



**NSW
Resources
Regulator**

ARR0001252

WILPINJONG COAL MINE ANNUAL REHABILITATION REPORT

Sunday 1 January 2023 to Sunday 31 December 2023

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Summary table

DETAIL	
Mine	Wilpinjong Coal Mine
Reference	ARR0001252
Annual report period commencement date	Sunday 1 January 2023
Annual report period end date	Sunday 31 December 2023
Forward program	FWP0001236
Mining leases	ML 1795 (1992), ML 1846 (1992), ML 1779 (1992), ML 1573 (1992)
Lease holder(s)	Wilpinjong Coal Pty Ltd
Contact	James Heesterman
Date of submission	Thursday 28 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

Wilpinjong Coal Mines operates under consent SSD-6764 approved in 2017 spanning over 5,600ha. The operation produces thermal coal which is transported by rail to domestic customers for use in electricity generation and to port for export. Open cut mining, coal handling operations and associated mobile equipment movements are undertaken 24hours a day, seven days per week. The Mine also undertakes exploration and prospecting activities across WCPL’s explorations licence and mining lease areas for the purposes of geological, geotechnical and hydrogeological investigations. Rehabilitation is conducted progressively as overburden dumps and landforms develop sequential to the advancement of the active mining faces. Rehabilitation of completed landforms has been progressively undertaken since 2008 and has included establishing both woodland and grassland vegetation communities. Wilpinjong Coal is currently pre 2017 rehabilitation areas to conform to SSD6764 prescribed vegetation communities

Life of mine

9 years

Current development consents, leases and licences

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

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SSD6764

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

ML 1795 (1992), ML 1846 (1992), ML 1779 (1992), ML 1573 (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)

N/A

Changes to land ownership and land use

During the reporting period, WCPL's Biodiversity Offset Areas were transferred into the National Parks and Wildlife estate. The transfer of the ownership of these offsets satisfies Schedule 3, Condition 35(a) of SSD-6764.

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

Throughout the reporting period disturbance activities comprising of mining operations, ancillary mining activities and exploration were carried out on the mining area. Open cut mining operations were conducted in Pit 6, Pit 7 and Pit 8 as identified in the Year 1 Forward Program. Open cut mining operations included: -Removal of vegetation in pre-mining (pre-strip) areas -Topsoil stripping -Rotary and Hammer Drilling -Overburden and seam blasting -Ripping, dozing and excavation of waste rock and coal -Haulage of product coal to Coal Handling Preparation Plant (CHPP) -CHPP product segregation and loading onto trains. Rehabilitation activities occurred throughout 2023. Rehabilitation activities included: - Establishment of landform utilising waste rock. -Landforms established following dumping schedules and landform designs. -Shaping and grading of established landforms -Placement and spreading of topsoil -Ripping and application of soil ameliorants -Rework of rehabilitation conforming to the previously approved biodiversity criteria (PA 05-0021). - Sowing of native seeds specific to Final Landform Vegetation Communities as per SSD 6764. Rehabilitation areas nominated in Year 1 (2023) of the Forward Program totaled 74.27ha of Ecosystem and Land Use Establishment.

Rehabilitation planning activities that were conducted, including any specialist studies

WCPL's Forward Program submitted on the 31st March 2023 detailed the operations three year production metrics which included the proposed mining and rehabilitation schedule. Subsequent to fluctuations in market demand, mine planning and production scheduling was impacted, which altered nominated landform development and rehabilitation areas. Changes to active mining areas resulted in modifications to progressive landform and subsequently the nominated Year 1 (2023) rehabilitation areas. Changes in mine planning and the mining schedule pose implications to progressive rehabilitation and the development of final landforms. With changes in the mine plan and schedule experienced by the operation in 2023, WCPL reviewed the operations Year 1 (2023) nominated rehabilitation areas adapting to the changes in mine scheduling to achieve the Forward Plan rehabilitation forecast. Throughout the reporting period, WSP (formerly Golder and Associates) conducted a landform assessment in a specific section of the mining operation. The focus of the study was the conceptual landform design for Ed's Lake and Narrow Creek (Pit 1 Area), which included the evaluation of landform stability, volume balance, and erosion modelling. The design review was finalised at the end of 2023, whereby the design of the drainage channel meets final landform and stability requirements. The landform design is due for construction in 2024.

Overview of subsidence repair and/or remediation works undertaken

Discrete areas throughout the rehabilitation were targeted for erosion maintenance and repair. Works included regrading rills and minor gullies which had formed during rainfall events and in areas which had limited continuous vegetation cover. Contours and cross ripping surfaces were also completed to reduce surface flow velocities along with incorporating chemical ameliorants to rectify soil structure constraints.

Overview of rehabilitation management and maintenance activities

Throughout 2023 a total of 71.38 hectares were reworked being seeded with native species conforming to the Biometric Vegetation Types (BVTs) specified within the Biodiversity Management Plan (BMP) and SSD 67643. Areas reworked comprised of pasture and timbered areas which conformed to the previous Project Approval. BVT Communities seeded included; 16.88 ha of HU732 – Yellow Box Grassy Woodland 53.02 ha of HU824 – White Box – Black Cypress Pine Shrubby Woodland 1.44 ha of HU697 - Mugga Ironbark – Black Cypress Pine Shrub/Grass Open Forest Various rehabilitation methods were employed in these rework areas such as foliar spraying the undesirable pastures, dozing and felling of undesirable canopy species with areas scarified and ameliorants applied prior to drone or tractor seeding.

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

Nil

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

NA

Key production milestones

MATERIAL	UNIT	FWP0001236 YEAR 1	THIS REPORT
Stripped topsoil <small>(if applicable)</small>	(m ³)	233,015	115,300
Rock/overburden	(m ³)	48,037,000	40,450,000
Ore	(Mt)	11.08	12.84
Reject material¹	(Mt)	2.08	2.1
Product	(Mt)	9.51	10.57

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)	2,669.27
B Total active disturbance	(ha)	1,605.22
C Land prepared for rehabilitation	(ha)	65.49
D Ecosystem and land use establishment	(ha)	998.57
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

The LOI data captured during 2023 observed overall lower LOI scores due to increases in bare soil and thus decreases perennial vegetation cover when compared to 2022 monitoring. All stability scores are close to, or just above completion criteria, indicating low erosion levels. However, none of the rehabilitation sites met the completion criteria for infiltration or nutrient cycling, (except R6 which had a 5% increase in scores from 2022). Nevertheless, these results are consistent with the five reference sites monitored during spring 2023. When assessed against the WCPL Rehabilitation Performance Criteria, R6 and R9 are at or above the Moderate to Good SVS, even when SVS had decreased when compared to 2022 monitoring. When assessed against the local reference site benchmarks, both sites were Low in autumn and Moderate to Good SVS in Spring. Encouragingly, exotic cover decreased significantly since 2022 monitoring. Within the newly established rehabilitation sites, all sites recorded SVS considered Moderate to Good with NSR, NGCG and EC all within benchmark range. When compared to the WCPL Performance Criteria, all sites also met the NGCS criteria and most met the NGCO criteria. All sites had relatively high native species richness and several surviving canopy species. Only three of the seven sites had FL and it is recommended that felled timber be placed at the remaining sites. In general, sites currently indicate that SVS and other BioMetric attributes may increase.

Status of performance against rehabilitation objectives and rehabilitation completion criteria

The monitoring program that has been implemented

Final land use domains are land management units characterised by a similar post mining land use objective and BVT requirements. The final land use domains at WCPL are Native Ecosystems (HU547, HU697, HU732, HU824, HU825) and Final Voids (Pit 2 and 6). The objectives of the final landform design and rehabilitated landform is to establish a safe, non-polluting and stable landform that is compatible with the surrounding landscape and that meets the requirements of the post mining land use. This will incorporate selected vegetation communities (i.e. BVTs) considered most beneficial for the Regent Honeyeaters, as determined by Biodiversity, Conservation and Science Directorate (BCD) and DPIE. The development of the final landform will include incorporating micro-relief principles, landform stability and hydrological and ecological function. WCPL has approved Performance and Completion Criteria of which the operation continues to monitor against and achieve when planning rehabilitation activities. Analogue sites (Reference Sites) have been approved with documented Biometrics for comparison to Rehabilitation performance and trajectory. Specific performance and

completion criteria is documented in WCPLs BMP. Rehabilitation areas are monitored for LFA and BioMetrics each year to document the sites progression and trigger any maintenance through a TARP.

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.

Since the approval of the WEP in 2017 and the mandate for existing and future rehabilitation sites to adhere to specific BVTs in order to achieve rehabilitation, finalise landform objectives, and fulfill offset requirements, WCPL has been engaged in maintaining existing rehabilitation areas through activities such as spraying, fertilizing, and re-sowing with BVT mixes. This maintenance approach has also been applied to newer rehabilitation zones since 2017. Monitoring efforts indicate that, despite being in the early stages, rehabilitation areas are progressing towards meeting performance and completion targets. This determination has been made through various onsite monitoring methods conducted annually, including BioMetric and LFA monitoring. While some metrics such as native groundcover grass, shrubs, exotic cover, and overstorey regeneration fall outside the standard metrics, they are typical indicators of establishing domains. WCPL upholds a TARP process, which initiates the review of actions and their implementation.

Appraisal description

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

Rehabilitation monitoring program findings

Throughout the reporting period scheduled Landscape Function Analysis (LFA) and Biometric monitoring occurred across WCPLs rehabilitation areas and analogue (Reference) sites. The monitoring of analogue sites allows comparisons of natural sites to mining rehabilitation providing indications of rehabilitation status, trajectory, and overall performance. Seven Rehabilitation Area sites were established in 2023. These sites were direct seeded in 2020 and 2021 to conform to BVT732, BVT824 and BVT697. Whilst these sites are not required to be monitored until Years 3 – 4 (as per Table 11 in the BMP [WCPL 2021]), the establishment of BioMetric monitoring plots tracks early progress of these areas against the performance criteria to determine success of seeded areas and aid in management decisions if necessary.

Five LFA sites located within rehabilitation areas were monitored in 2023. Spring 2023 monitoring results show that the Landscape Organisational Index (LOI) has remained relatively constant between the current and 2022 monitoring periods, with exception to stability metrics at both R6 and R9. The annual decrease is potentially linked to the drier conditions experienced throughout 2023 exposing bare areas, with the exception of increased infiltration and nutrient cycling attributed to leaf drop and organic matter. Sites 2021_2, 2021_7, 2021_8 were added to the monitoring program which has provided baseline data for comparison in following years. Rehabilitation sites compared to Local Reference Sites were below canopy, midstorey and regeneration metrics are expected whilst rehabilitation areas establish and develop. The metrics of native ground cover grasses and shrubs along with exotic cover and overstorey regeneration are typically low in the initial stages of ecosystem development, which is evident in the 2023 monitoring results. Monitoring of these sites and new sites established will continue in 2024. Vegetation monitoring results for the Rehabilitation Areas were assessed against the WCPL Rehabilitation Performance Criteria and the Local Reference Site BVT (BioMetric Vegetation Type) Benchmarks. A Site Value Score (SVS) was calculated for each site using the BioMetric Tool (NSW Department Environment Climate Change and Water, DECCW 2011) which combines the quality and quantity of native vegetation by measuring ten condition variables within a plot compared to the pre-European benchmarks for the BVT. Rehabilitation sites compared to Local Reference Sites were below canopy, midstorey and regeneration metrics are expected whilst rehabilitation areas establish and develop. The metrics of native ground cover grasses and shrubs along with exotic cover and overstorey regeneration are typically low in the initial stages of ecosystem development, which is evident in the 2023 monitoring results. Monitoring of these sites and new sites established will continue in 2024.

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?
RRT000103 3	Ozothamnus tessellatus Rehabilitation	Ozothamnus tessellatus is a threatened species recorded within the Active Mining area. Being a data deficient species, WCPL are conducting seed collection and germination trials	Propagation will be undertaken by WCPL in germination trays with various soils and treatments. As this species produces thistle-type seeds, tube stock is anticipated to be the most appropriate method for propagation.	1 Dec 2025	Ongoing	Yes
RRT000103 4	Drone Seeding Trial	Evaluate the effectiveness of drone seeding as a method of mine site rehabilitation. Also evaluate the efficiency of native seed coating for seeding flowability. Reduce soil compaction	Utilise drones as a form of seeding on rehabilitation. Coat native seeds with various coatings for flowability within the drone seed box. Prepare rehabilitation areas soil with bulk soil ameliorants and tiled seed bed. Apply seed via drone	1 Dec 2025	Ongoing	Yes
RRT000103 5	Topsoil Amelioration Trial	enhance soil organic matter within the topsoil used for rehabilitation and also stimulate soil biology for native seed germination and soil structure/resilience.	Inoculate native seed with various organic coatings. Use of various organic bulk fertilisers (at various rates) such as vermicast, vermiliquid and composts Land application via bulk spreader/ sprayer with tractor Various integration of materials in or on soil to enhance structure, organic matter and biology.	1 Dec 2025	Ongoing	Yes
RRT000103 6	Regent Honey Eater Habitat Trial	To create Regent Honeyeater habitat within existing mine rehabilitation areas where rehabilitation is	WCPL will commence control of non native species and re seeding to a combination of suitable native plant species as per specific BVT	31 Dec 2030	Ongoing	Yes

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RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS	ON TRACK?
		currently under improved pasture and trees from previous Development Consent.	assemblages and local reference site assemblages. Tree areas will to be thinned or transformed from a mixed assemblage to specific BVT. Pasture Areas to be sprayed out, tilled and resown with specific BVT mixes.			
RRT0001037	Topsoil Depths and Seed Volume Trials	Implement various topsoil depths to determine optimum growth medium conditions for seeding and evaluate seed mix volumes/rates	Install various depths of soil and evaluate germination and plant establishment resilience over time. Altering seed spreading volumes (with consideration of seed viability) in areas and determine efficiency or replication of reference site densities and assemblages	31 Dec 2025	Ongoing	Yes
RRT0001038	Fire Management Trial	To investigate the effectiveness of fire as a tool for reducing exotic pasture cover and assisting with regeneration of native ground cover	In 2017 a controlled hazard reduction burn was conducted by RFS and site personnel. Ecologists engaged to evaluate the effectiveness of fire to control non native pasture species and allow natives species to germinate and establish.	1 Aug 2022	Complete	Yes
RRT0001084	Landform Study	Evaluation of fill volumes, erosion, stability and flood modelling ensuring micro-relief and natural water flow for the reinstatement of drainage lines throughout the operations rehabilitation	CAD review of existing landforms and environmental modelling	31 Dec 2025	Ongoing	Yes

Outcomes of completed trials and research

N/A

Attachment 1 – Reporting Definitions

REPORTING CATEGORY	DEFINITION
<p>A1 Total disturbance footprint – surface disturbance</p>	<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>
<p>A2 Underground Mining Area</p>	<p>Underground mining operations areas/subsidence management areas.</p>
<p>B Total active disturbance</p>	<p>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).</p>
<p>C Rehabilitation – land preparation</p>	<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
D 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>
E 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>
F 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>
G 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>
H 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 & land use establishment phase (definitions C and D in Table 5).</p>
I 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 & F in Table 5).</p>

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 ($I/A1 \times 100$). 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.
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	<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>
Domain	<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>
Ecosystem and Land Use Development	<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>
Ecosystem and Land Use Establishment	<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>
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	<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>
Habitat	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).
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 <i>Mining Act 1992</i> .
Landform Establishment	<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>
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	<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"> ■ 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. <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>
Mining area	As defined in the <i>Mining Act 1992</i> .
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 <i>Mining Act 1992</i> .
Native vegetation	Has the same meaning as that term under section 60B of the <i>Local Land Services Act 2013</i> .
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	<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"> ■ active mining ■ decommissioning ■ landform Establishment ■ growth medium development ■ ecosystem and land use establishment ■ ecosystem and land use development.
Progressive rehabilitation	<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>
Rehabilitation Completion	<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>
Rehabilitation Completion criteria	<p>As defined in the Mining Regulation 2016.</p>
Rehabilitation cost estimate	<p>As defined in the Mining Regulation 2016.</p>
Rehabilitation management plan	<p>As defined in the Mining Regulation 2016.</p>
Rehabilitation objectives	<p>As defined in the Mining Regulation 2016.</p>
Rehabilitation risk assessment	<p>As defined in the Mining Regulation 2016.</p>
Rehabilitation schedule	<p>The defined timeframes for progressive rehabilitation set out in the forward program.</p>

WORD	DEFINITION
Relevant stakeholders	<p>Means any persons or bodies who may be affected by the mining operations, including rehabilitation, carried out on the lease land, and includes:</p> <ul style="list-style-type: none"> ■ 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 <i>Protection of the Environment Operations Act 1997</i> .

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)
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Attachment 4 – Stakeholder consultation

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
7 Sep 2023	Local Community – Have a Chat Event	Face to Face Consultation Informal meeting held at the old Wollar Store to discuss monthly operational updates - Updated attendees of operation progress and rehabilitation phases	nil	nil
6 Jul 2023	Local Community – Have a Chat Event	Face to Face Consultation Informal meeting held at the old Wollar Store to discuss monthly operational updates - Updated attendees of operation progress and rehabilitation phases	nil	nil
2 Nov 2023	Local Community – Have a Chat Event	Face to Face Consultation Informed the committee on rehabilitation status, completed drone trial and postponement of burn. 2023 rehabilitation vs disturbance discussed - Updated the	nil	nil

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ARR0001252 | Sunday 1 January 2023 to Sunday 31 December 2023

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
		committee on 2023 rehabilitation targets and progress.		
7 Dec 2023	Local Community – Have a Chat Event	Face to Face Consultation Informal meeting held at the old Wollar Store to discuss monthly operational updates - Updated attendees of operation progress and rehabilitation phases	nil	nil
8 Sep 2023	Registered Aboriginal Parties (RAPs)	Face to Face Consultation Informed the committee on rehabilitation status. Discussed proposed powerline project and impacts on operations rehabilitation areas - Updated the committee on 2023 rehabilitation targets and progress. - Powerline projects a separate entity and are required to offset impact	nil	nil

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DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
27 Nov 2023	Local Community – Have a Chat Event	Face to Face Consultation Informal meeting held at the old Wollar Store to discuss monthly operational updates - Updated attendees of operation progress and rehabilitation phases	nil	nil
11 Sep 2023	Native Title – NEWCO	Face to Face Consultation Informed the committee on rehabilitation status. Discussed proposed powerline project and impacts on operations rehabilitation areas - Updated the committee on 2023 rehabilitation targets and progress. - Powerline projects a separate entity and are required to offset impacts.	nil	nil
3 Aug 2023	Local Community – Have a Chat Event	Face to Face Consultation Informal meeting held at the old Wollar Store to discuss monthly	nil	nil

WILPINJONG COAL MINE ANNUAL REHABILITATION REPORT

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DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
		operational updates - Updated attendees of operation progress and rehabilitation phases		
1 Dec 2023	Registered Aboriginal Parties (RAPs)	Face to Face Consultation Informed the RAP's on rehabilitation status, completed drone trial and postponement of burn. 2023 rehabilitation vs disturbance discussed. - Updated the committee on 2023 rehabilitation targets and progress.	nil	nil
27 Nov 2023	Community Consultative Committee (CCC)	Face to Face Consultation Informed the committee on rehabilitation status, completed drone trial and postponement of burn. 2023 Rehabilitation vs Disturbance discussed - Updated the committee on 2023 rehabilitation targets and progress.	nil	nil

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DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
1 Dec 2023	Registered Aboriginal Parties (RAPs)	Face to Face Consultation Informed the RAP's on rehabilitation status, completed drone trial and postponement of burn. 2023 Rehabilitation vs Disturbance discussed - Updated the committee on 2023 rehabilitation targets and progress.	nil	nil
4 Aug 2023	Community Consultative Committee (CCC)	Face to Face Consultation Informed the committee on rehabilitation status. Discussed proposed powerline project and impacts on operations rehabilitation areas - Updated the committee on 2023 rehabilitation targets and progress. - Powerline projects a separate entity and are required to offset impacts.	nil	nil
5 Oct 2023	Local Community – Have a Chat Event	Face to Face Consultation Informal meeting held at	nil	nil

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DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
		the old Wollar Store to discuss monthly operational updates - Updated attendees of operation progress and rehabilitation phases		
4 Dec 2023	Native Title – NEWCO	Face to Face Consultation Informed the committee on rehabilitation status, completed drone trial and postpone of burn 2023 Rehabilitation vs Disturbance discussed - Updated the committee on 2023 rehabilitation targets and progress.	nil	nil
4 Dec 2023	Native Title – NEWCO	Face to Face Consultation Informed the committee on rehabilitation status, completed drone trial and postpone of burn. 2023 rehabilitation vs disturbance discussed - Updated the committee on 2023	nil	nil

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NSW
Resources
Regulator

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
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rehabilitation targets and
progress.

Attachment 5 – Plans

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2023_ARR_PLAN_1B.jpg

Annual Report (LARGE MINE) v1.6