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# **ENERGYAUSTRALIA NSW**

## **Pine Dale Mine**

Forward Program FY 2023 – FY 2025

**July 2022**

Version 001

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### **Acknowledgements**

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## Document History and Status

Revision	Date Issued	Reviewed By	Approved By	Revision Type
Initial Forward Program	July 2022	Jarvis Lulham & IEMA	Ben Eastwood	1.0

## Summary Table

Name of mine:	PINE DALE MINE	
Annual Forward Program reporting period:	START DATE:	END DATE:
	1 JULY 2022	30 JUNE 2025
Annual Forward Program revision dates and version numbers:	N/A	
Forward Program commencement date:	1 JULY 2022	
Forward Program revision dates and version numbers:	VERSION 1	
Mining leases	No	Expiry
	ML 1578	14 MAR 2027
	ML 1664	9 JAN 2033
	ML 1637	11 DEC 2024
	ML 1569	11 DEC 2024
Name of Lease holder(s)	ENHANCE PLACE PTY LIMITED	
Date of Submission	JULY 2022	

# 1. PART 2 – FORWARD PROGRAM

Part 2 sets out the prescribed form and way for a forward program for large mines in accordance with Clauses 9 and 13 of Schedule 8A of the Mining Regulation 2016.

The forward program must be submitted using the online form accessible at <https://nswresourcesregulator.service-now.com/regulator>.

## 1.1. Three Year Forecast – Surface Disturbance Activities

### 1.1.1. Project Description

This section must outline the mining project, including the expected remaining life of the mine. The project description must be consistent with the development consent for the mine.

Pine Dale Mine is located at Blackmans Flat approximately 16km north of Lithgow, on the Castlereagh Highway. The site is approximately 3km from the Mt. Piper Power State and immediately across from the Springvale Joint Venture Coal Preparation and Handling Facility.

Operations were approved under Project Approval PA 10\_0041 by the Department for Planning and Infrastructure on 20/02/2011, permitting mining operations to be carried out until 31 December 2014. The approval allowed the extraction of up to 800,000t of ROM coal to be extracted from the Yarraboldy Extension at a maximum rate of 350,000 tpa.

Pine Dale is operated by Enhance Place Pty Ltd (Enhance Place). Available coal within the approved mining area has since been exhausted and in April 2014 the site was placed under care and maintenance. It is expected the mine will remain in care and maintenance until planning approvals are obtained to allow mining to resume, or a decision is taken to permanently close the mine.

### 1.1.2. Description of Surface Disturbance Activities

This section must detail the surface disturbance activities proposed for the next three years. Information in this section must address the activities illustrated in Plan 2 (refer to section 2.3). The following content must be included:

This section provides details on proposed surface disturbance activities to be carried out at Pine Dale over the next three years.

#### 1.1.2.1. Exploration Activities

Identify and describe exploration activities that are proposed or likely to be proposed to be carried out in areas within the mining leases in the next three years.

There are no exploration drilling activities proposed to be undertaken during the period of this forward program. The coal resource within the respective mining tenements will be considered and assessed for potential future mining activities in the area.

#### 1.1.2.2. Construction activities

Identify and describe any construction activities scheduled in the next three years.

There are no planned construction activities to be undertaken during the period of this forward program while the site is in care and maintenance relating to buildings, mining equipment or other mining related infrastructure.

### 1.1.2.3. Mining schedule

Outline the sequence and staging of mining operations over the next three years. This must be consistent with the life of mine rehabilitation schedule described in the rehabilitation management plan and relevant development consent(s) and include the following:

The following sections provide details related to the proposed mining schedule over the next three years. This schedule is consistent with the rehabilitation schedule outlined in the current Rehabilitation Management Plan and Project Approval PA 10\_0041.

#### General Mining Developments

A description of the method of mining development and sequencing and general mine features.

No mining activity is expected to take place while the site is in care and maintenance during the forward program period.

#### Emplacement Areas

A description of the areas identified for emplacements, the sequencing of emplacements, construction, and management.

No planned rock or overburden emplacement works are expected to be undertaken during the forward program period.

#### Infrastructure and Tailings Facilities

The identification of processing infrastructure activities and the location of tailings facilities and schedule for emplacement.

No planned coal processing activities are expected to take place during the forward program period. There is no active infrastructure or tailings facilities.

#### Waste Management

A description of waste disposal and materials handling operations over the next three years. This should include a discussion of disposal of putrescible waste, hydrocarbons, and management of contaminated soils.

Waste at Pine Dale will be disposed of appropriately in accordance with its waste type. Details on how waste will be disposed of at Pine Dale are summarised below.

#### General Solid Waste (Putrescible)

As there will be a minimal number of employees on site, there will be minimal putrescible waste generated. General waste bins will be available at the site office for collection. These bins will be collected and emptied as part of the maintenance program.

#### Sewage

Sewage management facilities will be maintained on site during the care and maintenance period and regular inspections and pump out will be undertaken as required.

#### Hydrocarbons

There are no hydrocarbons e.g. fuel or oil, stored at the site currently or proposed to be at the site in this Forward Program period.

#### Contaminated Soils

There are no known contaminated soils occurring at Pine Dale. In the event that contaminated soil is identified, the material would either be treated in situ or disposed of offsite by a licenced contractor.

### 1.1.2.4. Key Production Milestones

This section must provide an outline of the key production milestones that underpin the proposed rehabilitation schedule (as outlined in section 2.2 and section 2.3). Table 12 must be completed.

Rehabilitation at Pine Dale will be in accordance with the Rehabilitation Schedule. Pine Dale Mine is in care and maintenance and ceased coal production when the approved resource was exhausted. Production milestones are not aligned with the rehabilitation objectives which is reflected in **Table 1**.

**Table 1 – Material Production Schedule During the Next Three Years**

Material	Unit	Year 1 (1 August 2022 – 31 July 2023)	Year 2 (1 August 2023 – 31 July 2024)	Year 3 (1 August 2024 – 31 July 2025)
Stripped topsoil (if applicable)	m <sup>3</sup>	0	0	0
Rock / Overburden	m <sup>3</sup>	0	0	0
Ore	Mt	0	0	0
Reject Material (includes coarse rejects, tailings and any other wastes resulting from beneficiation)	Mt	0	0	0
Product	Mt	0	0	0

## 1.2. Three-year Rehabilitation Forecast

### 1.2.1. Rehabilitation Planning Schedule

This section must provide a schedule, with defined milestones, outlining the rehabilitation planning activities (where applicable) that will be carried out over the next three years, to address potential knowledge gaps and to ensure that rehabilitation is undertaken as soon as reasonably practicable. This must include the following information:

Under Schedule 3, Condition 54 of the Project Approval, Pine Dale is required to progressively rehabilitate the site as soon as reasonably practicable. A Rehabilitation Planning Schedule has been developed which defines milestones and outlines rehabilitation planning activities.

#### 1.2.1.1. Stakeholder Consultation

Stakeholder consultation is key in ensuring that rehabilitation outcomes satisfy both the local and government requirements. Key stakeholders include but not be limited to:

- The NSW Resource Regulator;
- NSW EPA;
- Lithgow City Council;
- WaterNSW;
- Department of Industry – Land and water Division (now DPIE); and
- Forestry Corporation of NSW.

Consultation was undertaken with the Resource Regulator, EPA, Lithgow Council, WaterNSW, Biodiversity Conservation Division, and CCC for the Draft Rehabilitation Management Plan from March to June 2022. Please refer to the Pine Dale Rehabilitation Management Plan for further details on this agency consultation. Any further consultation will be undertaken with the relevant stakeholders as required during the forward program period if the care and maintenance status of Pine Dale mine changes.

#### 1.2.1.2. Rehabilitation Studies, Risk Assessments and Designs for Rehabilitation Methodologies

Rehabilitation studies, risk assessments and/or design work associated with finalising the rehabilitation methodologies relating to establishment of the final landform, surface water management, final void management, and tailings dam decommissioning

A risk assessment was completed as part of the preparation for the new RMP. This assessment identified rehabilitation risks and current control measures in place. Risks associated with finalising rehabilitation at Pine Dale were considered low.

Annual flora surveys have been undertaken on previously rehabilitated areas, which provides qualitative data to measure rehabilitated areas against completion criteria. These surveys include:

- Species richness;
- Habitat features;

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- Flora surveys;
- Ecosystem function analysis.
- Species density;
- Soil analysis (every 2 years); and
- Forest structure

Results from these monitoring surveys are used to identify success and failures in the applied rehabilitation techniques. This highlights rehabilitation methods that will be successful for future rehabilitation. Rehabilitation methods will continue to be developed in accordance with best practice based on mine rehabilitation research and success achieved at other mine sites in the local area.

Pine Dale will also continue monitoring and reporting through the Annual Rehabilitation Monitoring report. Actions and works recommended in this report will be implemented to ensure rehabilitation is progressing towards the targeted criteria.

### 1.2.2. Rehabilitation Research and Trials

This section must include a detailed description of the rehabilitation research and trials that will be carried out in the three-year forecast period (where applicable). This section must include the rehabilitation research and trials identified in the rehabilitation management plan and/or any other rehabilitation research or trials proposed to address knowledge gaps identified in the annual rehabilitation report.

There are no additional research programs for rehabilitation proposed to be undertaken while the site is in care and maintenance. Current rehabilitation sites will continue to be monitored in accordance with the rehabilitation monitoring program. Reference sites related to pasture and native forests will be detailed in the ongoing rehabilitation monitoring program.

### 1.2.3. Rehabilitation Maintenance and Corrective Actions

This section must include a detailed description of the rehabilitation maintenance and corrective action measures that will be carried out to address all rehabilitation performance issues and/or knowledge gaps identified in the annual rehabilitation report (Part 1).

Maintenance and corrective actions include ensuring rehabilitation activities are undertaken by suitably qualified personnel and in accordance with relevant guidelines. Rehabilitation monitoring and treatment will continue for soil, erosion, and weeds. A Trigger Action Response Plan (TARP) has been developed which summarises the mitigation measures that will be implemented if rehabilitation does not meet the applicable rehabilitation criteria. This TARP further detailed in Section 10 of the RMP.

### 1.2.4. Rehabilitation Schedule

This section must outline the key activities required to implement the mining and rehabilitation schedule for the next three years. The information in this section must be consistent with the spatial depiction of progressive rehabilitation shown on Plan 2 (section 2.3 below).

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This section must describe how the mining and rehabilitation schedule has been developed to minimise disturbance and progressively rehabilitate as soon as reasonably practicable.

Existing rehabilitation areas will continue to be maintained during the care and maintenance period. Maintenance activities which include fencing, fertilising, weed spraying, feral animal control, and minor drainage works will continue to be maintained and monitored to ensure that rehabilitation is progressing towards the approved criteria.

Works and recommendations identified in the Annual Rehabilitation Monitoring Reports will be implemented during the forward program period.

### 1.2.5. Subsidence Remediation for Underground Operations

This section must provide an overview of the nature and scope of any subsidence monitoring and expected remediation works proposed to be conducted over the next three years.

The site does not have a history of subsidence and there have been no recorded incidents during active mining operations. In the 2021 risk assessment completed for the RMP, the risk of subsidence was considered low.

# 1.3. Plan 2 – Mining and Rehabilitation Three-Year Forecast

## 1.3.1. Submission of Plan 2 Spatial Data to the Mine Rehabilitation Portal

Lease holders must submit all spatial theme data listed in Table 13 below to the NSW Resources Regulator through the mine rehabilitation portal (<http://www.minerehabilitationportal.nsw.gov.au>) prior to submission of the annual rehabilitation report and forward program to support Plan 2 – Mining and Rehabilitation Three-Year Forecast (Plan 2). Information on theme requirements has been provided in the guidelines.

Plans 2A – 2C are purposed to depict rehabilitation and disturbance at Pine Dale over the next three years.

Pine Dale is not required to upload GIS for Plans 2A – 2C of the Forward Program, because there is no proposed rehabilitation nor proposed disturbance at the site for the next three forecast years (Year 1 – 3).

**Table 2 – Spatial Data Themes to be Submitted to Support Plan 2**

Mine Rehabilitation Portal Spatial Data Themes
Forecast Data – Year 1
Forecast Data – Year 2
Forecast Data – Year 3

### 1.3.2. Submission of Plan 2 Electronic Copy (PDF)

This section must include an electronic copy (PDF) of Plan 2, which must be prepared using the spatial data submitted to the mine rehabilitation portal in accordance with Section 2.3.1.

The Plan 2 electronic copy (PDF) must reference the mine rehabilitation portal submission ID numbers for each theme identified in Table 11. Submission ID numbers are unique identifiers generated by the mine rehabilitation portal to identify the current data submission for each data theme uploaded by the lease holder and can be found in the 'Files Submitted' tab following successful submission of data.

The Plan 2 electronic copy (PDF) may be produced using the mine rehabilitation portal map viewer 'print to PDF' function.

The Plan 2 electronic copy (PDF) must be presented as the series of sub-plans:

1. Plan 2A Mining and Rehabilitation – Year 1
2. Plan 2B Mining and Rehabilitation – Year 2
3. Plan 2C Mining and Rehabilitation – Year 3.

Each sub-plan must be included in this section in A3 format and contain the following elements:

- Authorisation block including mine's name, plan name, year (Year 1, 2 or 3), and the plan date (date of creation), mine rehabilitation portal data theme submission ID numbers
- Legend identifying all features shown
- North arrow
- Scale bar
- Labels (where appropriate)
- Basemap – Satellite or NSW Base map
- Spatial data identified in Table 11.

No data has been uploaded for Plans 2A, 2B, or 2C for Pine Dale's Forward Program. This is because there is no further new rehabilitation areas or new disturbance areas proposed for the next three Forecast Years.

Pine Dale continue to maintain existing rehabilitation on site through a rehabilitation maintenance program. The RMP Rehabilitation Risk Assessment also identified areas for improvement in rehabilitation at the site through Treatment Plans.

## 1.4. Progressive Mining and Rehabilitation Statistics

### 1.4.1. Three-Yearly Forecast Cumulative Disturbance and Rehabilitation Progression

Based on the information presented in Plan 2, this section must provide a summary of the forecast cumulative disturbance and rehabilitation progression during the next three years in Table 14. Table 14 must be completed from data generated using the NSW Resources Regulator’s mine rehabilitation portal.

**Table 3** provides a breakdown of projected disturbance and rehabilitation.

**Table 3 – Predicted Cumulative Disturbance and Rehabilitation Progression During the Next Three-Year Term**

Year	1 (1 July 2022 – 30 June 2023)	2 (1 July 2023 – 30 June 2024)	3 (1 July 2024 – 30 June 2025)
Total Disturbance Footprint – Surface Disturbance (hectares)	0	0	0
Underground Mining Area (hectares)	0	0	0
Total Active Disturbance (hectare)	0	0	0
Rehabilitation – Land Preparation (hectares)	0	0	0
Ecosystem and Land Use Establishment (hectares)	0	0	0

### 1.4.2. Rehabilitation Key Performance Indicators (KPIs)

Based on the proposed mining and rehabilitation schedules included in Table 14, this section must identify progressive rehabilitation key performance indicators in Table 15. Table 15 must be completed using data generated using the mine rehabilitation portal and data submitted for Plan 2.

Based on the mining and rehabilitation schedules provided in **Table 3**, **Table 4** provides details of the KPIs for progressive rehabilitation over the next three years. Definitions for each KPI is provided in **Table 5**.

**Table 4 – Progressive Rehabilitation Key Performance Indicators (KPIs) During the Next Three-Year Term**

Year	1 (1 July 2022 – 30 June 2023)	2 (1 July 2023 – 30 June 2024)	3 (1 July 2024 – 30 June 2025)
Total New Active Disturbance Area During Reporting Period (hectares) i.e., New active disturbance.	(O)* 0 Ha	0 Ha	0 Ha
Area of Land Proposed for Active Rehabilitation During Reporting Period (hectares)	(P)* 0 Ha	0 Ha	0 Ha
Annual Rehabilitation to Disturbance Ratio	(Q)*	-	-

Definitions for each KPI is outlined in **Table 5** below.

**Table 5 – Progressive Rehabilitation KPI Categories**

Reporting Category	Definition
O	The area of any new active disturbance that will be created during the next three years, as defined under definition A1 (definition A1 Table 5).
P	The sum of any new rehabilitation to be commenced in the next three years. These areas may be in the phases “Rehabilitation - Land Preparation” or the “Ecosystem and Land Use Establishment” (definitions C and D in Table 5).
Q	The rehabilitation to disturbance ratio (S:R) indicates how many hectares of new rehabilitation are undertaken for each hectare of land disturbed during the three years. A ratio of 1:1 indicates that the area of new rehabilitation and disturbance in that period are the same.

## 1.5. Rehabilitation Cost Estimate

This section must include a rehabilitation cost estimate prepared in accordance with the NSW Resources Regulator's Rehabilitation Cost Estimation Tool.

Explanatory note 5: Rehabilitation Cost Estimate

A Rehabilitation Cost Estimate (RCE) must be based on one of the following specific stages of disturbance:

- maximum disturbance within a term (including liabilities associated with previous and on-going surface disturbance activities); or
- snapshot of disturbance.

Where the "maximum disturbance within a term" method is used by a lease holder, the RCE will need to be aligned with the three-yearly forecast for surface disturbance and rehabilitation activities (including liabilities associated with previous and on-going surface disturbance activities) as detailed in Part 2 of the form and way. Where the "snapshot of disturbance" method is used by a lease holder, the RCE will need to be aligned with the surface disturbance and rehabilitation activities as detailed in Part 1 of the form and way.

The lease holder is required to submit a RCE to the NSW Resources Regulator whenever a potential change in rehabilitation liability occurs. This information will be assessed by the NSW Resources Regulator to assist in determining the amount of the security deposit.

The most recent RCE provided by Pine Dale in July 2022 has been prepared based on snapshot of disturbance, which is also the maximum disturbance. This has been sent to the Resources Regulator.