



**NSW  
Resources  
Regulator**

**ARR0001218**

# **STRATFORD COAL MINE ANNUAL REHABILITATION REPORT**

**Sunday 1 January 2023 to Sunday 31 December 2023**

# Contents

Summary table .....	-1
Important .....	-1
Mine details.....	-1
Project description.....	-1
Life of mine .....	-1
Current development consents, leases and licences.....	-1
Changes to land ownership and land use .....	-1
Surface disturbance and rehabilitation activities during the reporting period .....	-1
Disturbance and rehabilitation statistics.....	-1
Current disturbance and rehabilitation progression .....	-1
Rehabilitation key performance indicators (KPIs) .....	-1
Progressive achievement of established rehabilitation.....	-1
Variation to the rehabilitation schedule.....	-1
Rehabilitation monitoring and research findings .....	-1
Rehabilitation monitoring.....	-1
Status of performance against rehabilitation objectives and rehabilitation completion criteria .....	-1
Outcomes of rehabilitation research and trials .....	14
Attachment 1 – Reporting Definitions .....	16
Attachment 2 – Definitions.....	19
Attachment 3 – Rehabilitation Complaints.....	25
Attachment 4 – Stakeholder consultation.....	-1
Attachment 5 – Plans.....	28

## Summary table

DETAIL	
Mine	Stratford Coal Mine
Reference	ARR0001218
Annual report period commencement date	Sunday 1 January 2023
Annual report period end date	Sunday 31 December 2023
Forward program	FWP0001035
Mining leases	ML 1787 (1992), ML 1521 (1992), ML 1528 (1992), ML 1409 (1992), ML 1447 (1992), ML 1360 (1992), ML 1538 (1992), ML 1577 (1992), ML 1733 (1992)
Lease holder(s)	CIM STRATFORD PTY LTD, GLOUCESTER COAL PTY LTD
Contact	Thomas Kirkwood
Date of submission	Wednesday 13 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

Stratford Coal Pty Ltd (SCPL), a wholly owned subsidiary of Yancoal Australia Limited (Yancoal), owns and operates the Stratford Mining Complex (SMC), which is located approximately 100 kilometres (km) north of Newcastle, New South Wales (NSW). Development of the SMC is approved under Development Consent (SSD-4966) and occurs within Mining Leases (MLs) 1577, 1528, 1360, 1409, 1447, 1538, 1521, 1733 and 1787. Condition 5, Schedule 2 of the Development Consent (SSD-4966) authorises mining operations to be carried at the SMC until 31 December 2025.

### Life of mine

1 years

### Current development consents, leases and licences

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

SSD4966 (MOD2)  
SSD4966 (MOD2)  
SSD4966 (MOD2)  
SSD4966 (MOD2)  
SSD4966 (MOD2)  
SSD4966 (MOD2)  
SSD4966 (MOD2)  
SSD4966 (MOD2)  
SSD4966 (MOD2)  
SSD4966 (MOD2)  
SSD4966 (MOD2)  
SSD4966 (MOD2)  
SSD4966 (MOD2)  
SSD4966 (MOD2)

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

ML 1787 (1992), ML 1521 (1992), ML 1528 (1992), ML 1409 (1992), ML 1447 (1992), ML 1360 (1992), ML 1538 (1992), ML 1577 (1992), ML 1733 (1992)

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

• EPL5161, EPBC 2011/6176

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

Nil

## Changes to land ownership and land use

No changes to land ownership and land use related to that land has occurred during the Annual Reporting Period (ARP) (1 January 2023 to 31 December 2023).

# 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

Consistent with the forecast data submitted for the 2023 Forward Program, no new areas of rehabilitation or disturbance were targeted during the ARP (i.e. rehabilitation and disturbance works occurred within existing rehabilitation and disturbance areas, respectively).

Disturbance has continued in areas of previous disturbance associated with:

- The completion of mining in:
  - Roseville West Pit;
  - Bowens Road North Open Cut (BRNOC); and
  - Stratford East Open Cut.
- Continued development and mining of the Avon North Open Cut targeting the Avon, Marker 2, Glenview, Triple Coal and Rombo groups of seams.

Ongoing rehabilitation activities have occurred in portions of:

- BRNOC.
- Roseville Pit.
- Roseville West Pit.
- Western Co-disposal Area.
- Stratford Waste Emplacement.
- Southern Waste Emplacement.
- Northern Waste Emplacement (including extension area).

During the ARP, rehabilitation areas included the following rehabilitation phases:

- landform establishment;
- growth medium development; and
- ecosystem and land use establishment.

## Rehabilitation planning activities that were conducted, including any specialist studies

The rehabilitation strategy developed as part of the Stratford Extension Project (SEP) Environmental Impact Statement (EIS) was conceptual in nature. As such, detailed design of the final landform at the SMC has occurred during the mine life, particularly in recent years as the SMC nears the completion of mining operations. The majority of the assessments/studies have been completed progressively and have been used to refine the conceptual rehabilitation strategy described in the EIS, including refinement of the detailed design of the final landform at the SMC to ensure the final landform is safe, stable and non-polluting in perpetuity. Following completion of technical closure studies, a Detailed Mine Closure Plan will be submitted to the Resources Regulator, in addition to a revised FLRP (and revised ROBJ, if relevant). During the ARP, these technical closure studies have included:

- detailed final landform and land use design;
- surface water modelling;
- groundwater modelling;
- geochemical modelling and assessment;
- geotechnical assessment;
- landform erosion assessment;
- contaminated sites assessment; and
- decommissioning and demolition plan.

Further refinement of technical closure studies and rehabilitation planning will continue into 2024 to validate that the proposed final landform will be safe, stable and non-polluting to achieve future rehabilitation signoff and lease relinquishment.

### **Overview of subsidence repair and/or remediation works undertaken**

The SMC is an open cut mining operation and therefore has no areas affected by underground mining subsidence.

### **Overview of rehabilitation management and maintenance activities**

Ongoing management and maintenance of rehabilitation areas at the SMC has been undertaken by SCPL and suitably qualified persons (where relevant) to determine when an ESF2 may be submitted to the NSW Resources Regulator to confirm that rehabilitated areas have achieved a standard capable of relinquishment. To date, no ESF2 applications have been submitted to the NSW Resources Regulator. Ongoing rehabilitation management and maintenance activities at the SMC include:

- Weed and pest animal control of rehabilitation areas.
- Native vegetation rehabilitation management and agricultural monitoring.

During the ARP, maintenance activities in areas dedicated to Domain B (Agricultural – Grazing) focussed on the improvement of pasture across the Stratford Waste Emplacement and included slashing and the removal of woody acacia regrowth. Slashing was also undertaken on the rehabilitated Codam pasture area. Weed control has been undertaken across all rehabilitation areas targeting lantana and wild tobacco. Infill planting was also conducted during the ARP within the rehabilitation areas on Bowens Road North and Roseville West. Additional tubestock planting in targeted areas of Domain A (Native Ecosystem) rehabilitation was undertaken to improve biodiversity and stem density.

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

No letters, notices or directions issued by government agencies (including the NSW Resources Regulator) have been issued. As such, there has been no directive to undertake specific rehabilitation actions.

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

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

**Key production milestones**

MATERIAL	UNIT	FWP0001035 YEAR 1	THIS REPORT
<b>Stripped topsoil</b> <small>(if applicable)</small>	(m <sup>3</sup> )	0	0
<b>Rock/overburden</b>	(m <sup>3</sup> )	4,579,356	3,321,903
<b>Ore</b>	(Mt)	1.31	96
<b>Reject material<sup>1</sup></b>	(Mt)	0.44	0.44
<b>Product</b>	(Mt)	0.87	0.52

<sup>1</sup> 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)	758.15
B Total active disturbance	(ha)	524.1
C Land prepared for rehabilitation	(ha)	5.23
D Ecosystem and land use establishment	(ha)	228.83
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

Ecosystem Function Analysis (EFA) Analogue Transects have been established in proximal areas to the SMC which represent the varying landscapes (i.e. slopes and aspects) and target communities planned for each rehabilitation area. Landscape Function Analysis (LFA) and revegetation monitoring was undertaken by WPC (2024) between 20 24 March 2023 at these sites. The results of LFA, vegetation dynamics and habitat complexity monitoring (i.e. EFA) are used at the SMC to monitor progress towards rehabilitation completion and to determine a trajectory towards self sustaining ecosystems. Results of Domain A rehabilitation monitoring are provided within this ARR. Fauna monitoring is conducted every three years to assess the success of rehabilitation and revegetation activities in providing habitat for a range of vertebrate fauna. These surveys include an assessment of habitat complexity, species richness and abundance. No fauna monitoring was conducted in SMC rehabilitation areas during the ARP. Fauna monitoring of rehabilitation areas will be next undertaken in 2025. Rehabilitation monitoring has commenced for the rehabilitation areas proposed for Domain B. Monitoring of Domain B areas has involved monitoring of LFA indices, including stability, infiltration and nutrient cycling indices. Results of Domain B rehabilitation monitoring are provided within this ARR.

## Status of performance against rehabilitation objectives and rehabilitation completion criteria

### The monitoring program that has been implemented

Rehabilitation at the SMC is monitored on a regular basis to ensure vegetation is establishing in the rehabilitation areas and to determine the need for any maintenance and/or contingency measures (e.g. supplementary plantings, weed or erosion control). The monitoring also aims to demonstrate the effectiveness of the rehabilitation techniques and track the progression of rehabilitation towards achieving the SMC ROBJs and RCCs. Rehabilitation monitoring conducted during the ARP included:

- Analogue site baseline monitoring.
- Native ecosystem rehabilitation establishment monitoring.
- Agricultural rehabilitation monitoring.

Rehabilitation areas at the SMC are moving towards achieving the final land use as soon as reasonably practicable. To date, no rehabilitation areas have achieved the final land use to a standard that would warrant SCPL's submission of an ESF2 to the NSW Resources Regulator. Notwithstanding, SCPL will continue to monitor how rehabilitation is progressing against the SMC ROBJs, RCCs and FLRP to ensure the final land uses are achieved as soon as reasonably practicable.

**Are all rehabilitation areas in Landform Establishment phase or higher represented in the monitoring program to assess performance against the rehabilitation objectives and approved or, if not yet approved rehabilitation completion criteria and final landform and rehabilitation plan?**

Yes

**Year rehabilitation areas will be included as part of the monitoring program**

**An appraisal of whether rehabilitation is moving towards achieving the proposed rehabilitation objectives, approved or, if not yet approved, rehabilitation completion criteria and final landform and rehabilitation plan as soon as reasonably practicable.**

Rehabilitation at the SMC is progressing against the SMC ROBJs, RCCs and FLRP with the aim of achieving a final landform that is safe, stable and non-polluting in perpetuity.

Rehabilitation performance at the SMC has been assessed in discrete areas/polygons based on the age and type of rehabilitation. Rehabilitation of disturbed areas is undertaken progressively and concurrently with ongoing mining operations (i.e. as soon as reasonably practicable), to achieve the following final land uses (from the associated mining domains):

- Native Ecosystem: - Infrastructure Area (A1). - Overburden Emplacement Area (A4).
- Active Mining Area (Open cut void) (A5). • Agricultural – Grazing: - Infrastructure Area (B1). - Tailings Storage Facility (B2). - Water Management Area (B3). - Overburden Emplacement Area (B4). • Water Storage (Excluding Final Void): - Water Management Area (G3). • Final Void: - Active Mining Area (Open cut void) (J5).

The discrete areas/polygons of rehabilitation undertaken at the SMC are consistent with the SMC FLRP. Rehabilitation areas at the SMC are moving towards achieving the final land use as soon as reasonably practicable. To date, no rehabilitation areas have achieved the final land use to a standard that would warrant SCPL’s submission of an ESF2 to the NSW Resources Regulator. Notwithstanding, SCPL will continue to monitor how rehabilitation is progressing against the SMC ROBJs, RCCs and FLRP.

**Appraisal description**

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

**Rehabilitation monitoring program findings**

During the ARP, rehabilitation monitoring was undertaken by Wedgetail Project Consulting (WPC) (2024) in accordance with the Rehabilitation Quality Assurance Processes and the Rehabilitation Monitoring Program detailed in Sections 7 and 8 of the SMC Rehabilitation Management Plan (RMP), respectively. For Domain A rehabilitation, WPC (2024) relevantly concluded that several areas have been successfully revegetated with native flora, with older rehabilitation areas displaying successful overstorey and midstorey development and continued growth. Where areas of Domain A rehabilitation appear less successful, canopy species were recorded in low numbers which subsequently impacted groundcover and seed

germination. Given the presence of woody weeds and lantana within isolated portions of the BRN rehabilitation, in addition to the expense and difficulty of traditional weed control works, WPC (2024) recommended that environmental burning and continued manual removal of weeds could be undertaken to increase diversity in this stratum. For areas of Domain B rehabilitation, WPC (2024) concluded that rehabilitation efforts have been successful for numerous years, with previous grazing of cattle a demonstration of its success. WPC (2024) recommended continued management of woody “weeds” in Domain B areas until grazing is recommenced.

**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?
------------	--------------------	----------------------------	-------------	-----------------------------	--------	-----------

A

RR0001218

**Outcomes of completed trials and research**

N/A

## Attachment 1 – Reporting Definitions

REPORTING CATEGORY	DEFINITION
<p><b>A1</b> 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><b>A2</b> Underground Mining Area</p>	<p>Underground mining operations areas/subsidence management areas.</p>
<p><b>B</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><b>C</b> 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
<p><b>D</b> Ecosystem and land use establishment</p>	<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>
<p><b>E</b> Ecosystem and Land Use Development</p>	<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>
<p><b>F</b> Rehabilitation Completion</p>	<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>
<p><b>G</b> New active disturbance area</p>	<p>The area of any new active disturbance that has been created during the annual reporting period (definition A1 in Table 5).</p>
<p><b>H</b> New rehabilitation commenced during annual reporting period</p>	<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 &amp; land use establishment phase (definitions C and D in Table 5).</p>
<p><b>I</b> Established rehabilitation (hectares)</p>	<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 &amp; F in Table 5).</p>

REPORTING CATEGORY		DEFINITION
<b>J</b>	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.
<b>K</b>	% 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.
<b>L</b>	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.
<b>M</b>	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.
<b>N</b>	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
<b>Active</b>	In the context of rehabilitation, land associated with mining domains is considered ‘active’ for the period following disturbance until the commencement of rehabilitation.
<b>Active mining phase of rehabilitation</b>	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.
<b>Analogue site</b>	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.
<b>Annual rehabilitation report and forward program</b>	As described in the Mining Regulation 2016.
<b>Annual reporting period</b>	As defined in the Mining Regulation 2016.
<b>Closure</b>	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).
<b>Decommissioning</b>	The process of removing mining infrastructure and removing contaminants and hazardous materials.
<b>Decommissioning Phase of Rehabilitation</b>	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
<b>Department</b>	The Department of Regional NSW.
<b>Disturbance</b>	See Surface Disturbance.
<b>Disturbance area</b>	<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>
<b>Domain</b>	<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>
<b>Ecosystem and Land Use Development</b>	<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>
<b>Ecosystem and Land Use Establishment</b>	<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>
<b>Exploration</b>	Has the same meaning as that term under the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.

WORD	DEFINITION
<b>Final landform and rehabilitation plan</b>	As defined in the Mining Regulation 2016.
<b>Final land use</b>	As defined in the Mining Regulation 2016.
<b>Form and way</b>	Means the form and way approved by the Secretary. Approved form and way documents are available on the Department’s website.
<b>Growth Medium Development</b>	<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>
<b>Habitat</b>	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).
<b>Indicator</b>	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.
<b>Land</b>	As defined in the <i>Mining Act 1992</i> .
<b>Landform Establishment</b>	<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>
<b>Large mine</b>	As defined in the Mining Regulation 2016.
<b>Lease holder</b>	The holder of a mining lease.

WORD	DEFINITION
<b>Life of mine</b>	The timeframe of how long a mine is approved to mine, from commencement to closure.
<b>Mine rehabilitation portal</b>	<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"> <li>■ upload rehabilitation geographical information system (GIS) spatial data</li> <li>■ develop rehabilitation GIS spatial data (using online tracing functions)</li> <li>■ generate rehabilitation plans and rehabilitation statistics using the map viewer and Rehabilitation Key Performance Indicator functionalities.</li> </ul> <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>
<b>Mining area</b>	As defined in the <i>Mining Act 1992</i> .
<b>Mining domain</b>	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).
<b>Mining land</b>	As defined in the <i>Mining Act 1992</i> .
<b>Native vegetation</b>	Has the same meaning as that term under section 60B of the <i>Local Land Services Act 2013</i> .
<b>Overburden</b>	Material overlying coal or a mineral deposit.
<b>Performance indicator</b>	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
<b>Phases of rehabilitation</b>	The stages and sequences of actions required to rehabilitate disturbed land to achieve the final land use. The phases of rehabilitation are: <ul style="list-style-type: none"> <li>■ active mining</li> <li>■ decommissioning</li> <li>■ landform Establishment</li> <li>■ growth medium development</li> <li>■ ecosystem and land use establishment</li> <li>■ ecosystem and land use development.</li> </ul>
<b>Progressive rehabilitation</b>	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.
<b>Rehabilitation Completion</b>	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.
<b>Rehabilitation Completion criteria</b>	As defined in the Mining Regulation 2016.
<b>Rehabilitation cost estimate</b>	As defined in the Mining Regulation 2016.
<b>Rehabilitation management plan</b>	As defined in the Mining Regulation 2016.
<b>Rehabilitation objectives</b>	As defined in the Mining Regulation 2016.
<b>Rehabilitation risk assessment</b>	As defined in the Mining Regulation 2016.
<b>Rehabilitation schedule</b>	The defined timeframes for progressive rehabilitation set out in the forward program.

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

<sup>2</sup> 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
3 Jun 2023	Resources Regulator	Via email	SMC ROBJ	Provided the Resources Regulator with a reconciliation table detailing the manner in which each of the Resources Regulator’s review comments on the SMC ROBJ were addressed.
12 Apr 2023	Resources Regulator	Via email	Amended SMC ROBJ and FLRP	Resources Regulator confirmation emails requesting a response to their review comments on the SMC ROBJ and FLRP by 17 May 2023.
2 Jun 2023	Resources Regulator	Via email	SMC ROBJ and FLRP	Resources Regulator provisional approval of the SMC ROBJ and FLRP.
30 Mar 2023	Resources Regulator	Via phone	SMC Annual Rehabilitation Report and Forward Program (ARRFP)	Ongoing communication with the Resources Regulator regarding technical difficulties submitting the SMC ARRFP through the Resources Regulator’s Portal.
18 Apr 2023	Resources Regulator	Via email	SMC FLRP	Resources Regulator confirming that the letter provided on 22 December 2023 was considered in their review of the SMC FLRP.
22 Aug 2023	Resources Regulator	Via email	SMC ROBJ	Resources Regulator providing formal approval of the SMC ROBJ, including PDF.
21 Sep 2023	Resources Regulator	Via email	SMC Rehabilitation Completion Criteria Statement (RCC)	Resources Regulator advising that the RCC Statement would only need to be lodged with the Resources Regulator when formal signoff on rehabilitation would be taking place with the next Forward Program period.

# STRATFORD COAL MINE ANNUAL REHABILITATION REPORT

ARR0001218 | Sunday 1 January 2023 to Sunday 31 December 2023

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
13 Mar 2023	Resources Regulator	Via phone	SMC ARRF	Ongoing communication with the Resources Regulator regarding linkage of the relevant SMC ARRF spatial data between the Mine Rehabilitation Portal and Resources Regulator's Portal.
27 Apr 2023	Resources Regulator	Via email	SMC ROBJ	SCPL advising the Resources Regulator that the SMC ROBJ has been resubmitted for approval.
22 Aug 2023	Resources Regulator	Via email	SMC FLRP	Resources Regulator providing formal approval of the SMC FLRP.
3 Apr 2023	Resources Regulator	Virtual meeting	Meeting held between SCPL and Resources Regulator to discuss matters including commentary on the SMC ROBJ. Request for outstanding matters to be addressed in an amended submission before 17/05/2023.	SMC ROBJ amended and resubmitted on 27/04/2023 to the Title Holder's Portal. Provided a tracked changes version of the SMC ROBJ to indicate where amendments were made from previous rehabilitation objectives.
12 May 2023	Resources Regulator	Via email	SMC FLRP	SCPL advising the Resources Regulator that the SMC FLRP has been resubmitted for approval.
18 Jan 2023	Resources Regulator	Virtual meeting	Rehabilitation Outcome Documents for the SMC	Resubmitted SMC Final Landform and Rehabilitation Plan (FLRP), as well as the Rehabilitation Objectives Statement (ROBJ).

## Attachment 5 – Plans

Stratford ARR - Plan 1A - Current Status of Mining and Rehabilitation.pdf

Stratford ARR - Plan 1B - Current Landform Contours.pdf

Annual Report (LARGE MINE) v1.6