



**CANYON COAL MINE  
ENVIRONMENTAL  
MANAGEMENT SYSTEM**

Document Owner: General Manager

Last Revision Date: 06/2018

Date Printed: 22/06/2018

**WHC\_PLN\_CAN\_AIR QUALITY MONITORING PROGRAM**

# CANYON COAL MINE

# AIR QUALITY MONITORING PROGRAM

<b>Edition</b>	<b>Rev.</b>	<b>Comments</b>	<b>Author</b>	<b>Authorised By</b>	<b>Date</b>
1	0	Initial document			Dec 2005
	1	2015 Modification Review	T. Dwyer	J. Johnson	Nov 2015
	2	2015 IEA Revision	T. Dwyer	J. Johnson	Feb 2017
	3	2017 AR Revision	E. Clements	N. Wood	June 2018



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**ACRONYMS USED THROUGHOUT THIS DOCUMENT**

AR	-	Annual Review (incorporates former Annual Environmental Management Report)
DA	-	Development Application
DPE	-	Department of Planning and Environment
EPA	-	Environment Protection Authority
NATA	-	National Association of Testing Authorities, Australia
WHC	-	Whitehaven Coal



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### 1 INTRODUCTION

The Whitehaven Coal Mine (now known as Canyon Coal Mine) is located within the Narrabri Shire, approximately 30 km north-west of Gunnedah and 15 km east of Boggabri in the Gunnedah coalfields of NSW. The mine is approved under DA 8-1-2005, as modified (a copy of which is available on the Whitehaven website).

The mine commenced operations in 2000 and ceased mining in 2009 following exhaustion of the resource. The site has undergone extensive rehabilitation and the majority of surface infrastructure, including all coal handling and processing infrastructure, has been removed.

This Air Quality Monitoring Program has been prepared in accordance with Schedule 3 Condition 5 of DA 8-1-2005, as modified; in consultation (initial document) with the Environment Protection Authority (EPA); and where relevant in alignment with the previously approved operational Air Quality Monitoring Program.

The following sections identify the monitoring standards, locations, monitor configurations, and sampling and reporting procedures.



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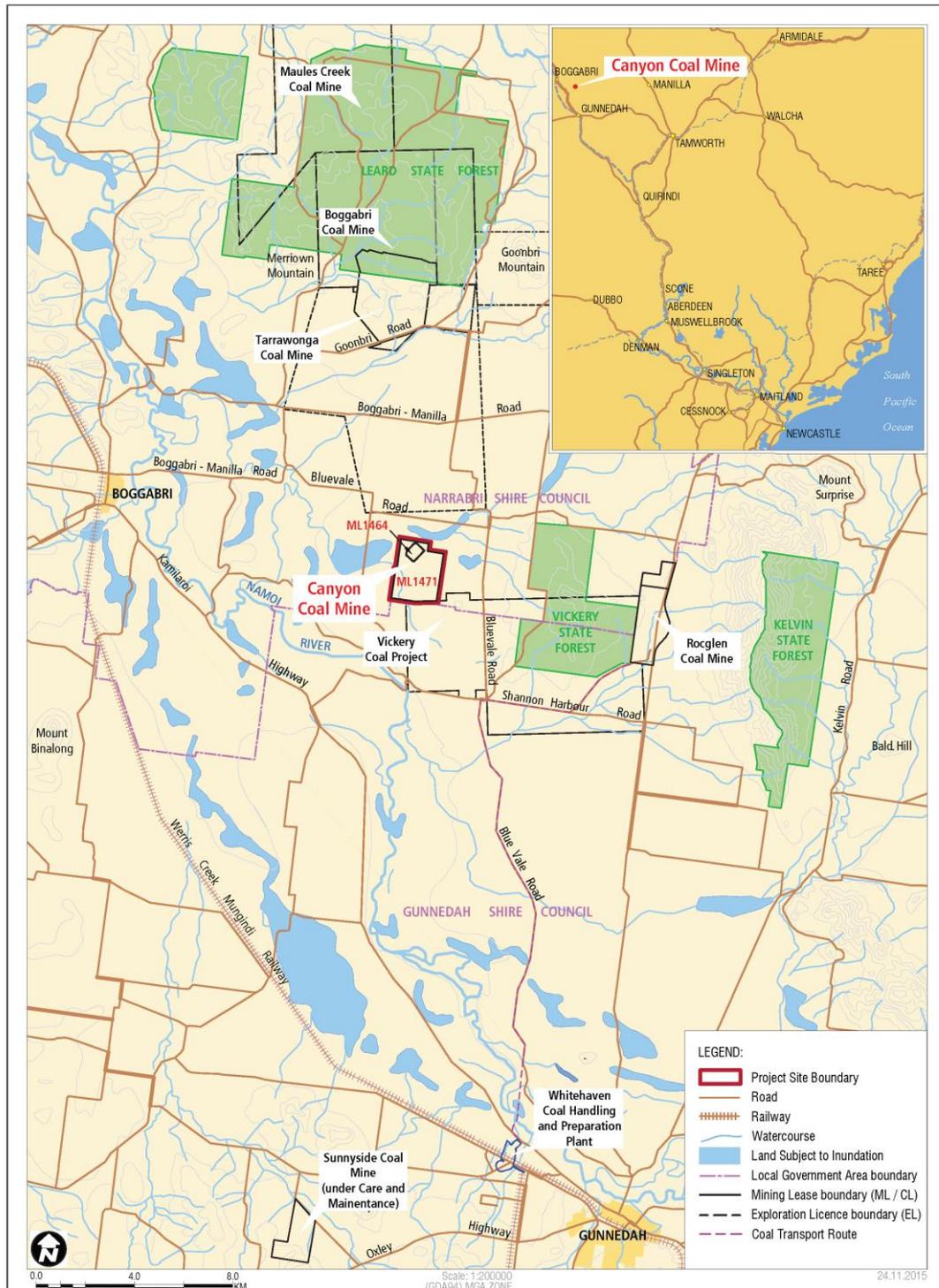


Figure 1 - Canyon Coal Mine Location



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### 2 MANAGEMENT

No site specific Total Suspended Particulate (TSP) or Particulate Matter (PM10) monitoring is undertaken for Canyon Coal Mine given its closure status. Whitehaven does however monitor PM10 and PM2.5 at a nearby location, and advice received from the Department indicates that TSP values can be calculated by multiplying measured PM10 values by a factor of 2.

### 3 DEPOSITED DUST MONITORING

#### 3.1 Applicable Standards

- AS/NZS 3580.10.1:2003 "Methods for Sampling and Analysis of Ambient Air – Determination of particulate matter – Deposited Dust – Gravimetric Method".
- AS/NZS 3580.1.1:2007 "Guide to Siting Air Monitoring Equipment".

Siting and sampling of each site is undertaken in accordance with the identified standards.

#### 3.2 Monitoring Locations

Each monitoring site is identified on Figure 2 and listed in Table 1. Sites for the deposited dust gauges have been selected:

- to avoid restricted airflows;
- such that the funnel has a minimum clear sky angle of 120°;
- to avoid localised sources of pollution, e.g. unsealed roads;
- to avoid interference by stock;
- in recognition of the closed status of the operation i.e. a select number of locations in proximity to the site have been selected; and
- to ensure locations capture four general directions from site ie north, east, south and west.

**Table 1 - Deposited Dust Monitoring Locations**

Site (refer Figure 1)	Description	Distance from Emission Source (km)
WD-1	Whitehaven Residence	1.8
WD-2	Merton	1.7
WD-12	Whitehaven Property	1.8
WD-13b	Wilga	0.7



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### 3.3 Deposited Dust Sample Collection/Changeover Procedures

Sample collection and changeover is undertaken by trained Whitehaven Coal (WHC) contracted personnel, with analysis and reporting undertaken by a NATA accredited laboratory. The collection / changeover of sample bottles is to occur every  $30 \pm 2$  days.

## 4 AIR QUALITY CRITERIA AND NON COMPLIANCE MANAGEMENT

The monitoring results will be examined for compliance with the relevant criteria identified within Schedule 3 Table 3 of DA 8-1-2005 as identified in Table 2 and prior (historical) results.

**Table 2 - Air Quality Criteria**

<b>Pollutant</b>	<b>Averaging Period</b>	<b>Criterion</b>
Deposited Dust (total)	Annual	4 g/m <sup>2</sup> /month
Deposited Dust (incremental)	Annual	2 g/m <sup>2</sup> /month

In the event of an exceedance of the criteria identified in **Table 2**, that is found to be mine related, WHC will:

- Notify the Secretary (DPE);
- Notify the affected landowner or tenant;
- Determine and implement reasonable and feasible mitigation measures; and
- Provide results to each party until the results show compliance with the criteria.

In the event of an exceedance found not to be mine-related, the expected cause of the exceedance will be documented and reported in the Annual Review.



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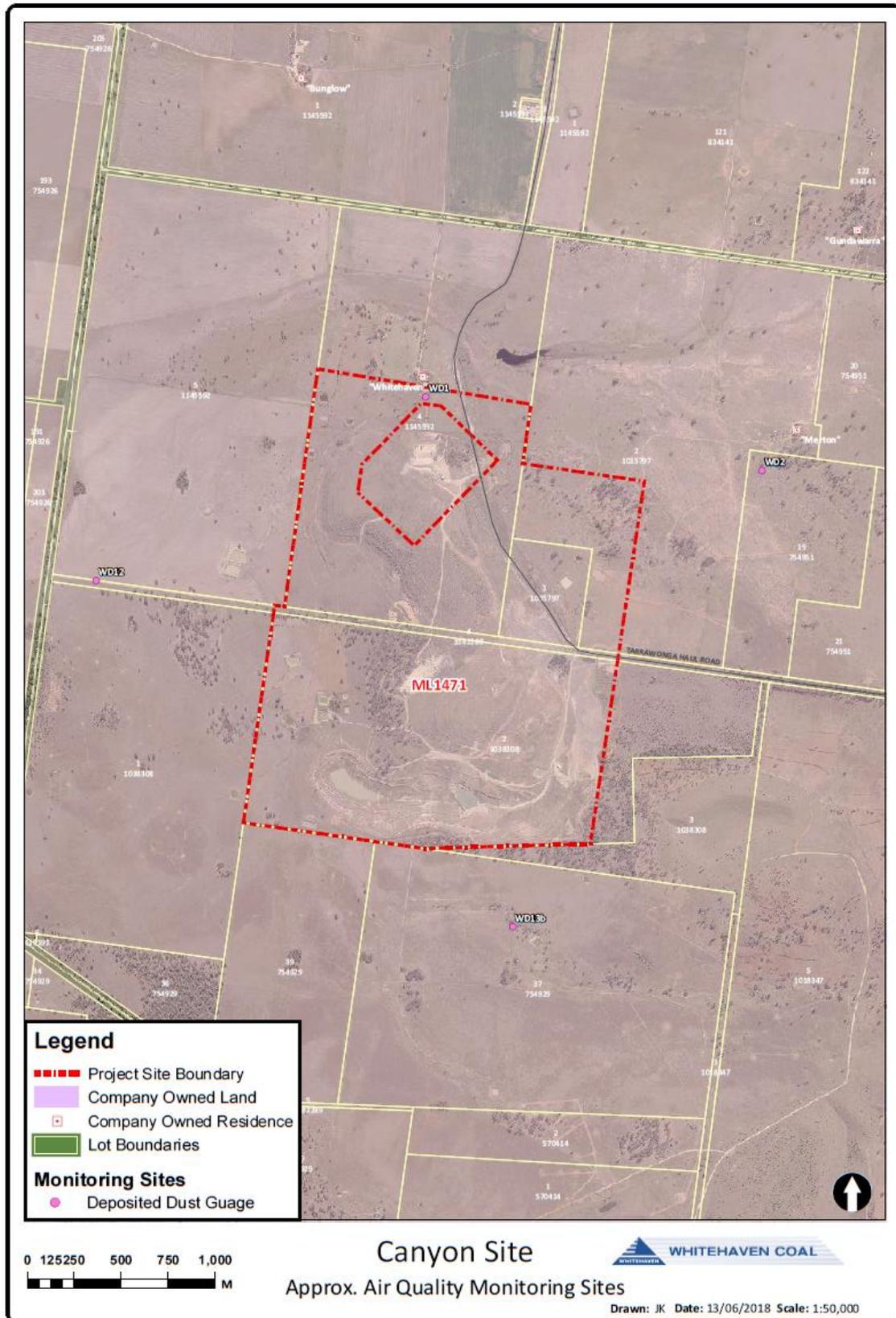


Figure 2 - Monitoring Locations



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#### **5 LAND ACQUISITION**

Land acquisition requirements are listed in Schedule 3 of DA 8-1-2005. As Canyon Coal Mine is no longer operational, any exceedances of the applicable criteria would be unlikely to be a result of activity on site, therefore resulting in a very low likelihood of triggering acquisition requirements.

#### **6 AIR QUALITY COMPLAINT MANAGEMENT PROCEDURE**

The following complaints management protocol will be followed:

- A publicly advertised telephone complaints line is in place to receive complaints.
- 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 incident that led to the complaint.
  - The action taken by WHC in relation to the complaint, including any follow-up contact with the complainant.
  - If no action was taken by WHC, 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.
- 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, follow-up monitoring will take place to confirm the source of the complaint is adequately mitigated.
- A copy of the Complaints Registers will be kept by WHC and made available to the complainant (on request). An annual summary of complaints received 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.

If any landowner considers that the mine is exceeding the air quality criteria, he/she may request WHC in writing for an independent review of the air pollution impacts of the mine on his/her land. In the event of such a request, WHC will:

- (a) advise the Secretary (DPE); and



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(b) if so directed by the Secretary, initiate an independent review (and respond to the findings) in accordance with the procedures identified in Conditions 2 to 5 of Schedule 4 of DA 8-1-2005.

Land acquisition, if initiated, would be undertaken in accordance with Conditions 6 to 8 of Schedule 4 of DA 8-1-2005.

**7 DOCUMENT REVIEW AND REPORTING**

This document will be reviewed in accordance with the requirements of Schedule 5 Condition 12 of DA 8-1-2005, as modified.

The Annual Review will include discussion on air quality monitoring results as required by Schedule 5 Condition 5 (c) to (g).