



**TARRAWONGA COAL MINE
ENVIRONMENTAL
MANAGEMENT SYSTEM**

Document Owner:	Environmental Superintendent
Document Approver:	Operations Manager
Last Revision Date:	May 2021

WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

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ACRONYMS USED THROUGHOUT THIS DOCUMENT

AR	-	Annual Review
AS	-	Australian Standard
CCC	-	Community Consultative Committee
CHPP	-	Coal Handling and Preparation Plant
DPI&EoPI	-	Department of Planning, Industry and Environment
DRE	-	Division of Resources and Energy
EA	-	Environmental Assessment
EIS	-	Environmental Impact Statement
EMS	-	Environmental Management Strategy
EPA	-	Environment Protection Authority
EPL	-	Environment Protection Licence
GSC	-	Gunnedah Shire Council
MEG	-	Regional NSW, Mining, Exploration and Geosciences
ML	-	Mining Lease
NSC	-	Narrabri Shire Council
ROM	-	Run-of-Mine
TCM	-	Tarrawonga Coal Mine
TCPL	-	Tarrawonga Coal Pty Ltd



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1 INTRODUCTION

Tarrawonga Coal Pty Ltd (TCPL) is required to prepare an Environmental Management Strategy (EMS) for the Tarrawonga Coal Mine (TCM) in accordance with Project Approval PA 11_0047 (the approval) Schedule 5, Condition 1. The Project involves the continuation of operations until 2030 including coal mining operations and associated infrastructure.

The Tarrawonga Coal Mine (TCM) is located approximately 15km northeast of Boggabri, 10km north of the former Canyon Coal Mine (in closure) and south of, and adjacent to, the Boggabri Coal Mine (Figure 1). The mine site is contained within Mining Lease (ML) 1579, ML 1685, ML1749 and ML 1693 as shown in Figure 1.

This EMS describes the overall framework for environmental management on the mine site. The EMS also addresses the principal strategies to be adopted, including compliance management and monitoring, and the consultation/information dissemination processes. The Environmental Assessment 2011 provides the detailed background information for the mine on which the EMS is based.

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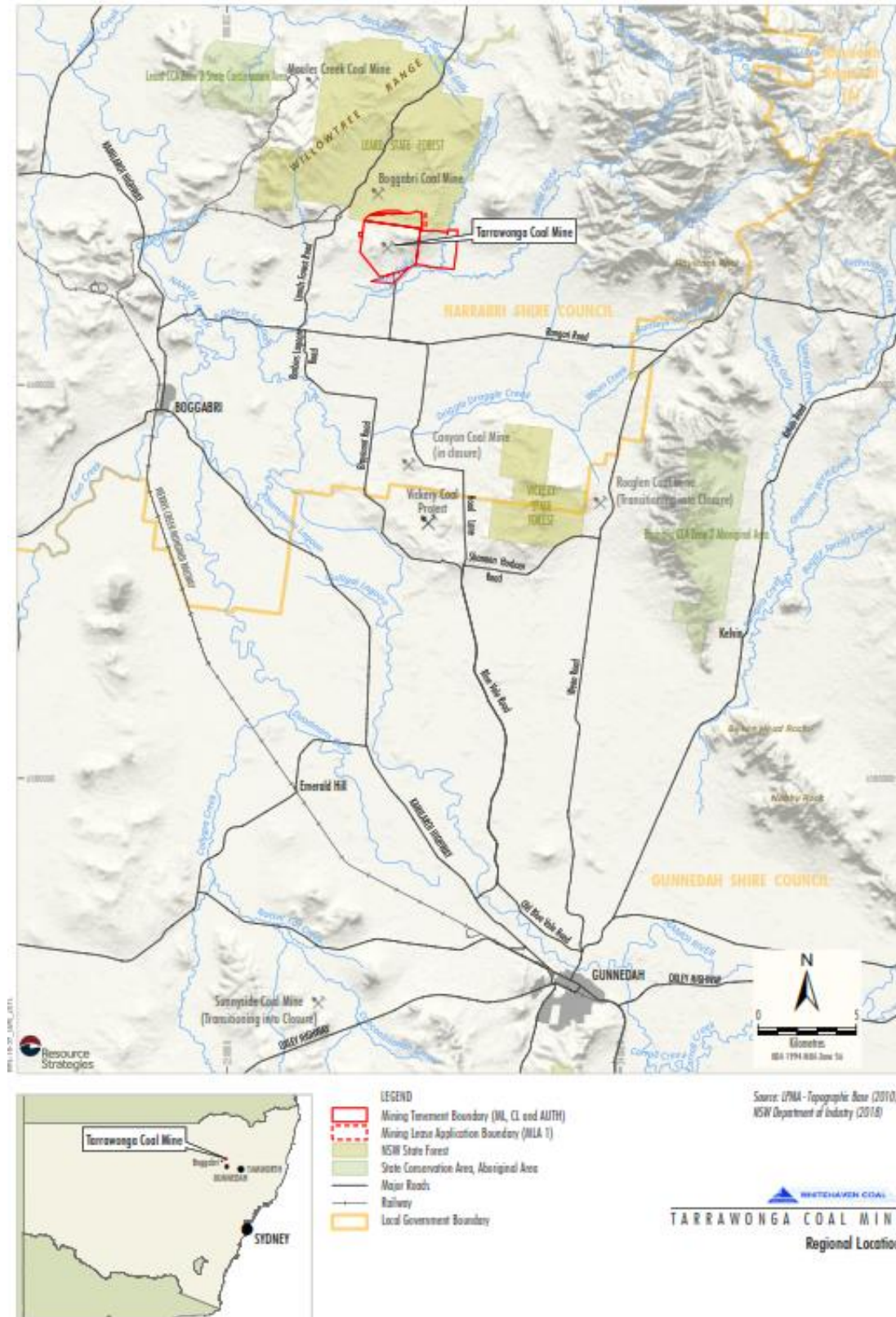


Figure 1

Tarrawonga Coal Mine Location



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1.1 Project Approval

In 2011, TCPL sought approval under the now repealed Part 3A, Section 75J of the EP&A Act for a continuation and extension of operations.

The potential environmental impacts associated with the changes described above were assessed in the *Tarrawonga Coal Project Environmental Assessment* (Whitehaven Coal Pty Ltd, 2012). PA 11_0047 was granted on the 22nd January 2013 by the Planning Assessment Commission as the delegated approval authority.

In 2014 DP&E approved a Modification of Consent to continue transport of coal from TCM to the Gunnedah CHPP up to the approved 3MT limit. The modification also combines the cumulative haulage total of Rocglen Coal Mine, Tarrawonga Coal Mine and Vickery (operations yet to commence). TCM will continue to investigate opportunities to transfer coal to Boggabri Coal CHPP and rail spur line.

In November 2016 DP&E approved a Modification of Consent which allows TCM to receive all types of coal reject material including course, fine and combined course and fine rejects.

In 2017 DP&E approved a Modification of Consent which allows a temporary (for calendar year 2017) increase in the cumulative tonnages of coal to be transported from TCM and Rocglen to the Gunnedah CHPP.

In May 2017 DP&E approved a Modification of Consent to remove the requirement relating to equipment sound power levels.

In September 2018, DPI&E (previously DP&E) approved a Modification of Consent which allows a temporary (for calendar year 2018) increase in the cumulative tonnages of coal to be transported from TCM and Rocglen to the Gunnedah CHPP.

In June 2020, DPI&E approved a Modification of Consent to allow TCM to temporarily truck water extracted from the Vickery Coal Mine licensed bore to TCM via the approved haulage routes.

In February 2021, DPI&E approved a Modification of Consent (MOD7) 'Life of Mine Modification', which includes an increase of ROM production to 3.5Mt per annum, a reduction in the open cut extend and surface disturbance footprint, the construction of a pipeline between ML1579 and the proposed Vickery Extension Project borefield and some changes to post mining landform .



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2 STATUTORY REQUIREMENTS

Statutory requirements are noted within applicable management plans as listed in Section 3.1

3 ENVIRONMENTAL PERFORMANCE – MANAGEMENT AND MONITORING

3.1 Environmental Management Plans

The following environmental management plans and strategies are required by PA 11_0047:

- Heritage Management Plan;
- BTM Aboriginal Heritage Conservation Strategy
- Air Quality and Greenhouse Gas Management Plan;
- Blast Management Plan;
- Environmental Management Strategy;
- Noise Management Plan;
- Rehabilitation Management Plan
- Water Management Plan.
- Biodiversity Management Plan
- Biodiversity Offset Strategy
- BTM Regional Biodiversity Strategy
- Traffic Management Plan
- Farm Management Plan
- Final Void Design and Closure Plan (yet to be submitted and approved)

Condition 5(5) of PA 11_0047 requires that within 3 months of:

- (a) The submission of an annual review,
- (b) The submission of an incident report,
- (c) The submission of an audit report, and
- (d) Any modification to the conditions of this approval (unless the conditions require otherwise),

the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary.



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4 TCM ENVIRONMENTAL MANAGEMENT SYSTEM

4.1 Environmental Management Structure

The TCM Environmental Management System includes various site specific Management Plans, procedures, forms and registers.

The EMS functions as a strategic framework within the Environmental Management System to outline the relevant statutory requirements and facilitate the implementation, maintenance and management of any TCM environmental documentation. Each Management Plan outlines the operational controls to be implemented to facilitate compliance with the relevant regulatory requirements and statutory approvals. Procedures, forms and registers have been developed to assist with the implementation and recording of onsite activities.

These documents will continue to be reviewed, revised or developed as necessary in accordance with the Project Approval.

4.2 WHC Health, Safety and Environmental Policy

Tarrawonga Coal operates under Whitehaven's Health, Safety, Environment & Communities Policy which sets out the company's aims and values and is applicable to all employees and contractors.

4.3 EMS Documentation

Section 3.1 lists the environmental management plans relevant to TCM. All currently approved management plans are provided on the Whitehaven Coal website.

5 ENVIRONMENTAL MANAGEMENT RESPONSIBILITY

Table 1 outlines the roles and responsibilities for site management personnel, or their nominated delegates.



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Role	Responsibilities
Operations Manager	<ul style="list-style-type: none"> • Ensure all contractors, sub-contractors and service-personnel are appropriately qualified and/or licenced to undertake the required work and have a good environmental performance record; • Ensure all operations are undertaken in accordance with relevant environmental legislation; • Workforce induction / training; and Communication with statutory authorities and the community.
Environmental Officer or delegate	<ul style="list-style-type: none"> • Monitor environmental performance at the site; • Coordination/implementation of the various management plans; • Considering and advising on matters identified in the development consent and compliance with those conditions, and other environmental matters; • Co-ordination / management of monitoring programs; • Environmental reporting; • Site rehabilitation; • Keeping abreast of new applicable developments in environmental research and technology as it applies to environmental management on mine sites; and • Post-induction education and contact with all site-based and contracted employees on environmental matters. • Receipt and response to complaints;
Superintendents, Area Supervisors or delegates	<ul style="list-style-type: none"> • Ensure activities under their control are undertaken in accordance with this EMS; • Bring to the attention of the Environmental Officer all complaints at first available opportunity; and • Maintain an awareness of environmental issues and report any possible non-conformances to the Environmental Officer.
Employees and Contractors	<ul style="list-style-type: none"> • Conduct all activities in accordance with this EMS; • Bring to the attention of their supervisor/manager all complaints at first available opportunity; and • Maintain an awareness of environmental issues and report any possible non-conformances to their supervisor/manager.

Though retaining the responsibilities identified above, the Operations Manager and Environmental Officer may, at their discretion, delegate specific tasks to suitably qualified and/or experienced operational personnel and/or consultants.

6 **PROCEDURES TO BE IMPLEMENTED**

6.1 **EMS Monitoring and Corrective Action**

6.1.1 Environmental Monitoring Program

The TCM environmental monitoring program is depicted on Figure 2 – Figure 6 and includes surface water, groundwater, blasting, air quality, noise and meteorological monitoring locations. These will be subject to review throughout the life of the project and update in the relevant EMP.



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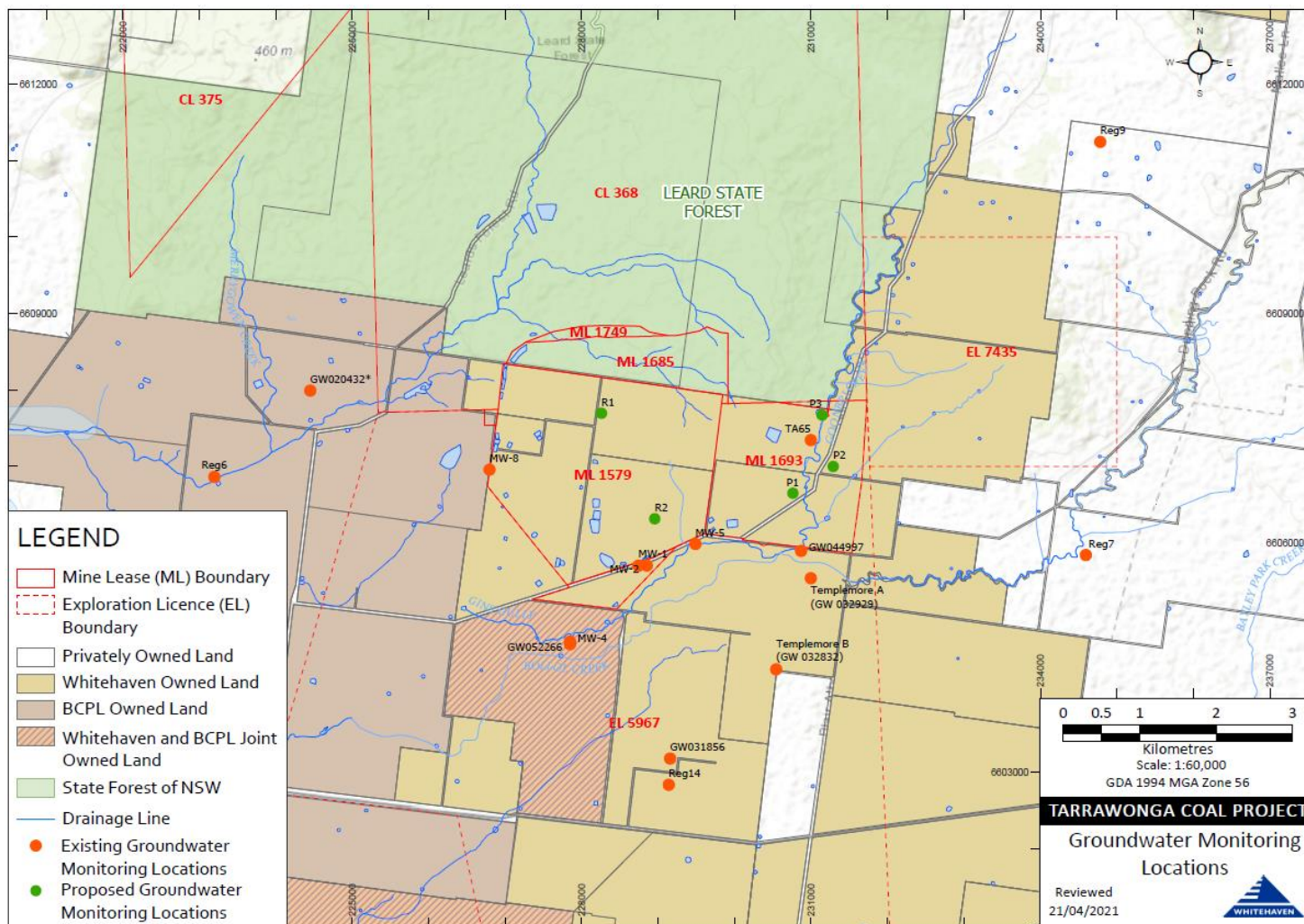
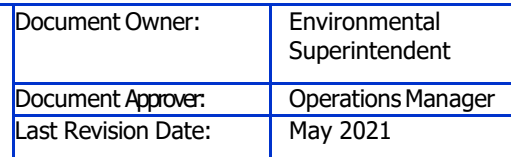


Figure 2 Current Groundwater Monitoring Locations





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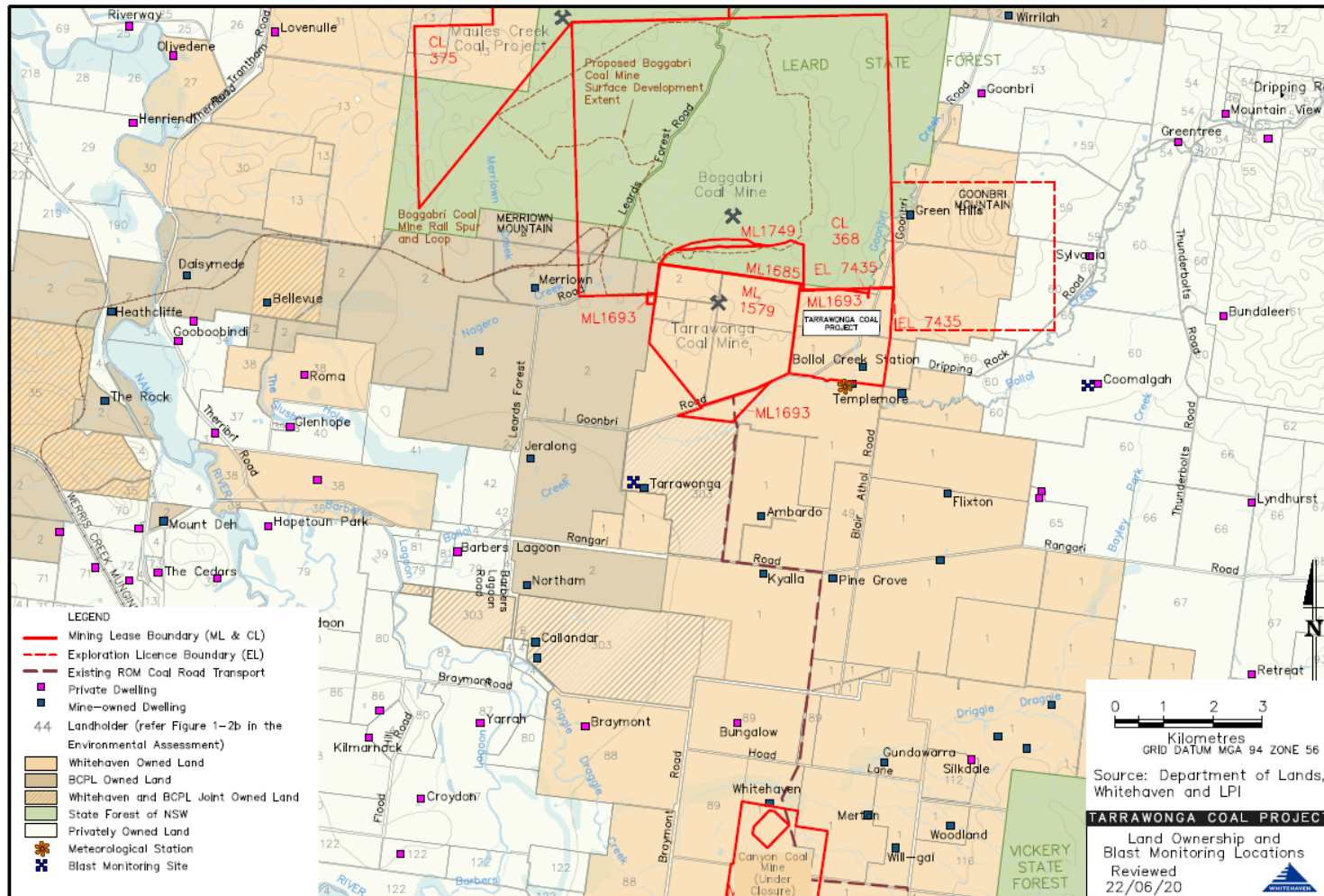


Figure 4 Current Blasting & Meteorological Monitoring Locations (No Change in 2021)



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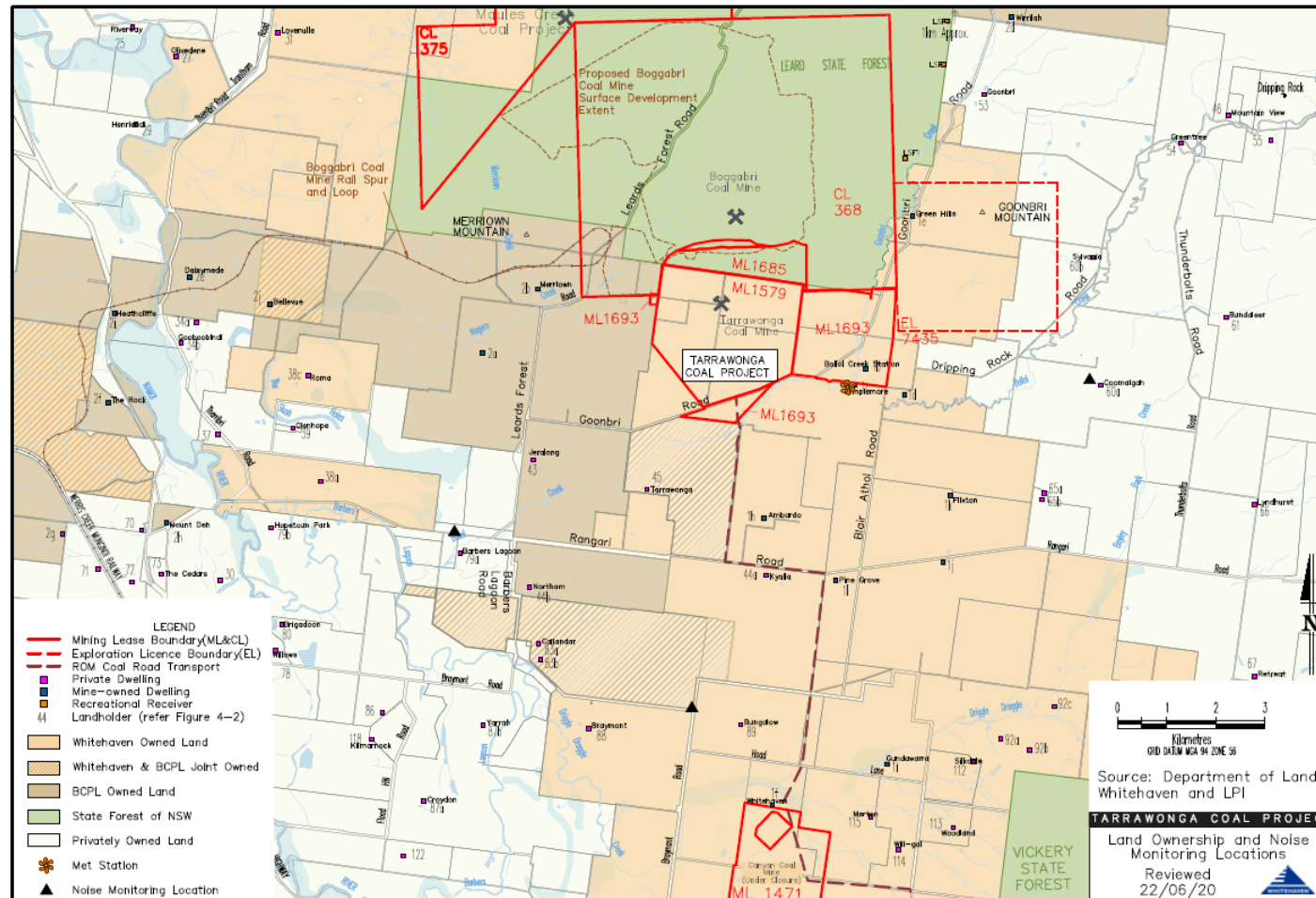


Figure 5 Current Noise Monitoring Locations (No change in 2021)



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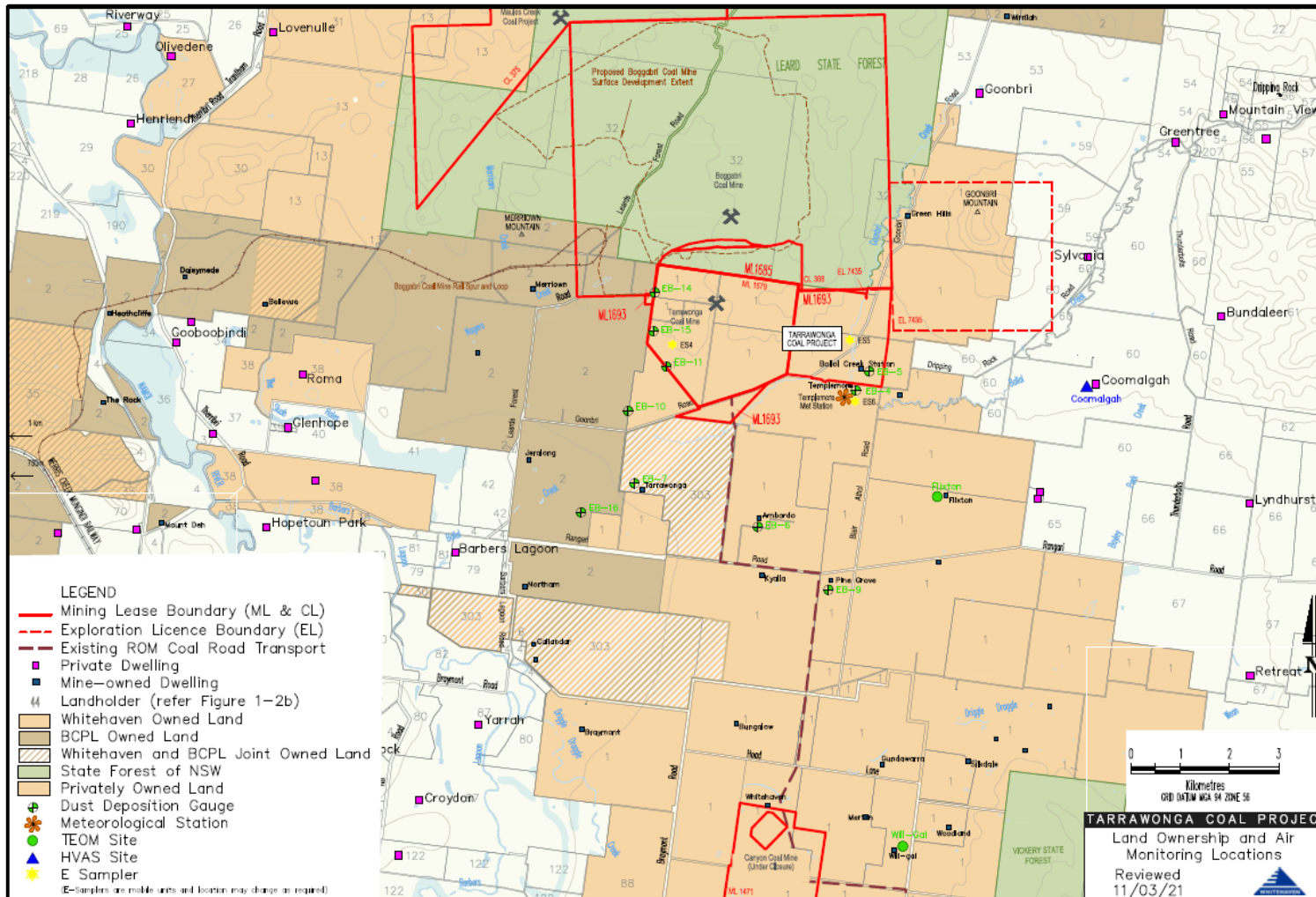


Figure 6 Current Air Monitoring Locations



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6.1.2 Corrective Action

Where monitoring of this EMS identifies the need for corrective action to be taken, TCM will take corrective action. Preparation of a corrective action plan may require the assistance of internal and external specialists.

6.2 Information Dissemination, Complaints & Incident Management & Dispute Resolution

6.2.1 Information Dissemination

Dissemination of information to the local community and relevant agencies regarding the mining operation, its progress and environmental management performance, will be achieved by both formal and informal means including the following.

6.2.2 Provision of Information

Whitehaven maintains all required documents on the Whitehaven Coal website and provides information on a daily basis in accordance with the requirements of Schedule 5 Condition 13 of PA 11_0047. A feedback form is provided on the website for feedback from members of the community.

6.2.3 Community Consultative Committee (CCC)

The CCC comprises an independent chair and appropriate representation from Tarrawonga Coal, Narrabri Shire Council, Gunnedah Shire Council and the local community.

The committee members acts as local focal points for the provision of information to, and receipt of comments from, community members. TCPL representatives provide advice on the status of the mine's progress, environmental performance and monitoring results and complaints. The CCC meetings also act as a forum for discussion of each of the above aspects or any other issue brought up by members of the community through the CCC representatives, or directly with the Mine.

The minutes of the CCC meetings, inclusive of Environmental Monitoring Reports, are available on the Whitehaven website.

6.2.4 Annual Review

Each year, TCPL will prepare an Annual Review in accordance with the NSW Government Annual Review Guideline and Schedule 5 Condition 4 of PA 11_0047.

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6.2.5 Other Methods

TCPL will maintain contact with relevant government agencies.

Copies of all management plans/strategies or monitoring programs, together with the results of independent audits undertaken in accordance with PA 11_0047 will also be made publicly available on the Whitehaven website.

Tarrawonga Coal may also utilise other forms of communication, such as local press and newsletters, to disseminate information to the community.

6.2.6 Complaints Management

A complaints management protocol has been developed to ensure an appropriate and consistent level of reporting, response and follow-up is adopted by Tarrawonga Coal. At a minimum, the following complaints management protocol will be followed on all complaints received:

- A publicly advertised telephone complaints line will be in place to receive complaints during operating hours and record complaints at other times.
- Each complaint received will be recorded on a Complaints Register, which will include the following details:
 - The date and time of complaint.
 - Any personal details the complainant wishes to provide or if no such details are provided a note to that effect.
 - The nature of the complaint.
 - The action taken by TCPL in relation to the complaint, including any follow-up contact with the complainant.
 - If no action was taken by TCPL, the reason why no action was taken.
- The Environmental Team will be responsible for ensuring that an initial response is provided generally within 24 hours of receipt of a complaint (except in the event of complaints recorded when the mine is not operational).
- The cause of the complaint and any required remedial actions identified.
- Additional measures will be undertaken as required to address the complaint. This may include visiting the complainant, or inviting the complainant to the mine site.
- Once the identified measures are undertaken, the Environmental Team will update the Complaints Register.
- If necessary, the Environmental Team will follow-up to confirm the source of the complaint is adequately mitigated.
- A copy of the Complaints Register will be kept by TCPL and made available to the CCC and the complainant (on request). A summary of complaints received

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every 12 months will be provided in the Annual Review.

Based on the nature of individual complaints, specific contingency measures may be implemented to the (reasonable) satisfaction of the complainant. The Environmental Team retains responsibility to ensure that complaints received are properly recorded and addressed appropriately.

6.2.7 Incident Management

Incident reporting will be undertaken in accordance with Schedule 5 Condition (8) of PA 11_0047.

6.2.8 Dispute Resolution

Dispute resolution will be undertaken in accordance with Schedule 4 Conditions to (6) of PA 11_0047.

6.3 **Notification and Reporting**

Should an incident or exceedance of the relevant criteria occur, the Department and any other relevant agencies will be notified as soon as practicable after the Proponent became aware and in accordance with Condition 8 of Schedule 5. Response to Non-Compliances and Emergencies

6.3.1 Non- Compliance

A review of the mine's compliance will be undertaken prior to (and included within) each Annual Review in accordance with the NSW Government Annual Review Guideline (October, 2014).

Additionally, an independent environmental audit will be undertaken a minimum of once every three years and the report submitted to the Secretary and made available to the public on Whitehaven's website. The independent audit will be undertaken by an appropriately certified auditor in accordance with AS/NZS ISO 19011:2003 "Guidelines for Quality and/or Environmental Management Systems Auditing" or equivalent updated versions of these guidelines.

6.3.2 Emergencies

Response to emergency situations will incorporate three basic steps:

1. Notification of the emergency (internal and/or external);
2. Protection of personnel as a first priority; and
3. Protection of the environment, plant and equipment.

Initially each of steps (2) and (3) would use internal resources, with assistance from external resources called upon as and when necessary.

Incidents that cause (or may cause) material harm to the environment will be reported in accordance with Schedule 5 Condition 8 of PA 11_0047.



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7 ENVIRONMENTAL PERFORMANCE

The success of TCPL's environmental performance will be assessed by way of its satisfaction of the conditions of PA 11_0047.

The assessment of performance, which may be quantitative and/or qualitative, will be reported in each relevant Annual Review.

7.1 Continuous Improvement

TCPL will investigate and implement ways to improve the environmental performance of the project over time. This will be achieved by keeping abreast of best environmental management practices in the industry and reporting on environmental performance annually in the Annual Review. Stakeholder feedback will form an integral part of assessing environmental performance and assist in outlining measures for continuous improvement.

7.2 Managing Unpredicted Impacts

It is considered unlikely that the operation of the mine will result in any unpredicted or unforeseen environmental impacts. In the event that unpredicted impacts do occur, these will be managed in accordance with the measures outlined in Section 6.