

September 2024

## Rehabilitation information release

# Rhondda Colliery rehabilitation and development of the Black Rock Motor Sport Park

### Overview

The Resources Regulator is responsible for compliance and enforcement activities across the mining and exploration industry. The Regulator undertakes risk-based compliance and enforcement activities in relation to obligations under the *Mining Act 1992*. This includes:

- conducting assessments and compliance activities to ensure the rehabilitation of mines is undertaken progressively in accordance with the conditions of mining leases<sup>1</sup> and the requirements of the *Mining Act 1992*
- ensuring that rehabilitation security deposits, held by the department, cover the full costs in undertaking rehabilitation in the event of default by the mining company
- ensuring that rehabilitation achieves the approved final land use, including alternative post mining land uses, as set out in the relevant development consent.

This information release provides guidance about the successful completion of rehabilitation at the former Northern Rhondda Colliery and the development of the Black Rock Motor Sport Park on part of the former mine site.

### The mine

Northern Rhondda Colliery is a historic mine at Wakefield, around 20 kilometres south of Newcastle. It was the first underground and open-cut colliery to produce steam coal in the Rhondda Valley coal mining area, opening in 1851 and closing in 1970. The mining operations were conducted within consolidated coal lease number 774.

Yancoal Australia Ltd has been managing Rhondda Colliery since acquiring Coal & Allied in 2017. Yancoal has been conducting the rehabilitation activities in order to achieve the final land uses.

Before mining, it is understood that most of the site was bushland. Other, more recent, land uses included minor areas of improved pastures, a small area associated with orchards and some intensive agricultural activities such as poultry farms.

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<sup>1</sup> The conditions of mining leases relating to environmental protection and rehabilitation are set out in [Schedule 8A of Mining Regulation 2016](#).

Figure 1: A 1960s photo of workers at Rhondda Colliery



## Rehabilitation timeline

In 1970, mining operations ceased following the outbreak of an underground fire that lasted over 30 years. Around 2006, the underground fire was extinguished after a complex extinguishment process that comprised 3 years of planning and 6 years to execute.

In 2008, an extensive rehabilitation program including contamination remediation and revegetation was completed. This completed rehabilitation was the subject of ongoing monitoring and management to ensure it would be self-sustainable in the long term.

In 2015, the Regulator undertook a site inspection, which identified a range of residual rehabilitation risks, including subsidence, which required further review and management. A mining operations plan was subsequently prepared, approved and implemented to address these risks and ongoing environmental management at the site.

In 2019 and 2020, further site inspections and directions by the Regulator resulted in an updated mining operations plan being prepared, approved and implemented. This incorporated a more specific rehabilitation strategy dealing with the remaining minor residual risks, the clarification of the rehabilitation completion criteria to be achieved and an expedited rehabilitation schedule.

In 2019, Lake Macquarie City Council granted development consent to the Black Rock Motor Sport Park, which will occupy a large portion of CCL 774.

In 2021, the mine submitted a partial lease relinquishment application seeking sign-off from the Regulator for completed rehabilitation of a 97 hectare area within CCL 774. This was approved by the Regulator in November 2021 and comprised an area unaffected by the proposed Black Rock Motor Sport Park.

In 2022, the mine submitted another partial lease relinquishment application seeking sign-off from the Regulator for completed rehabilitation of a 205 hectare area within CCL 774. This included the area within which the proposed Black Rock Motor Sport Park is located. The completed rehabilitation comprised a mix of undisturbed land, dams, drainage channels and native woodland with areas of grassland. As part of this application, a report was prepared that detailed the requirements for ongoing management of residual risks associated with the former mining operations (refer to section below – ‘Post mining land use and ongoing management of residual risks’). This provided a framework for ongoing residual risks to be managed by future landholders as part of the Black Rock Motor Sport Park.

In 2023, the Regulator signed off on the completed rehabilitation of this 205 hectare area within CCL 774. This now paves the way for the construction of the Black Rock Motor Sport Park in accordance with the 2019 development consent. However, due to ongoing risks that require further monitoring and maintenance, a 12.5 hectare portion of CCL 774 (separate to the Black Rock Motor Park area) has been retained and will continue to be regulated until the Regulator is satisfied that rehabilitation has been successfully undertaken.

## Required rehabilitation outcomes and key rehabilitation activities

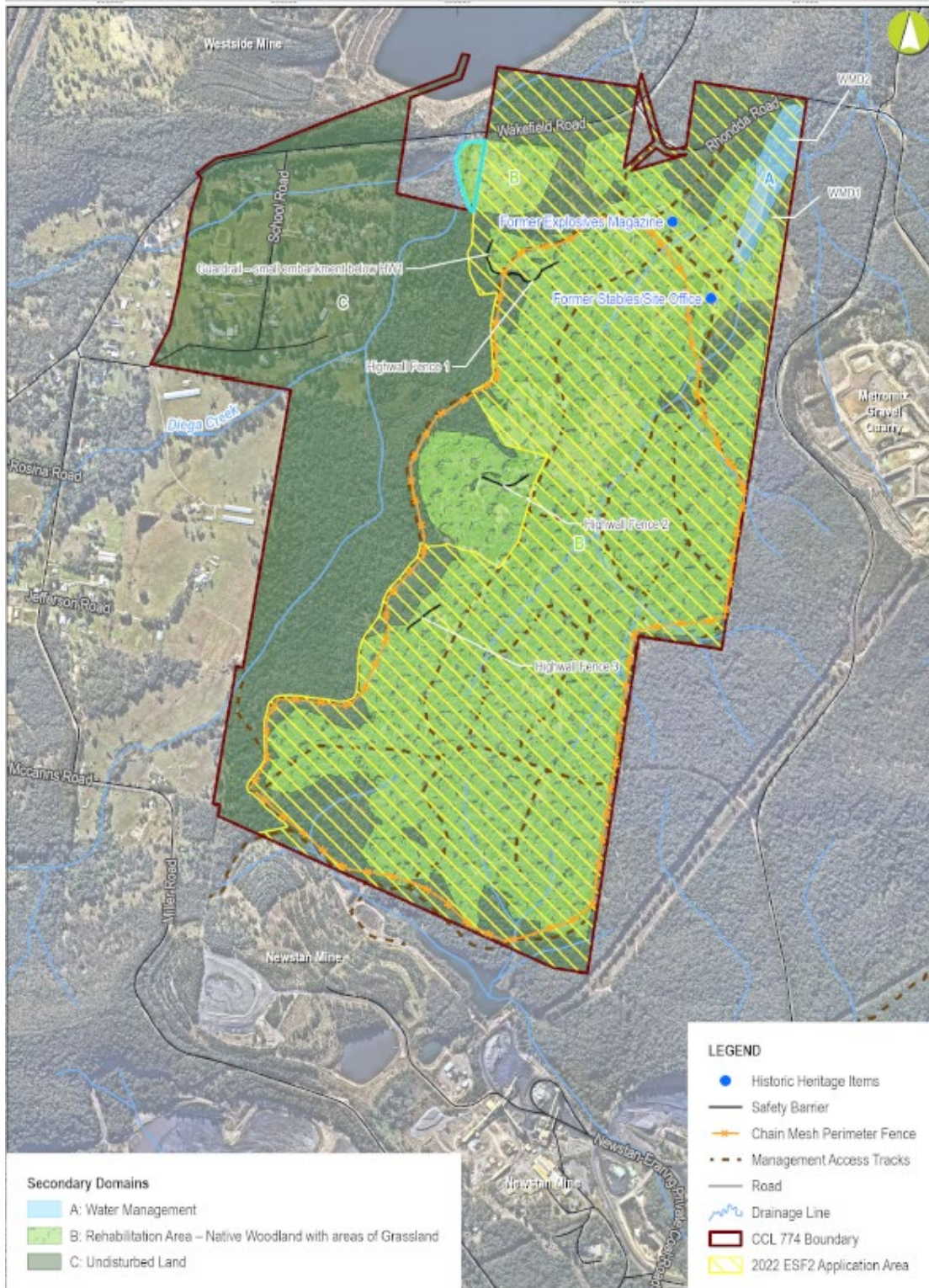
The required rehabilitation outcomes for the former mine are detailed in the mining operations plan approved by the Regulator.

The objective of the rehabilitation works was to establish a safe and stable landform comprising a mix of undisturbed land, dams, drainage channels and native woodland with areas of grassland.

The site was progressively rehabilitated in accordance with the obligations set out in the approved mining operations plan. The mining operations plan requires the titleholder to achieve the approved rehabilitation objectives, rehabilitation completion criteria and final landform.

The approved final land uses are depicted in Figure 2.

Figure 2 Approved final land use domains [Source: Integrated Environmental Management Australia (IEMA)]



The key rehabilitation activities undertaken at the site are summarised below:

- Decommissioning and removal of buildings, services, structures and hazardous materials, with the exception of the horse stables and explosives magazine, which were recognised for their heritage value.
- Remediation of contaminated soil.

- Sealing all mine entries and boreholes.
- Backfilling of open cut pits including contouring of high walls to ensure acceptable slopes, including fencing/safety barriers in some steep locations.
- Subsidence cracking repairs, including filling and/or grouting work.
- Reworking and contouring of surface emplacements and capping of tailings emplacement areas to minimise the potential for future spontaneous combustion of coal material.
- Growth medium development including spreading the prepared landform with topsoil and other nutrients.
- Planting vegetation.
- Retaining clean water dams and associated water testing and monitoring.
- Long term monitoring and maintenance activities including geotechnical assessments, subsidence inspections, water monitoring, ecological monitoring, pest and weed control.

Photographs of some of the key rehabilitation activities are provided below.

Figure 3: Removing asbestos contaminated demolition materials (circa 1999)



Figure 4: Remedial mine entry sealing works (circa 2007)



Figure 5: Completed mine entry rehabilitation (circa 2022)



Figure 6: Respreading excavated natural material following removal of potentially contaminated soils (circa 1999)



Figure 7: Reshaping of main open cut area (2004)



Figure 8: Coarse rejects spread following demolition (circa 1999)



Figure 9: Topsoil spreading over coarse rejects for final planting (circa 2000)





Figure 10: Subsidence cracks (circa September 2022)



Figure 11: Remediation of subsidence cracks following grouting (circa October 2022)



Figure 12: Vegetated tailings dam cap and 'turkeys nest' central dam (2022)



Figure 13: Vegetated reject emplacement areas (2022)



Figure 14: Retained dams (2022)



## Post mining land use and ongoing management of residual risks

The Rhondda Colliery rehabilitation has enabled repurposing of part of the former mining land while ensuring minor residual risks from mining are actively managed with any new site development.

Part of the Rhondda Colliery site will become the Black Rock Motor Park, featuring a 5.25 kilometre driving track, driver training centre, go-kart course, adventure/tourism experiences, function centre, short term accommodation and cafe. Construction is expected to be completed by 2026. Further details are available at <https://blackrockresort.com.au>

The ongoing management of residual risks associated with the former mine will be the responsibility of the new landholders (Black Rock Motor Sport Park) via a covenant placed on the land. These ongoing obligations include:

- repair of any future subsidence cracks
- erosion and sediment management
- maintenance of fencing and safety barriers
- implementation of a bushfire management plan.

Figure 15: Aerial view of where part of the motor park will be located



## Obligations

The completion of rehabilitation at the former Rhondda Colliery, and subsequent sign-off from the Regulator, demonstrates there is a strong regulatory framework in relation to mine rehabilitation and that beneficial post-mining land uses can be established after the closure of a mine.

The Regulator requires leaseholders to comply with their rehabilitation obligations under the *Mining Act 1992*. This includes:

- rehabilitating disturbance caused by mining to achieve the post-mining land use specified by the development consent
- undertaking rehabilitation progressively in a timely manner
- developing and implementing rehabilitation techniques, in consideration of detailed risk assessments and sound scientific principles, to overcome barriers/constraints to achieving successful rehabilitation
- undertaking monitoring to assess whether rehabilitation is trending towards meeting the approved rehabilitation objectives and completion criteria in a timely manner
- developing and implementing a maintenance program for rehabilitation areas to rectify potential issues identified from the monitoring program
- maintaining records of the methods used to establish rehabilitation, as well as monitoring data, to demonstrate success and facilitate continual improvement

- submitting a security bond that is held by the government to cover the full cost of rehabilitation should a company default on its obligations.

## Further information

- [Mine rehabilitation regulatory framework](#)
  - [Standard rehabilitation conditions on mining leases](#)
  - [Guideline: Achieving rehabilitation completion \(sign-off\)](#)
  - [Rehabilitation completion on a mining lease application form](#)
  - [Practical guide: Post mining land use](#)
  - [Australian Government, Department of Industry, Innovation and Science 2016: Leading Practice Sustainable Development Program in the Mining Industry – Mine Rehabilitation](#)
  - [Australian Government, Department of Industry, Innovation and Science 2016: Leading Practice Sustainable Development Program for the Mining Industry – Risk Management](#)
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## About this information release

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