



**NSW  
Resources  
Regulator**

# **Exploration and Mining Rehabilitation Report**

1 JULY 2020 - 31 DECEMBER 2020



RESOURCES  
REGULATOR  
**TELEPHONE  
MENU**



# 1300 814 609

For all other enquiries, **PRESS 2** 8.30AM - 4.30PM MON - FRI

**NOTIFY AN  
INCIDENT**

🕒 24/7

To notify a safety incident,  
or to enquire about an  
incident you have already  
notified, **PRESS 1**



**AUTHORISATIONS, PLANT REGISTRATION,  
LICENCES & EXEMPTIONS** PRESS 2

**COMPETENCE, PRACTISING CERTIFICATES  
& MUTUAL RECOGNITION** PRESS 3

**MINE SAFETY GENERAL** PRESS 4

**MINING ACT COMPLIANCE** PRESS 5

## DOCUMENT CONTROL

### Published by NSW Resources Regulator

Title: Exploration and Mining Rehabilitation Report

First published: March 2021 with data current at 11 January 2021 except where otherwise noted

Authorised by: Executive Director, NSW Resources Regulator

CM9 Reference: DOC21/45437

### AMENDMENT SCHEDULE

Date	Version	Amendment
Mar 2021	1	First published
Mar 2021	2	Amended page 3 to include subsidence management (removed tailings management)

© State of New South Wales through Regional NSW 2021. You may copy, distribute, display, download and otherwise freely deal with this publication for any purpose, provided that you attribute Regional NSW as the owner. However, you must obtain permission if you wish to charge others for access to the publication (other than at cost); include the publication in advertising or a product for sale; modify the publication; or republish the publication on a website. You may freely link to the publication on a departmental website.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (March 2021) and may not be accurate, current or complete. The State of New South Wales (including Regional NSW), the author and the publisher take no responsibility, and will accept no liability, for the accuracy, currency, reliability or correctness of any information included in the document (including material provided by third parties). Readers should make their own inquiries and rely on their own advice when making decisions related to material contained in this publication.

# NSW mine rehabilitation overview

1 July to 31 December 2020

We conduct compliance and enforcement activities under the **Mining Act**, with a focus on **mine rehabilitation**.

## Current titles

**2,013** current mining titles (as at 31/12/2020)



**572**  
COAL



**1,441**  
MINERALS

Source: Titles Administration System (TAS) generated 31/12/2020. Petroleum titles excluded.

**3,340** current small scale titles (as at 31/12/2020)



**3,187**  
LIGHTNING RIDGE



**153**  
WHITE CLIFFS

Source: Opal Claims System (OCS) generated 31/12/2020

## Our compliance priorities activity

From 1 July to 31 December 2020, our compliance priorities were:



**Subsidence management**



**Progressive rehabilitation**



**Materials and soil management**

**106** Site assessments conducted

**7** Notices issued

## Engaging with industry



**1,349**  
newsletter subscribers



**2**  
industry publications



**11**  
audit reports

# NSW mine rehabilitation overview

1 July to 31 December 2020

## Mining Act activity

**69**   
**Mining Act compliance concern**  
 allegations received

**163**   
**Mining Act compliance concern**  
 potential breaches alleged

**96**   
**Mining Act compliance concern**  
 breaches sustained

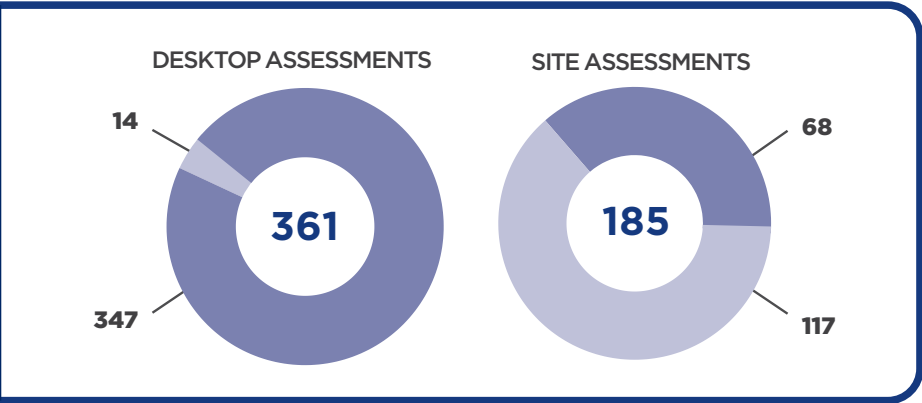
  
**1,792**  
**Mining Act requests for service**  
 actioned

**137** **Mine rehabilitation security deposit reviews** conducted

 In excess of **\$3.26 billion\***  
 is held in security bonds for rehabilitation of exploration and mining impacts

**546**  
**Mining Act assessments**  
 conducted

-  Proactive
-  Reactive

## Our enforcement actions

Issued **22**  
**notices of directions**  
 (s240)

Issued **2**  
**prohibition notices**  
 (s240A)

Issued **88**  
**official cautions**

Issued **5**  
**penalty notices**

**1**  
**enforceable undertaking rejected**

**2** **prosecutions commenced**  
**2** **prosecutions finalised**

\*Only current titles as at end of December 2020. Sourced from the Titles Administration System as of 31 December 2020.

# Table of contents

---

## Contents

<b>IMPORTANT UPDATES</b>	<b>6</b>
<hr/>	
<b>AUDITS</b>	<b>8</b>
<hr/>	
<b>REHABILITATION</b>	<b>9</b>
<hr/>	
NSW Mine Rehabilitation video.....	9
Rehabilitation Information Releases.....	10
Rehabilitation security deposits.....	11
<hr/>	
<b>COMPLIANCE AND ENFORCEMENT</b>	<b>12</b>
<hr/>	
Compliance priorities .....	12
Mining Act statutory decisions .....	14
Prosecutions .....	14
Major investigations.....	14

# Important Updates

The following highlights occurred during the reporting period.

## Operational Rehabilitation Reforms

Public consultation on the proposed amendment regulation to the Mining Regulation 2016 to improve mine rehabilitation outcomes has now been completed.

The operational rehabilitation reforms include the review of mining lease conditions relating to rehabilitation. To improve clarity and enforceability of rehabilitation outcomes, we proposed an amendment to the regulation under the *Mining Act 1992* to impose rehabilitation mining lease conditions through regulation.

The draft Mining Amendment (Standard Conditions of Mining Leases – Rehabilitation) Regulation 2020 and mandatory requirements, set out in the form and way documents, were open for public comment late last year.

During the consultation period there were two public consultation forums held and 20 submissions received. The [submissions](#) can be viewed on our website.

We have examined and considered all submissions, including online forms and input from the public forums, and we are now working to finalise the regulation and form and way documents. We will also be soon releasing supporting guidelines and undertaking implementation information sessions.

Find out more about the [Operational Rehabilitation Reforms](#).

## A focus on tailings storage facilities

In July 2020, we published Compliance Priorities Outcomes – Constructing, operating and decommissioning tailings storage facilities. Tailings storage facilities were identified as a compliance priority in 2018 and a compliance priority project was initiated to establish a consistent approach to regulating tailings storage facilities across both the coal and metalliferous mining sectors. The program aimed to ensure that title holders and mine operators were aware of their obligations, and to promote leading practice tailings storage facility management.

Read the full [compliance priority outcomes report](#).



## Environmental awareness training moved online

The Lightning Ridge Environmental Awareness course is essential for those seeking to hold a mineral claim in [Opal Prospecting Area 4](#) or on the property 'Wyoming'.

The 40-minute training course has moved online, on-demand, to accommodate self-directed learning. The course provides an overview on how to minimise damage to the environment whilst conducting exploration and mining activities in Lightning Ridge.

Access the training [here](#).

## Smart online forms

Throughout 2020 we redesigned our application forms, relevant to the *Mining Act 1992*, into smart online forms. This project will continue to be rolled out this year with further online forms to be made accessible via the [Regulator Portal](#), removing the need for submitting paper-based forms.

If you are not a current holder of a mining or exploration title (e.g. you are applying for an exploration licence, ELA), contact us on 1300 814 609 (option 2, then 5) and we will arrange access to the Regulator Portal.

Paper-based forms can still be obtained by contacting us on 1300 814 609 (option 2, then 5) or downloading them via the [forms page](#) on our website.



## Drone technology used to target illegal fossicking

We have teamed up with the National Parks and Wildlife Services to target illegal fossicking in the Torrington State Conservation Area.



Signs have been installed in the conservation area encouraging reporting of illegal fossicking and drone technology will be used to detect the practice being carried out. Fossickers using prohibited powered equipment can face on-the-spot fines of up to \$750 and repeat offenders may be prosecuted.

Read the [media release](#).

# Audits

We undertake compliance audits of mining operations and exploration activities to assess whether title holders are meeting their compliance requirements under the *Mining Act 1992*.

Compliance audit reports completed during the reporting period are listed below.

COMPLIANCE AUDIT REPORT	DATE PUBLISHED	LOCATION
<a href="#">EL8398 Scorpio Resources</a>	November 2020	Mount Hope, NSW
<a href="#">EL7714 Mountain Tank Exploration Program</a>	November 2020	Cobar, NSW
<a href="#">Excelsior Quarry, Graymount (Excelsior) Pty Ltd</a>	November 2020	Kandos, NSW
<a href="#">EL8532 Mount Aubrey Exploration Drilling Program, Godolphin Tenements Pty Ltd</a>	November 2020	Peak Hill, NSW
<a href="#">EL8744 Blackwater exploration drilling program, Australian Consolidated Gold Holdings Pty Ltd</a>	October 2020	Narromine, NSW
<a href="#">EL5921 and EL6354 Exploration drilling program, Bowdens Silver Project</a>	October 2020	Kandos, NSW
<a href="#">EL8357 Lady Ilse exploration drilling program, Magmatic Resources Pty Ltd</a>	October 2020	Wellington, NSW
<a href="#">EL8590 Kiola exploration drilling program, Emmerson Resources Pty Ltd</a>	September 2020	Cowra, NSW
<a href="#">Boggabri Coal Mine, Boggabri Coal Pty Ltd</a>	July 2020	Boggabri, NSW
<a href="#">Subsidence management, Tahmoor Colliery, Tahmoor Coal Pty Ltd</a>	July 2020	Tahmoor, NSW
<a href="#">EL7223 Exploration drilling program, Shenhua Watermark Coal Pty Ltd</a>	July 2020	Breeza, NSW



# Rehabilitation

We are responsible for regulating rehabilitation under the *Mining Act 1992* and the conditions of the relevant mining lease.

A range of regulatory tools are utilised to ensure rehabilitation is undertaken in a timely manner and in accordance with approved commitments. This includes being able to direct a former holder of an exploration licence or mining lease to complete rehabilitation works even after a mining title has been relinquished.

Rehabilitation is the treatment or management of land or water that has been disturbed by exploration or mining to ensure a safe and stable environment. Rehabilitation must achieve a final outcome as required by the development consent of a mine, which may include but is not limited to the re-establishment of native ecosystems, agriculture and a variety of rural, urban and industrial land uses.

## NSW Mine Rehabilitation video

We released a short animation video about the mine rehabilitation framework. The video highlights key elements of mine rehabilitation including legal obligations, the role of rehabilitation security bonds and our role in monitoring compliance.

Mine rehabilitation is a key priority for the NSW Government and is an important part of ensuring mining projects are environmentally sustainable.



## Rehabilitation Information Releases

Rehabilitation Information Releases (RIRs) are published to highlight rehabilitation outcomes, initiatives and learnings at NSW mines sites.

There was one RIR published between July - December 2020. A summary of the report is included below. RIRs are also published on our [website](#).

### Rehabilitation at Horsley Park Quarry

Austral Brick Co Pty Ltd has successfully completed rehabilitation works to part of the Horsley Park (Plant 23) Quarry in western Sydney, satisfactorily meeting approved rehabilitation objectives and completion criteria.

The site where rehabilitation has been completed is within the western part of this mining lease, with the remaining area of the lease occupied by the existing quarry operations.

The site comprises about 11 hectares within the south western corner of the quarry, and until recently, was used for the stockpiling of materials extracted from the quarry. Rehabilitation has been undertaken progressively on the site since about 2018 as part of a redevelopment associated with the Oakdale East Industrial Estate. The approved industrial development includes several new warehouses and a masonry plant on either side of a new estate cul-de-sac.

Read the full rehabilitation information release [RIR20-06](#).

FIGURE 1. REHABILITATION AT THE HORLSEY PARK QUARRY SITE



### Innovative case study of successful rehabilitation

The successful rehabilitation at Westside Mine was captured using a range of technologies including drone footage, field mapping tools and 360 interactive videos. The result was an innovative case study detailing the rehabilitation completion.

An intelligence-focused approach enables more informed decisions for regulatory actions as well as improved communication of leading practice rehabilitation activities and positive rehabilitation outcomes across the state. This will ultimately improve the regulation of rehabilitation and outcomes within the mining industry.

View the case study: [Achieving rehabilitation completion at Westside Mine](#).

# Rehabilitation security deposits

All exploration and mining title holders are required to lodge a security deposit that covers the full rehabilitation costs. Currently, the NSW Government holds about \$3.3 billion in security bonds for rehabilitation of exploration and mining impacts.

We regularly assess the surface disturbance (or proposed disturbance) of a mine or exploration site to calculate the security deposit, this is known as the assessed deposit. Before partial or full security bonds are returned, evidence must be provided to demonstrate rehabilitation objectives have been met and final approved landform have been implemented.

The full list of assessed deposits determined by the regulator can be viewed in the [assessed deposits table](#).

FIGURE 2. NSW MINE REHABILITATION



# Compliance and enforcement

The NSW Resources Regulator has a risk-based and outcomes-focused approach to compliance and enforcement.

While the laws we administer set minimum standards that industry must adhere to, we seek to encourage a positive compliance culture where industry demonstrate best practice by actively adopting measures and practices over and above legislative requirements.

## Compliance priorities

---

Our targeted assessments between July and December 2020 were undertaken in line with our compliance priorities at identified sites, following a risk profiling review. The assessments included announced and unannounced inspections and captured identified high-risk sites.

The following compliance priorities were set for the period July - December 2020.

### Progressive rehabilitation

Sector: Mining leases

Targeted assessments were carried out at mine sites to ensure progressive rehabilitation is undertaken and that potential risks, which may limit the success of rehabilitation, are effectively managed.

### Subsidence management

Sector: Mining leases (Illawarra and Southern coalfields)

The audit program that began in 2019 was continued, focusing on key issues arising from subsidence impacts associated with underground mining operations in the Illawarra and Southern coalfields. The scope of the audit program includes assessment of compliance against:

- the subsidence management plan (SMP) or extraction plan
- commitments made in the SMP or extraction plan, and any associated management plans
- subsidence monitoring requirements, including a comparison between predicted impacts and actual impacts, as shown by subsidence management results
- remediation action plans for subsidence affected areas.

## Materials and soil management

Targeted assessments were undertaken in line with our compliance priorities at identified sites focusing on how a mine site is managing materials and soils to achieve sustainable rehabilitation outcomes. The objectives of these targeted assessments included:

- ensuring the range of risks associated with materials and soils are identified and appropriate controls are in place to facilitate sustainable rehabilitation outcomes
- identifying potential constraints/opportunities to maximise the salvage of soil resources for use in rehabilitation
- ensuring an inventory of soil resources and materials (e.g. inert capping material) has been defined to ensure the needs for rehabilitation of the final land use can be met
- ensuring the selective handling and management of mine materials (e.g. overburden, tailings, reject materials) to address potential geochemical and geotechnical constraints for rehabilitation
- ensuring the substrate is suitable to support proposed revegetation outcome (e.g. native or agricultural rehabilitation)
- ensuring control measures are validated via monitoring and inspections are recorded to enable risks to be appropriately addressed
- ensuring the mine site has engaged the appropriate skills and experience in relation to materials and soils management
- ensuring rehabilitation is integrated into mine planning systems
- ensuring techniques and measures have been developed and implemented to salvage, protect and maintain biological resources (e.g. topsoil, subsoil, seed bank, plant material, logs, hollows) for use in rehabilitation.

The planned inspections have also identified best practice examples that will be shared with industry through future publications and workshops.

Reports on compliance activities and programs, targeted assessment programs and compliance auditing can be found on our [compliance activities and reports web page](#).

Additional information regarding compliance and enforcement activities, priorities, outcomes are published in our [monthly business activity reports](#).

## Mining Act statutory decisions

NAME(S) OF PARTIES	DECISION	REASON	DATE OF DECISION
Mining Lease 1376 (Act 1992) - Tahmoor Coal Pty Ltd (lease holder)	Decision to vary (attach) the standard Mining Operations Plan (MOP) and Annual Rehabilitation Reporting (ARR) condition on Mining Lease 1376 (Act 1992) (ML 1376).  This decision takes effect from 7 December 2020.  Clause 12 of Schedule 1B of the <i>Mining Act 1992</i> .  <a href="#">Decision document - Variation of authorisation</a>	ML 1376 did not have the standard MOP and ARR condition attached to the authorisation.	4 December 2020
Omit drilling notification condition from non-coal exploration licences.	Decision to vary (omit) the Drilling Notification condition imposed on non-coal Exploration Licences listed on the <a href="#">attached schedule</a> .  This decision takes effect from 31 August 2020.  Clause 12(2)(c) of Schedule 1B of the <i>Mining Act 1992</i> .  <a href="#">Decision document - Variation of authorisation</a>	The condition is obsolete and is no longer required.	28 August 2020

## Prosecutions

### Prosecution proceedings commenced against Narrabri Coal Pty Ltd and Narrabri Coal Operations Pty Ltd

We have commenced prosecution proceedings against Narrabri Coal Pty Ltd and Narrabri Coal Operations Pty Ltd in the NSW Land and Environment Court for alleged breaches of the state's mining laws.

The charges relate to the alleged construction of unauthorised tracks, failing to rehabilitate drill sites and drilling of bore holes contrary to exploration activity approval conditions.

Read the [media release](#).

## Major investigations

### Investigation into illegal mining at Rickey's Lane, Sapphire

On 16 November 2020, Resources Regulator Inspectors accompanied by NSW Police, entered a property on Rickey's Lane, Sapphire (near Inverell) after it was suspected that illegal mining was occurring the property. The investigation is ongoing.

Read the full report [IIR20-16](#).

