

ARR0001350

# **DURALIE MINE ANNUAL REHABILITATION REPORT**

Saturday 1 July 2023 to Sunday 30 June 2024

# Summary table

DETAIL	
Mine	Duralie Mine
Reference	ARR0001350
Annual report period commencement date	Saturday 1 July 2023
Annual report period end date	Sunday 30 June 2024
Forward program	FWP0001245
Mining leases	ML 1427 (1992), ML 1646 (1992)
Lease holder(s)	CIM SERVICES PTY LTD, CIM DURALIE PTY LTD
Contact	Thomas Kirkwood
Date of submission	Monday 30 September 2024

# Important

The department may make the information in your report and any supporting information available for inspection by members of the public, including by publication on its website or by displaying the information at any of its offices. If you consider any part of your report to be confidential, please communicate this to the department via the message function on this submission within the NSW Resources Regulator Portal.

# Mine details

## Project description

Duralie Coal Pty Ltd (DCPL), a wholly owned subsidiary of Yancoal Australia Limited, owns and operates the Duralie Coal Mine (DCM). The DCM is an existing mine situated approximately 35 kilometres south of Gloucester in the Gloucester Valley, New South Wales (NSW). The DCM is situated adjacent to Mammy Johnsons River within the Karuah River Catchment, between the townships of Wards River and Stroud Road. The NSW Minister for Urban Affairs and Planning granted Development Consent for the DCM in August 1997 and coal production commenced in 2003. Development of the DCM is approved under Mining Leases (MLs) 1427 and 1646 and NSW Project Approval (PA 08\_0203). Other key approvals, licences and permits for the DCM are described in Section 1.2 of the RMP. Condition 5, Schedule 2 of PA 08\_0203 authorised mining operations to be carried at the DCM until 31 December 2021. Accordingly, coal mining at the DCM ceased in December 2021 and DCPL has commenced the mine closure phase.

## Life of mine

0 years

## Current development consents, leases and licences

Development consents granted under the *Environmental Planning and Assessment Act 1979*

PA080203 (MOD2)
PA080203 (MOD2)
PA080203 (MOD2)
PA080203 (MOD2)
PA080203 (MOD2)
PA080203 (MOD2)
PA080203 (MOD2)
PA080203 (MOD2)
PA080203 (MOD2)
PA080203 (MOD2)
PA080203 (MOD2)
PA080203 (MOD2)

Authorisations covering the mining area granted under the *Mining Act 1992*

ML 1427 (1992), ML 1646 (1992)
--------------------------------

**Any other approvals, licences, or authorities issued by government agencies that are relevant to the progress of mining operation and rehabilitation activities**

**Summary of the scope and/or purpose of the new applications or modifications to existing approvals (if applicable)**

-

## Changes to land ownership and land use

No changes to land ownership and land use related to that land has occurred during the Annual Reporting Period (ARP) (1 July 2023 to 30 June 2024).

# Surface disturbance and rehabilitation activities during the reporting period

## Surface disturbance and rehabilitation activities that were conducted and an analysis of the progress against the rehabilitation schedule

Mining operations at the DCM ceased on 31 December 2021 and DCPL has accordingly commenced the mine closure phase. No new surface disturbance activities were undertaken at the DCM during this ARP. During this ARP, rehabilitation activities for agricultural (grazing) and native ecosystem final land uses included:

- Decommissioning.
- Landform establishment.
- Growth medium development.
- Ecosystem and land use establishment.

Auxiliary Dam No. 2 (AD2), which had a constructed capacity of 2,724 megalitres, was dewatered during the ARP. The previously inundated AD2 embankments were covered with various cool season pasture seed to improve the quality of the soil via establishment of growth media.

## Rehabilitation planning activities that were conducted, including any specialist studies

The rehabilitation strategy developed as part of the Duralie Extension Project Modification Environmental Assessment was conceptual in nature. As such, detailed design of DCM final/landform at the DCM has occurred during the mine life, particularly in recent years as the DCM completed mining operations (i.e. 31 December 2021) in accordance with Condition 5, Schedule 2 of the DCM Project Approval PA 08\_0203). DCPL is in the process of refining and optimising the final landform outcomes for the DCM, which will continue into the next ARP. Following refinement and optimising of the final landform outcomes, DCPL will be able to assess whether the landform is generally in accordance with PA 08\_0203 and previously assessed environmental outcomes. During this ARP, several specialist studies have been conducted at the DCM for DCM planning purposes, and further refinement to the detailed design of the final landform at the DCM to ensure the final landform is safe, stable and non-polluting in perpetuity. These specialist studies have included:

- surface water modelling;
- groundwater modelling; and
- site water balance.
- geotechnical investigations
- geochemical analysis

## Overview of subsidence repair and/or remediation works undertaken

The DCM is an open cut mining operation and therefore has no areas affected by underground mining subsidence.

## **Overview of rehabilitation management and maintenance activities**

Ongoing management and maintenance of rehabilitation areas at the DCM has been undertaken by DCPL and suitably qualified persons (where relevant) to determine when an ESF2 may be submitted to NSW Resources to confirm that rehabilitated areas have achieved a standard capable of relinquishment. To date, no ESF2 applications have been submitted to NSW Resources. Ongoing rehabilitation management and maintenance activities at the DCM include:

- Weed and pest animal control of rehabilitation areas.
- Native vegetation rehabilitation management and agricultural monitoring.
- Access and land management track maintenance.
- Slashing of pasture areas.

Weed control efforts across all rehabilitation areas have targeted woody weeds including lantana, privet and wild tobacco. During the ARP, rehabilitation monitoring was conducted by Wedgetail Project Consulting (WPC) (2024).

## **Details of any rehabilitation actions taken as required by any letters, notices or directions issued by government agencies, including the NSW Resources Regulator**

No letters, notices or directions issued by government agencies (including NSW Resources) have been issued. As such, there has been no directive to undertake specific rehabilitation actions.

## **Details of any rehabilitation areas that have achieved the final land use**

Rehabilitation areas at the DCM are moving towards achieving the final land use as soon as reasonably practicable. To date, no rehabilitation areas have achieved the final land use to a standard that would warrant DCPL's submission of an ESF2 to NSW Resources.

Key production milestones

MATERIAL	UNIT	FWP0001245 YEAR 1		THIS REPORT
Stripped topsoil (if applicable)	(m <sup>3</sup> )	0		0
Rock/overburden	(m <sup>3</sup> )	0		0
Ore	(Mt)	0		0
Reject material <sup>1</sup>	(Mt)	0		0
Product	(Mt)	0		0

<sup>1</sup> This includes coarse rejects, tailings and any other wastes resulting from beneficiation.

## Disturbance and rehabilitation statistics

### Current disturbance and rehabilitation progression

ELEMENT	UNIT	THIS REPORT
<b>A Total surface disturbance footprint</b>	(ha)	400.7
<b>B Total active disturbance</b>	(ha)	203.84
<b>C Land prepared for rehabilitation</b>	(ha)	25.42
<b>D Ecosystem and land use establishment</b>	(ha)	83.57
<b>E Ecosystem and land use development</b>	(ha)	87.87
<b>F Rehabilitation completion</b>	(ha)	0

### Rehabilitation key performance indicators (KPIs)

ELEMENT	UNIT	THIS REPORT
<b>G Total new active disturbance area</b>	(ha)	NA - this value will display after 2nd year ARR submission as calculation relies on comparison between sequential yearly ARR data
<b>H New rehabilitation commenced during annual reporting period</b>	(ha)	NA - this value will display after 2nd year ARR submission as calculation relies on comparison between sequential yearly ARR data
<b>I Established rehabilitation</b>	(ha)	87.87
<b>J Annual rehabilitation to disturbance ratio</b>	%	NA - this value will display after 2nd year ARR submission as calculation relies on comparison between sequential yearly ARR data
<b>K Rehabilitated land to total mine footprint</b>	%	21.93



## Progressive achievement of established rehabilitation

ELEMENT		UNIT	THIS REPORT
L	Established rehabilitation - agricultural final land uses	%	0.02
M	Established rehabilitation - native ecosystem final land uses	%	99.71
N	Established rehabilitation - other/non-vegetated final land uses	%	0.24

## Variation to the rehabilitation schedule

Identify the components of the most recent forward program that were not achieved

N/A

Key factors that delayed progressive rehabilitation

N/A

Outline actions that will be included in the forward program and carried out to minimise disturbance and undertake progressive rehabilitation as far as reasonably practical

N/A

# Rehabilitation monitoring and research findings

## Rehabilitation monitoring

### The rehabilitation monitoring carried out in the annual reporting period

WPC (2024) relevantly concludes that the majority of the Duralie spoil emplacement revegetation is on track to establish woodland and pasture areas. The denser wooded Domain A areas of the 2008, 2010, 2011 and 2012 rehabilitation areas are progressing well, with LFA indices stable or tracking to achieve analogue values, increasing biodiversity and improving structure. The younger woodland rehabilitation areas are developing as expected. WPC (2024) suggests that more open areas of revegetation have plateaued due to the density of the exotic grasses hindering natural recruitment from seeding colonisation by other species. While further maturation of the existing canopy will occur with time, WPC suggests that some form of active management such as a controlled burn can be implemented to improve diversity and structure. For Domain B rehabilitation, WPC (2024) compared Duralie transects to the Pasture Analogue transect situated at the Stratford Mining Complex. WPC (2024) suggests that Domain B areas have exceeded all LFA indices when compared to the Stratford Mining Complex Analogue transect. The seeding of these areas has been successful with dense growth of grasses evident.

## Status of performance against rehabilitation objectives and rehabilitation completion criteria

### The monitoring program that has been implemented

Rehabilitation at the DCM is monitored on a regular basis to ensure vegetation is establishing in the rehabilitation areas and to determine the need for any maintenance and/or contingency measures (e.g. supplementary plantings, weed or erosion control). The monitoring also aims to demonstrate the effectiveness of the rehabilitation techniques and track the progression of rehabilitation towards achieving the DCM Rehabilitation Objectives (ROBJ) and Rehabilitation Completion Criteria Statement (RCC). Rehabilitation monitoring conducted during this ARP included:

- Analogue site baseline monitoring.
- Native ecosystem rehabilitation establishment monitoring.
- Agricultural rehabilitation monitoring.
- PAF material monitoring.
- Surface water monitoring.
- Groundwater monitoring.
- Erosion and sediment control monitoring.
- Spontaneous combustion monitoring.

Rehabilitation areas at the DCM are moving towards achieving the final land use as soon as reasonably practicable. To date, no rehabilitation areas have achieved the final land use to a standard that would warrant DCPL's submission of an ESF2 to NSW Resources. Notwithstanding, DCPL will continue to monitor how rehabilitation is progressing against the DCM ROBJ, RCC and Final Landform and Rehabilitation Plan (FLRP) to ensure the final land uses are achieved as soon as reasonably practicable.

Are all rehabilitation areas in Landform Establishment phase or higher represented in the monitoring program to assess performance against the rehabilitation objectives and approved or, if not yet approved rehabilitation completion criteria and final landform and rehabilitation plan?

Yes

Year rehabilitation areas will be included as part of the monitoring program

An appraisal of whether rehabilitation is moving towards achieving the proposed rehabilitation objectives, approved or, if not yet approved, rehabilitation completion criteria and final landform and rehabilitation plan as soon as reasonably practicable.

Rehabilitation at the DCM is progressing against the proposed DCM ROBJ, RCC and FLRP with the aim of achieving a final landform that is safe, stable and non-polluting in perpetuity. Rehabilitation performance at the DCM has been assessed in discrete areas/polygons based on the age and type of rehabilitation. Rehabilitation of disturbed areas is undertaken progressively and concurrently with ongoing mining operations (i.e. as soon as reasonably practicable), to achieve the following final land uses (from the associated mining domains):

- Native Ecosystem: - Infrastructure Area (A1). - Water Management Area (A3). - Overburden Emplacement Area (A4).
- Agricultural – Grazing: - Water Management Area (B3). - Overburden Emplacement Area (B4).
- Water Management Area: - Water Management Area (F3).
- Water Storage (Excluding Final Void): - Water Management Area (G3).
- Final Void: - Active Mining Area (Open cut void) (J5).

The discrete areas/polygons of rehabilitation undertaken at the DCM remain consistent with the proposed DCM FLRP. Rehabilitation areas at the DCM are moving towards achieving the final land use as soon as reasonably practicable. To date, no rehabilitation areas have achieved the final land use to a standard that would warrant DCPL’s submission of an ESF2 to NSW Resources. Notwithstanding, DCPL will continue to monitor how rehabilitation is progressing against the DCM ROBJ, RCC and FLRP.

Appraisal description

Rehabilitation is moving towards achieving the final land use as soon as reasonably practicable.

Rehabilitation monitoring program findings

During this ARP, rehabilitation monitoring was conducted by WPC (2024) in accordance with the Rehabilitation Quality Assurance Processes and Rehabilitation Monitoring Program detailed in Sections 7 and 8 of the DCM RMP, respectively. Native Ecosystem Rehabilitation Monitoring Ecosystem Function Analysis (EFA) Analogue Transects have been established in areas proximal to the DCM which represent the varying landscapes (i.e. slopes and aspects) and target communities planned for each rehabilitation area. Landscape Function Analysis (LFA) and revegetation monitoring has been undertaken during this ARP by WPC (from 24 to 26 June 2024) at these sites. The representativeness of the EFA transects

are reviewed during each monitoring round to confirm that transects continue to accurately represent the status of rehabilitation across each of the rehabilitation domains. The results of LFA, vegetation dynamics and habitat complexity monitoring (i.e. EFA) are used at the DCM to monitor progress towards rehabilitation completion criteria and to determine a trajectory towards self sustaining ecosystems. Results of Domain B rehabilitation monitoring are provided within this ARR and within WPC (2024). Fauna Monitoring Fauna monitoring is conducted every three years at the DCM to assess the success of the rehabilitation and revegetation activities in providing habitat for a range of vertebrate fauna. This ARP did not coincide with the three-yearly fauna monitoring. Accordingly, no fauna monitoring was undertaken at the DCM during this ARP. Agricultural Rehabilitation Monitoring Rehabilitation monitoring has commenced for the rehabilitation areas proposed for Domain B. Monitoring of Domain B areas has involved monitoring of LFA indices, including stability, infiltration and nutrient cycling indices. Results of Domain B rehabilitation monitoring are provided within this ARR. Other rehabilitation monitoring has been carried out during this ARP, including:

- Potentially acid forming (PAF) material monitoring.
- Surface water monitoring.
- Groundwater monitoring.
- Erosion and sediment control monitoring.
- Spontaneous combustion monitoring.

**Performance issues and their causes including identification of any knowledge gaps that must be addressed**

Nil

Outcomes of rehabilitation research and trials

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS	ON TRACK?
---------------	-----------------------	----------------------------	-------------	--------------------------------	--------	--------------

A  
RR0001350

Outcomes of completed trials and research

N/A

## Attachment 1 – Reporting Definitions

REPORTING CATEGORY		DEFINITION
<b>A1</b>	Total disturbance footprint – surface disturbance	<p>All areas within a mining lease that either have at some point in time or continue to pose a rehabilitation liability due to surface disturbance activities.</p> <p>The total disturbance footprint is the sum of the total active disturbance, decommissioning, landform establishment, growth medium development, ecosystem and land use establishment, ecosystem and land use development and rehabilitation completion (see definitions below).</p> <p>Underground mining operations should not include the footprint of underground mining areas/subsidence management areas in the total disturbance footprint.</p>
<b>A2</b>	Underground Mining Area	Underground mining operations areas/subsidence management areas.
<b>B</b>	Total active disturbance	Includes on-lease exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste rock emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped) and temporary stabilised areas (e.g. areas sown with temporary cover crops for dust mitigation and temporary rehabilitation).
<b>C</b>	Rehabilitation – land preparation	<p>Includes the sum of all disturbed land within a mining lease that have commenced any, or all, of the following phases of rehabilitation – decommissioning, landform establishment and growth medium development.</p> <p>Refer to the glossary of terms in this document for the definition of these phases of rehabilitation.</p>

REPORTING CATEGORY	DEFINITION
<b>D</b> Ecosystem and land use establishment	<p>Includes the area which has been seeded/planted with the target vegetation species for the intended final land use. However, vegetation has not matured to a stage where it can be demonstrated that it will be sustainable for the long term and or require only a maintenance regime consistent with target reference/analogue sites.</p> <p>Typically, rehabilitation areas would be in this phase for at least two years (and usually more) before rehabilitation can be classified as being in the ecosystem and land use development phase. This phase does not apply to infrastructure areas that are being retained as part of final land use for the site.</p>
<b>E</b> Ecosystem and Land Use Development	<p>Rehabilitation has matured to a level where target revegetation outcomes are on a trajectory towards meeting the final rehabilitation objectives and rehabilitation completion criteria (as verified by monitoring).</p> <p>This phase includes infrastructure areas that are to be retained for an approved post mining land use, following completion of all necessary measures to render the infrastructure fit for this purpose (for example structural integrity).</p>
<b>F</b> Rehabilitation Completion	<p>The NSW Resources Regulator has determined in writing that the mining area has achieved the approved rehabilitation objectives and approved rehabilitation completion criteria and final landform and rehabilitation plan following the submission of <i>Form: ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate and/or notification of mine or petroleum site closure</i>.</p>
<b>G</b> New active disturbance area	<p>The area of any new active disturbance that has been created during the annual reporting period (definition A1 in Table 5).</p>
<b>H</b> New rehabilitation commenced during annual reporting period	<p>The sum of any new rehabilitation commenced in the annual reporting period. These areas may be in the rehabilitation land preparation phase or the ecosystem &amp; land use establishment phase (definitions C and D in Table 5).</p>
<b>I</b> Established rehabilitation (hectares)	<p>The total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E &amp; F in Table 5).</p>



REPORTING CATEGORY		DEFINITION
<b>J</b>	Annual rehabilitation to disturbance ratio	The rehabilitation to disturbance ratio (H/G) indicates how many hectares of new rehabilitation are undertaken for each hectare of land disturbed during the year. A ratio of 1/1 indicates that the area of new rehabilitation and disturbance in that year are the same.
<b>K</b>	% Rehabilitated land to total mine footprint	The proportion of the total mine footprint (area of land that has been disturbed by past or present surface disturbance activities) that has established rehabilitation ( $I/A1 \times 100$ ). For open cut mining, the proportion of the total mine footprint verified to be “established rehabilitation” should substantially increase as an operation progresses towards mine closure.
<b>L</b>	Established rehabilitation for agricultural final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E & F in Table 5) that have been returned to an agricultural final land use.
<b>M</b>	Established rehabilitation for native ecosystem final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or rehabilitation completion phase (definitions E & F in Table 5) that have been returned to native ecosystem final land use.
<b>N</b>	Established rehabilitation for other/non-vegetated final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E & F in Table 5) that have been returned to other/non-vegetated final land use.

## Attachment 2 – Definitions

WORD	DEFINITION
<b>Active</b>	In the context of rehabilitation, land associated with mining domains is considered ‘active’ for the period following disturbance until the commencement of rehabilitation.
<b>Active mining phase of rehabilitation</b>	In the context of rehabilitation, the active mining phase of rehabilitation constitutes the rehabilitation activities undertaken during mining operations such as salvaging and managing soil resources, salvaging habitat resources, and native seed collection. This phase also includes management actions taken during operations to manage risks to rehabilitation and enhance rehabilitation outcomes such as selective handling of waste rock and management of tailings emplacements.
<b>Analogue site</b>	In the context of rehabilitation, an analogue site is a ‘reference site’ that represents an example of the defining characteristics (such as vegetation composition and structure or agricultural productivity) of the final land use. Characteristics of analogue sites can be assessed to develop the rehabilitation objectives and completion criteria for final land use domains.
<b>Annual rehabilitation report and forward program</b>	As described in the Mining Regulation 2016.
<b>Annual reporting period</b>	As defined in the Mining Regulation 2016.
<b>Closure</b>	A whole-of-mine-life process, which typically culminates in the relinquishment of the mining lease. It includes decommissioning and rehabilitation to achieve the approved final land use(s).
<b>Decommissioning</b>	The process of removing mining infrastructure and removing contaminants and hazardous materials.
<b>Decommissioning Phase of Rehabilitation</b>	Activities associated with the removal of mining infrastructure and removal and/or remediation of contaminants and hazardous materials. In the context of the rehabilitation management plan this phase of rehabilitation may also include studies and assessments associated with decommissioning and demolition of infrastructure or works carried out to make safe or ‘fit for purpose’ built infrastructure to be retained for future use(s) following lease relinquishment.

WORD	DEFINITION
<b>Department</b>	The Department of Regional NSW.
<b>Disturbance</b>	See Surface Disturbance.
<b>Disturbance area</b>	<p>An area that has been disturbed and that requires rehabilitation.</p> <p>This may include areas such as on-licence exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped), and areas requiring rehabilitation that are temporarily stabilised (i.e. managed to minimise dust generation and/or erosion).</p>
<b>Domain</b>	<p>An area (or areas) of the land that has been disturbed by mining and has a specific operational use (mining domain) or specific final land use (final land use domain). Land within a domain typically has similar geochemical and/or geophysical characteristics and therefore requires specific rehabilitation activities to achieve the associated final land use.</p>
<b>Ecosystem and Land Use Development</b>	<p>This phase of rehabilitation consists of the activities to manage maturing rehabilitation areas on a trajectory to achieving the approved rehabilitation objectives and completion criteria.</p> <p>For vegetated land uses this phase may include processes to develop characteristics of functional self-sustaining ecosystems, such as nutrient recycling, vegetation flowering and reproduction, and increasing habitat complexity, and development of a productive, self-sustaining soil profile.</p> <p>This phase of rehabilitation may include specific vegetation management strategies and maintenance such as tree thinning, supplementary plantings and weed management.</p>
<b>Ecosystem and Land Use Establishment</b>	<p>This phase of rehabilitation consists of the processes to establish the approved final land use following construction of the final landform.</p> <p>For vegetated land uses this rehabilitation phase includes establishing the desired vegetation community and implementing land management activities such as weed control. This phase of rehabilitation may also include habitat augmentation such as installation of nest boxes.</p>
<b>Exploration</b>	Has the same meaning as that term under the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.

WORD	DEFINITION
<b>Final landform and rehabilitation plan</b>	As defined in the Mining Regulation 2016.
<b>Final land use</b>	As defined in the Mining Regulation 2016.
<b>Form and way</b>	Means the form and way approved by the Secretary. Approved form and way documents are available on the Department's website.
<b>Growth Medium Development</b>	<p>This phase of rehabilitation consists of activities required to establish the physical, chemical and biological components of the substrate required to establish the desired vegetation community (including short lived pioneer species).</p> <p>This phase may include spreading the prepared landform with topsoil and/or subsoil and/or soil substitutes, applying soil ameliorants to enhance the physical, chemical and biological characteristics of the growth media, and actions to minimise loss of growth media due to erosion.</p>
<b>Habitat</b>	Has the same meaning as that term under the <i>Biodiversity Conservation Act 2016</i> and the <i>Fisheries Management Act 1994</i> (as relevant).
<b>Indicator</b>	An attribute of the biophysical environment (e.g. pH, topsoil depth, biomass) that can be used to approximate the progression of a biophysical process. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion (i.e. defined end point). It may be aligned to an established protocol and used to evaluate changes in a system.
<b>Land</b>	As defined in the <i>Mining Act 1992</i> .
<b>Landform Establishment</b>	<p>This phase of rehabilitation consists of the processes and activities required to construct the final landform.</p> <p>In addition to profiling the surface of rehabilitation areas to the approved final landform profile this phase may include works to construct surface water drainage features, encapsulate problematic materials such as tailings, and prepare a substrate with the desired physical and chemical characteristics (e.g. rock raking or ameliorating sodic materials).</p>
<b>Large mine</b>	As defined in the Mining Regulation 2016.
<b>Lease holder</b>	The holder of a mining lease.

WORD	DEFINITION
<b>Life of mine</b>	The timeframe of how long a mine is approved to mine, from commencement to closure.
<b>Mine rehabilitation portal</b>	<p>Means the NSW Resources Regulator's online portal that lease holders must use (via a registered account) to:</p> <ul style="list-style-type: none"> <li>■ upload rehabilitation geographical information system (GIS) spatial data</li> <li>■ develop rehabilitation GIS spatial data (using online tracing functions)</li> <li>■ generate rehabilitation plans and rehabilitation statistics using the map viewer and Rehabilitation Key Performance Indicator functionalities.</li> </ul> <p>Data submitted to the mine rehabilitation portal is collated in a centralised geodatabase for use by the NSW Resources Regulator to regulate rehabilitation performance of lease holders.</p>
<b>Mining area</b>	As defined in the <i>Mining Act 1992</i> .
<b>Mining domain</b>	A land management unit with a discrete operational function (e.g. overburden emplacement), and therefore similar geophysical characteristics, that will require specific rehabilitation treatments to achieve the final land use(s).
<b>Mining land</b>	As defined in the <i>Mining Act 1992</i> .
<b>Native vegetation</b>	Has the same meaning as that term under section 60B of the <i>Local Land Services Act 2013</i> .
<b>Overburden</b>	Material overlying coal or a mineral deposit.
<b>Performance indicator</b>	An attribute of the biophysical environment (for example pH, slope, topsoil depth, biomass) that can be used to demonstrate achievement of a rehabilitation objective. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion, that is, a defined end point. It may be aligned to an established protocol and used to evaluate changes in a system.

WORD	DEFINITION
<b>Phases of rehabilitation</b>	<p>The stages and sequences of actions required to rehabilitate disturbed land to achieve the final land use. The phases of rehabilitation are:</p> <ul style="list-style-type: none"> <li>■ active mining</li> <li>■ decommissioning</li> <li>■ landform Establishment</li> <li>■ growth medium development</li> <li>■ ecosystem and land use establishment</li> <li>■ ecosystem and land use development.</li> </ul>
<b>Progressive rehabilitation</b>	<p>The progress of rehabilitation towards achieving the approved rehabilitation completion criteria. This may be described in terms of domains, phases, performance indicators and rehabilitation completion criteria.</p>
<b>Rehabilitation Completion</b>	<p>The final phase of rehabilitation when a rehabilitation area has achieved the approved rehabilitation objectives and rehabilitation completion criteria for the final land use. Rehabilitation areas may be classified as complete when the NSW Resources Regulator has determined in writing that the relevant rehabilitation obligations have been fulfilled following submission of <i>Form ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate</i> application by the lease holder.</p>
<b>Rehabilitation Completion criteria</b>	<p>As defined in the Mining Regulation 2016.</p>
<b>Rehabilitation cost estimate</b>	<p>As defined in the Mining Regulation 2016.</p>
<b>Rehabilitation management plan</b>	<p>As defined in the Mining Regulation 2016.</p>
<b>Rehabilitation objectives</b>	<p>As defined in the Mining Regulation 2016.</p>
<b>Rehabilitation risk assessment</b>	<p>As defined in the Mining Regulation 2016.</p>
<b>Rehabilitation schedule</b>	<p>The defined timeframes for progressive rehabilitation set out in the forward program.</p>

WORD	DEFINITION
<b>Relevant stakeholders</b>	Means any persons or bodies who may be affected by the mining operations, including rehabilitation, carried out on the lease land, and includes: <ul style="list-style-type: none"> <li>■ the relevant development consent authority</li> <li>■ the local council</li> <li>■ the relevant landholder(s)</li> <li>■ community consultative committee (if required under the development consent) or equivalent consultative group</li> <li>■ affected land holder(s)</li> <li>■ government agencies relevant to the final land use</li> <li>■ affected infrastructure authorities (electricity, telecommunications, water, pipeline, road, rail authorities)</li> <li>■ local Aboriginal communities, and</li> <li>■ any other person or body determined by the Minister to be a relevant stakeholder in relation to a mining lease.</li> </ul>
<b>Risk</b>	The effect of uncertainty on objectives. It is measured in terms of consequences and likelihood (AS/NZS ISO 31000:2009).
<b>Secretary</b>	The Secretary of the Department.
<b>Security deposit</b>	An amount that a mining lease holder is required to provide and maintain under a mining lease condition, to secure funding for the fulfilment of obligations under the lease (including obligations that may arise in the future).
<b>Surface disturbance</b>	Includes activities that disturb the surface of the mining area, including mining operations, ancillary mining activities and exploration.
<b>Tailings</b>	A combination of the fine-grained solid material remaining after the recoverable metals and minerals have been extracted from the mined ore, and any process water <sup>2</sup> .
<b>Waste</b>	Has the same meaning as that term under the <i>Protection of the Environment Operations Act 1997</i> .

<sup>2</sup> Commonwealth of Australia (DITR), 2007. *Tailings Management*.

# Attachment 3 – Rehabilitation Complaints

DATE	COMPLAINANT	COMPLAINT DETAILS	RESPONSE DETAILS	STATUS OF RESPONSE	DATE RESPONSE COMPLETED (IF APPLICABLE)
------	-------------	-------------------	------------------	--------------------	--



## Attachment 4 – Stakeholder consultation

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
22 Aug 2023	Resources Regulator	Via email	DCM Final Landform and Rehabilitation Plan (FLRP)	Resources Regulator (now NSW Resources) providing formal approval of the DCM FLRP.
19 Mar 2024	Resources Regulator	Meeting (Microsoft Teams)	DCM Mine Closure Planning Update	Nil
22 Aug 2023	Resources Regulator	Via email	DCM Rehabilitation Objectives Statement (ROBJ)	Resources Regulator (now NSW Resources) providing formal approval of the DCM ROBJ, including PDF.
21 Sep 2023	Resources Regulator	Via email	DCM Rehabilitation Completion Criteria Statement (RCC)	Resources Regulator (now NSW Resources) advising that the RCC Statement would only need to be lodged with NSW Resources when formal signoff on rehabilitation would be taking place with the next Forward Program period.
6 Jun 2024	Resources Regulator	Meeting and site visit	DCM Mine Closure Planning Update	Nil
5 Jul 2023	Resources Regulator	Meeting (teams)	DCM Mine Closure Planning Update	Nil

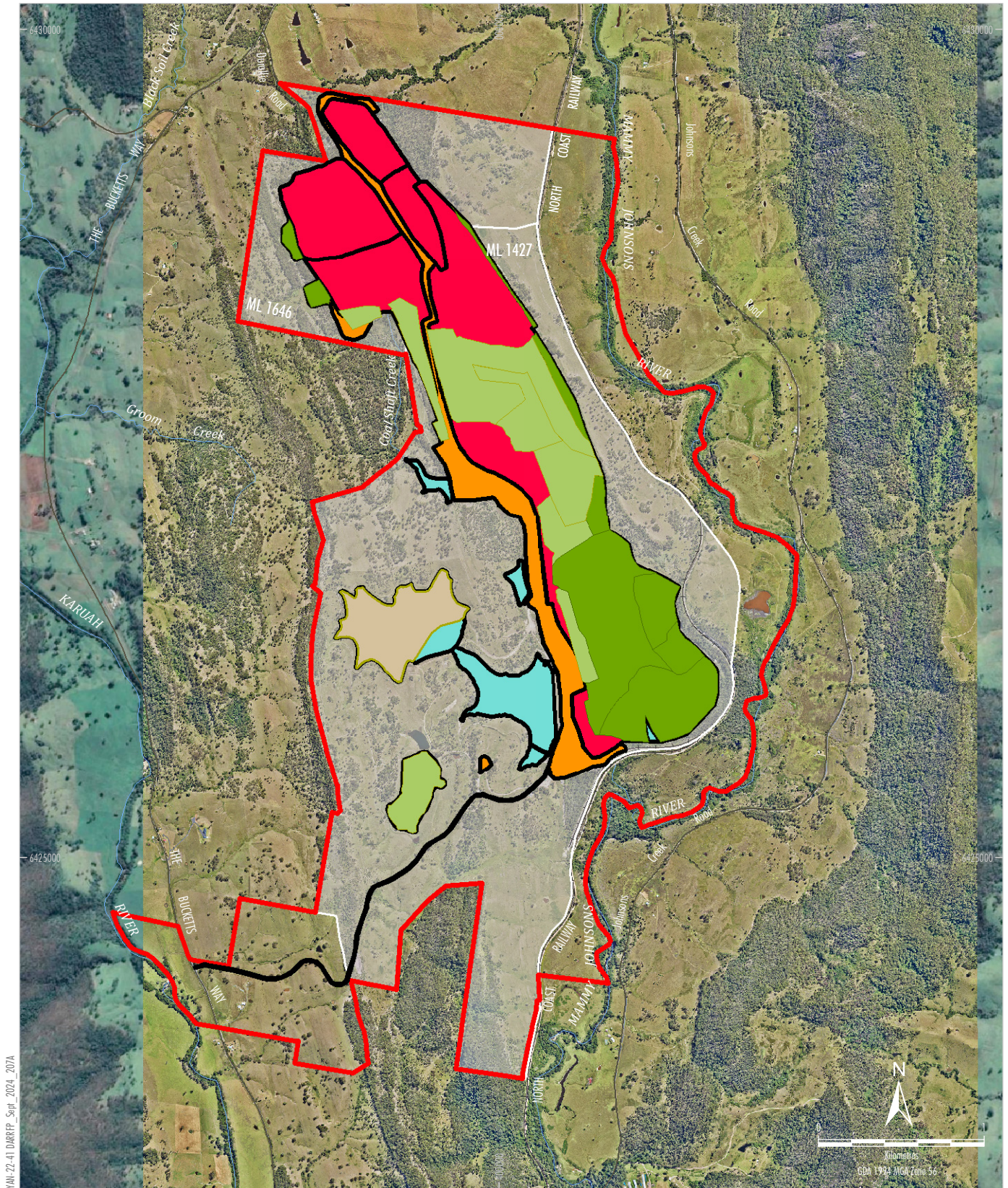
## Attachment 5 – Plans

2024 DCM Annual Rehabilitation Report Plan 1A - Current Status of Mining and Rehabilitation.pdf

2024 DCM Annual Rehabilitation Report Plan 1B - Current Landform Contours.pdf

Annual Report (LARGE MINE) v1.6





YAN-22-41 DARRP Sep 2024 207A

LEGEND	
	Project Approval Boundary*
	Coal - Current Title
	Rehabilitation
	Decommissioning
	Ecosystem and Land Use Establishment
	Ecosystem and Land Use Development
	Disturbance
	Infrastructure Area
	Overburden Employment Area
	Water Management Area

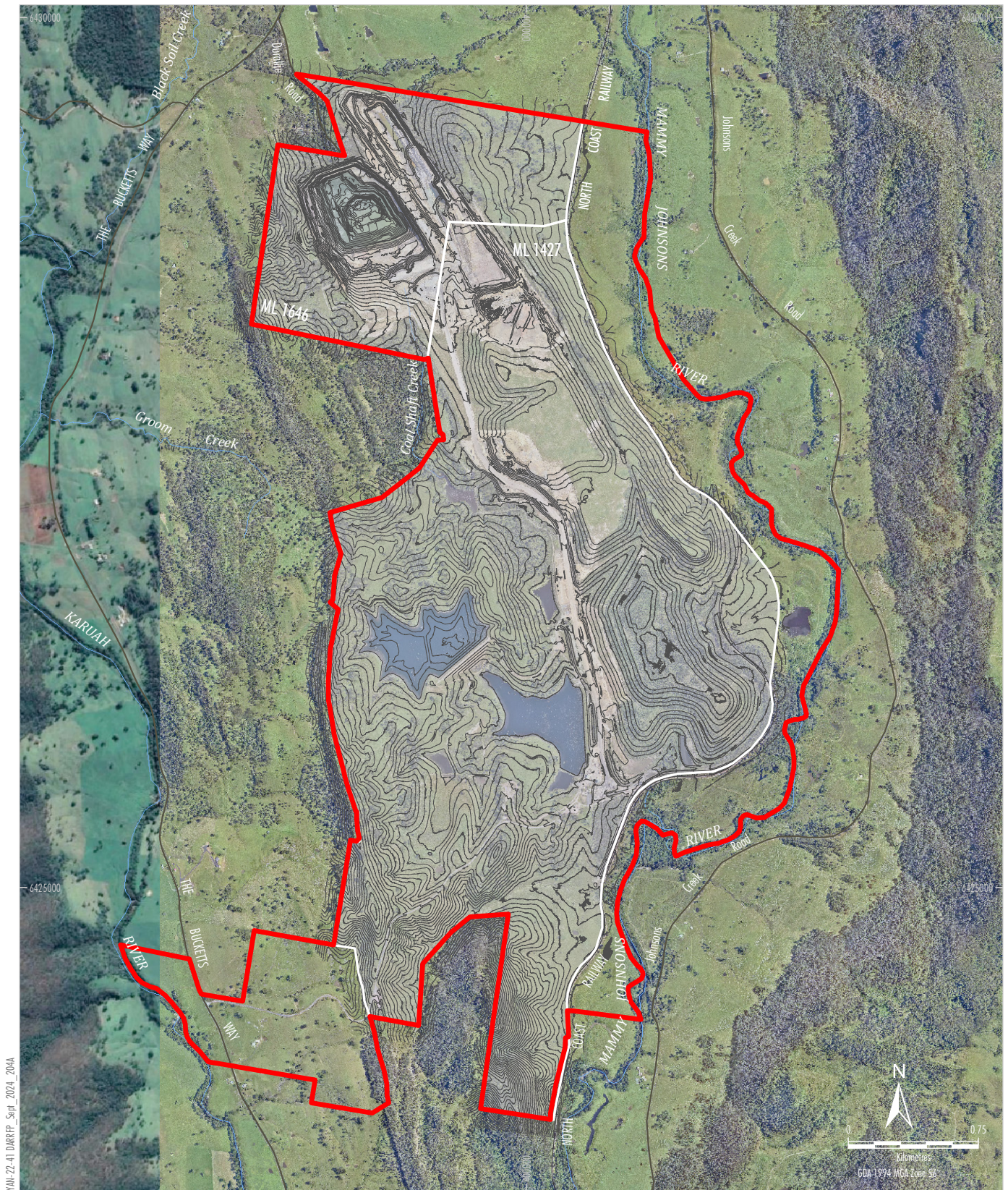
Source: © NSW Spatial Services (2019)  
Orthophoto: Google Earth CENS/Airbus (2020)



\* Note: Appendix 1 Schedule of Land in Project Approval (08\_0203) includes some part lots. For simplicity, whole lots are included in the graphical representation shown on this figure.

DURALIE COAL MINE  
Current Status of Mining and Rehabilitation





YAN-22-41 DARRFP Sep 2024 204A

- LEGEND**
- Project Approval Boundary\*
  - Coal - Current Title
  - Current Landform Contours (5 m Intervals)

Source: © NSW Spatial Services (2019)  
Orthophoto: Google Earth CENS/Airbus (2020)

\* Note: Appendix 1 Schedule of Land in Project Approval (08\_0203) includes some part lots. For simplicity, whole lots are included in the graphical representation shown on this figure.



**DURALIE COAL MINE**  
Current Landform Contours