NSW GOVERNMENT

NSW Resources Regulator

ARR0001487

MOUNT PLEASANT COAL MINE ANNUAL REHABILITATION REPORT

Monday 1 January 2024 to Tuesday 31 December 2024

Summary table

DETAIL	
Mine	Mount Pleasant Coal Mine
Reference	ARR0001487
Annual report period commencement date	Monday 1 January 2024
Annual report period end date	Tuesday 31 December 2024
Forward program	FWP0001389
Mining leases	ML 1808 (1992), ML 1829 (1992), ML 1713 (1992), ML 1709 (1992), ML 1708 (1992), ML 1750 (1992), ML 1645 (1992)
Lease holder(s)	J.C.D. Australia Pty Ltd, Mach Energy Australia Pty Ltd
Contact	Lisa Richards
Date of submission	Thursday 15 May 2025

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

The Mount Pleasant Operation (MPO) is located in the Upper Hunter Valley of NSW. Development is undertaken within ML 1645, ML 1713, ML 1708, ML 1808, ML 1709, ML 1750 and ML 1829 and is operated in accordance with relevant Authorities and in accordance with Development Consents DA 92/97 and SSD 10418. The Mount Pleasant Optimisation Project approved under SSD 10418 allows extraction of up to 21 Mtpa ROM and the continuation of mining operations until 2048. The approved consent includes a rail loop and spur, load-out facility and conveyor, connecting the mine to the Muswellbrook–Ulan Rail Line. Major components include: • open cuts; • out-of-pit emplacements; • water management infrastructure; • CHPP and coal stockpiles; and • Fines Emplacement Areas.

Life of mine

24 years

Current development consents, leases and licences

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

SSD 10418
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418

SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
SSD 10418
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)
DA 92/97 (MOD 5)

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

ML 1808 (1992), ML 1829 (1992), ML 1713 (1992), ML 1709 (1992), ML 1708 (1992), ML 1750 (1992), ML 1645 (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)

MACH Energy commenced development under Development Consent SSD 10418 on 12 February 2024. The date for surrender of Development Consent DA 92/07 has been extended to 12 February 2026. During the reporting period, EPL20850 was varied on 4 December

2024 to update the premises boundary, remove outdated monitoring points, reclassify drilling activities with respect of dust generating activities and other administrative amendments.

Changes to land ownership and land use

No change of land ownership or land use during the annual reporting period.

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

During 2024, MACH Energy completed the following construction activities: • new office block extension as part of the mine expansion program; • new workshop to accommodate large earthmoving equipment; and • two annexures constructed at the CHPP to improve capacity of the fines circuit. During 2024, MACH Energy completed exploration drilling. All holes were geophysical logged. Drilling activities are summarised below: • 74 non-core holes drilled for stratigraphic and structural assessment, including: o three holes with piezometers installed; o one hole with water quality monitoring and piezometer installed; and o one abandoned hole due to poor surface (spoil) conditions. • 14 core holes (HQ size diameter), coring from ground level to target depth for geotechnical, coal quality assessments, groundwater monitoring and structural delineation: o two holes included piezometers installed. • 15 core holes (HQ size diameter), coring from competent ground to target depth for coal quality assessment and structural delineation. Steady-state coal extraction continued with the development of the open cut footprint to the west. During 2024, progressive rehabilitation of Eastern Out of Pit Overburden Emplacement Area and of temporary construction areas and mining areas.

Rehabilitation planning activities that were conducted, including any specialist studies

During 2024, MACH Energy updated the Rehabilitation Risk Assessment in response to the Targeted Assessment Program undertaken by the Resources Regulator. Rehabilitation Erosion quantification assessment by WSP (Dec, 2024). Use of high-density LiDAR and hydrological modelling to quantify erosion rates and performance of rehabilitated landforms.

Overview of subsidence repair and/or remediation works undertaken

MPO 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 MPO has been undertaken by MACH Energy and suitably qualified persons (where relevant) to determine progress towards a self sustaining ecosystem. During 2024, the Eastern Out of Pit Emplacement continued to be rehabilitated, which included: • bulk and detailed re-shaping of overburden material to final landform; • installation of habitat features such

as habitat/stag trees, log piles and rock piles across the rehabilitation area; • topsoil spreading to a minimum depth of 100 mm; • gypsum application at a rate of 10 tonnes per hectare (t/ha); • deep ripping/tining along the contour of the final landform to a depth of 500 mm; • planting of tubestock including ground, middle and upper stratum species of relevant target PCTs; • direct/hand seeding of endangered ecological community tree/shrub/grass indicative species plus an additional grass cover crop; and • planting of native trees. Rehabilitation of these areas were subject to ongoing weed and pest control measures throughout the reporting period to facilitate and promote successful vegetation establishment. Landscape management included removal, erection and general maintenance of fence lines and fire breaks in the MPO.

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

MACH Energy progressed implementing the recommendations outlined in the Targeted Assessment Program completed by the Resources Regulator during the annual reporting period which included the following activities: • Updating the rehabilitation risk assessment to incorporate recommendations in the Targeted Assessment Program. • Engaged Umwelt to undertake a review and relevant updated to the MPO Rehabilitation Monitoring Manual (RMM) to incorporate recommendations in the Targeted Assessment Program. • Update the Forward Program and Annual Rehabilitation Report displayed on the MACH Energy website to include the relevant Plans.

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

No rehabilitation areas have achieved final land use at the MPO.

Key production milestones

MATERIAL	UNIT	FWP0001389 YEAR 1	THIS REPORT
Stripped topsoil (if applicable)	(m^3)	200,000	206,700
Rock/overburden	(m^3)	37,000,000	38,930,000
Ore	(Mt)	10.5	11.43
Reject material[1]	(Mt)	3.3	3.59
Product	(Mt)	7.2	7.99

[1] 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
A1	Total disturbance footprint – surface disturbance	(ha)	2,578.68
B	Total active disturbance	(ha)	2,399.2
C	Rehabilitation – land preparation	(ha)	0
D	Ecosystem and land use establishment	(ha)	0
E	Ecosystem and land use development	(ha)	179.47
F	Rehabilitation completion	(ha)	0

Rehabilitation key performance indicators (KPIs)

	ELEMENT	UNIT	THIS REPORT
G	New disturbance area	(ha)	1,028.62
H	New rehabilitation commenced during annual reporting period	(ha)	32.17
I	Established rehabilitation	(ha)	179.47
J	Annual rehabilitation to disturbance ratio	%	0.03
K	Rehabilitated land to total mine footprint	%	6.96

Progressive achievement of established rehabilitation

	ELEMENT	UNIT	THIS REPORT
L	**Established rehabilitation for agricultural final land uses**	%	0.2
M	**Established rehabilitation for native ecosystem final land uses**	%	99.8
N	**Established rehabilitation for other/non-vegetated final land uses**	%	0

Variation to the rehabilitation schedule

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

MACH Energy submitted the MPO FLRP and ROBJ on 15 August 2024 via the Mine Rehabilitation Portal and Resources Regulator Portal, respectively. On 4 November 2024, the Resources Regulator provided comments on the FLRP to be actioned by MACH Energy. One of the comments on the MPO FLRP provided by the Resources Regulator included in the following: 'Final Land Use data is non-uniform. There are missing polygons over areas that are mining impacted where polygons have not been provided over the area. …' In consideration of the Resources Regulator's feedback, MACH Energy amended the MPO FLRP to incorporate all surface disturbance (i.e tracks etc.) areas associated with the MPO. As part of the Annual Rehabilitation Report submission, MACH Energy has updated the MPO disturbance areas, consistent with the MPO FLRP to ensure all mining areas were included in the submissions. As such, there is a discrepancy between the disturbance areas withteh most recent Forward Program. MACH Energy notes that there was an increase of approximately 10 ha of rehabilitation undertaken in the 2024 annual rehabilitation report period compared to that proposed in the Forward Program 2024-2026.

Key factors that delayed progressive rehabilitation

As mentioned above, the rehabilitation undertaken by MACH Energy during the 2024 annual rehabilitation reporting period was greater than the proposed rehabilitation provided in the Forward Program 2024-2026. MACH Energy does not consider there to have been a delay in the progressive rehabilitation schedule at the MPO.

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

MACH Energy will continue to undertake rehabilitation progressively as soon as reasonably practicable following disturbance form mining activities. Following further mine planning, MACH Energy has amended the Forward Program to align with current mining and rehabilitation progression at the MPO.

Rehabilitation monitoring and research findings

Rehabilitation monitoring

The rehabilitation monitoring carried out in the annual reporting period

Findings of 2024 rehabilitation monitoring program • Most PCT483 sites on positive trajectory, little intervention recommended for canopy or shrub layer. HTEs recorded • PCT1543 sites on positive trajectory for most parameters. PCT establishment may be a challenge given substrate and slopes present and species required, can be assisted by planting target canopy species and vines • PCT1605 sites on positive trajectory, 2 sites still require appropriate canopy species richness. Native grasses performing well • PCT1604 sites had positive improvements. Canopy species richness stable in all plots except 1. Stem counts per hectare were low and inconsistent with analogue vegetation. Shrub and Grass richness and cover performing well. Other and forb species absent at most sites • Most sites missing diversity from the Other and Fern categories. Ferns tend not to establish well when seeded (particularly in rehabilitated substrate) and may colonise from adjacent remnant areas • No sites require complete reworking most have appropriate substrate present. 9 sites need in-fill plantings for canopy species • Habitat values performing well for vegetation age, erected stag trees providing good habitat value Findings of Rehabilitation Erosion Quantification Assessment (WSP 2024) • Work indicates site is trending towards long-term stability (decreasing erosion rates over time). While reduction in erosion rates is expected to continue there may be need to implement remediation to in the north.

Status of performance against rehabilitation objectives and rehabilitation completion criteria

The monitoring program that has been implemented

The RMM guides rehabilitation monitoring at the MPO and describes the rehabilitation monitoring methodologies and monitoring parameters, MPO rehabilitation objectives, and performance indicators and completion criteria for the progressive rehabilitation phases. EFA data collection form is included in the RMM to ensure accurate data collection. The RMM will also include a TARP for actions required to be undertaken should rehabilitation monitoring results indicate that the rehabilitation area is not trending towards meeting the performance indicators and completion criteria. A rehabilitation monitoring program has been implemented at MPO based on the performance indicators and approved completion criteria. Details of rehabilitation performance will be reported in the MPO Annual Review. Where necessary, rehabilitation procedures will be amended based on the monitoring results, to continually improve rehabilitation standards. A rehabilitation monitoring schedule is also included in the RMM, which will continually be updated to include the rehabilitation and

analogue monitoring sites as they are added to the rehabilitation monitoring program. The rehabilitation monitoring program includes • EFA monitoring • Visual Inspection Monitoring • low intensity agriculture monitoring program • stream health monitoring • ecosystem/rehabilitation assessment using drone technology
Rehabilitation areas at MPO are moving towards achieving the final land use 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 MPO is progressing against the MPO ROBJs, RCCs and FLRP with the aim of achieving a final landform that is safe, stable and non-polluting in perpetuity.
Rehabilitation performance at the MPO 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). - Active Mining Area (Open cut void) (A5). • Agricultural – Grazing: - Infrastructure Area (B1). - Tailings Storage Facility (B2). - Water Management Area (B3). - Active Mining Area (Open cut void) (B5). • 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 MPO are consistent with the MPO FLRP. Rehabilitation areas at the MPO 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 MACH Energy's submission of an ESF2 to the NSW Resources Regulator. Notwithstanding, MACH Energy will continue to monitor how rehabilitation is progressing against the MPO ROBJs, RCCs and FLRP.

Appraisal description

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

Rehabilitation monitoring program findings

Various ecological works were undertaken at the MPO during the reporting period, including as part of the Ground Disturbance Permit (GDP) process, and as part of flora and fauna surveys and assessments in support of a proposed State Significant Development (SSD) application. These works included mapping vegetation communities, searching for threatened flora species, communities and populations, and detailed floristic data collection at numerous survey plots. The 2024 rehabilitation monitoring program was undertaken between 8 and 12 April 2024 and 6 and 10 May 2024 and included monitoring of analogue and the MPO rehabilitation sites. The 2024 rehabilitation monitoring program was undertaken generally in accordance with the RMM (Ausecology, 2021). The MPO adopts a systems-based approach to rehabilitation monitoring (e.g. use of Ecosystem Function Analysis (EFA) [Tongway and Ludwig, 2011]) to determine progress towards a self sustaining ecosystem, including comparison to the analogue sites. Additionally, monitoring of microbats was undertaken during the reporting period for bats that are recolonising in rehabilitated areas.

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?
RRT0001016	ACARP Tailings to Topsoil Research Project	The project aims to optimise existing tailings processes and technologies and provide a commercially viable system for tailings utilisation.	The project methodology involves four major processes: 1. Characterisation and pre-treatment of tailings; 2. Delivery of tailings slurry to the trial site via a high-efficiency solids separation mobile tailings handling plant; 3. De-watering of tailings via a mobile dewatering plant; and 4. Integrating the upgraded tailings with the existing soil profile at the trial site to improve soil resources for crop production or native vegetation establishment.	31 Dec 2024	Ongoing	Yes
RRT0001017	Rehabilitated Landform Erosion Monitoring	Monitoring to inform future rehabilitation monitoring and adaptive management of the geomorphic landform design.	Rehabilitation monitoring sites have been identified in representative rehabilitation and analogue locations. Each monitoring site will consist of a flume to measure surface water runoff and soil erosion rate and a weather station that records rainfall, air temperature, incoming and outgoing radiation as well as soil moisture. This allows both surface and subsurface hydrology to be quantified. Deeper soil moisture and temperature probes may be added depending on the depth of the soil material.	31 Dec 2026	Ongoing	Yes

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS	ON TRACK?
RRT0001018	Topsoil Stockpile Investigation	Assess the effectiveness of the stockpile management and soil replacement, and allow site-specific inputs to be incorporated into the SIBERIA program that supports geomorphic landform design.	Soil sampling and microbial sampling and testing will be conducted, where possible, pre-inoculation, post-inoculation, every 12 months post-inoculation and at placement on rehabilitation areas. Samples will be taken at 10 cm depths at each soil stockpile and rehabilitation area. The investigation will also include: • photographs; • microbial biomass analysis; • collection and weighing of above ground biomass; • germination counts post-soil emplacement; and • recording of erosion.	31 Dec 2024	Complete	Yes
RRT0001020	Cultural Heritage Cool Burn	Assess an appropriate method to reduce fuel loads at MPO.	Opportunistically, a cultural cool burn may be undertaken in Spring each year, subject to weather and fire hazard conditions.	31 Dec 2024	Ongoing	Yes
RRT0001148	Biochar from Coal Tailings for Use as Fertiliser	The project aims to convert coal tailings into a biochar that can be used as fertiliser to improve soil quality.	Study in conjunction with DPHI and forestry. Investigate the processing of tailings through pyrolysis to a fertiliser that also improves soil moisture holding capacity.	31 Dec 2025	Ongoing	Yes

Outcomes of completed trials and research

N/A

Attachment 1 – Reporting Definitions

REPORTING CATEGORY		DEFINITION
A1	Total disturbance footprint – surface disturbance	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. 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). Underground mining operations should not include the footprint of underground mining areas/subsidence management areas in the total disturbance footprint.
A2	Underground Mining Area	Underground mining operations areas/subsidence management areas.
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).
C	Rehabilitation – land preparation	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. Refer to the glossary of terms in this document for the definition of these phases of rehabilitation.

REPORTING CATEGORY		DEFINITION
D	Ecosystem and land use establishment	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. 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.
E	Ecosystem and Land Use Development	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). 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).
F	Rehabilitation Completion	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 *Form: ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate and/or notification of mine or petroleum site closure.*
G	New active disturbance area	The area of any new active disturbance that has been created during the annual reporting period (definition A1 in Table 5).
H	New rehabilitation commenced during annual reporting period	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 & land use establishment phase (definitions C and D in Table 5).
I	Established rehabilitation (hectares)	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 & F in Table 5).

REPORTING CATEGORY		DEFINITION
J	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.
K	% 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 x 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.
L	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.
M	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.
N	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
Active	In the context of rehabilitation, land associated with mining domains is considered 'active' for the period following disturbance until the commencement of rehabilitation.
Active mining phase of rehabilitation	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.
Analogue site	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.
Annual rehabilitation report and forward program	As described in the Mining Regulation 2016.
Annual reporting period	As defined in the Mining Regulation 2016.
Closure	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).
Decommissioning	The process of removing mining infrastructure and removing contaminants and hazardous materials.
Decommissioning Phase of Rehabilitation	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
Department	The Department of Regional NSW.
Disturbance	See Surface Disturbance.
Disturbance area	An area that has been disturbed and that requires rehabilitation. 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).
Domain	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.
Ecosystem and Land Use Development	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. 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. This phase of rehabilitation may include specific vegetation management strategies and maintenance such as tree thinning, supplementary plantings and weed management.
Ecosystem and Land Use Establishment	This phase of rehabilitation consists of the processes to establish the approved final land use following construction of the final landform. 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.
Exploration	Has the same meaning as that term under the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.

WORD	DEFINITION
Final landform and rehabilitation plan	As defined in the Mining Regulation 2016.
Final land use	As defined in the Mining Regulation 2016.
Form and way	Means the form and way approved by the Secretary. Approved form and way documents are available on the Department's website.
Growth Medium Development	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. 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.
Habitat	Has the same meaning as that term under the *Biodiversity Conservation Act 2016* and the *Fisheries Management Act 1994* (as relevant).
Indicator	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.
Land	As defined in the *Mining Act 1992.*
Landform Establishment	This phase of rehabilitation consists of the processes and activities required to construct the final landform. 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).
Large mine	As defined in the Mining Regulation 2016.
Lease holder	The holder of a mining lease.

WORD	DEFINITION
Life of mine	The timeframe of how long a mine is approved to mine, from commencement to closure.
Mine rehabilitation portal	Means the NSW Resources Regulator's online portal that lease holders must use (via a registered account) to: ■ upload rehabilitation geographical information system (GIS) spatial data ■ develop rehabilitation GIS spatial data (using online tracing functions) ■ generate rehabilitation plans and rehabilitation statistics using the map viewer and Rehabilitation Key Performance Indicator functionalities. 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.
Mining area	As defined in the *Mining Act 1992*.
Mining domain	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).
Mining land	As defined in the *Mining Act 1992.*
Native vegetation	Has the same meaning as that term under section 60B of the *Local Land Services Act 2013.*
Overburden	Material overlying coal or a mineral deposit.
Performance indicator	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
Phases of rehabilitation	The stages and sequences of actions required to rehabilitate disturbed land to achieve the final land use. The phases of rehabilitation are: ■ active mining ■ decommissioning ■ landform Establishment ■ growth medium development ■ ecosystem and land use establishment ■ ecosystem and land use development.
Progressive rehabilitation	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.
Rehabilitation Completion	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 *Form ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate* application by the lease holder.
Rehabilitation Completion criteria	As defined in the Mining Regulation 2016.
Rehabilitation cost estimate	As defined in the Mining Regulation 2016.
Rehabilitation management plan	As defined in the Mining Regulation 2016.
Rehabilitation objectives	As defined in the Mining Regulation 2016.
Rehabilitation risk assessment	As defined in the Mining Regulation 2016.
Rehabilitation schedule	The defined timeframes for progressive rehabilitation set out in the forward program.

WORD	DEFINITION
Relevant stakeholders	Means any persons or bodies who may be affected by the mining operations, including rehabilitation, carried out on the lease land, and includes: ■ the relevant development consent authority ■ the local council ■ the relevant landholder(s) ■ community consultative committee (if required under the development consent) or equivalent consultative group ■ affected land holder(s) ■ government agencies relevant to the final land use ■ affected infrastructure authorities (electricity, telecommunications, water, pipeline, road, rail authorities) ■ local Aboriginal communities, and ■ any other person or body determined by the Minister to be a relevant stakeholder in relation to a mining lease.
Risk	The effect of uncertainty on objectives. It is measured in terms of consequences and likelihood (AS/NZS ISO 31000:2009).
Secretary	The Secretary of the Department.
Security deposit	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).
Surface disturbance	Includes activities that disturb the surface of the mining area, including mining operations, ancillary mining activities and exploration.
Tailings	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[2].
Waste	Has the same meaning as that term under the *Protection of the Environment Operations Act 1997*.

[2] 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
15 Aug 2024	Resources Regulator	Via Email.	Submission of MPO Final Landform and Rehabilitation Plan (FLRP) and Rehabilitation Objectives (ROBJ) submitted for SSD 10418.	Submission of MPO FLRP and ROBJ on 15/08/2025 via the Mine Rehabilitation Portal and Resources Regulator Portal, respectively. MACH Energy provided an email on 15/08/2025 that provided confirmation and background context of the submission of FLRP and ROBJ under SSD 10418.
3 Sep 2024	Resources Regulator	Via online meeting.	Meeting held between MACH Energy and Resources Regulator to discuss the submission of the MPO FLRP and ROBJ submitted for SSD 10418	MACH Energy provided clarification of the submission of MPO FLRP and ROBJ under SSD 10418. Resources Regulator advised their feedback on the MPO FLRP and ROBJ would be reviewed shortly. MACH Energy provided an email on 3/10/2025 requesting an update on the status of the MPO FLRP and ROBJ under SSD 10418.
21 Mar 2024	Resources Regulator	Via Email.	Resources Regulator provided email regarding the Late Reporting under Schedule 8A of the Mining Regulation 2016 for the Annual Rehabilitation Report, Forward Program and Rehabilitation Cost Estimate.	MACH Energy clarified with the Resources Regulator that MACH Energy received approval from the Resources Regulator to amend the submission date to 31 March and that MACH Energy was not non-compliant with the submission dates.
24 Jun 2024	Resources Regulator	Via Email.	Resources Regulator provided a letter which detailed the outcomes and recommendations of the Targeted Assessment Program completed for the MPO.	MACH Energy progressed implementing the recommendations outlined in the Targeted Assessment Program at the MPO throughout the annual reporting period.
16 Aug 2024	Resources Regulator	Via Email	Request for meeting regarding submission of the MPO FLRP and ROBJ submitted for SSD 10418.	MACH Energy scheduled meeting with the Resources Regulator for 3/09/2024.

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
18 Oct 2023	Resources Regulator	Via email.	Confirmation that Resources Regulator has received application to amend the Annual Reporting/Submission Dates.	Discussion via telephone between Resources Regulator and MACH Energy to confirm non compliance reporting based on change to amended annual report dates and application details. Approval of the reporting period amendment was received 06/11/2023.
4 Nov 2024	Resources Regulator	Via Email.	Review of MPO FLRP and ROBJ under SSD 10418 and request for resubmission by 17/12/2025.	MACH Energy incorporated the Resources Regulator's review comments into the revised dataset resubmission. Resubmission of MPO FLRP and ROBJ on 17/12/2025 via the Mine Rehabilitation Portal and Resources Regulator Portal, respectively. MACH Energy provided an email on 17/12/2025 that detailed how the Resources Regulator's review comments were incorporated into the revised FLRP and ROBJ submission.
10 Dec 2024	Resources Regulator	Via Email.	MACH Energy requested confirmation from the Resources Regulator to incorporate an amendment to the key milestone products as part of the next Forward Program.	MACH Energy provided an email on 10/12/2024 that requested confirmation from the Resources Regulator that MACH Energy is able to incorporate the amendment in key milestone production values as part of the next Forward Program (1 January 2025 to 31 December 2027).
17 Mar 2024	CCC	Meeting with community members	Notification of rehabilitation progress, visibility of rehabilitation from road discussed Minutes of meeting distributed to community and placed on web page.	Minutes of meeting distributed to community and placed on web page.
19 Sep 2024	CCC	Meeting with community members	Discussed rehabilitation objectives, Discussed the "Seed Portal" and provided community members with a link to "Seed Portal".	Minutes of meeting distributed to community and placed on web page.

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
11 Oct 2024	Resources Regulator	Via Email.	Review of MPO FLRP and ROBJ under SSD 10418	MACH Energy requested an update on the status of the MPO FLRP and ROBJ under SSD 10418 from the Resources Regulator on 4/10/2024.
14 Nov 2024	Resources Regulator	Via Email.	Resources Regulator requested MACH Energy register the new mining lease (including existing titles) via an updated TICON.	MACH Energy submitted a TICON Application Form within the Resources Regulator Portal on 11/12/2025 to include ML 1829. The TICON was approved on 16/12/2025 by the Resources Regulator.
17 Dec 2024	Resources Regulator	Via telephone.	Incorrect Annual Rehabilitation Report period that is currently displayed in the Resources Regulator Portal.	Contacted the Resources Regulator via telephone regarding the Annual Rehabilitation Report Application Form displaying the incorrect reporting period in the Resources Regulator Portal. Received email confirmation from Resources Regulator 20/12/2025 regarding the incorrect date and was advised to check the date in January 2025 to ensure the data is correct.
21 Jun 2024	CCC	Meeting with community members	Discussed tree screen survival rates of trees, biodegradability of tree guards, Rehab targets, weed control, usage of hazard reduction burns to reduce fuel load discussion by community member.	Minutes of meeting distributed to community and placed on web page.
12 Dec 2024	CCC	Meeting with community members	Pest and weed management discussed, and the update of the bushfire management plan.	Minutes of meeting distributed to community and placed on web page.
17 Apr 2023	Resources Regulator	Via online meeting.	Meeting held between MACH Energy and Resources Regulator to discuss matters including commentary on the MPO FLRP and ROBJ	Resubmitted MPO FLRP and ROBJ on 28/04/2023. Provided an email on 09/05/2023 that detailed how the Resources Regulator's review comments were incorporated into the revised FLRP and ROBJ submission. Provided an email on 09/05/2023 that described justification on the EPBC Approval 2011/5795 Reason for

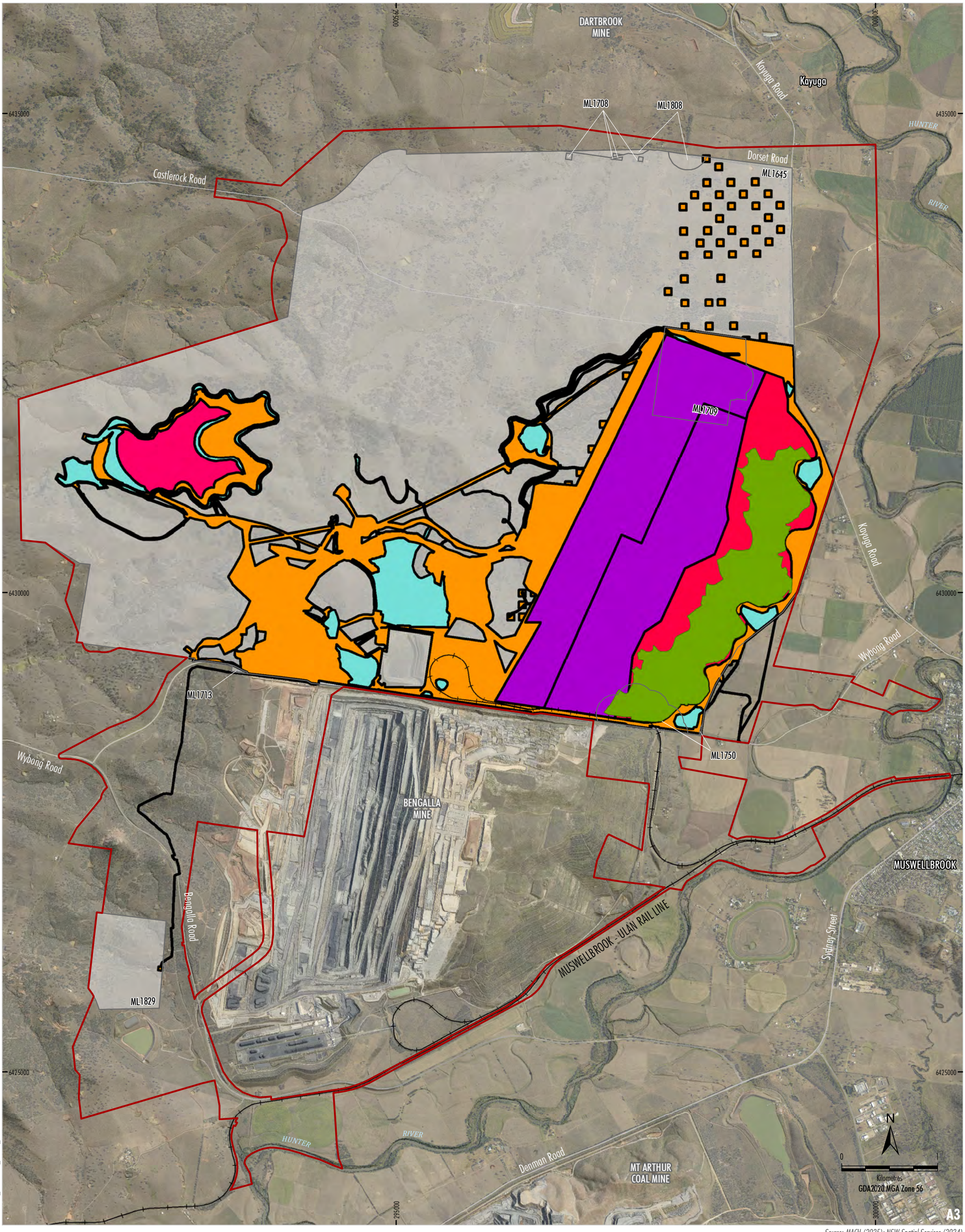
DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
				Refusal that required the area to be identified in the dataset
22 Dec 2023	DPHI, MSC and Resources Regulator	Via DPHI Portal	Updated Rehabilitation Strategy following approval of MOD 6.	Following approval of MOD 6 (6 November 2023), in accordance with Schedule 5, Condition 4 of Development Consent DA 92/97, a review and revision of the Rehabilitation Strategy was undertaken in consultation with MSC and the NSW Resources Regulator. The Rehabilitation Strategy was updated to incorporate the design and consultation requirements from the construction of the re transmission facility.
20 Mar 2023	Resources Regulator	Via email.	Review of MPO Final Landform and Rehabilitation Plan (FLRP) and Rehabilitation Objectives (ROBJ) and request for resubmission by 01/05/2023.	MACH Energy organised a meeting with Resources Regulator to discuss comments received on the MPO FLRP and ROBJ.
31 Aug 2024	Resources Regulator	Via email.	Review of MPO FLRP and ROBJ and request for resubmission by 29/09/2023	Incorporated Resources Regulator's review comments into the revised dataset resubmission. Resubmission of MPO FLRP and ROBJ on 28/09/2023 via the Mine Rehabilitation Portal and Resources Regulator Portal, respectively. Provided an email on 29/09/2023 that detailed how the Resources Regulator's review comments were incorporated into the revised FLRP and ROBJ submission.
31 Aug 2023	DPHI	Via DPHI Portal and email	Updated Environmental Management Strategy under Development Consent SSD 10418.	An updated version of the Environmental Management Strategy was prepared following the grant of the Mount Pleasant Optimisation Project under Development Consent SSD 10418. The latest version of the plan was approved by DPE (now DPHI) on 7 February 2024 and satisfies the relevant conditions of both Development

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
				Consent SSD 10418 and Development Consent DA 92/97 (until its surrender).
29 Sep 2023	29/09/2023 Resources RegulatorVia email. Approval of the MPO FLRP and ROBJ. Resources Regulator a	Via email.	Approval of the MPO FLRP and ROBJ.	Resources Regulator approved the MPO FLRP and ROBJ on 29/09/2023. Confi8rmation was received via email. MACH Energy amended the MPO Rehabilitation Management Plan to substitute the proposed FLRP and ROBJ with the approved version.

Attachment 5 – Plans

MPO_ARR2024_Plan 1A.pdf

MPO_ARR2024_Plan 1B.pdf



MAC-18-03A_ARR2024 v2_ Plan 1A_ Rev B

LEGEND

- Project Approval Boundary*
- Coal - Current Titles

Rehabilitation Phase

- Ecosystem and Land Use Development

Mining Domain Type

- Infrastructure Area
- Overburden Emplacement Area
- Tailings Storage Facility
- Active Mining Area (Open cut void)
- Water Management Area

* Appendix 1 of Development Consent SSD 10418

Source: MACH (2025); NSW Spatial Services (2024)
Orthophoto: MACH (Dec 2024)

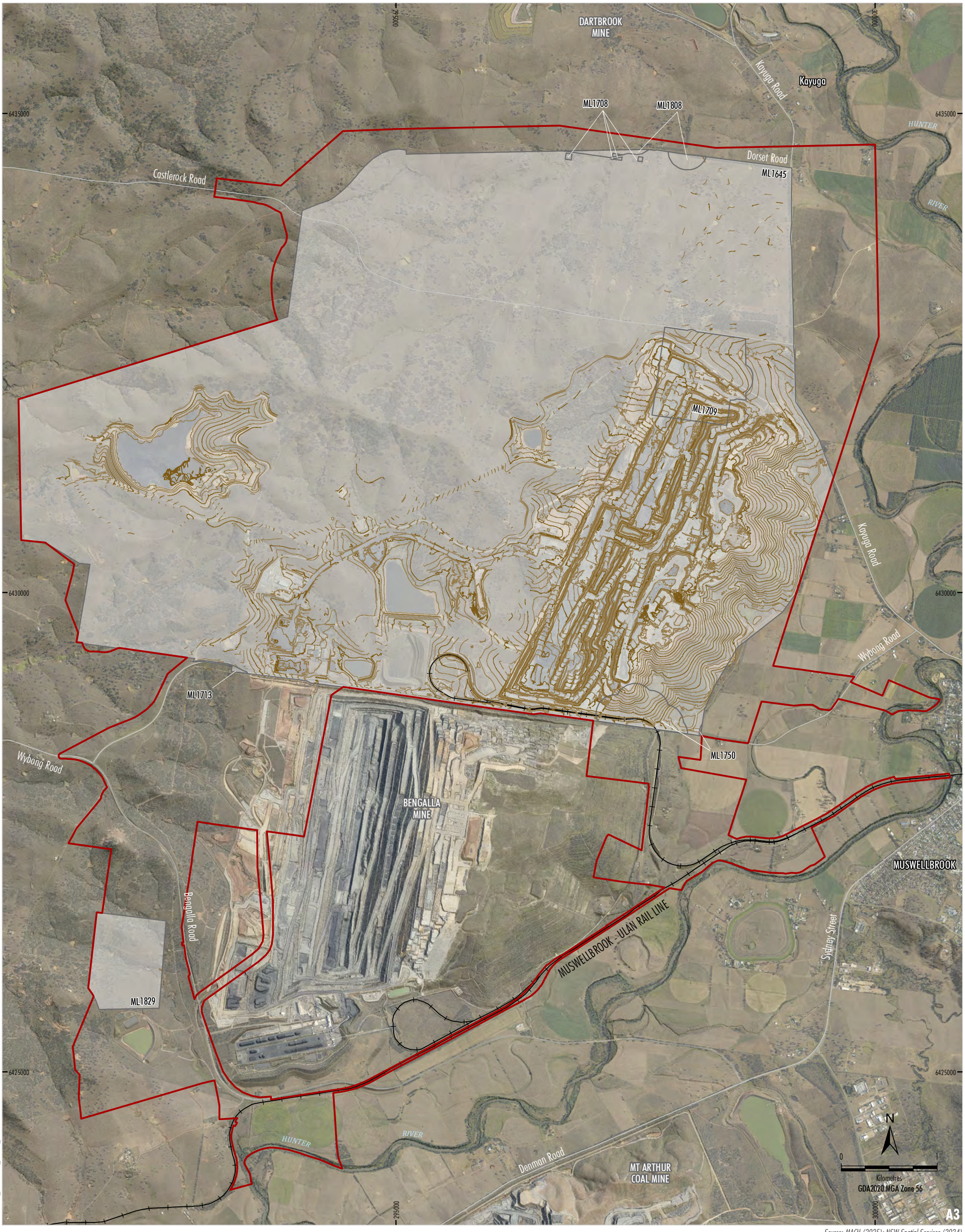
Date prepared: 21-03-2025

MACHEnergy

MOUNT PLEASANT COAL MINE
ANNUAL REHABILITATION REPORT 2024

Current Status
of Mining and Rehabilitation

Plan 1A



MAC-18-03A_ARR2024 v2_ Plan 1B_ Rev B

LEGEND

- Project Approval Boundary*
- Coal - Current Titles
- Index Contour (20 m interval)
- Intermediate Contour (5 m interval)

* Appendix 1 of Development Consent SSD 10418

Source: MACH (2025); NSW Spatial Services (2024)
Orthophoto: MACH (Dec 2024)

Date prepared: 21-03-2025

MACHEnergy

MOUNT PLEASANT COAL MINE
ANNUAL REHABILITATION REPORT 2024

Current Landform Contours

Plan 1B