NSW GOVERNMENT

NSW Resources Regulator

ARR0001122

# PEAK GOLD MINE ANNUAL REHABILITATION REPORT

Friday 1 July 2022 to Friday 30 June 2023

# Contents

# Summary table

| DETAIL | |
|---|---|
| **Mine** | Peak Gold Mine |
| **Reference** | ARR0001122 |
| **Annual report period commencement date** | Friday 1 July 2022 |
| **Annual report period end date** | Friday 30 June 2023 |
| **Forward program** | FWP0001068 |
| **Mining leases** | MPL 854 (1906), CML 7 (1992), CML 6 (1992), ML 1483 (1992), CML 9 (1992), CML 8 (1992), ML 1805 (1992) |
| **Lease holder(s)** | Peak Gold Mines Pty Limited |
| **Contact** | Gregory Brown |
| **Date of submission** | Tuesday 26 September 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

The Peak Mining Complex and the New Cobar Mining Complex are underground metalliferous mining operations producing gold, copper, silver, lead and zinc located within western New South Wales. These mines include several ore bodies including Peak, Perseverance, New Cobar and Chesney, which are all located to the south of Cobar. Ore processing and concentrate handling is undertaken at the Peak Complex with ore from the New Cobar Complex trucked to the processing facilities at the Peak Complex. Tailings produced is deposited at the tailings storage facility located at the Peak Complex.

## Life of mine

11 years

## Current development consents, leases and licences

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

SSD10419
SSD10419
2020/DC-00029
SSD10419
DC27/89 00/01/002
SSD10419
SSD10419
2020/DC-00029
SSD10419

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

MPL 854 (1906), CML 7 (1992), CML 6 (1992), ML 1483 (1992), CML 9 (1992), CML 8 (1992), ML 1805 (1992)

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

EPL 3596

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

Nil change.

# Changes to land ownership and land use

Nil change.

# 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 increase in the surface disturbance footprint during the reporting period. This was consistent with the forecast outlined in the Forward Program (FWP0001068) that was submitted to the department during 2022.

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

During the reporting period Aboriginal Heritage Due Diligence Assessments were undertaken over historic mining areas. Rehabilitation planning activities undertaken also included reviewing the regulatory requirements and approvals necessary to remediate historic mining areas.

A report on the Landform Design for the Tailings Storage Facility was prepared during the reporting period. The report included the outcomes of column trials undertaken to assess the long term prediction of cover performance of potential cover materials over the tailings storage facility. The report also included modelling that was undertaken to assess the long term erosional stability of the final landform of the tailings storage facility which involved predicting surface water runoff and erosion and deposition processes. A final landform drainage design was prepared for the tailings storage facility to mitigate the impact of erosion to the final landform.

Leach column trials were undertaken during the reporting period on soil samples collected from the New Cobar Waste Rock Emplacement. A drilling program was undertaken at the New Occidental Mine site. The work was commenced to collect soil samples from stockpiled waste materials to inform studies being completed on the geochemical characterisation of waste rock emplacements. Soil samples were also collected from the Waste Rock Emplacement at the Queen Bee Mine site.

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

Nil subsidence repairs required during the reporting period.

## Overview of rehabilitation management and maintenance activities

Erosion control works were undertaken on an access road at the New Occidental Mine site during the reporting period.

Access gates were replaced at the entrance to the New Occidental Mine site during the reporting period.

Inspections of historical shaft sites were also undertaken as required during the reporting period.

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

During the reporting period a report was prepared on the Landform Design for the Tailings Storage Facility and was submitted to the NSW Resources Regulator to comply with the requirements of Section 240 Notice NTCE0009105.

A drilling program was undertaken during the reporting period at the New Occidental Mine site. The work was undertaken to collect soil samples from stockpiled waste materials to inform studies being completed on the geochemical characterisation of waste rock emplacements as outlined in Section 240 Notice NTCE0012290. Soil samples were also collected from the Waste Rock Emplacement at the Queen Bee Mine site during the reporting period.

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

There were no rehabilitation areas that achieved final land use during the reporting period.

## Key production milestones

| MATERIAL | UNIT | FWP0001068 YEAR 1 | THIS REPORT |
|---|---|---|---|
| **Stripped topsoil** (if applicable) | ($m^3$) | 0 | 0 |
| **Rock/overburden** | ($m^3$) | 0 | 0 |
| **Ore** | (Mt) | 0 | 0.49 |
| **Reject material**[1] | (Mt) | 0 | 0.42 |
| **Product** | (Mt) | 0 | 0.07 |

[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) | 368.38 |
| B | **Total active disturbance** | (ha) | 356.97 |
| C | **Land prepared for rehabilitation** | (ha) | 8.63 |
| D | **Ecosystem and land use establishment** | (ha) | 2.78 |
| 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**

Please note that the initial Forward Program report (FWP0001068) covered the period 29 September 2022 to 29 September 2025. Since submission of this report, the reporting period has been amended to reflect financial year reporting periods. Hence the Annual Rehabilitation Report is for the period 1 July 2022 to 30 June 23.

There was no change to the forecast outlined in the forward program during the reporting period.

**Key factors that delayed progressive rehabilitation**

There was no change to the rehabilitation schedule forecast in the Forward Program report submitted in 2022.

**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**

The rehabilitation schedule for the mine site will be based on outcomes from stakeholder engagement, financial budgets, resource considerations, environmental approvals and landholder consent requirements.

# Rehabilitation monitoring and research findings

## Rehabilitation monitoring

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

During the reporting period annual monitoring was undertaken at the following rehabilitation monitoring sites:

- Gladstone,
- Silver Peak,
- Young Australian,
- Tharsis.

Annual monitoring was also undertaken at the following reference monitoring sites:

- Ridge 2,
- Ridge 3,
- Slope 1,
- Slope 2.

The approach taken for monitoring rehabilitated and reference sites is that of Landscape Function Analyses. The method is used to assess key indicators of ecosystem function, including landscape organisation and soil conditions, to measure how well the landscape uses resources such as water, topsoil and organic matter.

Assessments are made on the condition of the soil and the vegetation cover. Outcomes of the assessments are used to determine soil stability, the ability of the soil to absorb water (infiltration rate), the level of nutrient cycling being undertaken at each monitoring site and the integration of plants.

At each monitoring location soil samples are collected using standard soil sampling techniques. Soil samples are sent to an accredited laboratory for soil analysis of a range of soil parameters.

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

**The monitoring program that has been implemented**

The proposed rehabilitation objectives and final landform and rehabilitation plan are currently being assessed by the Resources Regulator. A landscape function analyses methodology has been used to assess the performance of rehabilitation monitoring sites which have received above average rainfall in recent years:

Gladstone monitoring site:

pH - outside range values for reference sites

Organic Matter - outside range values

LFA Stability - outside range values

LFA Landscape Organisation - outside range values

LFA Infiltration - meeting ecological target

LFA Nutrient Recycling - outside range values

Silver Peak monitoring site:

pH - meeting target range

Organic Matter - meeting target range

LFA Stability - outside range values for reference sites

LFA Landscape Organisation - outside range values

LFA Infiltration - meeting ecological target

LFA Nutrient Recycling - outside range values

Young Australian monitoring site:

pH - outside range values for reference sites

Organic Matter - outside range values

LFA Stability - outside range values

LFA Landscape Organisation - outside range values

LFA Infiltration - outside range values

LFA Nutrient Recycling - outside range values

Tharsis monitoring site:

pH - meeting target range

Organic Matter - outside range values for reference sites

LFA Stability - outside range values

LFA Landscape Organisation - outside range values

LFA Infiltration - outside range values

LFA Nutrient Recycling - outside range valu

**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?**

NO

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

N/A

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

The proposed rehabilitation objectives, final landform and rehabilitation plan and rehabilitation completion criteria are currently being assessed by the Resources Regulator. A landscape function analyses methodology has been used to assess the performance of rehabilitation at the following monitoring sites:

- Gladstone,
- Silver Peak,
- Young Australian,
- Tharsis.

Continued monitoring of the rehabilitation sites will determine the level of management intervention required to ensure these sites are trending towards meeting completion criteria. The performance of the rehabilitation monitoring sites has been varied even though the sites have received above average rainfall in recent years. There has been an increase in ecological function with improved plant growth. However, the plant growth is patchy and is limited to areas of healthy topsoil. Soil contaminants, including salts and heavy metals, could be having an adverse impact on plant growth.

### Appraisal description

There are performance issues preventing rehabilitation moving towards achieving the final land use as soon as reasonably practicable.

### Rehabilitation monitoring program findings

The following soil properties were recorded at the Gladstone monitoring site:

pH - 8.3

Organic Matter - 0.9%

Landscape Function Analysis (LFA) was used to record the following indicators of ecosystem function at the Gladstone monitoring site:

LFA Stability - 60.6%

LFA Landscape Organisation - 63%

LFA Infiltration - 32.3%

LFA Nutrient Recycling - 31.2%

The following soil properties were recorded at the Silver Peak monitoring site:

pH - 5.9

Organic Matter - 2.0%

Landscape Function Analysis (LFA) was used to record the following indicators of ecosystem function at the Silver Peak monitoring site:

LFA Stability - 61.7%

LFA Landscape Organisation - 63%

LFA Infiltration - 32.3%

LFA Nutrient Recycling - 31.2%

The following soil properties were recorded at the Young Australian monitoring site:

pH - 8.5

Organic Matter - 0.7%

Landscape Function Analysis (LFA) was used to record the following indicators of ecosystem function at the Young Australian monitoring site:

LFA Stability - 54.9%

LFA Landscape Organisation - 26%

LFA Infiltration - 23.6%

LFA Nutrient Recycling - 20.5%

The following soil properties were recorded at the Ridge 2 reference monitoring site:

pH - 5.3

Organic Matter - 4.7%

Landscape Function Analysis (LFA) was used to record the following indicators of ecosystem function at the Ridge 2 reference monitoring site:

LFA Stability - 69.4%

LFA Landscape Organisation - 73%

LFA Infiltration - 35.4%

LFA Nutrient Recycling - 35.8%

The following soil properties were recorded at the Ridge 3 reference monitoring site:

pH - 6.0

Organic Matter - 1.8%

Landscape Function Analysis (LFA) was used to record the following indicators of ecosystem function at the Ridge 3 reference monitoring site:

LFA Stability - 68.3%

LFA Landscape Organisation - 92%

LFA Infiltration - 29.6%

LFA Nutrient Recycling - 33.1%

The following soil properties were recorded at the Slope 1 reference monitoring site:

pH - 6.1

Organic Matter - 3.0%

Landscape Function Analysis (LFA) was used to record the following indicators of ecosystem function at the Slope 1 reference monitoring site:

LFA Stability - 67.5%

LFA Landscape Organisation - 100%

LFA Infiltration - 42.3%

LFA Nutrient Recycling - 47.1%

The following soil properties were recorded at the Slope 2 reference monitoring site:

pH - 6.2

Organic Matter - 2.2%

Landscape Function Analysis (LFA) was used to record the following indicators of ecosystem function at the Slope 2 reference monitoring site:

LFA Stability - 67.5%

LFA Landscape Organisation - 100%

LFA Infiltration - 36.7%

LFA Nutrient Recycling - 40.4%

The following soil properties were recorded at the Tharsis monitoring site:

pH - 6.3

Organic Matter - 1.0%

Landscape Function Analysis (LFA) was used to record the following indicators of ecosystem function at the Tharsis monitoring site:

LFA Stability - 49.7%

LFA Landscape Organisation - 43%

LFA Infiltration - 28.2%

LFA Nutrient Recycling - 23.4%

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

The soils on rehabilitation sites have typically been saline and sodic with high concentrations of a range of elements including sulfur, copper and zinc.

The Young Australian and Tharsis rehabilitation sites have elevated levels of salts and heavy metals contaminating the soil. These sites would benefit from deep ripping the soil, the application of topsoil and the addition of organic mulches and native seed.

Further sampling in annual rehabilitation monitoring programs will indicate if capillary leaching of contaminated soils beneath rehabilitated areas is impacting on the long-term sustainability of rehabilitated areas.

# Outcomes of rehabilitation research and trials

| RRT NUMBER | PROJECT/TRIAL NAME | OBJECTIVE OF TRIAL/PROJECT | METHODOLOGY | EXPECTED DATE OF COMPLETION | UPDATED DATE OF COMPLETION | STATUS | ON TRACK? | ON TRACK UPDATE |
|---|---|---|---|---|---|---|---|---|
| RRT0001106 | Leach Column Experiment | Soil samples were collected from waste rock emplacements to determine if the soils were potentially acid forming or non-acid forming. | The soil samples are placed in leach columns for a duration of 6 months. | 31 Dec 2023 | 31 Dec 2023 | Ongoing | 31 Dec 2023 | 31 Dec 2023 |

## 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><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><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 |
|---|---|---|---|---|
| 15 Mar 2023 | NSW Resources Regulator | Teams Meeting held with officers from the NSW Resources Regulator. | Presentation provided to outline the findings of a report prepared on the Landform Design of the Tailings Storage Facility. | Preparations made to undertake consultation with the NSW Resources Regulator regarding the rehabilitation objectives for Peak Gold Mine. |
| 29 Mar 2023 | NSW Resources Regulator | Teams Meeting held with officers from the NSW Resources Regulator. | Discussed the Final Landform and Rehabilitation Plan and the rehabilitation objectives proposed for Peak Gold Mine. | Revisions made to the proposed Final Landform and Rehabilitation Plan and the proposed rehabilitation objectives for Peak Gold Mine. |
| 22 Jun 2023 | NSW Resources Regulator | Site inspection and meeting held on site at Peak Gold Mine. | Provided an update to the soil sampling program being undertaken to inform the geochemical characterisation of waste rock emplacements at Peak Gold Mine. | Continue with progressing the geochemical characterisation project as outlined in the meeting. |

# Attachment 5 – Plans

Plan 1A attachment not provided.

Plan 1B attachment not provided.