



**TARRAWONGA COAL MINE
ENVIRONMENTAL
MANAGEMENT SYSTEM**

Document Owner:	Operations Manager
Last Revision Date:	31/05/2018
Date Printed:	29/06/2017

WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

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Contents

ACRONYMS USED THROUGHOUT THIS DOCUMENT	4
1 INTRODUCTION	5
1.1 Project Approval.....	7
2 STATUTORY REQUIREMENTS	8
3 ENVIRONMENTAL PERFORMANCE – MANAGEMENT AND MONITORING.....	8
3.1 Environmental Management Plans.....	8
4 TCM ENVIRONMENTAL MANAGEMENT SYSTEM	9
4.1 Environmental Management Structure	9
4.2 WHC Health, Safety and Environmental Policy.....	9
4.3 EMS Documentation	9
5 ENVIRONMENTAL MANAGEMENT RESPONSIBILITY	9
6 PROCEDURES TO BE IMPLEMENTED.....	10
6.1 EMS Monitoring and Corrective Action.....	10
6.1.1 Environmental Monitoring Program	10
6.1.2 Corrective Action.....	16
6.2 Information Dissemination, Complaints & Incident Management & Dispute Resolution...	16
6.2.1 Information Dissemination	16
6.2.2 Provision of Information.....	16
6.2.3 Community Consultative Committee (CCC).....	16
6.2.4 Annual Review	16
6.2.5 Other Methods	16
6.2.6 Complaints Management	17
6.2.7 Incident Management.....	18
6.2.8 Dispute Resolution	18
6.3 Exceedances Notification and Reporting.....	18
6.4 Response to Non-Compliance and Emergencies.....	18
7 ENVIRONMENTAL PERFORMANCE	19
7.1 Continuous Improvement	19
7.2 Managing Unpredicted Impacts.....	19

Tables

Table 1	Roles and Responsibilities	19
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**TARRAWONGA COAL MINE
ENVIRONMENTAL
MANAGEMENT SYSTEM**

Document Owner:	Operations Manager
Last Revision Date:	31/05/2018
Date Printed:	29/06/2017

WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

Figures

Figure 1	Tarrawonga Coal Mine Location.....	6
Figure 2	Current Groundwater Monitoring Locations	11
Figure 3	Current Surface Water Monitoring Locations	12
Figure 4	Current Blasting & Meteorological Monitoring Locations	13
Figure 5	Current Air Quality Monitoring Locations	14
Figure 6	Current Noise Monitoring Locations.....	15



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Document Owner: Operations Manager

Last Revision Date: 31/05/2018

Date Printed: 29/06/2017

WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

ACRONYMS USED THROUGHOUT THIS DOCUMENT

AR	-	Annual Review
AS	-	Australian Standard
CCC	-	Community Consultative Committee
CHPP	-	Coal Handling and Preparation Plant
DoPI	-	Department of Planning 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
ML	-	Mining Lease
NSC	-	Narrabri Shire Council
ROM	-	Run-of-Mine
TCM	-	Tarrawonga Coal Mine
TCPL	-	Tarrawonga Coal Pty Ltd



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WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

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 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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Date Printed: 29/06/2017

WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

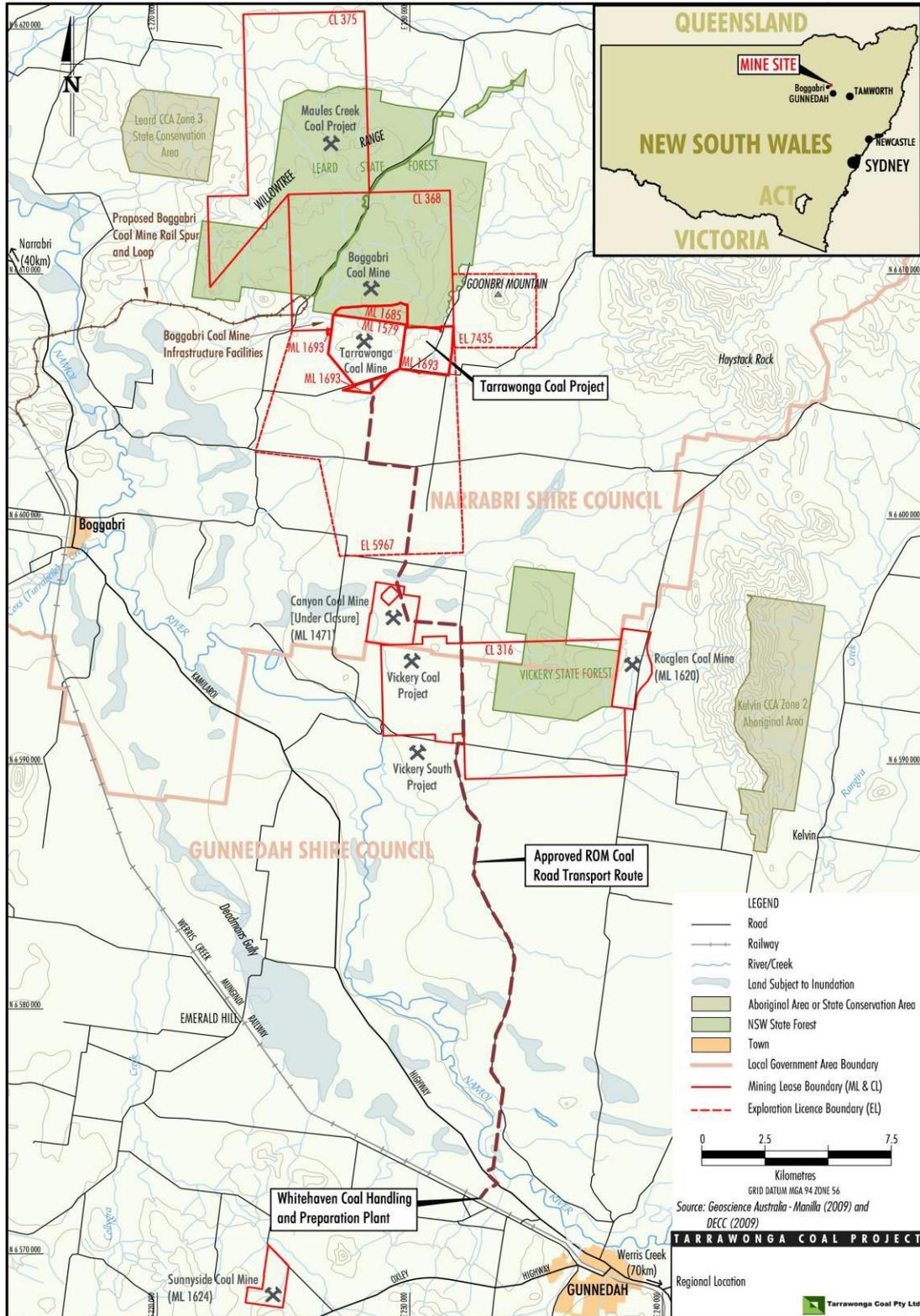


Figure 1 Tarrawonga Coal Mine Location



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Last Revision Date:	31/05/2018
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WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

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.



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Last Revision Date: 31/05/2018

Date Printed: 29/06/2017

WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

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;
- Aboriginal Heritage Conservation Strategy (awaiting approval)
- Air Quality and Greenhouse Gas Management Plan;
- Blast Management Plan;
- Environmental Management Strategy;
- Noise Management Plan;
- Rehabilitation Management Plan (incorporated into the site Mining Operations Plan as directed by DRE);
- Water Management Plan.
- Biodiversity Management Plan
- Biodiversity Offset Strategy
- BTM Regional Biodiversity Strategy (awaiting approval)
- Traffic Management Plan
- Goonbri Creek Diversion and Flood Bund Concept Design Plan (yet to be submitted and approved)
- Goonbri Creek Diversion and Low Permeability Barrier – Monitoring and Management Plan (yet to be submitted and approved)
- 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



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WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

(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.

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.

Table 1 Roles and Responsibilities

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



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WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

Role	Responsibilities
	<ul style="list-style-type: none"> • Communication with statutory authorities and the community.
Environmental Officer	<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;
Supervisors	<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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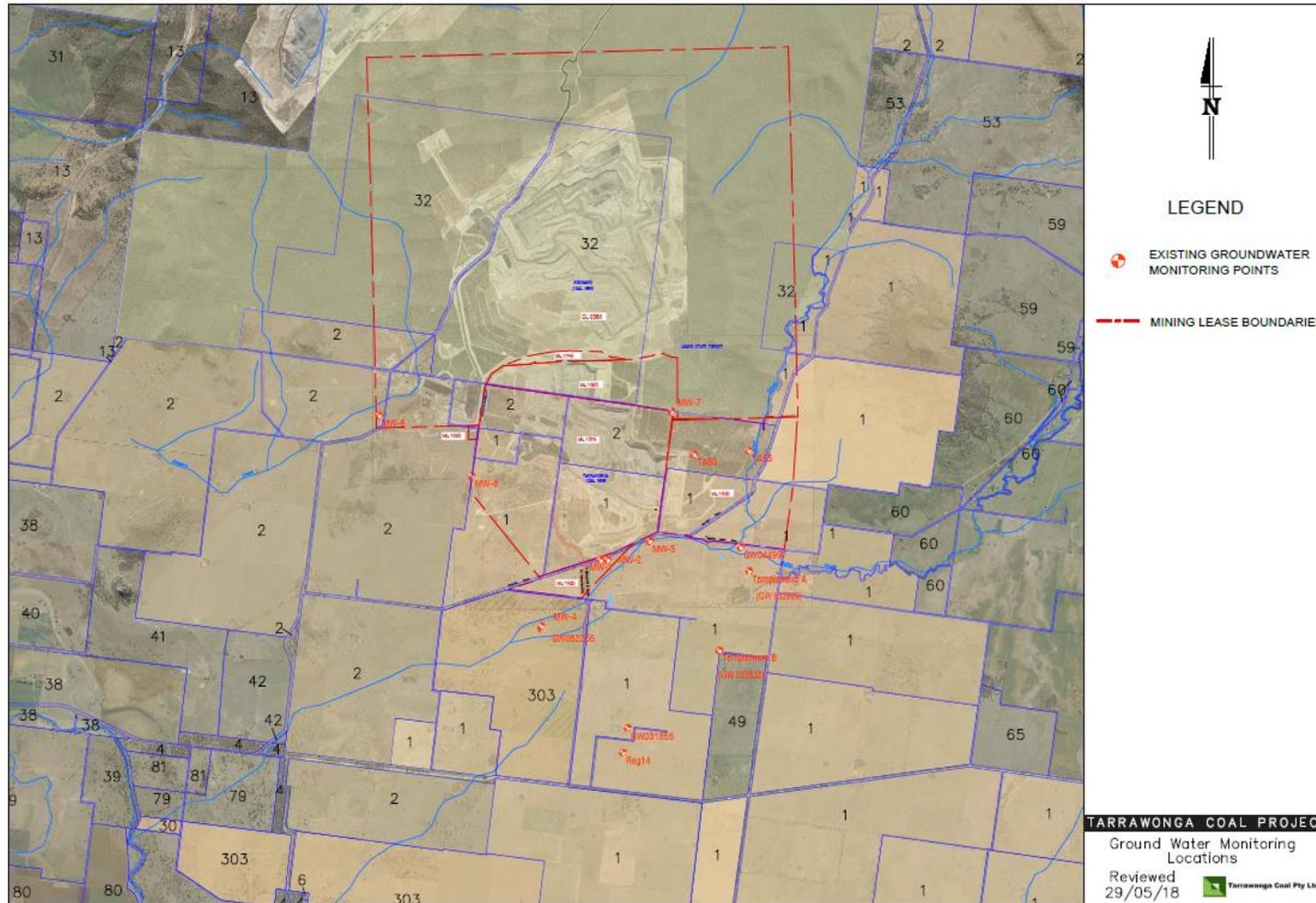


Figure 2 Current Groundwater Monitoring Locations



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WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

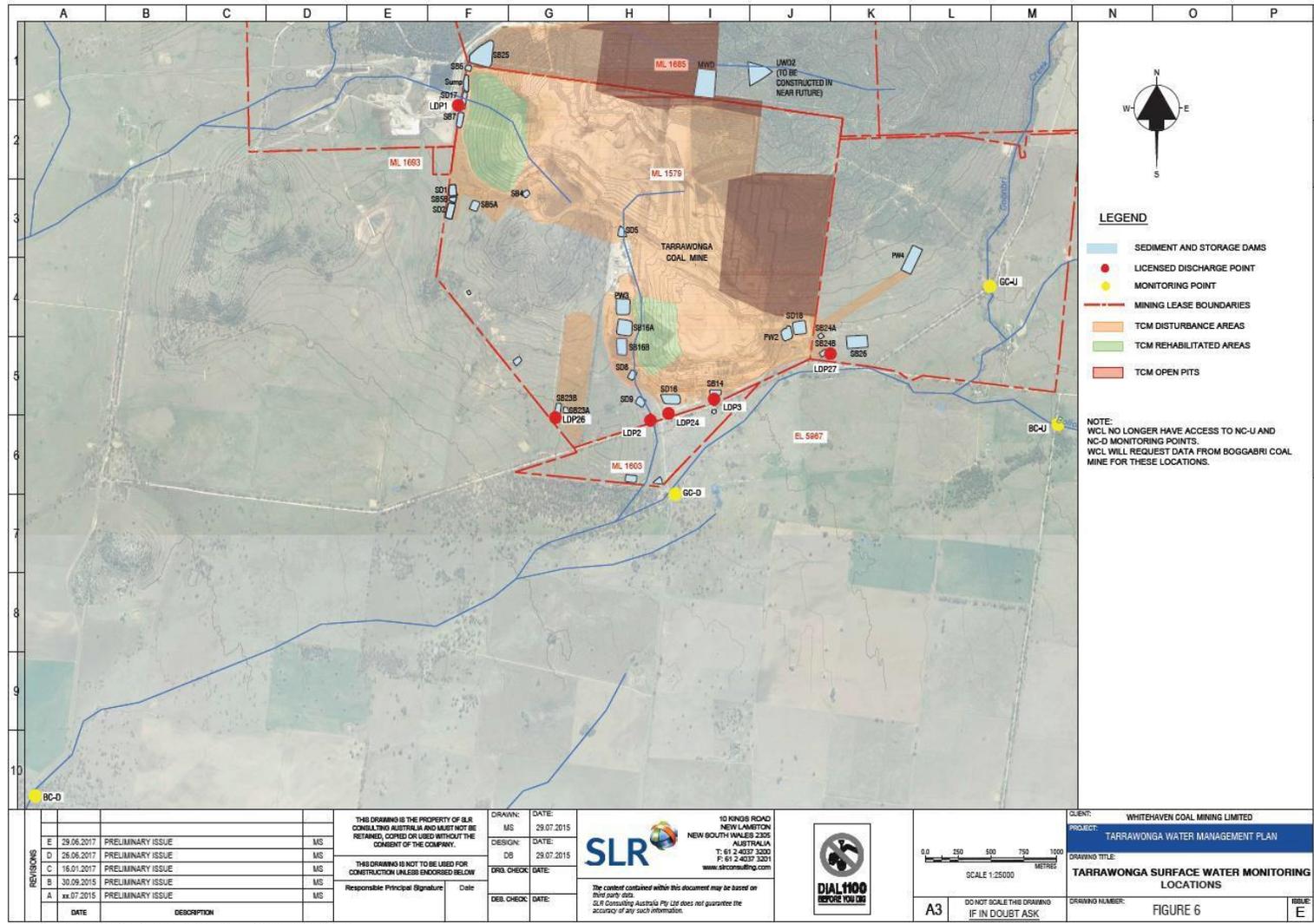


Figure 3 Current Surface Water Monitoring Locations (Reviewed 29/05/2018)



TARRAWONGA COAL MINE ENVIRONMENTAL MANAGEMENT SYSTEM

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Date Printed: 29/06/2017

WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

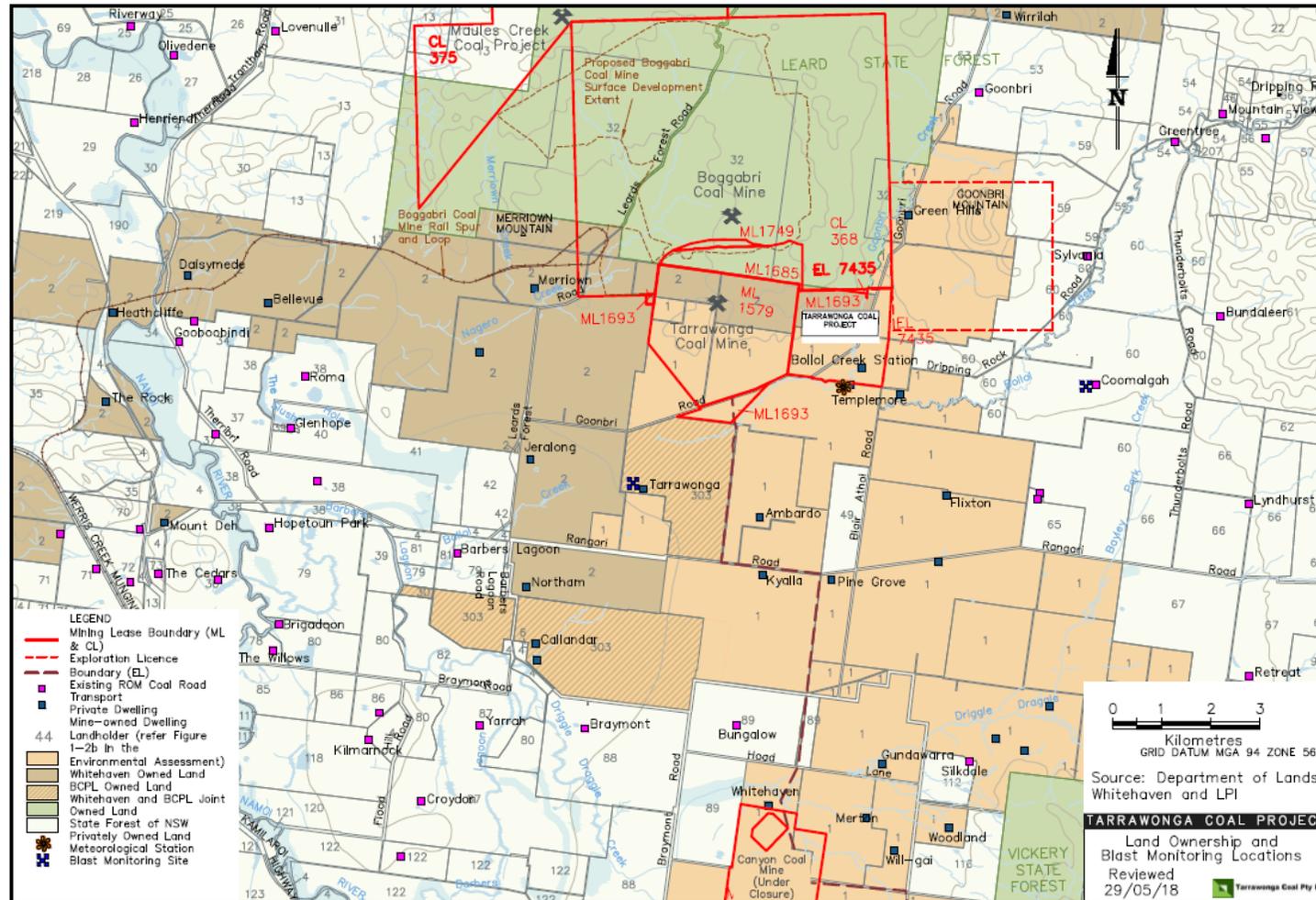


Figure 4 Current Blasting & Meteorological Monitoring Locations



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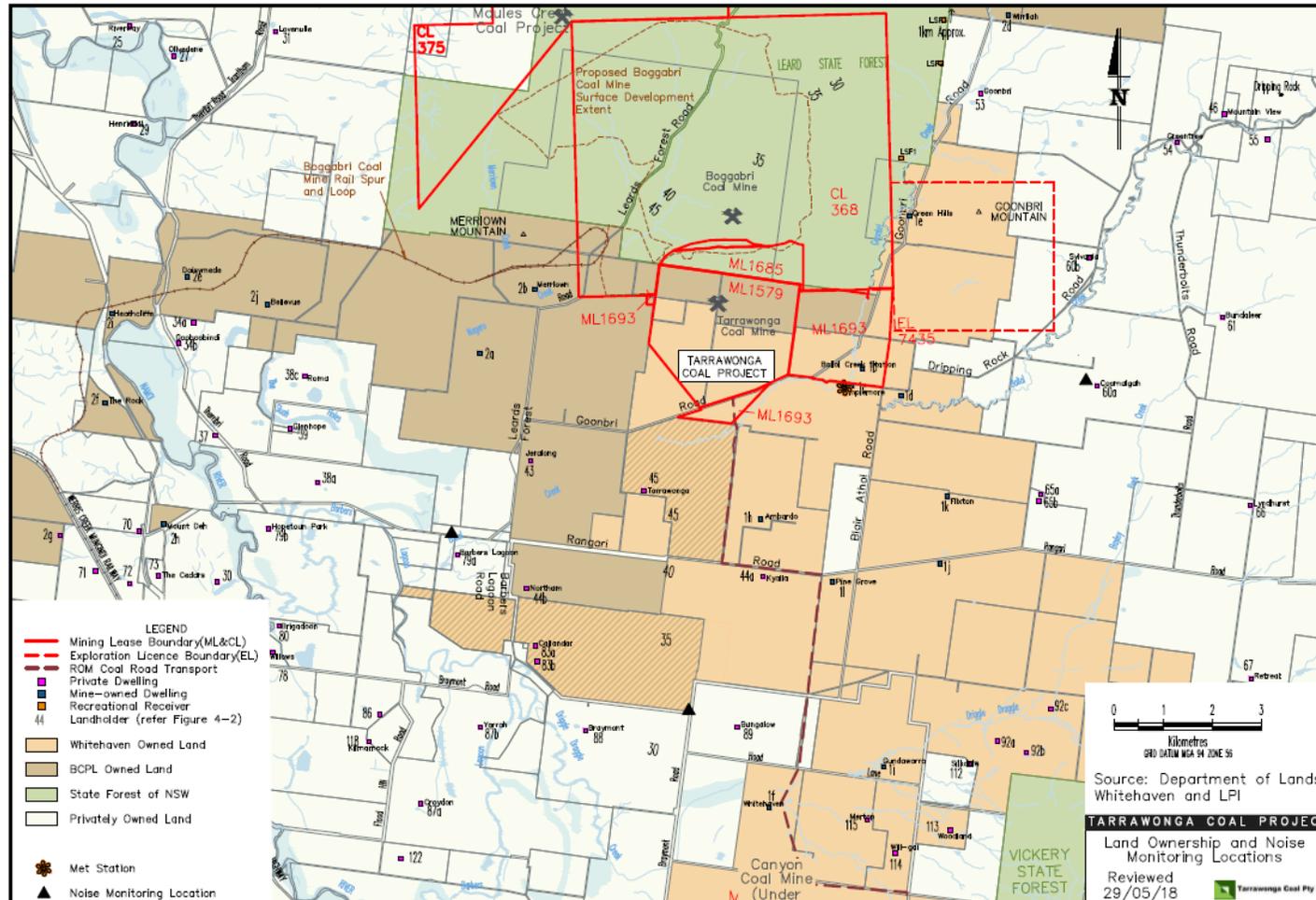


Figure 5 Current Noise Monitoring Locations



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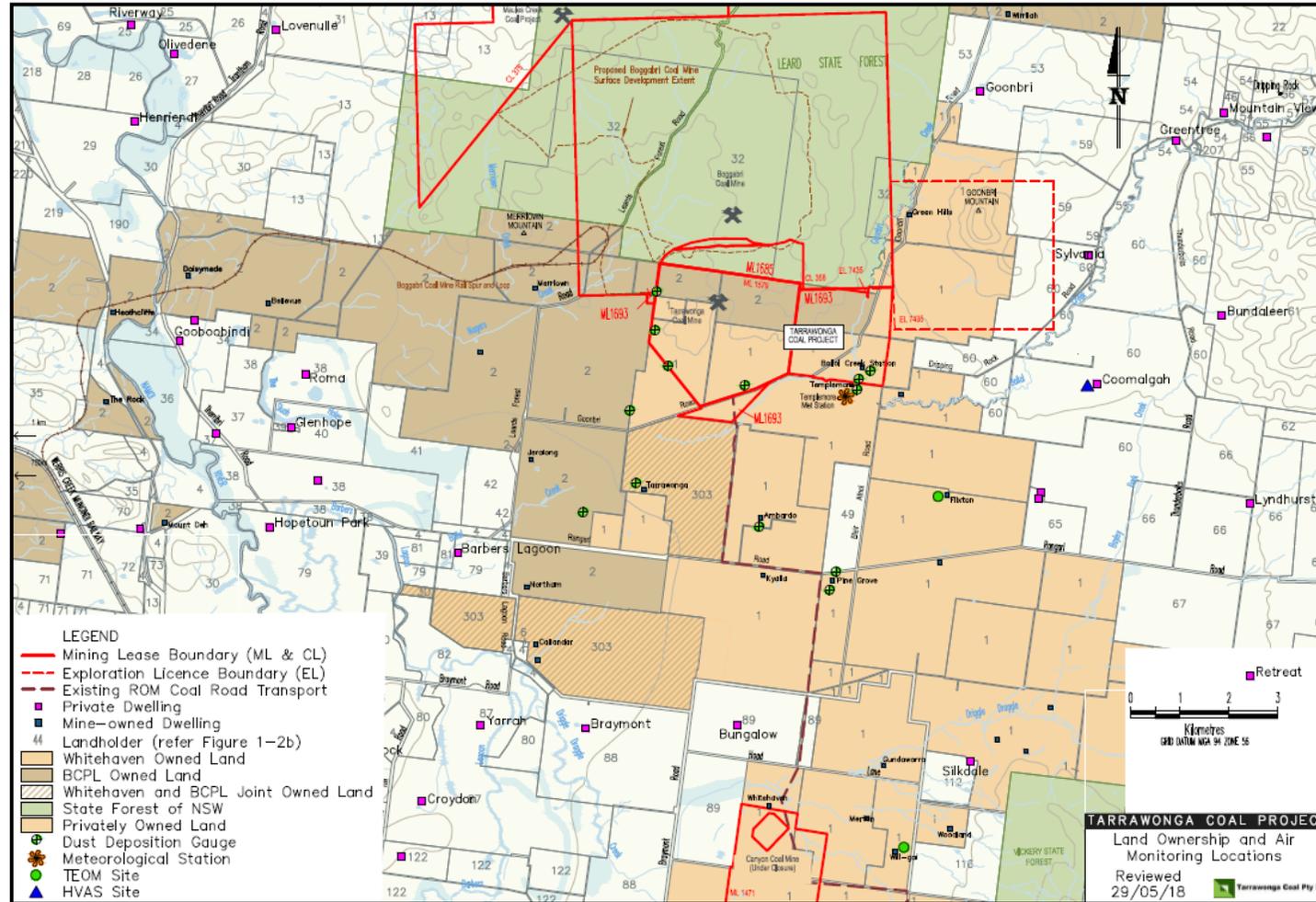


Figure 6 Current Air Monitoring Locations



TARRAWONGA COAL MINE ENVIRONMENTAL MANAGEMENT SYSTEM

Document Owner:	Operations Manager
Last Revision Date:	31/05/2018
Date Printed:	29/06/2017

WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

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 Condition 5(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 Condition 5(4) of PA 11_0047.

6.2.5 Other Methods

TCPL will maintain contact with relevant government agencies.



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WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

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 Officer will be responsible for ensuring that an initial response is provided 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 Officer will sign off on the relevant complaint within the Complaints Register.
- If necessary, the Environmental Officer 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 every 12 months will be provided in the Annual Review.



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WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

Based on the nature of individual complaints, specific contingency measures may be implemented to the (reasonable) satisfaction of the complainant. The Environmental Officer 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 Condition 5(8) of PA 11_0047.

6.2.8 Dispute Resolution

Dispute resolution will be undertaken in accordance with Conditions 4(3) to 4(6) of PA 11_0047.

6.3 Exceedances Notification and Reporting

Should an exceedance of the relevant criteria occur, the Department and any other relevant agencies will be notified as soon as practicable after its identification. An incident report will be prepared and submitted within 7 days of the incident occurring.

6.4 Response to Non-Compliances and Emergencies

6.4.1 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.

6.4.2 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 Condition 5(8) of PA 11_0047.



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WHC_PLN_TAR_ENVIRONMENTAL MANAGEMENT STRATEGY

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.