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1. Introduction

1.1. Background

The NSW Resources Regulator's compliance audit program aimed to:

- assess the level of compliance with the regulatory instruments
- provide internal feedback to improve title conditions, policies or general regulatory framework (protecting and improving system integrity)
- assess auditee performance and provide feedback to them on how they may be able to improve their performance
- increase stakeholder confidence in regulatory system
- increase the level to which titleholders are actively managing their own compliance.

The compliance audit strategy highlighted that the audit schedule and focus for each year would be developed using a risk review process. A risk assessment methodology (broadly based on AS ISO 31000:2018 Risk management – Guidelines) was used to develop a broad risk profile for each title (or group of titles) to facilitate the development of the annual audit program. Risk factors used included:

- whether the Regulator had primary regulatory responsibility (eg. for exploration)
- the type, size and complexity of operations and activities
- the location of activities (environmental sensitivity of surrounding area and proximity of residents)
- results of previous audits and titleholder compliance history
- stakeholder concerns.

The compliance audit strategy and program included a requirement for annual review of the audit programs against the identified objectives. This report provided the review of the compliance audits commenced by the Regulator between 1 July 2021 and 31 December 2022.

In 2022, the compliance audit program was identified as a key compliance priority for the Regulator forming part of the proactive assessment programs documented in our published 'Compliance Priorities' reports.

1.2. Focus of the 2021-2022 compliance audit program

In the exploration sector, the 2021-2022 audit program included exploration compliance audits of 15 significant exploration programs, 8 of which had received funding under Round 3 or Round 4 of the NSW Government New Frontiers Co-operative Drilling grants program.

Community consultation in exploration was the subject of a targeted audit program in 2022, where 11 exploration programs were subject to a desktop audit against the mandatory requirements of the Exploration code of practice: Community consultation.

In the mining sector, the 2020-2021 audit program included one large open cut coal mining operation and 5 small to medium sized open cut mineral mines or quarries. All 5 of the mines and quarries audited would now be considered to be large mines for the purposes of the rehabilitation reforms and the conditions of mining leases documented in Schedule 8A of the Mining Regulation 2016.

Details of the sites audited in the 2021-2022 compliance audit program are summarised in Table 1. It should be noted that the COVID-19 pandemic and extensive flooding in inland NSW curtailed the

2021-2022 compliance audit program, with less audits completed during the period, compared to previous years, and many reduced to desktop audits due to an inability to access some sites.

Mine/Project	Titleholder	Title/s	Audit scope
Koonenberry Gold Project	Lasseter Gold Pty Ltd	EL6803 and EL8245	Exploration compliance
<u>Tibooburra Project</u>	Awati Resources Pty Ltd	EL6286, EL8691 and EL9202	Exploration compliance
Nuntherungie and Wonnaminta Projects	Goldreef Resources Pty Ltd	EL6479 and EL8691	Exploration compliance
Wilga Downs Project	Thomson Resources Ltd	EL8136	Exploration compliance
Cobar Gold Project	Oxley Exploration Pty Ltd and Isokind Pty Ltd	EL6140	Exploration compliance
Peak Gold Project	Peak Gold Mines Pty Ltd	EL5933	Exploration compliance
Webbs Project	Webbs Resources Pty Ltd	EL5674	Exploration compliance
Mt Gilmore Project	Mt Gilmore Resources Pty Ltd and Providence Gold and Minerals Pty Ltd	EL8379	Exploration compliance
Sugarloaf Project	Krakatoa Australia Pty Ltd	EL8153	Exploration compliance
Razorback Project	Colossus Metals Pty Ltd	EL8735	Exploration compliance
<u>Discovery Ridge</u> <u>Project</u>	LFB Resources Pty Ltd	EL5922	Exploration compliance
Bushranger Project	Prospectore Pty Ltd	EL5574	Exploration compliance
Fairholme Project	Kincora Copper Australia Pty Ltd and Rarex Limited	EL6552	Exploration compliance
The Valley Project	Rimfire Pacific Mining Limited	EL8491 and EL8542	Exploration compliance
Cargelligo Project	Australian Gold and Copper Limited	EL8968	Exploration compliance
Tooloom Project	Snowmist Pty Ltd	EL8825	Community consultation
Lyndhurst Project	Gold & Copper Resources Pty Ltd	EL8265	Community consultation
Gibsons Project	SOC1 Pty Ltd	EL4474	Community consultation

Mine/Project	Titleholder	Title/s	Audit scope
Bowdens Silver Project	Bowdens Silver Pty Ltd	EL5920	Community consultation
Mt Adrah and Hobbs Pipe Projects	Wildcat Gold Pty Ltd	EL6372 and EL7844	Community consultation
Wilpinjong Coal Project	Wilpinjong Coal Pty Ltd	EL9399	Community consultation
Browns Reef Project	Eastern Metals Pty Ltd	EL6321	Community consultation
Broken Hill East Project	BHA No. 1 Pty Ltd	EL8434	Community consultation
Webbs Consols Project	Lode Resources Limited	EL8933	Community consultation
Belara Project	Belararox Limited	EL9184	Community consultation
Tallebung Tin Project	Stannum Pty Ltd	EL6699	Community consultation
Timor Limestone Quarry	Stoneco Pty Limited	ML1660	Mining compliance
Castle Mountain Zeolite Mine	Castle Mountain Mining Pty Ltd	ML1395	Mining compliance
Austral Brick – New Berrima Quarry	The Austral Brick Company Pty Ltd	M(MO)L6	Mining compliance
Marrangaroo Quarry	Metromix Pty Ltd	ML1522, ML1801, ML4635, ML4636, ML6388, MPL221, PLL584 and PLL602	Mining compliance
Wallerawang Quarry	Walker Quarries Pty Ltd	ML1633	Mining compliance
Mount Thorley Warkworth Complex	Mount Thorley Operations Pty Ltd and Warkworth Mining Limited	CL219, CCL753, ML1412, ML1590, ML1751 and ML1752	Mining compliance

1.3. Audit scopes

As noted in Table 1, the audit scopes varied across the programs. A description of each audit scope is provided in Table 2.

Audit scope	Description
Mining compliance	This audit scope included a compliance assessment against the requirements of the <i>Mining Act 1992</i> and regulation and the mining leases issued for the operations. The scope included an assessment of compliance against the requirements of the approved Mining

Audit scope	Description Operations Plan (MOP) for the operations, and an assessment of the progress of rehabilitation.
Exploration compliance	This audit scope included a compliance assessment against the requirements of the <i>Mining Act 1992</i> and regulation and the exploration licences issued for the projects. The scope included an assessment of compliance against the requirements of any exploration activity approvals granted for the projects, and the relevant exploration codes of practice, including assessment against the titleholder's commitments in exploration activity approval documentation.
Community consultation	This audit scope included a targeted compliance assessment against the mandatory requirements of the Exploration code of practice: Community consultation.

1.4. Publishing and disclosure of information

This report was published on the Regulator's website consistent with:

- Section 365 of the Mining Act 1992
- Resources Regulator's <u>Public comment policy</u>
- Government Information (Public Access) Act 2009.

2. Summary of audit findings

The findings of the 2021-2022 compliance audit program are summarised in Table 3.

There were 10 non-compliances, 48 observations of concern and 62 suggestions for improvement identified across the 32 audits included in the 2021-2022 audit program.

The non-compliances generally related to:

- mining (4)
 - failure to attempt to negotiate a co-operation agreement with an overlapping titleholder (1)
 - failure to submit annual reports (3).
- exploration (5)
 - failure to submit rehabilitation objectives and completion criteria for exploration (1)
 - failure to have a documented environmental risk assessment for exploration (1)
 - failure to have a documented rehabilitation risk assessment for exploration (1)
 - failure to maintain mandatory records (1)
 - failure to submit annual reports (1).
- exploration community consultation (1)
 - failure to have a documented community consultation risk assessment for exploration (1).

The non-compliances resulted in the issuing of 8 official cautions.

Observations of concern were identified during the audits which required further management action by the licence holders to avoid becoming non-compliant in the future. These included:

- mining
 - inadequate rehabilitation planning and/or monitoring
 - inadequate identification and/or management of environmental risks
 - inadequate weed management.
- exploration
 - inadequate environmental, rehabilitation and/or community consultation risk assessments
 - issues of concern with chemical storage, bunding and spill management
 - inadequate controls for vegetation clearing and surface disturbance
 - inadequate weed management
 - inadequate rehabilitation monitoring programs
 - inadequate community consultation strategies
 - inadequate record keeping and management of records.
- exploration community consultation
 - inadequate community consultation risk assessments
 - inadequate community consultation strategies.

Generally, the suggestions for improvement identified during the audits related to the implementation of some form of compliance management system which would assist titleholders to

better identify and manage their compliance obligations. Suggestions for improvement included recommendations for improvement of:

- the identification and management of compliance requirements
- inspection and monitoring processes
- risk assessment and management processes
- rehabilitation monitoring processes
- the identification and analysis of community stakeholders
- community consultation strategies
- record keeping and reporting.

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Mine/Project	Titleholder	Title	Non- compliances	Observations of concern	Suggestions for improvement
Mining compliance					
Timor Limestone Quarry	Stoneco Pty Limited	ML1660	2	1	0
Castle Mountain Zeolite Mine	Castle Mountain Mining Pty Ltd	ML1395	2	4	3
Austral Brick – New Berrima Quarry	The Austral Brick Company Pty Ltd	M(MO)L6	0	2	1
Marrangaroo Quarry	Metromix Pty Ltd	ML1522, ML1801, ML4635, ML4636, ML6388, MPL221, PLL584 and PLL602	0	1	5
Wallerawang Quarry	Walker Quarries Pty Ltd	ML1633	0	0	2
Mount Thorley Warkworth Coal Mine	Mount Thorley Operations Ltd and Warkworth Mining Ltd	CL219, CCL753, ML1412, ML1590, ML1751 and ML1752	0	3	3
Mining total			4	11	14
Exploration					
Koonenberry Gold Project	Lasseter Gold Pty Ltd	EL6803 and EL8245	0	4	3
Tibooburra Project	Awati Resources Pty Ltd	EL6286, EL8691 and EL9202	0	6	2
Nuntherungie and Wonnaminta Projects	Goldreef Resources Pty Ltd	EL6479 and EL8691	0	0	2
Wilga Downs Project	Thomson Resources Ltd	EL8136	0	0	0
Cobar Gold Project	Oxley Exploration Pty Ltd and Isokind Pty Ltd	EL6140	3	2	2
Peak Gold Project	Peak Gold Mines Pty Ltd	EL5933	0	0	0

2021-2022 Compliance audit program summary report

Mine/Project	Titleholder	Title	Non- compliances	Observations of concern	Suggestions for improvement
Webbs Project	Webbs Resources Pty Ltd	EL5674	0	0	0
Mt Gilmore Project	Mt Gilmore Resources Pty Ltd and Providence Gold and Minerals Pty Ltd	EL8379	1	0	4
Sugarloaf Project	Krakatoa Australia Pty Ltd	EL8153	0	1	1
Razorback Project	Colossus Metals Pty Ltd	EL8735	0	2	2
Discovery Ridge Project	LFB Resources Pty Ltd	EL5922	0	0	2
Bushranger Project	Prospectore Pty Ltd	EL5574	1	3	3
Fairholme Project	Kincora Copper Australia Pty Ltd and Rarex Limited	EL6552	0	1	5
The Valley Project	Rimfire Pacific Mining Limited	EL8491 and EL8542	0	0	8
Cargelligo Project	Australian Gold and Copper Limited	EL8968	0	1	3
Exploration - community c	onsultation				
Tooloom Project	Snowmist Pty Ltd	EL8825	0	2	1
Lyndhurst Project	Gold & Copper Resources Pty Ltd	EL8265	0	2	1
Gibsons Project	SOC1 Pty Ltd	EL4474	1	2	1
Bowdens Silver Project	Bowdens Silver Pty Ltd	EL5920	0	1	1
Mt Adrah and Hobbs Pipe Projects	Wildcat Gold Pty Ltd	EL6372 and EL7844	0	2	1
Wilpinjong Coal Project	Wilpinjong Coal Pty Ltd	EL9399	0	0	1
Browns Reef Project	Eastern Metals Pty Ltd	EL6321	0	2	1

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Mine/Project	Titleholder	Title	Non- compliances	Observations of concern	Suggestions for improvement
Broken Hill East Project	BHA No. 1 Pty Ltd	EL8434	0	2	1
Webbs Consols Project	Lode Resources Limited	EL8933	0	1	1
Belara Project	Belararox Limited	EL9184	0	1	1
Tallebung Tin Project	Stannum Pty Ltd	EL6699	0	2	1
Exploration totals			6	37	48
Total			10	48	62

3. Audit findings

3.1. Mining sector

Six mining compliance audits were undertaken during the 2021-2022 compliance audit program. Four non-compliances were identified from these 6 audits.

Three of the 4 non-compliances related to either a failure to report or late submission of reports required under the Mining Act or conditions of mining leases. Leaseholders must be aware that under the provisions of section 163C of the Mining Act and clause 59 of the Mining Regulation, annual reports are required to be lodged.

The fourth non-compliance related to the failure to attempt the negotiation of a co-operation agreement with an overlapping titleholder as required by a condition on the mining lease. The mining lease holder was unaware of the presence of an overlapping petroleum title and therefore was unaware of the need to attempt to negotiate a co-operation agreement. It is recommended that leaseholders undertake a search, using tools such as the publicly available departmental mapping system Minview, to determine whether there are any overlapping titles affecting their mining leases. Where overlapping titles do exist, then the titleholder of the overlapping title should be identified as a potential stakeholder for any consultation program. Negotiation of co-operation agreements between the overlapping titleholders is beneficial to co-ordinate the activities of each lease or licence holder to minimise impacts to landholders. A co-operation agreement could include things such as data sharing, co-ordination of drilling programs etc.

The 11 observations of concern and 14 suggestions for improvement in the mining sector primarily related to rehabilitation as discussed in the following sections. It should be noted that the audits were conducted in the first half of 2022 before the operational rehabilitation reforms came into effect. The issues raised may be addressed through the specific requirements of the reforms identified in Schedule 8A of the Mining Regulation 2016.

3.1.1. Risk assessment

To achieve successful rehabilitation outcomes, any risks that would prevent those outcomes from being achieved must be clearly identified, assessed and managed. Management of risk does not stop with implementation of the controls identified to mitigate the risk. Those controls need to be monitored to check that they are effective in addressing the risk. It is also necessary to review the risk assessment regularly during mining operations as risks can and do change over time.

Many of the issues identified on mining leases during the audit arose because of a failure to adequately identify, assess and manage risk. For example, at one site the auditor observed the presence of potential acid mine drainage leachate (iron precipitants and efflorescence) within the wall of a tailings storage facility (Figure 1). It was noted that the mine did not have adequate procedures in place to identify and manage potentially hostile material within the mine plan. Failure to manage this risk could adversely affect rehabilitation of the site due to potential contamination issues.

Figure 1 Potential acid mine drainage leachate within the wall of a tailings storage facility



3.1.2. Rehabilitation monitoring

Areas that have been rehabilitated need to be monitored over time to check that the rehabilitation is sustainable and able to function for the intended final land use. As part of the mine planning process, rehabilitation objectives and completion criteria are required to be prepared. This was generally included as part of the MOP process but has now been formalised as part of the rehabilitation reforms documented in Schedule 8A of the Mining Regulation 2016. A rehabilitation monitoring program should be designed to check that the rehabilitation is on track to achieve the completion criteria and be suitable for the intended final land use.

Most mining lease holders had established some form of rehabilitation monitoring but in some cases, this monitoring program was not designed to check progress against completion criteria and did not identify issues that would affect successful rehabilitation outcomes. For example, weed and feral animal issues were observed at some sites, where it was also observed that rehabilitation had failed. These issues were not adequately identified and addressed as part of the monitoring program. Consequently, the lease holder had not initiated actions to address the issues and reduce the risk to successful rehabilitation outcomes. A comprehensive and robust monitoring program with specific criteria nominated against which performance could be assessed was recommended.

It was noted that some lease holders used external consultants to complete monitoring programs (such as revegetation surveys) and that recommendations made as a result of these programs were not routinely captured in the mine's compliance database. Whilst there was evidence available to demonstrate that some of the recommendations made by the external consultations were actioned, there was potential for these actions to be missed. It is recommended that lease holders should consider entering the recommendations from external consultant reports into a compliance database to provide a more robust system for tracking any actions required.

3.2. Exploration sector

There were 26 compliance audits completed in 2021-2022 for exploration programs across NSW. These audits resulted in 6 non-compliances, 37 observations of concern, and 48 suggestions for improvement. It was noted that over 90% of the non-compliances and observations of concern identified during the exploration audits were related to the mandatory requirements of the exploration codes of practice. Typically, exploration licence holders were aware of their compliance obligations related to the conditions of their exploration licences, but it was noted that there was much less of an awareness of the mandatory requirements of the exploration codes of practice.

The non-compliances, observations of concern and the suggestions for improvements identified during the 26 exploration audits conducted can generally be broadly grouped into several key areas including:

- risk assessment
- community consultation
 - consultation strategies
 - community consultation reporting.
- environmental management
 - management of chemicals, fuels and oils
 - waste management
 - weed management.
- rehabilitation
 - rehabilitation objectives and completion criteria
 - monitoring of rehabilitation progress.

These issues will be discussed in the following sections.

3.2.1. Risk assessment

Risk assessments are a mandatory requirement of three of the exploration codes of practice as follows:

- Exploration code of practice: Environmental management mandatory requirement 12.1
- Exploration code of practice: Rehabilitation mandatory requirement 1
- Exploration code of practice: Community consultation mandatory requirement 1.

Generally, most exploration licence holders had completed well documented risk assessments for environmental management and rehabilitation. Only two licence holders failed to have documented risk assessments in place prior to undertaking exploration activities. Official cautions were issued for those breaches.

The risk assessments for community consultation were generally minimal with most explorers using the guidance material in Table 2 in Appendix 1 of the code to assess the activity impact level. Assessing the activity impact level allows the licence holder to understand the context and sensitivity of their exploration program from a community perspective but it will not identify any specific risks, threats or opportunities for community consultation.

Each exploration licence area will have specific issues relevant to the communities within which exploration is undertaken. These issues will not be identified or addressed using only the standard activity impact level assessment. A risk assessment is required to identify and consider the range of opportunities and potential threats associated with community consultation and engagement for each exploration program.

To address this issue, the code of practice was updated in October 2022 to identify that the guidance in Table 2 of the code did not constitute a risk assessment for the purposes of mandatory requirement 1 and a full risk assessment was required to be undertaken.

As discussed under section 3.1.1 in relation to the mining sector, management of risk does not stop with implementation of the controls identified to mitigate the risk. Those controls need to be monitored to check that they are implemented and are effective in addressing the risk. It is also necessary to review the risk assessment regularly as risks can and do change over time.

Very few of the exploration licence holders audited had developed processes to monitor the implementation or the effectiveness of the controls. Most had developed generic risk assessments

for exploration activities, but it was noted that these were rarely reviewed for any site-specific risks. Where generic risk assessments are used by exploration licence holders, these must be reviewed for each exploration program to confirm that the risk profile has not changed. Failure to adequately identify and manage risk can result in non-compliance.

3.2.2. Community consultation

Community consultation is a condition of all exploration licences. Consultation must be undertaken in accordance with the Exploration Code of Practice: Community Consultation.

All the exploration licence titleholders audited during the 2021-2022 compliance audit program had undertaken community consultation generally appropriate to the nature and scale of the exploration activities. Titleholders were also observed to have maintained records of the community consultation undertaken. However, there were two key areas of concern identified during audits relating to community consultation as outlined in the following sections.

3.2.2.1. Community consultation strategies

Mandatory requirement 2 of the Exploration Code of Practice: Community Consultation requires the preparation of a community consultation strategy to manage the risks identified in the risk assessment. Mandatory requirement 3 of the code sets out the requirements for preparation of the community consultation strategy. Mandatory requirement 5 of the code identifies the community consultation strategy as a mandatory record.

It was noted that all the exploration licence holders audited had a documented community consultation strategy. This was an improvement from the 2020-2021 period where five licence holders had compliance action taken for failing to have a documented community consultation strategy.

As identified in 2020-2021, the content of the community consultation strategies prepared by licence holders varied widely. The issues identified in 2021-2022 were the same as those identified in 2020-2021 and included:

- no clearly defined objectives for the consultation strategy
- lack of a detailed analysis of stakeholders
- lack of a defined process and identification of mechanisms for consultation with different stakeholder groups
- no defined process or mechanisms for analysing consultation outcomes or revising the consultation strategy to ensure it remains relevant and effective.

In almost all cases where the community consultation strategy was identified as deficient, it was noted the licence holder had used the guidance material in the code of practice as the consultation strategy itself.

It was not the Regulator's intention that the guidance material would form a template for a consultation strategy. The guidance material was provided to identify considerations for the development of a consultation strategy.

The mandatory requirements for the consultation strategy are clearly identified in the code of practice. Licence holders should ensure that the consultation strategy is prepared to address each of the mandatory requirements. The strategy should also reflect the risks, opportunities and threats identified in the risk assessment prepared under mandatory requirement 1 of the code of practice.

3.2.2.2. Community consultation reporting

Mandatory requirement 4 of the code of practice requires the licence holder to implement, monitor, and report annually on the community consultation strategy. For all exploration audits, the licence holders were able to provide evidence that the consultation strategy had been implemented. All licence holders had prepared and submitted annual community consultation reports, but it was

noted that the information provided in many reports was lacking in detail and did not provide any assessment of performance against the documented strategy.

To be effective, community consultation reporting must be more than just a list of who was consulted and when. Licence holders need to analyse and assess the methods and outcomes of consultation to:

- check that consultation mechanisms are appropriate and effective
- determine whether any changes need to be made to the consultation approach or the exploration activities because of the outcomes of the consultation activities
- identify any emerging issues so that actions can be implemented (where practicable) to address community concerns.

To effect a change in the focus of community consultation reporting, the code of practice was amended in October 2022. Before the change, community consultation reports were required to be prepared and submitted to the Regulator. Typically, these reports were a list of dates, times and names of people consulted. While this demonstrated that consultation had occurred, it did not provide any evidence that the licence holder was aware of and acting (where necessary) to address any community concerns with an exploration program.

The change to the reporting requirements will still require an annual report to be prepared but it will be made available to the community rather than being submitted to the Regulator. This will necessitate a change to the focus of reporting. Being publicly available, the report will not be able to focus on the who, what and where of previous reports. It will be important for licence holders to use an analysis of the outcomes of community consultation activities to demonstrate to the community that they have heard any concerns raised, understood the issues and are acting (where possible) to address any concerns or enquiries raised.

3.2.3. Environmental management

Standard condition 4 of an exploration licence requires the licence holder to prevent or minimise so far as is reasonably practicable, any harm to the environment arising from the activities carried out under the licence. Condition 2 of an exploration activity approval requires the licence holder to carry out the activity in compliance with Part B of the Exploration Code of Practice: Environmental Management.

For each exploration audit undertaken, an assessment of compliance was made against the mandatory requirements of the code of practice. Where desktop audits were undertaken due to either COVID-19 restrictions or flooding impacting site access, a full assessment against the code of practice could not be completed. For this reason, the findings for this period were limited in scope.

There was no significant harm to the environment observed at any of the sites audited but there were some areas of concern as outlined in the following sections.

3.2.3.1. Chemical management

Mandatory requirements 1.1 to 1.4 of the code of practice outline the requirements for the use, handling and storage of chemicals, fuels and lubricants. Most exploration companies and contract drillers had controls in place to provide secondary containment to chemicals on site, and the means to manage spills should any occur.

It was noted that there was a decrease in the number of sites where observations of concern were raised relating to chemical management. For the 2020-2021 period, there were three sites audited where chemical management was a concern. For the 2021-2022 period, this was reduced to one site where one issue of concern was noted.

A small oil or diesel spill was observed at one RC drill hole site which had not been cleaned up by the drillers. The spill was not of a size to cause material harm to the environment and was not required to be reported to the EPA or the Regulator, but the driller should have reported it to the licence holder. Following observation of the spill by the audit team, the exploration geologist immediately

removed the contaminated material and bagged it for disposal offsite. No further action was required.

Exploration licence holders are remined that although they may pass responsibility to the driller for chemical and spill management, it is the licence holder that remains accountable. It is recommended that exploration licence holders implement inspections and monitoring of the activities of the drilling operators to ensure that chemicals, fuels and lubricants are managed appropriately in accordance with the requirements of the code of practice. This should include checking:

- adequate bunding is in place and all chemicals, fuels and lubricants are stored within the bunded area
- safety data sheets are readily available on site
- spill kits are available, readily accessible, and used to clean up any spills that occur
- the driller is reporting any spills or issues to the licence holder who can decide whether further notification to the Regulator and/or EPA is required.

3.2.3.2. Waste management

Mandatory requirement 5.1 of the code of practice requires licence holders to manage all wastes in a manner which does not, so far as is reasonably practicable, cause harm to the environment.

It was noted that all exploration licence holders had identified the key waste streams resulting from their exploration activities. Waste management measures were generally observed to be implemented on the sites inspected and no significant waste issues were identified.

Mandatory requirement 13.1 of the code of practice specifies the mandatory records that are required to be maintained. Records specifying the types and quantity of all wastes generated, excluding personal waste, and the method of their disposal are required to be kept for all exploration activities.

Most licence holders had some records for waste management, typically invoices from waste removal companies for disposal of drilling fluids. These did not necessarily capture the information required by the mandatory record requirement. It is recommended that licence holders develop and implement procedures to collect and maintain data on the types and quantities of all wastes generated, and the method of their disposal.

3.2.3.3. Weed management

Mandatory requirement 8.1 of the code of practice requires licence holders to implement all practicable measures to prevent the introduction and spread of weeds, pest animals, and animal and plant diseases.

Most exploration licence holders had identified weeds as a risk to rehabilitation. Controls to manage weed risk include:

- maintaining vehicle hygiene for site vehicles
- weed spraying or mechanical removal where weeds do become established.

In most cases, explorers have implemented vehicle inspection and/or washdown procedures for all vehicles accessing exploration sites. However, where weed management controls such as vehicle washdowns were implemented, it was observed that licence holders were not always documenting and maintaining records as evidence of when and how those controls were implemented. It is recommended that where washdown of the drill rig and other vehicles was a required control, licence holders should consider the development and implementation of a process to verify that washdowns are occurring and are documented.

Weeds were observed on several exploration sites. Whilst these were generally not significant infestations, they had the potential to affect the success of the rehabilitation if not managed. It was noted that exploration licence holders did not necessarily have the required expertise in weed

identification and management, especially in areas where exploration activities were conducted in ecologically sensitive areas. It is recommended that licence holders consider providing training for exploration and rehabilitation personnel in weed identification and management.

3.2.4. Rehabilitation

All the exploration licence holders audited during the 2021-2022 period had progressed rehabilitation of their exploration activities. There was one non-compliance identified in relation to the mandatory requirements of the Exploration code of Practice: Rehabilitation, relating to a failure to submit rehabilitation objectives and completion criteria (ROCCs) before drilling commenced. An official caution was issued for the breach. This represents an improvement from the last period where three licence holders were cautioned for failing to submit ROCCs.

There were some issues of concern and suggestions for improvement related to compliance with the code of practice as discussed in the following sections.

3.2.4.1. Rehabilitation objectives and completion criteria

Mandatory requirement 2 of the code of practice requires exploration licence holders, not later than 14 days prior to the commencement of surface disturbing activities, to provide to the Secretary a copy of clear, specific, achievable and measurable rehabilitation objectives and completion criteria, developed in consultation with the relevant landholders. For higher risk prospecting operations, a rehabilitation management plan is required to be prepared and submitted with the ROCC.

Most exploration licence holders were using the template provided in Appendix 2 of the code of practice as the ROCCs for their exploration operations. The guidance material in the code states:

'The level of detail to be included in the rehabilitation objectives and completion criteria should be proportionate to the type and scale of activities likely to cause disturbance, as well as the sensitivity of the surrounding environment.'

It was not the Regulator's intention that the guidance material would form a template for the ROCCs. The guidance material was provided to identify considerations and provide examples for the development of ROCCs for each exploration program.

Using the ROCC template verbatim may not be appropriate for all exploration operations. It is important for licence holders to be considering the characteristics of their activities, and the environmental context of their sites, to ensure that the ROCCs reflect the type and scale of activities and are appropriate to ensure that rehabilitation is successful and capable of supporting the intended final land use.

It was noted all licence holders had prepared ROCCs for their exploration operations. However, very few licence holders had evidence to confirm that the ROCCs had been developed in consultation with the relevant landholders. For those licence holders that did have evidence of consultation, it was noted that the ROCCs were included in information provided to the landholders during land access agreement negotiations.

3.2.4.2. Monitoring of rehabilitation progress

A significant issue identified during the exploration audits in the 2020-2021 period was the failure to assess rehabilitation progress against the ROCC. It was noted that the same issue was prevalent on most exploration licences audited during the 2021-2022 period.

Mandatory requirement 3 of the Exploration Code of Practice: Rehabilitation requires the licence holder to develop, implement and complete a rehabilitation program (which includes a monitoring program) to rehabilitate disturbed areas to a condition that can support the intended final land use. The ROCCs are developed based on the intended final land use, so the rehabilitation monitoring program should be framed around tracking progress towards achieving the completion criteria.

It was noted that very few licence holders had systematic monitoring programs in place for monitoring and recording the progress of rehabilitation over time. For most of the exploration licences audited, licence holders were generally using photographic records to monitor

rehabilitation progress. A photograph alone may not always be sufficient to monitor the progress of rehabilitation. Where corrective actions may be required when rehabilitation progress is not on track to meet the completion criteria, there is a need to have a documented process to record, action, track and close out those corrective actions. It is recommended that licence holders consider the development of a more robust rehabilitation monitoring program that documents rehabilitation inspections, actions and tracks corrective actions where required, and provides a tool for assessing rehabilitation progress against the rehabilitation objectives and completion criteria for the site.

3.3. Compliance management

The audits of exploration licences and mining leases have generally found that higher levels of compliance are achieved if licence or lease holders have identified and are actively managing their compliance obligations within some form of compliance management system. This may take the form of a simple excel spreadsheet or database with hyperlinks to documents and records, or a sophisticated software package that can track and escalate compliance issues.

It is recommended that all licence and lease holders consider the development of compliance management tools to assist them to be able to actively manage their compliance obligations. For example, as a starting point for exploration, the Regulator has prepared the self-audit checklist for explorers (https://www.resourcesregulator.nsw.gov.au/__data/assets/word_doc/0004/885658/Self-audit-checklist-explorers.docx) which is available for exploration licence holders to use to assess their own level of compliance.

3.3.1. Identifying compliance obligations

Identifying compliance obligations is a critical step in the development of an effective compliance management system. Compliance obligations can include:

- regulatory requirements (for example, the *Mining Act 1992* or Mining Regulation 2016)
- conditions imposed on the grant, renewal, or transfer of mining leases and exploration licences
- exploration activity approvals
- exploration codes of practice
- specific commitments made by the organisation (for example, commitments made in approved exploration activity applications, or commitments made in a rehabilitation management plan prepared under the Schedule 8A requirements).

Once identified, compliance obligations should be reviewed periodically to identify any changes in those obligations (for example, changes in legislation).

Generally, most lease and licence holders had a good grasp of their compliance requirements related to the conditions of title. Compliance obligations under the Mining Act and Mining Regulation were less understood. In exploration, most of the observations of concern and suggestions for improvement were related to the mandatory requirements of the exploration codes of practice.

This indicated that there was a need for lease and licence holders to identify and familiarise themselves with all their compliance obligations. Once compliance obligations are identified, it is recommended that lease and licence holders develop, implement and document the actions required to achieve and verify compliance with those obligations.

3.3.2. Subcontractor management

Contractors are often used to undertake specialist tasks, for example, exploration drilling. Whilst the responsibility for compliance or the implementation of environmental controls is often passed to the contractor, the licence holder will retain accountability for compliance with its lease or licence conditions and other compliance obligations. It is important that the lease or licence holder

exercises management control of its contractors; for example, by specifying contract requirements, providing oversight of contracted works, and evaluating the performance of the contractor during the contracted works.

There have been examples in audits undertaken during the 2021-2022 period where a contractor has done something that adversely affected the licence holder's ability to meet their compliance obligations. For example, in the exploration sector, the diesel spill not reported by the driller to the licence holder described in section 3.2.3.1.

In the mining sector, a revegetation contractor used different tree species in revegetation works to those that were listed in the approved MOP for the mine. It was acknowledged by the auditor that there were valid reasons to do this, however, by failing to notify the mining lease holder before making the substitution, the actions of the contractor affected the leaseholder's ability to comply with their compliance obligation to carry out operations in accordance with the approved MOP. A modification to the MOP could have been sought for the variation in tree species had the leaseholder known of the necessity to do so.

3.3.3. Inspections, monitoring and evaluation

An effective inspection, monitoring and evaluation process is required to:

- monitor the implementation of the risk controls
- evaluate the effectiveness of those controls based on an assessment of inspection and monitoring data
- implement an adaptive management approach if monitoring shows that controls may be ineffective.

Most lease and licence holders had established some basic inspection and monitoring processes, but further development would be beneficial to establish robust and comprehensive inspection and monitoring programs.

There were some good examples of inspection and monitoring observed during audits undertaken. For example, one explorer was noted to have established an inspection and monitoring process that aligned with the lifecycle of each drill hole. The drill site environmental monitoring sheet was observed to have three sections:

- general and statutory approvals generally pre-drilling
- site and water management during drilling
- rehabilitation and site monitoring generally post drilling.

The monitoring sheet was completed for each drill hole, providing a record of inspection and monitoring activities.

The key thing missing from most inspection and monitoring processes was a collation and analysis of results over time to evaluate the effectiveness of risk controls, rehabilitation methodologies etc. It is important for lease and licence holders to be evaluating their performance and adapting their management strategies if that evaluation shows that current management is not as effective as it could be.

3.3.4. Record keeping

Sections 163D and 163E of the *Mining Act 1992* related to the creation and maintenance of records required under the Act, the regulations, or a condition of title. Clause 17 of Schedule 8A of the Mining Regulation 2016 required the holder of a mining lease to create and maintain records of all actions taken that demonstrate compliance with the requirements of Schedule 8A conditions. Records must be kept in a legible form for production to any inspector and must be maintained for a period of 4 years after the expiry or cancellation of the title.

Specific requirements for the types of records to be maintained for exploration activities were detailed in the mandatory requirements of the exploration codes of practice as follows:

- mandatory requirement 6 of the rehabilitation code of practice
- mandatory requirement 13.1 of the environmental management code of practice
- mandatory requirement 5 of the community consultation code of practice.

All lease and licence holders were creating and maintaining records in some form. For example, several exploration licence holders had developed a report tracking spreadsheet to track due dates and record submission references of required annual activity reports. Another exploration licence holder had developed an activity approval tracking spreadsheet which collated and hyperlinked the approvals for each hole drilled, recorded dates when holes were drilled and rehabilitated, and referenced when rehabilitation of each hole was signed off by the Regulator as satisfactory.

However, it was observed that records were not always being collected and maintained to demonstrate compliance with all obligations. For example, in exploration, very few licence holders were maintaining records of actual methodologies used to rehabilitate the site, despite this being a mandatory record required by mandatory requirement 6 of the code of practice.

Lease and licence holders need to make themselves aware of the records required to be created and maintained during their operations. Any records created must be readily retrievable upon request from an inspector, so it is important that documents are well organised and maintained.

4. Summary and recommendations

Despite being limited in scope due to COVID-19 and flooding issues, the 2021-2022 compliance audit program completed 32 audits across the mining and exploration sectors. Where non-compliances were identified, enforcement action was undertaken which resulted in 8 official cautions being issued to lease or licence holders.

The audits identified several key issues of concern. Of most concern was that 90% of the non-compliances and observations of concern in the exploration sector were related to the mandatory requirements of the exploration codes of practice. There is a need for all lease and licence holders to identify and understand their compliance obligations and be actively managing those obligations to prevent non-compliances occurring. Where lease and licence holders had identified and were actively managing their compliance obligations, the auditors generally reported much lower levels of non-compliance or observations of concern.

Key recommendations for lease and licence holders to consider arising from the 2021-2022 compliance audit program include:

General recommendations

- Lease and licence holders should review their compliance obligations and develop some form of compliance management tool to assist in managing those obligations.
- Where contractors are used in operations, lease and licence holders need to be managing those contractors to ensure that contract operations do not compromise the ability of the lease or licence holder to meet their compliance obligations.
- Risk assessments should not be static documents. All risk assessments should be reviewed regularly to monitor for changes to the risk profile. Similarly, all risk controls should be monitored to confirm implementation, and the effectiveness of the control in mitigating the identified risk.

Mining

 Rehabilitation monitoring programs should be designed to demonstrate that rehabilitation is on track to achieve the rehabilitation objectives and completion criteria and is suitable for the intended final land use.

Exploration

- Community consultation risk assessments need to be completed to identify and consider the range of opportunities and potential threats associated with community consultation and engagement.
- Consultation strategies need to be developed to address the mandatory requirements of the exploration code of practice and reflect the threats and opportunities identified in the risk assessment
- Licence holders should consider the development of a more robust rehabilitation monitoring program that documents rehabilitation inspections, actions and tracks corrective actions where required, and provides a tool for assessing rehabilitation progress against the rehabilitation objectives and completion criteria for the site.
- Licence holders must be collecting and retaining mandatory records required by the codes of practice to demonstrate compliance.