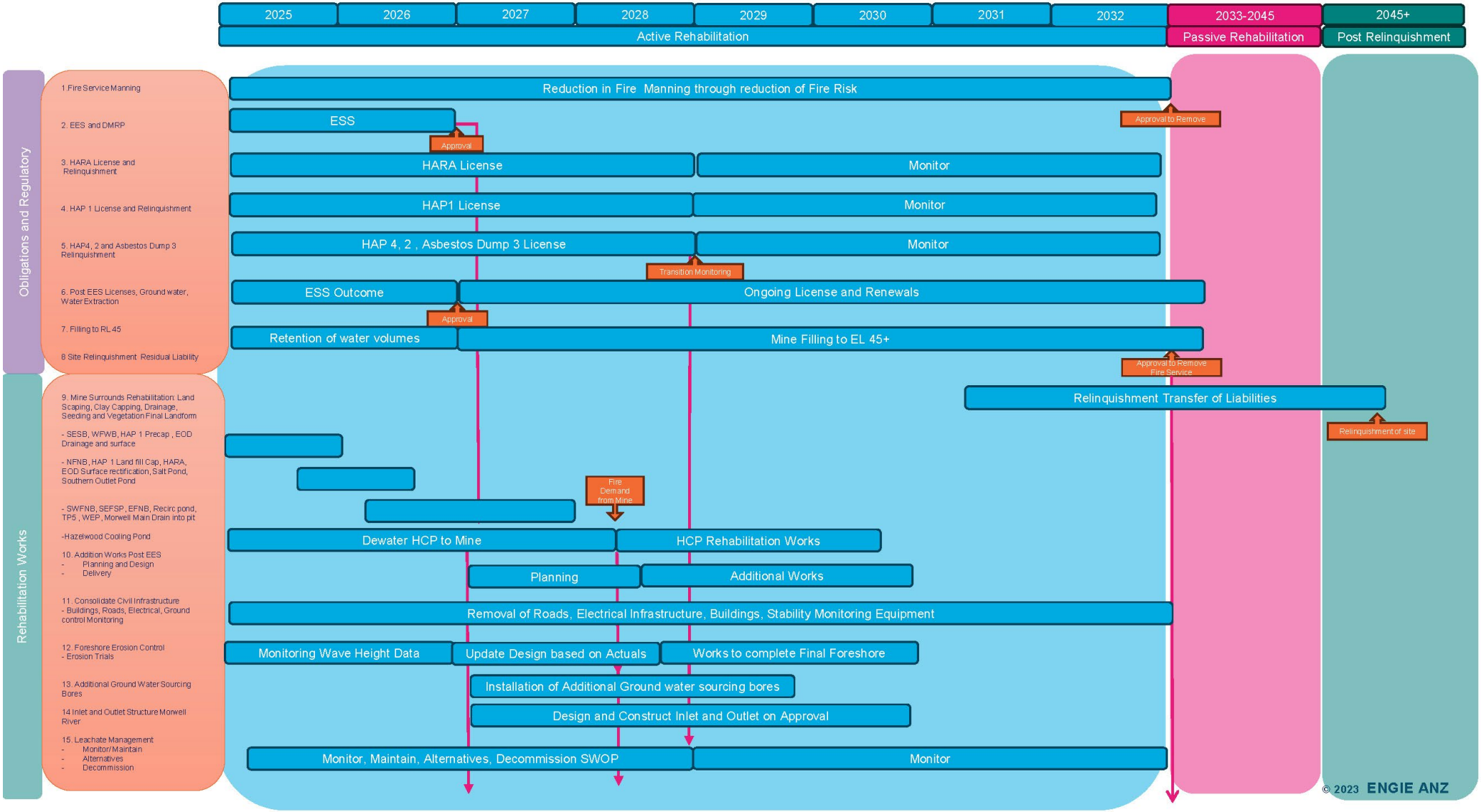

Figure 16.1: ENGIE Hazelwood closure roadmap (Rehabilitation component)

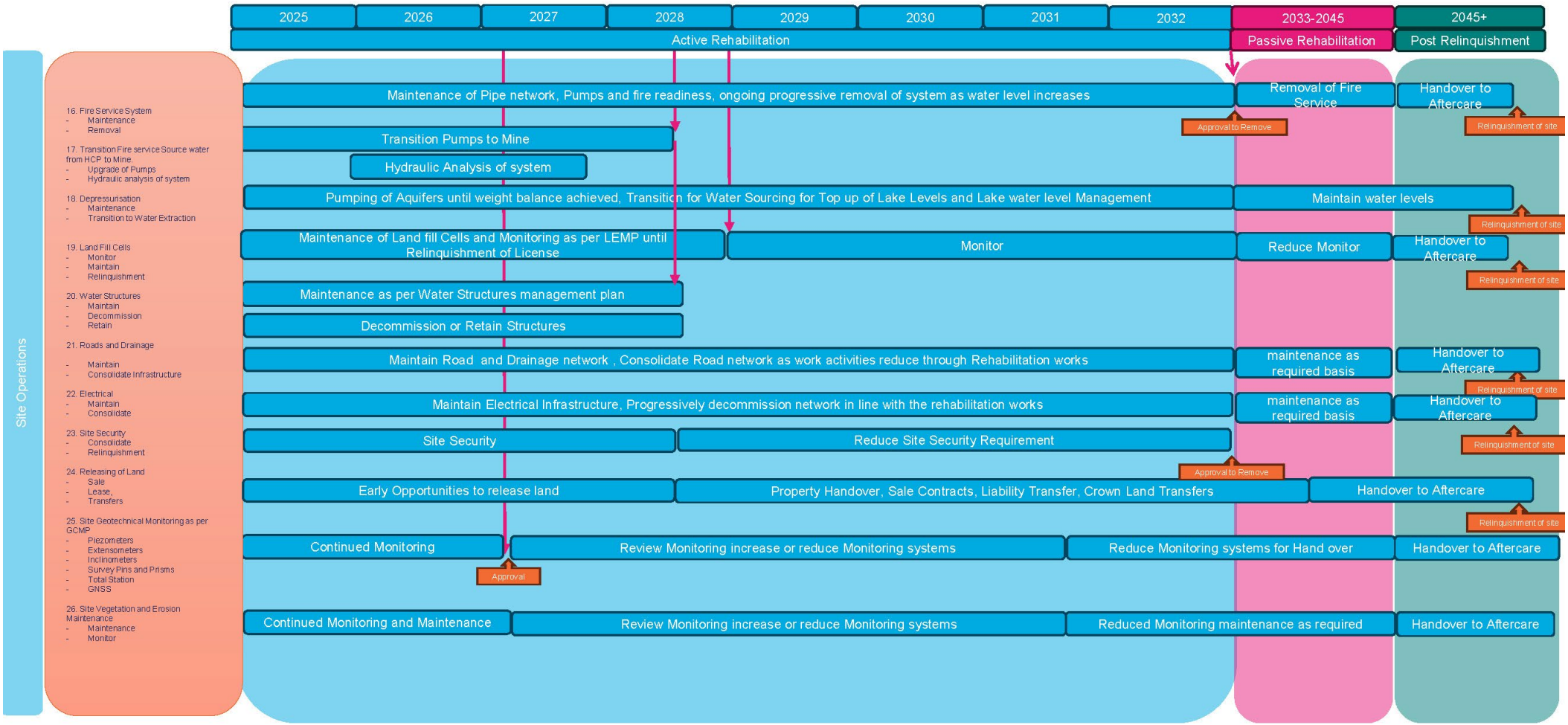

Figure 16.1: ENGIE Hazelwood closure roadmap (Rehabilitation component)

5. Interim rehabilitation works program

ENGIE Hazelwood maintain an interim rehabilitation works program to guide the execution of activities. The program is updated biannually to reflect progress achieved and any changes in priority. The program, presented in Table 16.2 includes both on-ground earthworks and revegetation as well as maintenance activities and risk mitigation.

6. Proven rehabilitation

The assessment of performance of interim rehabilitation is critical to ensure ongoing improvements and adjustments to methodologies and designs. ENGIE Hazelwood periodically reports on experiences and learnings from previous rehabilitation activities. This was initiated in 2017 with the preparation of an interim rehabilitation learnings report.

7. Reporting of interim rehabilitation

ENGIE Hazelwood is obliged to report on interim rehabilitation efforts, including coal coverage, on an annual basis to ERR. The report is prepared by ENGIE Hazelwood and validated by an accredited auditor before being submitted in [month] each year as part of the Company's Statement of Compliance.

Interim rehabilitation efforts are reported to external stakeholders and the community via the Environment Review Committee on a periodic basis.

Table 16.2: Interim Rehabilitation Works Program

WORKS PROGRAM SUMMARY	START DATE	END DATE	STATUS
Retention of water volumes (in absence of final landform approval)	2017	Milestone 2: Dec-35	Ongoing
Overburden excavations (Northern Borrow Area)	2017	Jan-27	In Progress
MINE SURROUNDS LANDFORM REHABILITATION AND DRAINAGE ABOVE RL +45 M AHD:			
West Field Western Batters (WFWB)	Dec-24	Dec-25	In Progress
South East Field Southern Batters (SEFSB)	Apr-25	Feb-26	In Progress
East Field Northern Batters (EFNB)	Sep-26	Nov-26	Not Started
North Field Northern Batters (NFNB)	Mar-26	Dec-26	Not Started
South West Field Northern Batters (SWFNB)	Feb-26	Aug-26	Not Started
Southern Outlet Ponds (SOP)	Jun-26	Dec-26	Not Started
Fire Service Lookout	Nov-25	Jun-26	Not Started
Northern Borrow Area	Jan-27	Jun-27	Not Started
Mine Fill Erosion Protection	2021	Milestone 2: Dec-35	Not Started
POND LANDFORM REHABILITATION, DRAINAGE AND REVEGETATION:			
Southern Outlet Ponds (SOP)			
Transfer Point 5 Washdown Pond (TP5)			
Northern Overburden Runoff Pond (NORP)	TBC	TBC	Subject to EES
Recirculation Pond			
Works Effluent Pond (WEP)			
Salt Pond	Jul-26	Dec-26	Not Started
LANDFILL CAPPING AND CLOSURE:			
Hazelwood Ash Retention Area (HARA)	Oct-24	Aug-26	In Progress
Hazelwood Ash Pond 1 (HAP1)	Mar-24	Jun-26	In Progress
EASTERN OVERBURDEN DUMP (EOD):			
Landform shaping, erosion rectification and drainage	Jun-24	Jun-26	In Progress
Ash deposit rectification	Oct-26	Jun-27	Not Started
Groundwater management	Jun-26	Mar-27	Not Started
Revegetation	2017	Dec-30	In Progress
Morwell Main Drain rehabilitation / pit lake connection	TBC	TBC	Subject to EES
Site Decontamination	2018	Dec-27	In Progress
Final site landform rehabilitation and drainage (external to mine surrounds)	Jun-26	Dec-27	Not Started
LAKE INTERCONNECTION:			
Inflow infrastructure installation	TBC	TBC	Subject to EES
Outflow infrastructure installation			
HAZELWOOD COOLING POND (HCP):			
Dewatering			
Decommission and remove Pump House 50 & 53			
Decommission and demolish surface water infrastructure			
Connection to Morwell River Diversion (MRD)			
Yinnar Road Culvert Upgrade			
Site decontamination	TBC	TBC	Subject to EES
Reinstatement of WEP connection			
Reinstatement of Eel Hole Creek			
Installation of detention basins			
Landform shaping and revegetation			
Erosion protection			
OPERATIONS:			
Aquifer pumping			
Mine Fire Service System (MFSS)	2017	Milestone 2: Dec-35	Ongoing
Site Management - Geotechnical (GCMP)			
Site Management - Security			
Staged withdrawal of mine fire services pipework	2021	Milestone 2: Dec-35	Ongoing
SITE DECOMMISSIONING AND DEMOLITION:			
Leachate collection system	Jul-27	Jun-28	Not started
Saline Water Outfall Pipeline (SWOP)			
Redundant buildings			
Road infrastructure	2017	Milestone 2: Dec-35	Ongoing
Power infrastructure			
Water infrastructure			