NSW GOVERNMENT

NSW Resources Regulator

ARR0001165

# TAHMOOR COLLIERY ANNUAL REHABILITATION REPORT

Saturday 1 January 2022 to Saturday 31 December 2022

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# Summary table

| DETAIL | |
|---|---|
| **Mine** | Tahmoor Colliery |
| **Reference** | ARR0001165 |
| **Annual report period commencement date** | Saturday 1 January 2022 |
| **Annual report period end date** | Saturday 31 December 2022 |
| **Forward program** | FWP0001090 |
| **Mining leases** | ML 1539 (1992), CCL 747 (1973), ML 1308 (1992), ML 1642 (1992), ML 1376 (1992), CCL 716 (1973) |
| **Lease holder(s)** | BARGO COLLIERIES PTY LTD, Tahmoor Coal Pty Ltd |
| **Contact** | Zina Ainsworth |
| **Date of submission** | Friday 15 December 2023 |

# 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

Tahmoor Coal Pty Ltd (Tahmoor Coal) owns and operates Tahmoor Mine, an underground coal mine extracting coking coal which is an ingredient in the production of steel manufacturing. An Environmental Impact Statement (EIS) was exhibited in early 2019 seeking approval for the extraction of up to 48 million tonnes (Mt) of ROM coal over a 13-year mine life. Tahmoor Coal subsequently revised the proposed mine design and submitted amended development applications on two occasions (in February and August 2020). In April 2021, Tahmoor Coal received Development Consent SSD 8445 (the Consent) for the Tahmoor South Project, which involves use of the existing surface infrastructure and the extension of underground longwall mining to the south of existing workings. The Project has consent to extract up to 4 Mtpa of ROM coal, with a total of up to 33 Mt of ROM coal extracted over a 10-year period until 31 December 2033.

## Life of mine

10 years

## Current development consents, leases and licences

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

SSD8445
DA1975

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

ML 1539 (1992), CCL 747 (1973), ML 1308 (1992), ML 1642 (1992), ML 1376 (1992), CCL 716 (1973)

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

EPBC Approval 21017/8084
Water Access License 43572
XSTR200005 License to store explosives
Environment Protection License 1389
Water Access License 43656
Water Access License 36442
Water Access License 44608
Water Access License 25777

Water Access License (Leased) SWC839757

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

SSD8445: Modification 1: Extension of time to commission WTP was approved before the reporting period in July 2022.

# Changes to land ownership and land use

No changes to land ownership has occurred during the 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**

There was no Surface Disturbance undertaken during the reporting period.

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

SMEC have assisted Tahmoor Coal in staging design works for progressive emplacement for the life of mine for the Tahmoor South Project during the reporting period. Water management options have also been incorporated for the final landform design.

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

Historic subsidence impacted creek systems continue to undergo remediation in Redbank and Myrtle Creek. In Redbank Creek, Pools RB5 remediation works were completed in November 2022 and Pool 21 remediation works completed in September 2022. In Myrtle Creek, Pools 20, 18,14, 12a, 11 and 10 were completed in August 2022. For further information on Tahmoor Coal's Creek remediation works please see link to our website.

**Overview of rehabilitation management and maintenance activities**

Continued weed maintenance spraying continues on a monthly basis at the REA and across Pit-top areas and appears to be effective in managing weed suppression across site. A weed inspection conducted by a Council representative during September 2022 noted a confined pocket of Pampas grass and a pocket of Serrated Tussock on our pit top area which were successfully controlled over the following months. As noted in the Annual Rehabilitation walkover 2022 for the REA, 'Weed cover was generally low with weed control providing good on-going results'.

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

No rehabilitation actions were required by any government agencies during the reporting period.

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

No new rehabilitation areas have achieved the final use during the reporting period.

### Key production milestones

| MATERIAL | UNIT | FWP0001090 YEAR 1 | THIS REPORT |
|---|---|---|---|
| **Stripped topsoil** (if applicable) | ($m^3$) | 8,680 | 8,680 |
| **Rock/overburden** | ($m^3$) | 0 | 0 |
| **Ore** | (Mt) | 2,552,065 | 829,939 |
| **Reject material**[1] | (Mt) | 840,118 | 430,872 |
| **Product** | (Mt) | 1,739,350 | 472,792 |

[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) | 151.13 |
| B | **Total active disturbance** | (ha) | 151.13 |
| C | **Land prepared for rehabilitation** | (ha) | 0 |
| D | **Ecosystem and land use establishment** | (ha) | 0 |
| 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**

Rehabilitation proposed in the submitted forward program was for a different reporting period than is now relevant to the Annual Reporting period. Rehabilitation of 3.5ha was completed during the current reporting period for 1st August to 31st December 2022.

**Key factors that delayed progressive rehabilitation**

No delays have occurred during the reporting period.

**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**

Rehabilitation over the next three years will be limited to the REA and creek remediation works currently being completed in Myrtle and Redbank Creek. The rehabilitation monitoring program as outlined in Section 8 of the Rehabilitation Management Plan (RMP) will be used to identify any maintenance actions required and whether further works are required to achieve specific closure criteria. The rehabilitation care and maintenance program will be undertaken following the completion of rehabilitation activities at the site and will be utilised to facilitate the sites rehabilitation progression towards achieving the closure criteria.

# Rehabilitation monitoring and research findings

## Rehabilitation monitoring

**The rehabilitation monitoring carried out in the annual reporting period**

Erosion control structures remain in good condition and no major erosion was recorded along the slopes of the REA. Monitoring of grass trials was undertaken, the grass trials have previously shown that with adequate fencing, herbivory is somewhat controlled and have shown good growth rates of grasses. The reference plots and permanent monitoring plots which were burnt by fire in 2019 showed good signs of recovery with epicormic growth evident of canopy species, high levels of seedings and saplings of canopy species noted, and a high level of species cover and diversity of grasses and forbs. There is also evident of nutrient recycling with termite mounds, ants and scats noted in those burnt plots. Litter cover had significantly improved in these plots with grass, leaf litter and twigs recorded in all plots.

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

**The monitoring program that has been implemented**

During the reporting period, progressive rehabilitation was undertaken on a section of emplacement area that had reached its final landform profile in accordance with our REA Management Plan, Rehabilitation Management Plan and Rehabilitation Strategy. Please see above for Annual Rehabilitation Monitoring progress. Current active emplacement areas are surveyed each month to track the progressing landform against the Final landform design.

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

Yes

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

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

As detailed in the 2022 Annual Rehabilitation Walkover, Ecological stated the following for the REA Rehabilitation stages: "Stages 1 &2: The vegetation is progressing towards self-sustaining native vegetation, however there is a significant population of non-local native

plants. Maintenance activities, primarily targeted weed control during peak growth periods, are still required within these stages. Strategies should be implemented to extend grass cover to those areas with limited vegetation establishment. Stages 3, 4 &5: The vegetation within these rehabilitation areas is progressing towards self-sustaining native vegetation; however continued activities such as maintenance weed control and management of patches with limited vegetation are still required to satisfy this requirement. Stages 6&9: The vegetation within these two stages is slowly progressing towards self-sustaining native vegetation with the presence of limited 2nd generation plants and colonisation from neighbouring bushland. Stage 7: The native vegetation within this stage is slowly progressing towards a self-sustaining native vegetation structure. Continued maintenance activities such as minor weed control and management actions such as infill planting and seeding to increase cover and species diversity in areas with limited vegetation will advance this progress." Other rehabilitation stages are slowly progressing towards a self-sustaining ecosystem.

**Appraisal description**

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

**Rehabilitation monitoring program findings**

During the reporting period, rehabilitation monitoring was undertaken by Eco Logical Australia Pty Ltd (ELA) in accordance with the Tahmoor Coal Rehabilitation Management Plan (TAH-HSEC-00402), Rehabilitation Strategy (TAH-HSEC-00401) and Rehabilitation Monitoring Procedure (TAH-HSEC-00012) which require an annual walkover inspection of all areas within the Refuse Emplacement Area (REA) where rehabilitation activities are being completed progressively, and include the monitoring of permanent monitoring sites within each development stage of the REA to assess revegetation progress. The reference plots and permanent monitoring plots which were burnt by fire in 2019 showed good signs of recovery with epicormic growth evident of canopy species, high levels of seedings and saplings of canopy species noted, and a high level of species cover and diversity of grasses and forbs. There is also evident of nutrient recycling with termite mounds, ants and scats noted in those burnt plots. Litter cover had significantly improved in these plots with grass, leaf litter and twigs recorded in all plots. Over the past 12 months there has been above average rainfall attributed to the current La Nina event. The non-burnt plots in the REA showed slight decrease overall. However, most plots recorded an increased percentage of understorey cover which was attributed to the higher cover of non-grass species including midstorey species and recruitment of canopy species. It is likely that above average rainfall over the year had a positive impact on understorey species cover and across the REA.

**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? |
|---|---|---|---|---|---|---|
| RRT0001051 | Creek Remediation | The remediation works have been carried at impacted sites in Myrtle Creek and Redbank Creek with the aim to restore post-mining hydrological, ecological and aesthetic characteristics. | Involves the construction of a grout curtain wall at a depth where the fracture network has been detected. Boreholes are drilled across the creek bed, polyurethane grout (PUR) is then injected into the boreholes to create an impermeable layer providing a barrier for subsurface stream flow, with the objective to reduce subsurface flow pathways promoting surface flow and pool holding capacity. | 31 Dec 2023 | Ongoing | Yes |
| RRT0001052 | Grass Trials | The findings will be used to develop and refine seed mixes and completion criteria as an ongoing process. | Grass planting trials where the survival and growth of planted grass species in areas where the existing vegetation (within revegetation areas) was sparse will continue to be assessed as part of the annual rehabilitation monitoring program. | 31 Dec 2033 | 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.<br><br>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).<br><br>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.<br><br>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.<br>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).<br>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.<br>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.<br>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.<br>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.<br>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.<br>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.<br>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:<br>■ upload rehabilitation geographical information system (GIS) spatial data<br>■ develop rehabilitation GIS spatial data (using online tracing functions)<br>■ generate rehabilitation plans and rehabilitation statistics using the map viewer and Rehabilitation Key Performance Indicator functionalities.<br>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:<br>■ active mining<br>■ decommissioning<br>■ landform Establishment<br>■ growth medium development<br>■ ecosystem and land use establishment<br>■ 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:<br>■ the relevant development consent authority<br>■ the local council<br>■ the relevant landholder(s)<br>■ community consultative committee (if required under the development consent) or equivalent consultative group<br>■ affected land holder(s)<br>■ government agencies relevant to the final land use<br>■ affected infrastructure authorities (electricity, telecommunications, water, pipeline, road, rail authorities)<br>■ local Aboriginal communities, and<br>■ 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

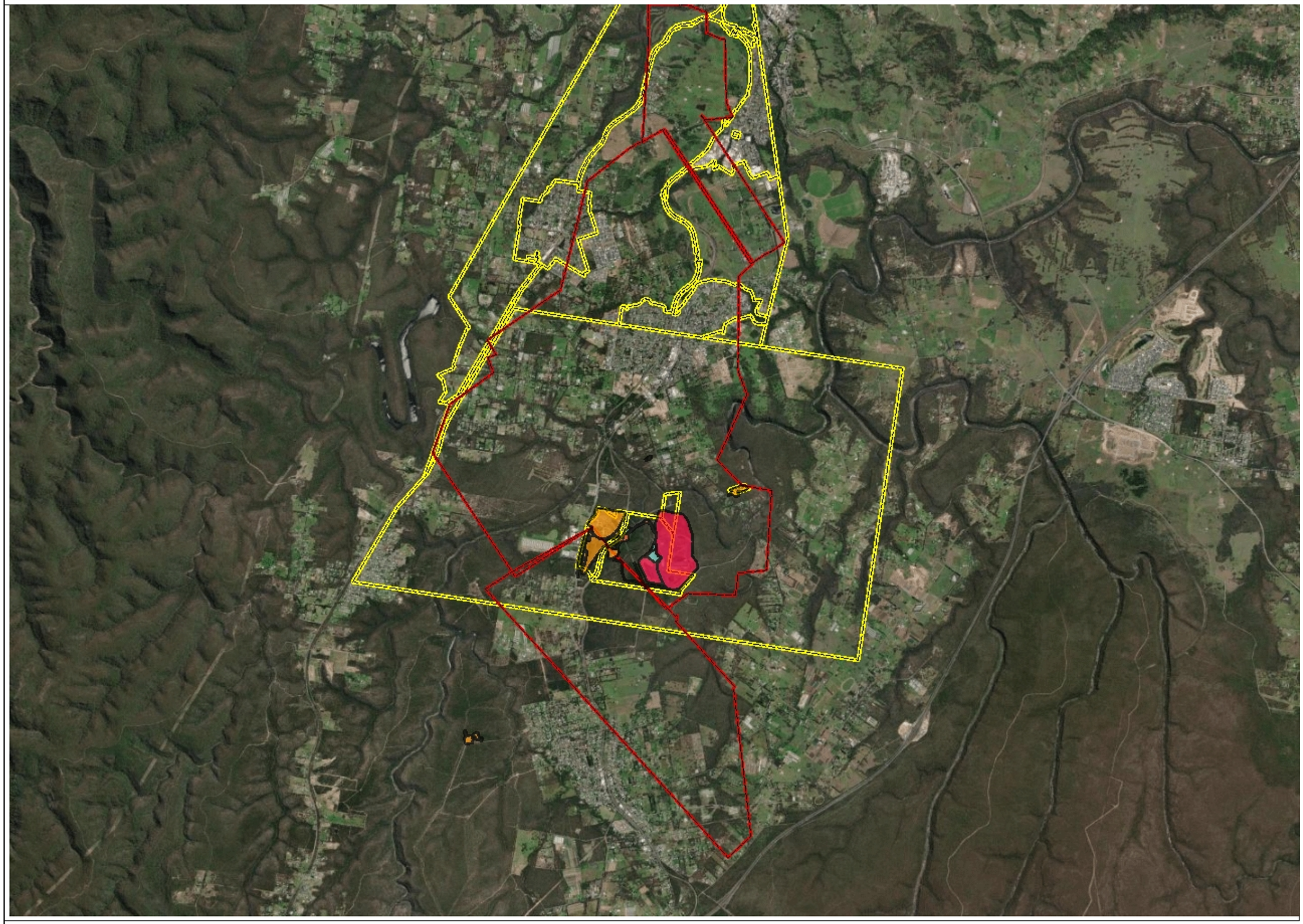
| DATE | STAKEHOLDER | CONSULTATION ACTIVITIES AND FORMS | MATTERS SUBJECT TO CONSULTATION | ACTIONS TAKEN |
|---|---|---|---|---|
| 23 Aug 2022 | Landholders | A Work Notification Letter was sent to landholders located in the vicinity of remediation works for Pool 21 in Redbank Creek. | Creek remediation works | No issues raised. |
| 28 Sep 2022 | Landholders | Stakeholder consultation was undertaken for remediation works in Myrtle and Redbank Creek during the reporting period. Quarterly Newsletters were sent to neighboring properties in the vicinity of the Creek remediation works detailing Project background, overall rehabilitation scope, current remediation works and future remediation works for Redbank and Myrtle Creek. These can be viewed on our Tahmoor Coal website. | Creek remediation works. | No issues raised. |

# Attachment 5 – Plans

Plan 1A attachment not provided.

Plan 1B attachment not provided.

# Plan 1A - Current Status of Mining and Rehabilitation



## Legend

**Rehabilitation**

- Decommissioning
- Landform Establishment
- Growth Media Development
- Ecosystem and Land Use Establishment
- Ecosystem and Land Use Development
- Relinquishment (Rehabilitated)
- Rehabilitation Completion

**Disturbance**

- Beneficiation Facility
- Infrastructure Area
- Other
- Overburden Emplacement Area
- Tailings Storage Facility
- Underground Mining Area (SMP)
- Active Mining Area (Open cut void)
- Water Management Area

- Project Approval Boundary
- Mine Operations Area
- World Imagery
- Low Resolution 15m Imagery
- High Resolution 60cm Imagery
- High Resolution 30cm Imagery
- Citations

## Notes

4,073.6 0 2,036.78 4,073.6 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere

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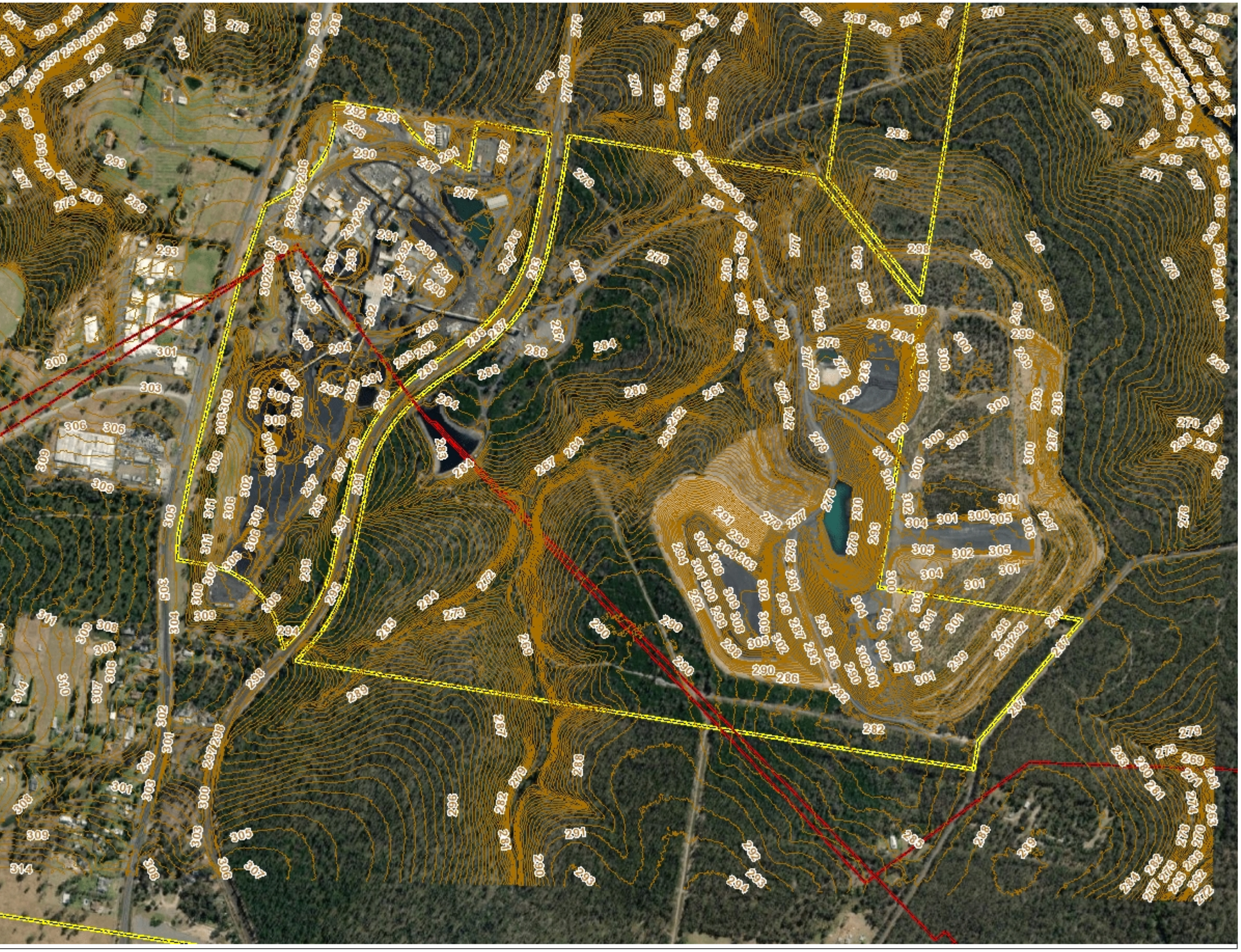
# Plan 1B - Current Landform Contours



## Legend

- Current Landform Contours
- Project Approval Boundary
- Mine Operations Area
- World Imagery
- Low Resolution 15m Imagery
- High Resolution 60cm Imagery
- High Resolution 30cm Imagery
- Citations

## Notes

The Reject Emplacement Area is the only landform which changes from year to year as it is emplaced by Refuse material from Mining Activities.

543.2 0 271.58 543.2 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere

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