NSW GOVERNMENT

NSW Resources Regulator

ARR0001471

BULGA COMPLEX ANNUAL REHABILITATION REPORT

Monday 1 January 2024 to Tuesday 31 December 2024

Summary table

DETAIL	
Mine	Bulga Complex
Reference	ARR0001471
Annual report period commencement date	Monday 1 January 2024
Annual report period end date	Tuesday 31 December 2024
Forward program	FWP0001364
Mining leases	ML 1717 (1992), ML 1547 (1992), CL 224 (1973), ML 1494 (1992), ML 1674 (1992), ML 1788 (1992)
Lease holder(s)	Nippon Steel Australia PTY. Limited, Saxonvale Coal PTY. Limited, Bulga Coal Management Pty Limited
Contact	Ralph Northey
Date of submission	Thursday 24 April 2025

Important

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

Mine details

Project description

Bulga Coal is located approximately 12 km southwest of Singleton, and approximately 2 km from the townships of Broke and Bulga, in the Upper Hunter Valley of New South Wales. Development Consent SSD-4960 allows for extraction of up to 12.2 million tonnes of ROM coal from open cut mining operations per calendar year, up until 31 December 2039. BOC incorporates the Coal Handling and Preparation Plant (CHPP). The CHPP and the rail loading facility are located in the north-east corner of Bulga Coal and service both BUO and BOC. The BUO ceased mining and sealed the Blakefield South Mine in May 2018.

Life of mine

14 years

Current development consents, leases and licences

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

DA 376-8-2003
DA 376-8-2003
SSD-4960
DA 376-8-2003
DA 376-8-2003
SSD-4960
DA 376-8-2003
SSD-4960
SSD-4960
DA 376-8-2003
SSD-4960
DA 376-8-2003

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

ML 1717 (1992), ML 1547 (1992), CL 224 (1973), ML 1494 (1992), ML 1674 (1992), ML 1788 (1992)

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

EPBC 2012/6637
EPBC 2018/8300

Sublease within CL 219
EPBC 2002/773
EL 5461
EPL 563
EL 8315
AUTH 447
EL 5277
AUTH 450

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

In December 2024 the decision was made to relinquish AUTH 450 considering: • The Department of Regional NSW, Mining, Exploration and Geosciences (MEG) is no longer renewing veneer licences that cannot be demonstrably linked to an Open Cut exploration program or mining study, and veneer licences are no longer being renewed for the sole purpose of completing rehabilitation; and • AUTH 450 is located outside the Bulga Open Cut operations Noise and Visual Bund which acts as an established boundary to the current extent of active open cut mining operations within the Bulga Complex.

Changes to land ownership and land use

No changes to land ownership and land use within the 2024 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

Exploration: No exploration holes were drilled during 2024. No Bulga Underground prospecting exploration activities occurred in 2024. During 2024, 1.7 ha was disturbed to allow mining, overburden dumping and construction activities (roads, drains, dams). There was also 90.54 ha of existing rehabilitation cleared to facilitate overburden dumping across the East Pit and West Pit emplacements. Approximately 20,689 m3 of topsoil was stripped and 3 habitat trees were salvaged from clearing areas in advance of mining. During 2024, Bulga Coal completed 31.56 ha of rehabilitation at the Eastern Emplacement Area, with maintenance of previously established rehabilitation also occurring throughout the year. The rehabilitation establishment methodology is outlined in the RMP. Rehabilitation in 2024 was generally as per the FWP forecast. An additional 10.07 ha of historic rehabilitation was re-disturbed in 2024 to allow for overburden emplacement. New disturbance was 3.26 ha less than forecast.

Rehabilitation planning activities that were conducted, including any specialist studies

Bulga Coal completed rehabilitation planning activities as part of the sites annual Life of Mine and Budget mine planning processes. Prior to June 2024, Bulga Coal reviewed and updated the Life of Mine (LOM) plan for the subsequent year. The LOM Plan includes all clearing, rehabilitation, and mine closure requirements to meet the site's rehabilitation objectives. A Budget Mine Plan for the subsequent 5 years is then developed and includes clearing, rehabilitation, and mine closure activities for the budget period. The 2025 Forward Program was then developed based on the budget mine plan. Bulga Coal conducted an Annual risk assessment in 2023 to review rehabilitation and mine closure risks and ensure appropriate measures are in place to control or mitigate risks.

Overview of subsidence repair and/or remediation works undertaken

Bulga Underground Operations have continued to progressively complete repairs to surface subsidence cracking identified from monitoring. Where identified, repairs to surface subsidence cracking for previously mined areas was undertaken during the reporting period.

Overview of rehabilitation management and maintenance activities

A landform stability inspection has been conducted annually by an engineering consultant since 2021 to identify all erosion features across rehabilitated areas. During 2024 repairs were undertaken on localised erosion features identified across the Noise and Visual Bund, East Pit

emplacement area and the Eastern Emplacement Area. Weed control works in 2024 were carried out across all rehabilitation areas focusing primarily on Lantana, Acacia saligna, Blue Heliotrope and various exotic grass species. 1080 baits were placed in rehabilitation areas where wild dogs had previously been identified.

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

N/A

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

n/a

Key production milestones

MATERIAL	UNIT	FWP0001364 YEAR 1	THIS REPORT
Stripped topsoil (if applicable)	(m^3)	5,100	20,689
Rock/overburden	(m^3)	67,460,000	68,886,148
Ore	(Mt)	0	10.05
Reject material[1]	(Mt)	3.54	4.21
Product	(Mt)	6.65	6.75

[1] This includes coarse rejects, tailings and any other wastes resulting from beneficiation.

Disturbance and rehabilitation statistics

Current disturbance and rehabilitation progression

	ELEMENT	UNIT	THIS REPORT
A1	**Total disturbance footprint – surface disturbance**	(ha)	3,506.98
B	**Total active disturbance**	(ha)	2,507.73
C	**Rehabilitation – land preparation**	(ha)	0
D	**Ecosystem and land use establishment**	(ha)	680.64
E	**Ecosystem and land use development**	(ha)	318.6
F	**Rehabilitation completion**	(ha)	0

Rehabilitation key performance indicators (KPIs)

	ELEMENT	UNIT	THIS REPORT
G	**New disturbance area**	(ha)	9.01
H	**New rehabilitation commenced during annual reporting period**	(ha)	-66.24
I	**Established rehabilitation**	(ha)	318.6
J	**Annual rehabilitation to disturbance ratio**	%	-7.35
K	**Rehabilitated land to total mine footprint**	%	9.08

Progressive achievement of established rehabilitation

	ELEMENT	UNIT	THIS REPORT
L	**Established rehabilitation for agricultural final land uses**	%	1.56
M	**Established rehabilitation for native ecosystem final land uses**	%	94.81
N	**Established rehabilitation for other/non-vegetated final land uses**	%	0

Variation to the rehabilitation schedule

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

Rehabilitation in 2024 was generally as per the FWP forecast. An additional 10.07 ha of historic rehabilitation was re-disturbed in 2024 to allow for overburden emplacement. New disturbance was 3.26 ha less than forecast. Please note that a review of Bulga disturbance and rehabilitation data was completed during the preparation of this Annual Review. The review resulted in the removal of some areas not associated with Bulga Coal disturbance (e.g. visual screening activities, areas associated with the new Broke Road), additionally some remedial works above the Bulga Underground Operations associated with historic disturbance have been captured as disturbance and rehabilitation.

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

A total of 17 rehabilitation blocks and 40 transects/plots were assessed across the Noise and Visual Bund (NVB), EEA, East Pit Dump (EPD) and northern dams and drains rehabilitation areas; including nine (9) blocks monitored for IEM, and eight (8) blocks monitored for LTM. All rehabilitation blocks assessed were being returned to a native woodland/forest land use, and covered a cumulative area of approximately 225.4 ha. During 2024 Bulga continued to implement the annual landform stability and drainage inspections across all rehabilitation areas and associated drainage structures. The inspection was undertaken by a consulting engineer to identify erosion features such as rills, tunnelling, silt accumulation and overtopping drains. Spatial data was collected for all erosion and drainage maintenance features identified across rehabilitation areas. The inspection noted a marked improvement in landform stability from previous inspections with a reduced number of erosion and maintenance issues identified. Based on collected monitoring results and observations, management recommendations have been suggested to improve the condition of rehabilitation areas and ensure they remain on a trajectory towards the approved rehabilitation objectives.

Status of performance against rehabilitation objectives and rehabilitation completion criteria

The monitoring program that has been implemented

The objective of the long-term monitoring program (areas >3 years old) is to evaluate progress of rehabilitation towards fulfilling completion criteria, additional statutory requirements that may apply to the operation and ultimately the approved post-mining land use. A total of eight LTM blocks were assessed, in which a total of 35 plots were monitored and assessed against analogue site results. The initial establishment monitoring (IEM) is a rapid style assessment of young (≤3 years old) rehabilitated areas, principally to determine germination success, presence of weeds and landform stability. In 2024 a total of nine IEM blocks were assessed.

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.

Average total native species richness was greater than 50% of the average native richness at the corresponding reference sites (i.e. the completion criteria for Bulga Coal) in five of the eight blocks monitored, but insufficient to greatly insufficient in the other three blocks (~16% - 43% of the reference sites average). Irrespective of richness levels, native species recorded in the rehabilitation were generally well-representative of the species found in the targeted native communities. Most blocks were deemed in a 'manageable' condition for possible progression towards the target native communities (i.e. assuming sufficient management inputs and commitments). Overall, three of the LTM blocks were assessed as having adequate tree stem densities, while two blocks had greatly insufficient tree densities and three blocks had excessive tree densities. In terms of vegetation structure, four of the eight blocks showed an acceptable performance, i.e. meeting the BAM structure score completion criteria or deemed satisfactory relative to the age of the rehabilitation (and expected to progressively improve over time). Vegetation function scores (BAM scores) consistently remained below defined targets, however the function score is mainly a reflection of the maturity of the vegetation and should progressively increase in most blocks where sufficient mid and canopy layers occurred. Average cumulative priority weed cover exceeded allowable levels in two of the eight LTM blocks.

Appraisal description

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

Rehabilitation monitoring program findings

A total of 17 rehabilitation blocks and 40 transects/plots were assessed across the Noise and Visual Bund (NVB), EEA, East Pit Dump (EPD) and northern dams and drains rehabilitation areas; including 9 blocks monitored for IEM, and 8 blocks monitored for LTM. All rehabilitation blocks assessed were being returned to a native woodland/forest land use, and covered a cumulative area of approximately 225.4 ha. IEM Blocks: Surface drainage was assessed as satisfactory across all 2024 IEM blocks, with no issues of ponding or settlement detected that could threaten to cause rehabilitation failure. 5 of the 9 IEM blocks were identified as requiring erosion repair works to remediate gully channels of moderate to high severity. Ground cover protection was satisfactory in all IEM blocks and on average comprised between ~79% - 91%, well above the 70% minimum target benchmark. Native species assemblages were excellent in all blocks, with on average more than 85% of the total native richness comprised of species representative of the target communities. Average cumulative priority weed cover was highly variable and ranged between 1.1% - 60.2%, with 2 blocks returning weed cover exceeding levels defined as allowable in the RMP. LTM Blocks: Landforms, soil profiles and vegetation were generally well-established across all LTM blocks monitored in 2024, with very limited active erosion processes recorded across the slopes. Few residual and localised erosion features were recorded but all were assessed as stabilising, and none posed a

threat to rehabilitation success or overall landform integrity. Average total native species richness was greater than 50% of the average native richness at the corresponding reference sites (i.e. the completion criteria for Bulga Coal) in 5 of the 8 blocks monitored, but insufficient to greatly insufficient in the other 3 blocks (~16% - 43% of the reference sites average). Irrespective of richness levels, native species recorded in the rehabilitation were generally well-representative of the species found in the targeted native communities. Overall, 3 of the LTM blocks were assessed as having adequate tree stem densities, while 2 blocks had greatly insufficient tree densities and 3 blocks had excessive tree densities. Tree thinning was however not yet recommended for immediate implementation. In terms of vegetation structure, 4 of the 8 blocks showed an acceptable performance, i.e. meeting the BAM structure score completion criteria or deemed satisfactory relative to the age of the rehabilitation (and expected to progressively improve over time). Average cumulative priority weed cover exceeded allowable levels in two of the eight LTM blocks; whilst an additional three blocks had an average cover below triggers but displayed variance levels exceeding triggers, i.e. indicating locally high weed levels within the blocks.

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

Five of the nine IEM blocks monitored were identified as requiring erosion repair works to remediate gully channels of moderate to high severity. Two IEM blocks returned weed cover exceeding levels defined as allowable in the RMP. Overall, the floristics monitoring results highlighted that improvements in native species richness and/or composition will be required in at least four of the eight LTM blocks assessed in 2024 with one block potentially requiring full rework having regard to its highly deficient condition. Two LTM blocks had greatly insufficient tree densities and three blocks had excessive tree densities. Tree thinning was however not yet recommended for immediate implementation in two of the three blocks showing excessive stem densities having regard to the still early successional stage of the rehabilitation. Tree thinning was recommended for one block, especially as the block contains a population of the exotic Sugar Gum which needs to be removed. Four LTM blocks will require various management inputs to rectify deficiencies in existing native vegetation performance, the main (and most problematic) issue being an insufficient native grass layer. Vegetation function scores (BAM scores) consistently remained below defined targets, however the function score is mainly a reflection of the maturity of the vegetation and should progressively increase in most blocks where sufficient mid and canopy layers occurred.

Outcomes of rehabilitation research and trials

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS	ON TRACK?
RRT0001042	Canopy Tree Thinning Trial	To assess whether tree thinning at early stages of rehabilitation establishment is effective in reducing stem densities without increasing weed growth.	A tree thinning trial commenced in 2021 across areas of rehabilitation on the Noise and Visual bund in response to monitoring results demonstrating higher than desired densities of Eucalypt species leading to suppression of understory CHGBIB EEC species. A team of experienced land management and environmental restoration contractors conducted the tree thinning using the cut and paint method. Areas subject to thinning works will be monitored in subsequent years to assess EEC development.	15 Mar 2025	Ongoing	Yes
RRT0001143	Growth medium trial	To assess alternative options for growth medium application in rehabilitation. This is inline with Bulga's life of mine topsoil strategy.	A growth medium trial commenced in 2024 on a section of the Eastern Emplacement Area rehabilitation. Topsoil was spread to a depth of 50 mm on the flatter areas of the 2024 rehabilitation as opposed to the typical depth of 100 mm. This trial is a part of the life of mine topsoil strategy and will help inform future methodologies for maximising re-use of growth medium. This will continue in 2025 and may also include the use of alternative growth mediums.	31 Dec 2025	Ongoing	Yes

Outcomes of completed trials and research

N/A

Attachment 1 – Reporting Definitions

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

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

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

Attachment 2 – Definitions

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

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

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

WORD	DEFINITION
Life of mine	The timeframe of how long a mine is approved to mine, from commencement to closure.
Mine rehabilitation portal	Means the NSW Resources Regulator's online portal that lease holders must use (via a registered account) to: ■ upload rehabilitation geographical information system (GIS) spatial data ■ develop rehabilitation GIS spatial data (using online tracing functions) ■ generate rehabilitation plans and rehabilitation statistics using the map viewer and Rehabilitation Key Performance Indicator functionalities. Data submitted to the mine rehabilitation portal is collated in a centralised geodatabase for use by the NSW Resources Regulator to regulate rehabilitation performance of lease holders.
Mining area	As defined in the *Mining Act 1992*.
Mining domain	A land management unit with a discrete operational function (e.g. overburden emplacement), and therefore similar geophysical characteristics, that will require specific rehabilitation treatments to achieve the final land use(s).
Mining land	As defined in the *Mining Act 1992.*
Native vegetation	Has the same meaning as that term under section 60B of the *Local Land Services Act 2013.*
Overburden	Material overlying coal or a mineral deposit.
Performance indicator	An attribute of the biophysical environment (for example pH, slope, topsoil depth, biomass) that can be used to demonstrate achievement of a rehabilitation objective. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion, that is, a defined end point. It may be aligned to an established protocol and used to evaluate changes in a system.

WORD	DEFINITION
Phases of rehabilitation	The stages and sequences of actions required to rehabilitate disturbed land to achieve the final land use. The phases of rehabilitation are: ■ active mining ■ decommissioning ■ landform Establishment ■ growth medium development ■ ecosystem and land use establishment ■ ecosystem and land use development.
Progressive rehabilitation	The progress of rehabilitation towards achieving the approved rehabilitation completion criteria. This may be described in terms of domains, phases, performance indicators and rehabilitation completion criteria.
Rehabilitation Completion	The final phase of rehabilitation when a rehabilitation area has achieved the approved rehabilitation objectives and rehabilitation completion criteria for the final land use. Rehabilitation areas may be classified as complete when the NSW Resources Regulator has determined in writing that the relevant rehabilitation obligations have been fulfilled following submission of *Form ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate* application by the lease holder.
Rehabilitation Completion criteria	As defined in the Mining Regulation 2016.
Rehabilitation cost estimate	As defined in the Mining Regulation 2016.
Rehabilitation management plan	As defined in the Mining Regulation 2016.
Rehabilitation objectives	As defined in the Mining Regulation 2016.
Rehabilitation risk assessment	As defined in the Mining Regulation 2016.
Rehabilitation schedule	The defined timeframes for progressive rehabilitation set out in the forward program.

WORD	DEFINITION
Relevant stakeholders	Means any persons or bodies who may be affected by the mining operations, including rehabilitation, carried out on the lease land, and includes: ■ the relevant development consent authority ■ the local council ■ the relevant landholder(s) ■ community consultative committee (if required under the development consent) or equivalent consultative group ■ affected land holder(s) ■ government agencies relevant to the final land use ■ affected infrastructure authorities (electricity, telecommunications, water, pipeline, road, rail authorities) ■ local Aboriginal communities, and ■ any other person or body determined by the Minister to be a relevant stakeholder in relation to a mining lease.
Risk	The effect of uncertainty on objectives. It is measured in terms of consequences and likelihood (AS/NZS ISO 31000:2009).
Secretary	The Secretary of the Department.
Security deposit	An amount that a mining lease holder is required to provide and maintain under a mining lease condition, to secure funding for the fulfilment of obligations under the lease (including obligations that may arise in the future).
Surface disturbance	Includes activities that disturb the surface of the mining area, including mining operations, ancillary mining activities and exploration.
Tailings	A combination of the fine-grained solid material remaining after the recoverable metals and minerals have been extracted from the mined ore, and any process water[2].
Waste	Has the same meaning as that term under the *Protection of the Environment Operations Act 1997*.

[2] Commonwealth of Australia (DITR), 2007. *Tailings Management*.

Attachment 3 – Rehabilitation Complaints

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

Attachment 4 – Stakeholder consultation

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
2 Nov 2022	Community Consultative Committee	The CCC is operated jointly by BUO and BOC and provides a forum for open discussion between Bulga Coal representatives, the community, Singleton Council (Council) and other stakeholders on issues directly relating to the mine's operations and environmental performance. Bulga Coal conducted a Community Consultative Committee Meeting in November 2022.	Bulga Coal provided an overview of the annual rehabilitation and disturbance targets and actuals for 2022 YTD. Discussion around the Rehabilitation Reform and the Rehabilitation Management Plan that includes 5 yearly stage plans. As well as the Annual Rehabilitation Report and Forward Work Program that indicates current rehabilitation and disturbance for the next 3 years.	Query from community member regarding internal slopes of Northern Tailings Storage Facility (NTSF) which can be seen from Bulga. Site is currently assessing whether any temporary rehabilitation can be undertaken to minimise visibility of internal slopes and will provide an update at the next CCC meeting schedule in May 2023.
15 Nov 2023	Community Consultative Committee	The CCC is operated jointly by BUO and BOC and provides a forum for open discussion between Bulga Coal representatives, the community, Singleton Council (Council) and other stakeholders on issues directly relating to the mine's operations and environmental	Bulga Coal provided an overview of the annual rehabilitation and disturbance targets and actuals for 2023 YTD. Discussion around the Final Landform Rehabilitation Plan and Rehabilitation Objectives approved in October 2023. General discussions also included disturbance of rehabilitation and feedback from the June 2023 Resources Regulator site inspection which focussed on rehabilitation progress.	No matters raised in relation to rehabilitation in the November CCC meeting required further actions to be taken.

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
		performance. Bulga Coal conducted a Community Consultative Committee Meeting in November 2023.		
15 May 2024	Community Consultative Committee (CCC)	CCC meeting held at the Minimbah Teaching Place. Update on operations provided by Bulga Coal, including an update on the rehabilitation.	Bulga coal provided update to the members on rehabilitation maintenance activities and completed rehabilitation in 2023.	No matters raised requiring response by Bulga Coal in relation to rehabilitation.
3 Dec 2025	Community Consultative Committe (CCC)	CCC meeting held at Minimbah Teaching Place with committee members. Update of activities provided by Bulga Coal, including rehabilitation.	Update provided by Bulga Coal on rehabilitation progress and the plan for 2025. The good quality of rehabilitation at Bulga Coal was commented on by members of the committee.	No matters raised that required response by Bulga Coal.
2 Nov 2022	Community Consultative Committee	The CCC is operated jointly by BUO and BOC and provides a forum for open discussion between Bulga Coal representatives, the community, Singleton Council (Council) and other stakeholders on issues directly relating to the mine's operations and environmental	Bulga Coal provided an overview of the annual rehabilitation and disturbance targets and actuals for 2022 YTD. Discussion around the Rehabilitation Reform and the Rehabilitation Management Plan that includes 5 yearly stage plans. As well as the Annual Rehabilitation Report and Forward Work Program that indicates current rehabilitation and disturbance for the next 3 years.	Query from community member regarding internal slopes of Northern Tailings Storage Facility (NTSF) which can be seen from Bulga. Site is currently assessing whether any temporary rehabilitation can be undertaken to minimise visibility of internal slopes and will provide an update at the next CCC meeting schedule in May 2023.

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
		performance. Bulga Coal conducted a Community Consultative Committee Meeting in November 2022.		
17 May 2023	Community Consultative Committee	A Community Consultative Committee (CCC) operates in accordance with SSD-4960 and DA 376-8- 2003. The CCC is operated jointly by BUO and BOC and provides a forum for open discussion between Bulga Coal representatives, the community, Singleton Council (Council) and other stakeholders on issues directly relating to the mine's operations and environmental performance.	Bulga Coal provided an overview of the 2023 rehabilitation and maintenance program. A general discussion was held around rehabilitation and disturbance during 2022 and progression and implementation of the rehabilitation reforms.	No matters raised in relation to rehabilitation in the May CCC meeting required further actions to be taken.

Attachment 5 – Plans

Plan 1A Current Status of Mining and Rehabilitation.pdf

Plan 1B Current Landform Contours.pdf