NSW GOVERNMENT

NSW Resources Regulator

ARR0001281

RIXS CREEK MINE ANNUAL REHABILITATION REPORT

Saturday 1 April 2023 to Sunday 31 March 2024

Contents

Summary table

DETAIL	
Mine	Rixs Creek Mine
Reference	ARR0001281
Annual report period commencement date	Saturday 1 April 2023
Annual report period end date	Sunday 31 March 2024
Forward program	
Mining leases	CL 352 (1973), ML 1649 (1992), ML 1803 (1992), ML 1648 (1992), CL 357 (1973), ML 1725 (1992), ML 1650 (1992), ML 1651 (1992), ML 1630 (1992), ML 1432 (1992)
Lease holder(s)	BLOOMFIELD COLLIERIES PTY LTD
Contact	Chris Quinn
Date of submission	Wednesday 29 May 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

Rix's Creek Mine is wholly owned and operated by Bloomfield Collieries Pty Limited (BCL) an Australian owned company. The mine consists of Rix's Creek North (RCN) and Rix's Creek South (RCS) which are formally two separate mines. Each includes an approved open cut operation and CHPP facilities, with a rail loop located at RCN.

Life of mine

16 years

Current development consents, leases and licences

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

PA08-0102 (MOD9)
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Authorisations covering the mining area granted under the *Mining Act 1992*

CL 352 (1973), ML 1649 (1992), ML 1803 (1992), ML 1648 (1992), CL 357 (1973), ML 1725 (1992), ML 1650 (1992), ML 1651 (1992), ML 1630 (1992), ML 1432 (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

Bloomfield Collieries Pty Ltd purchased Lot65 DP752499 for the purpose of cropping and farming.

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 the reporting period Rix's Creek Mine progressed with the disturbance of the Western out of Pit dump area (WOOPD) and WH11 near the high-wall. 56.5ha of land was disturbed as per the land disturbance procedure. The planned disturbance for the Year Ending March (YEM) 2024 reporting period was scheduled to be 98.02ha. The Dulwich pre-strip block in Camberwell Pit and Western out of pit dump (WOOPD) was progressed in YEM24. A small section of the WS13 block was disturbed during the reporting period. The Eastern side of the WOOPD was not disturbed during the reporting period and is planned to be completed in YEM25. During the reporting period, 8.43 ha of rehabilitation occurred at Arties Pit North East, 7.79ha of rehabilitation occurred at Arties Pit SE, 3.9ha was completed at the Western out of pit dump (WOOPD) and 1.55 hectares was completed at The Old North Pit Void. A total 21.69 ha of rehabilitation occurred during the reporting period. This was greater than the 13.4ha specified in the Year 1 forward program. Larger areas were completed in the Arties Pit South and Arties Pit North with an additional area being completed in the Old North Pit Areas.

Rehabilitation planning activities that were conducted, including any specialist studies

A Quality Assurance and Quality Control rehabilitation process continued to be implemented during the reporting period. The QA/QC system provides an integrated process for the design, approval, construction and documentation to meet the requirements of the rehabilitation records guideline. Further refinements to the QA/QA system will continue to improve the rehabilitation process. Biosolid pre-application reports for Arties Pit and Western out of pit dump (WOOPD) rehabilitation were completed to determine rates of biosolid application. Rix's Creek Mine applies biosolids to boost organic matter, soil nutrient levels and improve vegetation growth and groundcover. RCM engaged a consultant to undertake preliminary screening, material characterisation and erosion modelling of the materials available for landform construction (reshaping) and surface capping / topdressing.

Overview of subsidence repair and/or remediation works undertaken

No subsidence repairs were required during the reporting period.

Overview of rehabilitation management and maintenance activities

Weed management was undertaken during the period. A weed action plan was undertaken with a land management service provider completing weed management focusing on Galenia,

Acacia Saligna, Coolatai grass, African boxthorn prickly pear. Other common species of weeds were also targeted during the year. Wild Dog and Fox baiting was undertaken during the reporting period. 120 baits were presented over 30 monitoring stations with 10 takes from foxes and 19 takes from wild dogs based on the animal sign left on the mound and surrounding areas.

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

On the 22/12/2023 Resources Regulator issued Rix's Creek Mine an official caution for late submission of the Rehabilitation Cost Estimate (RCE) for 2023 reporting period. Rix's Creek Mine has put in place systems to ensure that the RCE is submitted with future Forward Programs and Annual Rehabilitation Reports.

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

As per Clause 6 Schedule *A to the Mining Regulation 2016, the Resource Regulator has not signed off on rehabilitation areas that have achieved final land use during the reporting period.

Key production milestones

MATERIAL	UNIT	YEAR 1	THIS REPORT
Stripped topsoil (if applicable)	(m^3)	0	46,025
Rock/overburden	(m^3)	0	16,069,581
Ore	(Mt)	0	4.18
Reject material[1]	(Mt)	0	2.61
Product	(Mt)	0	1.57

[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)	2,238.21
B	**Total active disturbance**	(ha)	1,400.67
C	**Land prepared for rehabilitation**	(ha)	21.69
D	**Ecosystem and land use establishment**	(ha)	49.89
E	**Ecosystem and land use development**	(ha)	765.96
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)	765.96
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**	%	34.22

Progressive achievement of established rehabilitation

	ELEMENT	UNIT	THIS REPORT
L	**Established rehabilitation - agricultural final land uses**	%	98.7
M	**Established rehabilitation - native ecosystem final land uses**	%	0
N	**Established rehabilitation - other/non-vegetated final land uses**	%	1.3

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 order to refine the design criteria needed to ensure long-term erosional stability of future amendments to the final landform, RCM engaged a consultant to undertake preliminary screening, material characterisation and erosion modelling of the materials available for landform construction (reshaping) and surface capping / topdressing. Materials chosen for additional erodibility testing and modelling included an area of rehabilitation in the Arties Pit (Rehab3), a topsoil stockpile, sub soil stockpile, Brown waste and Grey waste. Results identified that the Rehab3 soil was non-sodic and non- dispersive, highlighting the benefits of soil structure and functioning from the RCM topdressing amelioration strategy. Enhanced microbial productivity may improve erosion resistance is encouraging and provides additional support for the adopted rehabilitation strategy at RCM of adding biological amendments (e.g., biosolids, mulch, gypsum) to improve the vegetative growth quality of the topdressing growth medium. The two distinct waste spoil materials at RCM, designated as Grey waste and Brown Waste. Grey Waste material at Rix's Creek Mine should be prioritised exclusively for use on the steeper sections of the rehabilitation design. The Brown waste is better placed on flatter areas of rehabilitation, such as the bunded tops of the landforms, or low relief connecting corridors.

Status of performance against rehabilitation objectives and rehabilitation completion criteria

The monitoring program that has been implemented

The rehabilitation monitoring program was undertaken in accordance with the Bloomfield Group's monitoring protocol as specified in the RMP. The monitoring protocol included the assessment of a range of performance metrics relating to ground cover, landscape function, erosion, vegetation, weeds and soil properties. Based on the analysed and interpreted field collected data, an overall assessment of rehabilitation performance was undertaken against the relevant rehabilitation objectives and completion criteria defined in Rix's Creek Mine RMP. The monitoring program is based on the Landscape Function Analysis (LFA). LFA is the core of the monitoring procedures and uses visually assessed indicators of soil surface processes that gauge how effectively a hillslope is operating as a biophysical system. It is mainly based on processes involved in surface hydrology: rainfall, infiltration, runoff, erosion, plant growth and nutrient cycling. In addition to LFA monitoring, the monitoring program also assesses the performance of rehabilitated lands in terms of ground cover protection, erosion, vegetation community composition and structure, soil properties and pasture productivity.

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 continued monitoring of rehabilitation performance through the monitoring methodology is allowing Rix's Creek Mine to improve soil and land quality of rehabilitated sites across the mine lease area. Land improvements and supporting scientific data provide a strong case to regulators that successful land relinquishment is being achieved through current management.

Appraisal description

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

Rehabilitation monitoring program findings

Rehabilitation monitoring was conducted by an independent Consultant in December 2023. Key findings of the rehabilitation monitoring program include the following: Land and soil capability were generally quite good across all rehabilitated areas. Rehabilitated sites performed similar to, or better than Analogue Sites and generally within acceptable completion criteria; All rehabilitation monitoring site exceeded their benchmark criteria for Infiltration and Nutrient cycling; Ground cover percentage has increased significantly in 2023 compared to 2021; Species diversity within the tree and shrub layers of monitoring sites matched or exceeded reference sites; Landscape function pasture results indicated that rehabilitated areas overall performed positively and comparatively to the pasture analogue sites. Overall, all sites are meeting benchmark completion criteria, aside from the 10 sites which fell below 50% stability which can be attributed to the drier climatic conditions at the time of survey. The majority of sites with mid and upper storeys appeared to be in good health and condition however did not exhibit obvious signs of natural regeneration. Recruitment was not apparent at 6 monitoring sites. Stands of Spotted Gum (Corymbia) generally showed little to no evidence of recruitment compared to sites with other species. Eucalyptus and Acacia showed the most prolific recruitment and produced the highest stem/ha counts. All sites were identified to fall within the completion criteria for the respective to topsoil cover. All sites displayed good soil characteristics in terms of soil acidity, salinity and sodicity. Soil dispersion benchmarks were not achieved at all sites however this does not appear to have had an impact on vegetative performance. Additional weeds have been identified and as such require control. Particular note for control of Coolatai grass,

Balloon Cotton and Spear thistle. Continuation of previous year monitoring weed control is recommended. Rix's Creek Mine has prepared a weed management plan to reduce weeds onsite. Pasture performance was improved in 2023. Pasture sites were above the recommended heights by Meat and livestock Australia (MLA). It is recommended that such sites are grazed or continue to be slashed.

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

Additional weeds have been identified and as such require control. Particular note for control of Coolatai grass, Balloon Cotton and Spear thistle. Continuation of previous year monitoring weed control is recommended. Rix's Creek Mine has prepared a weed management plan to reduce weeds onsite. Pasture performance was improved in 2023. Pasture sites were above the recommended heights by Meat and livestock Australia (MLA). It is recommended that such sites are grazed or continue to be slashed.

Outcomes of rehabilitation research and trials

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS	ON TRACK?
RRT0001025	Grazing Land Monitoring Trial	Monitoring the productivity of rehabilitated pasture through grazing.	Measurements of soil sustainability and productivity (and to determine soil amelioration and fertiliser requirements) Measurements and indicators of the health and productivity of vegetation/pasture growth on the land. Develop some key indicators of and best management practices for pastures on rehabilitated land. Provide recommendations for best management practices for future grazing. Provide a comparison of the grazing potential of the rehabilitated land and the adjacent analogue n	29 Jan 2040	Ongoing	Yes
RRT0001026	Project C34025 investigating a new landscape evolution model	investigating a new landscape evolution model for assessing rehabilitation designs.	The model development is the refinement of the State-Space Soil Production and Assessment Model (SSSPAM) and looks at optimising the existing model.	29 Jan 2025	Ongoing	Yes
RRT0001027	Rix's Creek Pasture Assessment Trial	The purpose of this trial was to assess the quality and quantity of pasture produced on mine rehabilitation sites and determines the suitability of the site for the intended agricultural end use.	Improved pasture was sown on four treatments, which included a Control using conventional fertiliser, Biosolids, and two Alternate Waste Treatment (AWT) Compost treatments. An un-grazed Native Pasture area	29 Jul 2022	Complete	Yes

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS	ON TRACK?
			was also sampled to gather comparable baseline data. Random quadrats were assessed along transect lines in each treatment for species diversity, herbage mass and forage quality. Data was collected annually for 4 years, commencing 12 months after sowing.			

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

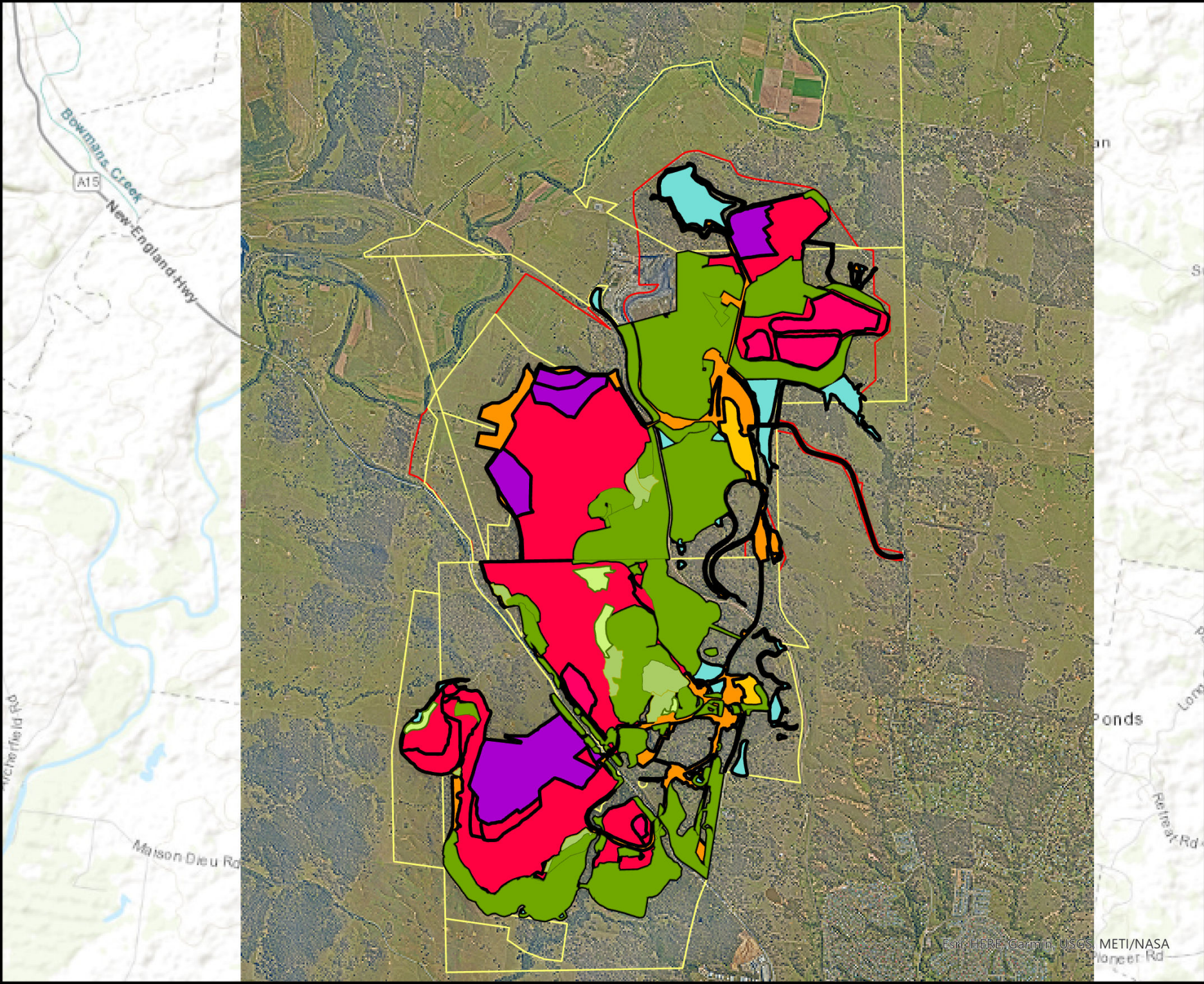
DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
18 Oct 2023	Community Consultative Committee	Upper Hunter Mining Dialogue provided an overview of the annual rehabilitation reporting project noting of the results published	Rehabilitation reforms and rehabilitation cerfication and relinquishment.	Community member asked about timeframes from rehabilitation to be certified and relinquished. It was agreed to provide an update on the rehabilitation reforms as well as buffer land management including farming operations at the next meeting.
22 Dec 2023	NSW Resources Regulator	Offical Caution for late submission of Rehabilitation Cost Estimate (RCE).	Submission of Rehabiltiation Cost Estimate for 2023 period.	Rix's Creek Mine has put in place systems to ensure that the RCE is submitted with future Forward Programs and Annual Rehabilitation Reports.
5 Apr 2024	-	-	-	-
11 May 2023	Community Consultative Committee	Consultation during. Reporting period included: Issue of community newsletter; Website update; CCC meetings; Bloomfield Family Day Rehabilitation inspections; Upper Hunter Mining Dialogue school tours;	Rehabilitation progress which involved a review of progress with rehabilitation requirements.	The CCC requested a breifing on the rehabilitation reforms including any areas that have been signed off by the Bloomfield Group.
16 Nov 2023	Department of Planning and Environment	Inspection of site operations	site inspection of rehabilitation areas and water management area.	No formal correspondence was received regarding rehabilitation.

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
8 Feb 2024	Community	letter box drop	operations update and modification 10 progress update	No action or correspondence recevied after letter box drop.

Attachment 5 – Plans

Plan 1A - Current status of mining and rehabilitation 2024.pdf

Plan 1B - Current landform contours at completion of annual reporting period 2024.pdf



N

Legend

- Project approval boundary
- Current Authorisations
- Decommissioning
- Landform Establishment
- Growth Media Development
- Ecosystem and Land Use Establishment
- Ecosystem and Land Use Development
- Relinquishment (Rehabilitated)
- Rehabilitation Completion
- Beneficiation Facility
- Infrastructure Area
- Other
- Overburden Emplacement Area
- Tailings Storage Facility
- Underground Mining Area (SMP)
- Active Mining Area (Open cut void)
- Water Management Area

0 0.17 0.35 0.7 1.05 1.4 km

Plan 1A: Current status of mining and rehabilitation
Portal ID: 7889, 7890, 7926

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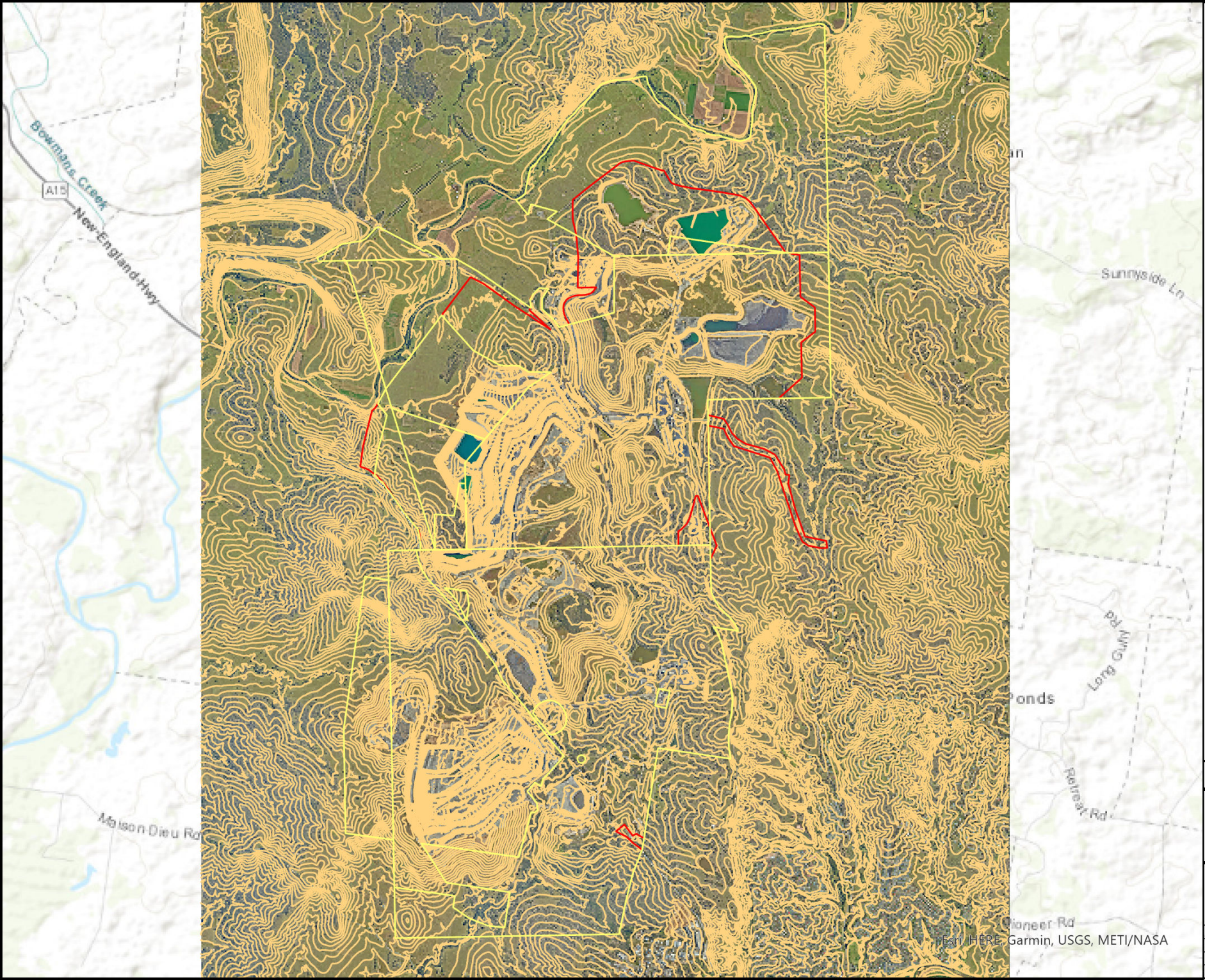
Author:
Scale: 1:40,000
Date: 13/05/2024
File: Rehabilitation



N

Legend

- Current Authorisations
- Project approval boundary
- Current Landform Contours 2024

0 0.17 0.35 0.7 1.05 1.4 km

Plan 1B - Current landform contours
Portal ID: 7894,7926,

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Author:	
Scale:	1:40,000
Date:	13/05/2024
File:	Rehabilitation