NSW GOVERNMENT

NSW Resources Regulator

ARR0001222

MOOLARBEN COAL ANNUAL REHABILITATION REPORT

Sunday 1 January 2023 to Sunday 31 December 2023

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Summary table

DETAIL	
Mine	Moolarben Coal
Reference	ARR0001222
Annual report period commencement date	Sunday 1 January 2023
Annual report period end date	Sunday 31 December 2023
Forward program	FWP0001136
Mining leases	ML 1606 (1992), ML 1715 (1992), ML 1605 (1992), ML 1628 (1992), ML 1691 (1992)
Lease holder(s)	Yancoal Moolarben Pty Ltd, KORES AUSTRALIA MOOLARBEN COAL PTY LIMITED, MOOLARBEN COAL MINES PTY LIMITED
Contact	Trent Cini
Date of submission	Tuesday 26 March 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

The Moolarben Coal Complex (MCC) is located approximately 40 kilometres north of Mudgee in the Western Coalfield of New South Wales within the Mid-Western Regional Local Government Area. Moolarben Coal Operations Pty Ltd (MCO) is the operator of the MCC on behalf of the Moolarben Joint Venture (Moolarben Coal Mines Pty Ltd [MCM], Yancoal Moolarben Pty Ltd (YM) and a consortium of Korean power companies). MCO, MCM and YM are wholly owned subsidiaries of Yancoal Australia Limited (Yancoal). All mining operations are conducted in accordance with NSW Project Approval (05_0117) (Moolarben Coal Project Stage 1) as modified, and NSW Project Approval (08_0135) (Moolarben Coal Project Stage 2) as modified. Mining operations and exploration activities at the MCC are also conducted in accordance with the requirements of the conditions of Mining Lease (ML) 1605, ML 1606, ML 1628, ML 1691, and ML 1715 and Exploration Licences (EL) EL6288, EL7073 and EL7074 granted under the Mining Act 1992.

Life of mine

15 years

Current development consents, leases and licences

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

PA 05_0117
PA 08_0135
PA 05_0117
PA 05_0117
PA 05_0117
PA 05_0117
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Authorisations covering the mining area granted under the *Mining Act 1992*

ML 1606 (1992), ML 1715 (1992), ML 1605 (1992), ML 1628 (1992), ML 1691 (1992)

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

EPBC 2007/3297
EPBC 2008/4444
EPBC 2013/6926
EPBC 2017/7974

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

Modification 4 approved for PA 08_0135, the Modification includes the following changes to the approved Moolarben Coal Complex: • Optimisation of the approved UG2 layout (including the extension of two approved longwall panels); • Increased UG2 extraction height from 3.0 metres (m) to 3.5 m; • Revised UG2 mining sequence; • Increased total UG2 ROM coal production from 9.4 million tonnes (Mt) to 13.9 Mt; • Construction and operation of a remote services infrastructure area within the approved OC4 disturbance footprint to support UG2 operations; • Development of an additional non-subsiding gate road along the southern boundary of the UG1 mining area to assist with ventilation in UG2; and • Small reduction in the approved OC4 extent to accommodate the optimised UG2 layout.

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

Mining activities were undertaken in accordance with relevant project approvals and the FWP. During the reporting period general mining activities included - Overburden removal from OC1, OC3 and OC4, Coal extraction from OC3 and OC4, Drilling and blasting select overburden and coal, Spoil emplacement in-pit in OC2, OC3, and OC4, Bulk spoil reshaping and rehabilitation, Construction and operation of water management works, Continued underground development in UG4 and UG1, and Extraction of LW401 and LW403. Construction works undertaken during the reporting period included the progression of mining infrastructure for OC3 and OC4. Mine infrastructure works included water management infrastructure and ancillary works. Construction activities commenced or undertaken in the period included - Commencement of construction of Dams 306 and 316A, Upgrade of the water treatment plant and associated infrastructure, Upgrade works associated with the CHPP, and Construction of water management infrastructure. Rehabilitation works during the reporting period were undertaken within OC2, OC3, and OC4. Exploration activities were undertaken in ML1605, ML1628 and ML1715 during the reporting period. This consisted of a total of 31 exploration holes within ML1605, ML1606, ML1691, and ML1715.

Rehabilitation planning activities that were conducted, including any specialist studies

Specialist review and incorporation of Geofluv into the final landform and associated drainage lines in OC4 has continued during the reporting period. Specialist input and review of the Murragamba Creek reinstatement has also continued, including a review of the base materials and clays to be incorporated into the diversion.

Overview of subsidence repair and/or remediation works undertaken

Minor subsidence management actions were required to be undertaken as a result of LW401 to LW403 extraction during the reporting period. These included maintenance of MCO managed access tracks and dewatering infrastructure.

Overview of rehabilitation management and maintenance activities

During the reporting period MCO continued to undertake monitoring and maintenance activities within the existing rehabilitated areas. This included minor erosion repairs, infill work to address slumping at the edge of OC2 area, supplementary planting of tube stock in OC2

area, seeding of native and cover crop seed, weed management and feral animal control activities.

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

During the reporting period, no letters, notices, or directions were received by government agencies, including the NSW Resources Regulator, relating to rehabilitation actions.

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

No rehabilitation areas at the MCC have achieved the final land use (as set out in clause 6 of Schedule 8A to the Mining Regulation 2016), in the reporting period.

Key production milestones

MATERIAL	UNIT	FWP0001136 YEAR 1	THIS REPORT
Stripped topsoil (if applicable)	(m^3)	435,907	358,731
Rock/overburden	(m^3)	62,900,347	59,190,366
Ore	(Mt)	20.3	20.4
Reject material[1]	(Mt)	2.6	3.1
Product	(Mt)	17.8	16.7

[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
A	**Total surface disturbance footprint**	(ha)	2,187.08
B	**Total active disturbance**	(ha)	1,725.65
C	**Land prepared for rehabilitation**	(ha)	89.03
D	**Ecosystem and land use establishment**	(ha)	372.4
E	**Ecosystem and land use development**	(ha)	0
F	**Rehabilitation completion**	(ha)	0

Rehabilitation key performance indicators (KPIs)

	ELEMENT	UNIT	THIS REPORT
G	**Total new active disturbance area**	(ha)	NA - this value will display after 2nd year ARR submission as calculation relies on comparison between sequential yearly ARR data
H	**New rehabilitation commenced during annual reporting period**	(ha)	NA - this value will display after 2nd year ARR submission as calculation relies on comparison between sequential yearly ARR data
I	**Established rehabilitation**	(ha)	0
J	**Annual rehabilitation to disturbance ratio**	%	NA - this value will display after 2nd year ARR submission as calculation relies on comparison between sequential yearly ARR data
K	**Rehabilitated land to total mine footprint**	%	0

Progressive achievement of established rehabilitation

	ELEMENT	UNIT	THIS REPORT
L	Established rehabilitation - agricultural final land uses	%	0
M	Established rehabilitation - native ecosystem final land uses	%	0
N	Established rehabilitation - 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

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

In general, the rehabilitation throughout the site is achieving many of the proposed completion criteria. Areas that have not yet achieved criteria have been independently assessed are trending towards completion criteria. Species diversity throughout all but two of the rehabilitation monitoring sites achieved the completion criteria, and the remaining two are trending towards completion criteria. Average native species richness across the Domain D rehabilitation has met the proposed completion criteria. The competition criteria for native grass cover, mid-story and native ground cover were all achieved in Domain D. It was noted that there is currently limited overstory, mid-storey and ground shrub cover, which could benefit from additional infill planting. Fallen logs throughout the rehabilitation in OC2 on average met the completion criteria. Allocasuarina stands have been maintained within the OC1 rehabilitations areas. Second generation vegetation was evident in OC1 and OC4 in both Box Gum Shrubby Woodland and Sedimentary Ironbark Forest. 83 fauna species were recorded across all the rehabilitation sites monitored, included five listed species. Five introduced fauna species were recorded in the rehabilitation, there were some signs of damage from feral pigs in the rehabilitation.

Status of performance against rehabilitation objectives and rehabilitation completion criteria

The monitoring program that has been implemented

The rehabilitation monitoring program has been designed to measure the progress of rehabilitation program against the proposed rehabilitation objectives, performance indicators and completion criteria for each of the final land use domains. The monitoring program assesses the landform stability, presence of exotic species, resilience, fauna habitat, vegetation composition and structure, and conformance with targeted final vegetation communities. The groundcover and floristic monitoring provide data on the vegetation composition and structure, secondary succession native fauna habitat. Data is used to assess against the proposed completion criteria by comparing the data from the established sites to that of the analogues. Fauna monitoring is undertaken within the rehabilitation and provides data on the native species utilising the rehabilitation as it progresses, together with the suitability of fauna habitat. Visual transect monitoring is designed to provide progressive data on the rehabilitation. The results are used to evaluate the rehabilitation against completion criteria that include the presence of Allocasuarina stands, species richness, exotic flora and fauna, erosion and landform stability issues, the nature of the surface and any disturbances. Final landform design and stability completion criteria are monitored and assessed through LiDAR

flights and spatial assessments. Monitoring of final landform is undertaken as part of the QA/QC process for final landform design

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.

The current rehabilitation is trending towards to the completion criteria throughout the different final land use domains and will continue to improve as the rehabilitation progresses. The species composition throughout the rehabilitation is trending towards the completion criteria with 31 out of 31 monitoring plots exhibiting species composition that is typical of the respective analogue sites. Across the rehabilitation, cover is meeting the target range at select monitoring plots comparable to the analogue sites, predominately in the older rehabilitation, and as time progress the newer rehabilitation is expected to follow the same trend. Older rehabilitation areas are showing signs of regeneration through the presence of second-generation characteristics. Throughout all monitoring sites in Open Cut 1 all sites exhibited secondary regeneration characteristics such as flowering, seed development and second-generation seedlings of some species, whereas in the newer rehabilitation evidence was only found at select sites. Landform stability across the rehabilitation is generally good, however there are some minor sections that require further work to remediate slumping and minor erosion.

Appraisal description

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

Rehabilitation monitoring program findings

MCO undertook annual ecological monitoring of rehabilitation that is in the “Ecosystem and land use development” phase in accordance with the Rehabilitation Management Plan (RMP) Quality Assurance / Quality Control (QA / QC) process. The monitoring was conducted across the established monitoring and analogue sites during autumn and spring by Eco Logical Australia (ELA). The autumn monitoring program was undertaken on 2 - 4 May 2023, the spring monitoring was undertaken on 30 October to 3 November, 13 – 17, 21, 24, and 29 – 30 November 2023. The monitoring program included groundcover and floristic monitoring, koala habitat assessment, Ecosystem Function Analysis (EFA), visual transect monitoring, fauna

monitoring and observations on land management and stability. As part of the monitoring program EFA monitoring comprising Landscape Function Analysis (LFA), Soil Surface Assessment (SSA), vegetation dynamics and habitat complexity was undertaken. Groundcover and floristic monitoring was undertaken in accordance with the NSW Biodiversity Offsets Policy for Major Projects Framework for Biodiversity Assessment (OEH 2014). Monitoring was undertaken at each site within a 20 x 50 m quadrat which contained a nested 20 x 20 m quadrat for floristic analysis and a 50 m transect line. Rehabilitation monitoring was completed at 31 established sites and 13 visual transects throughout three of the four open cut areas, and seven analogue sites established in the MCO offset properties. There are two final land use domains within the established monitoring program A – Native Ecosystem and D – Rehabilitation Biodiversity Offset Area, and five target vegetation communities. The target vegetation communities are Box Gum Shrubby Woodland, Box Gum Grassy Woodland, Sedimentary Ironbark Forest, PCT618 and PCT1696. Three new monitoring sites were established as part of the 2023 monitoring program, all three were in final land use Domain D. At the completion of landform establishment of two new rehabilitation blocks in 2023 inspections were undertaken to assess the final as built landform against the final landform design. LiDAR of the rehabilitation blocks was utilised to evaluate conformance to design. A spatial assessment of each block was also undertaken to evaluate the as-built landform against completion criteria requirements for slope and drainage specifications. During rehabilitation works implementation, an Inspection and Test Plan (ITP) process is followed, with all key rehabilitation steps requiring inspection and signoff prior to proceeding to the next work stage. The ITP forms a part of the overall QA process to ensure that the rehabilitation is completed in accordance with RMP requirements. Ad-hoc rehabilitation area inspections were also undertaken throughout the year, focussing primarily on observations of weeds and surface landform stability issues.

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

Throughout the rehabilitation there are some areas that are not currently meeting the proposed completion criteria for tree, shrub, and ground cover. This will be rectified through selective infill planting and seeding utilising the appropriate species for each of the vegetation communities. Rehabilitation seeding rates and species mixes have been reviewed and updated in 2023 to address vegetation composition and structure in future rehabilitation campaigns. The Rehabilitation Biodiversity Offset Area within Open Cut 2 is below the target completion criteria for over storey cover and koala trees present at the monitoring points. Over 12,000 plants were installed during 2023 to help rectify this issue, and additional infill planting and maintenance is planned. Throughout the rehabilitation, there are sections of erosion, water ponding and one point of slumping which have been identified and are planned to be remediated. Such performance issues can partly be attributed to the recent heavy rainfall in the region. Vertebrate pest control activities will continue across rehabilitation areas, specifically targeting feral pigs.

Outcomes of rehabilitation research and trials

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS	ON TRACK?
ARR0001222						

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

Attachment 5 – Plans

Forward Plan 1a.pdf

Forward Plan 1b.pdf