

Annual Review

Vickery Coal Project

Name of operation	Vickery Coal Project
Name of operator	Whitehaven Coal Mining Ltd
Development consent/project approval number	SSD-5000
Name of holder of development consent/project approval	Whitehaven Coal Mining Ltd
Mining lease number	ML 1471, CL 316
Name of holder of mining lease	Whitehaven Coal Mining Ltd (ML 1471), Whitehaven Coal Mining Pty Ltd (CL 316)
Water licence number	Not applicable ¹
Name of holder of water licence	Whitehaven Coal Mining Ltd
MOP start date	Not applicable
MOP end date	Not applicable
Annual review start date ²	1 st January 2016
Annual review end date	31 st December 2016

I, Nigel Wood, certify that this audit report is a true and accurate record of the compliance status of Vickery Coal Project for the period January 1st 2016 until December 31st 2016, and that I am authorised to make this statement on behalf of Whitehaven Coal Mining Pty Ltd.

Note. a) The Annual Review is an 'environmental audit' for the purposes of section 122B (2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.

b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or \$22,000, or both).

Name of authorised reporting officer	Nigel Wood
Title of authorised reporting officer	Director- Whitehaven Coal Mining Ltd
Signature of authorised reporting officer	<i>MWood</i>
Date	<i>31-5-2017</i>

¹ Vickery Coal Project Environmental Assessment referenced a number of water licences for the Project however development, and hence utilisation of licences, is yet to commence.

² NSW Annual Review Guideline was released in October 2015.

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1 STATEMENT OF COMPLIANCE

The compliance status of the Vickery Coal Project as at 31st December 2016 is summarised in Table 1.

Table 1 - Statement of Compliance

Were all conditions of the relevant approval(s) complied with? ¹	
Development Consent SSD-5000	Yes
EPBC 2012/6263	Yes
Coal Lease 316	Yes
ML 1471	Yes
Authorisation 406	Yes

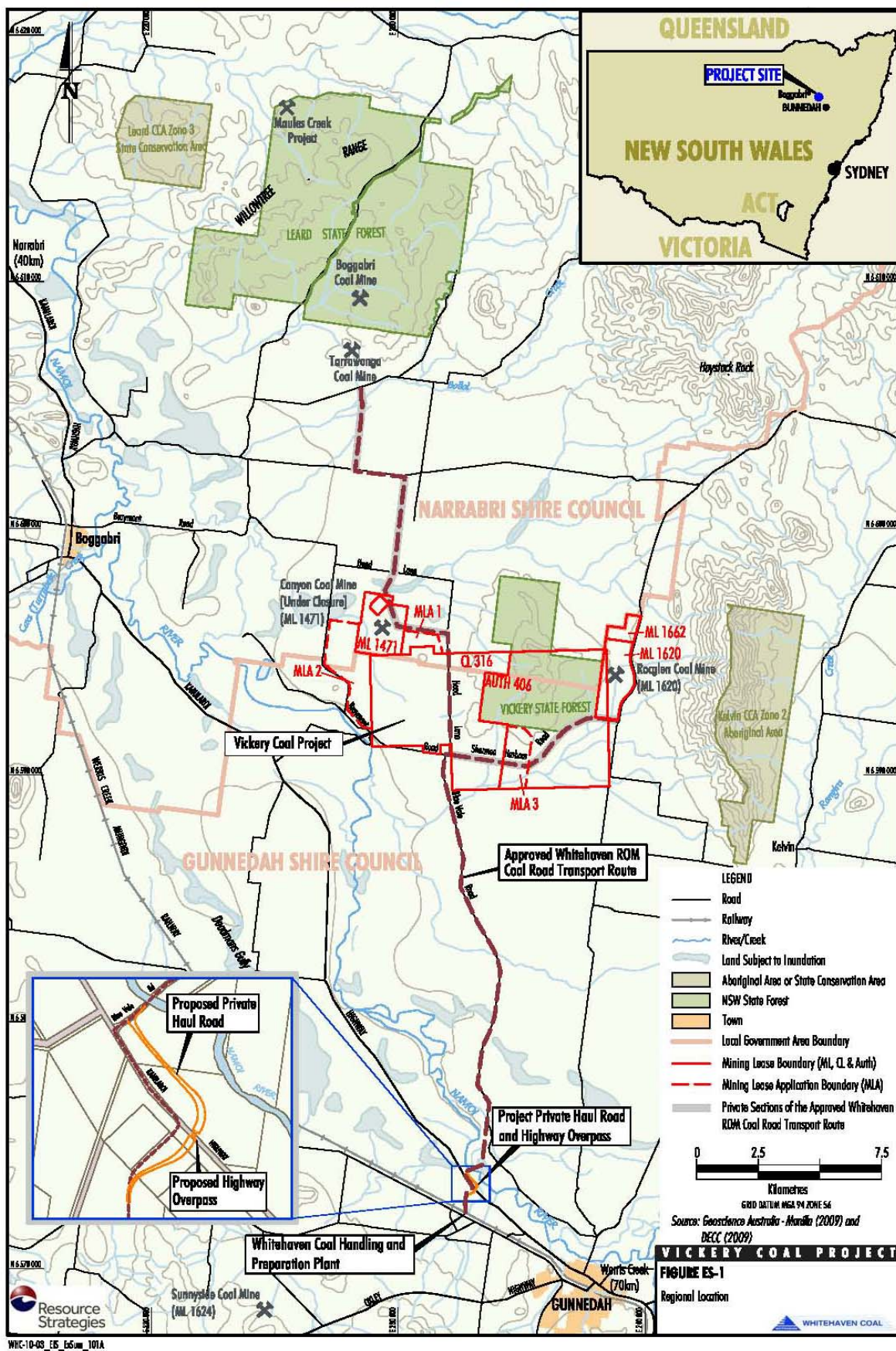
¹ Vickery Coal Project Environmental Assessment referenced a number of water licences for the Project, however development, and hence utilisation of licences, is yet to commence.

2 INTRODUCTION

This is the second Annual Review (AR) produced for the Vickery Coal Project (VCP), and has been prepared in accordance with Condition 4 (Schedule 5) of Development Consent SSD-5000. The AR follows the format required by the NSW Government Annual Review Guideline (October, 2015).

The VCP is located approximately 15 kilometres (km) south-east of Boggabri and approximately 25 km north of Gunnedah in New South Wales (Refer Figure 1). Mining operations at the previous Vickery Coal Mine ceased in 1998, when approval from the NSW Department of Primary Industries (DPI) was granted to suspend operations and complete rehabilitation works on-site. Rehabilitation activities at the open cut and waste emplacement areas are now complete and the site is currently in closure. Whitehaven acquired 100 percent (%) of Coal Lease (CL) 316 and Authorisation (AUTH) 406 from Rio Tinto Limited in January 2010.

The current VCP (SSD 5000) to which this AR relates was granted on the 18th September 2014. Operations are yet to commence under SSD 5000.



2.1 Mine Contacts

The management personnel responsible for the VCP and their relevant contact details are as follows:

- Mr Nigel Wood, General Manager, Open Cut Operations - oversees open cut operations for the Whitehaven Group. Contact: (02) 6741 9309.
- Mrs Madeline Whitten, Graduate - Environment – oversees day to day environmental performance across the site. Contact: (02) 6741 9324.

3 APPROVALS

3.1 Tenements, Licences, and Approvals

Table 2 identifies the approvals in place for the VCP at the end of the reporting period, the issuing / responsible Authority, dates of issue, expiry date and relevant comments.

Table 2 - Tenements, Licences and Approvals

Issuing / Responsible Authority	Type of Lease, Licence, Approval	Date of Issue	Expiry	Comments
Department of Planning and Environment	Development Consent SSD-5000	18 th September 2014	31 st December 2044	
Department of the Environment	EPBC 2012/6263	17 th May 2012		
Division of Resources and Energy	Authorisation 406	29 th November 1988	18 th November 2019	
Division of Resources and Energy	ML 1471	7 th September 2000	7 th September 2021	
Division of Resources and	Coal Lease 316	5 th June 1988	15 th June 2033	Renewal took effect on 27 May

Issuing / Responsible Authority	Type of Lease, Licence, Approval	Date of Issue	Expiry	Comments
Energy				2012

4 OPERATIONS SUMMARY

4.1 Mining Operations

No mining operations have commenced for the VCP (refer Table 3).

Table 3 – Production Summary

Material	Approved Limit	Previous Reporting Period (actual)	This Reporting Period (actual)	Next Reporting Period (forecast)
Waste Rock/Overburden	1,269 Mbcm ¹	0	0	0
ROM Coal/Ore	4.5 Mtpa ²	0	0	0
Coarse Reject	n/a	0	0	0
Fine Reject (Tailings)	n/a	0	0	0
Saleable Product	n/a	0	0	0

¹ Environmental Impact Statement – Life of Mine

² Development Consent SSD-5000

4.2 Next Reporting Period

Operations forecast for the next reporting period are expected to be limited to environmental monitoring.

5 ACTIONS REQUIRED FROM PREVIOUS ANNUAL REVIEW

DP&E approval of the 2015 Annual Review required provision of the following in this Annual Review:-

- Waste minimisation and management measures undertaken in the reporting period – refer section 6.8

- Details of any compensatory water supply – refer section 7.2.1
- Summary of implementation of the biodiversity offset strategy – refer section 6.2.3

6 ENVIRONMENTAL PERFORMANCE

The following sub-sections document the implementation and effectiveness of the various control strategies adopted at the VCP.

6.1 Air Quality

6.1.1 Criteria

The air quality criteria applicable to the VCP are specified in SSD-5000 Schedule 3, Tables 8, 9 & 10, which are summarised below.

- Acceptable mean annual increase in deposited dust – 2 g/m²/month.
- Mean annual dust deposition (all sources) – 4 g/m²/month.
- Mean annual Total Suspended Particulate (TSP) matter (all sources) concentration – 90 µg/m³.
- Mean annual PM₁₀ particulate level – 30 µg/m³.
- 24 hour average PM₁₀ particulate level – 50 µg/m³.

6.1.2 Dust Monitoring

Construction of the VCP is yet to commence and as such no air quality monitoring for compliance purposes is undertaken.

6.1.3 Key Environmental Performance/Management Issues

No key environmental performance/management issues were identified during the reporting period.

6.1.4 Proposed Improvements to Environmental Management

No improvements are proposed within the next reporting period.

6.2 Biodiversity

6.2.1 Threatened Flora

Investigations into the occurrence of threatened flora within the Project Approval Area were undertaken as part of the Environmental Assessment by Niche Environment and Heritage Consultants Pty Ltd, between November 2011 and January 2013.

The investigation identified one threatened flora species, Winged Peppercress (*Lepidium Monoplocoides*) which has potential to be affected by the Project. The location within the Project Approval Area where the Winged Peppercress was identified and an additional area where the species was identified outside the Project Approval Area have been fenced to provide protection from livestock.

6.2.2 Threatened Fauna

Investigations into the occurrence of threatened fauna within the Project Approval Area were undertaken by Niche Environment and Heritage Pty Ltd as part of the Environmental Assessment between the 12th to the 26th of November 2011. These investigations identified that 25 threatened fauna species could potentially be affected by the Project. These species and their potential for impact are available in the EIS available on the Whitehaven Coal website.

Construction of the VCP is yet to commence and as such no monitoring of threatened fauna was conducted during the reporting period.

6.2.3 Biodiversity Offsets

Schedule 3, Condition 34(a) requires the long term security for the Willeroi East Offset Area and Offset Areas 2, 3, 4 and 5 by the end of June 2015. The Department of Planning and Environment has provided an extension of the timing to secure the offset areas to 30th June 2017.

A summary of the VCP Biodiversity Offset Strategy (BOS) implementation, undertaken in conjunction with the neighbouring Tarrawonga Coal BOS, during the reporting period follows:

Offset Security Management

WHC has substantially commenced the process towards long term security of Willeroi BOA in accordance with Project Approval obligations. OEH (in correspondence dated 1st July 2016) outlined to WHC which Biodiversity Offset Area (BOA) would be considered for

transfer to Parks Estate which was followed up with site inspections by NPWS and OEH staff on 8th - 9th September and 29th November 2016. The process is currently with OEH to complete inter-agency notifications before further negotiations can continue. OEH (in correspondence dated 9th December 2016) indicated that for the portions of WHC BOA not being considered for transfer to Parks Estate; can commence the Conservation Agreement application process. DPE approved an extension of timing for commencing the mechanism for securing of offsets on 23 December 2016 to 30 June 2017.

Infrastructure Management

During the reporting period, installation of new signage and locks on the front gate of the Willeroi BOA was completed as part of taking management control, implementing access management and restricting unauthorised access to the property.

Weed Management

WHC coordinated routine formal weed monitoring/inspections undertaken across Willeroi BOA in April, July, October and December 2016. The priority weeds for control were noted as general broadleaf weeds (noxious and environmental species), Coolatai Grass as well as legacy noxious weeds inherited from previous owners management regimes such as St Johns Wort, Sweet Briar and Common Prickly Pear. The weed monitoring/inspections ensure that timely and prioritised weed control is undertaken on a seasonal basis with the spatial information directly given to spraying contractors to identify what, where, when and how to target appropriate resources across the Willeroi BOA for weed control.

During the reporting period, WHC implemented a comprehensive weed control program across the Willeroi BOA.

Feral Animals Management

WHC coordinated routine formal feral animal monitoring across the Willeroi BOA in March, June, October and December 2016. The adoption of a “monitor, measure and manage” approach to feral animal management will allow WHC to implement adaptive management in response to changes being measured through monitoring in feral animal abundance specific to the different geographical regions of the BOA.

Monitoring demonstrated that the feral animals in moderate to high abundance were the European Red Fox, Feral Pig and Feral Goat. The feral animal monitoring ensures that timely and prioritised feral animal control is undertaken on a seasonal basis identifying what, where, when and how to target appropriate resources across the Willeroi BOA for feral animal management.

During the reporting period, WHC implemented a comprehensive feral animal control program across the Willeroi BOA with fox baiting and pig trapping undertaken in May (7 out of 24 fox baits taken and 25 pigs trapped), July (no fox baits laid for goat mustering and 19 pigs trapped) and November 2016 (no fox baits laid for goat mustering and 1 pigs trapped).

Soil & Erosion Management

During the reporting period, no specific treatment or soil erosion mitigation works were undertaken.

Grazing Management

Willeroi BOA was destocked at the end of 2015 and therefore during the reporting period, Willeroi BOA maintained the exclusion of grazing.

Schedule 3 Condition 35 of SSD-5000 requires the development of a Biodiversity Management Plan, prior to construction, to describe the short, medium and long term measures to implement the biodiversity offset strategy.

6.2.4 Weeds

Weed control was undertaken by a spraying contractor in a 6 day block between the 25th October and the 2nd November 2016, with the main focus on African Boxthorn. Weed control will continue to be undertaken on site as required.

6.2.5 Feral Animal Control

Feral animals are not a significant land management issue within the project boundary, and are limited to isolated occurrences of pigs, foxes, hares and rabbits. In view of the low frequency of occurrence, and in the absence of an extensive programme by all surrounding landowners, no broad scale feral animal control programme was considered warranted during the reporting period. Whitehaven Coal personnel will continue to monitor feral animal occurrences and implement necessary control programmes if and when necessary.

6.2.6 Key Environmental Performance/Management Issues

No key environmental performance/management issues were identified during the reporting period.

6.2.7 Proposed Improvements to Environmental Management

No improvements are proposed within the next reporting period.

6.3 Blasting

6.3.1 Criteria

Blasting criteria for the VCP are noted in SSD-5000, however they are not relevant for this reporting period, as no blasting has been undertaken onsite.

6.3.2 Key Environmental Performance/Management Issues

No blasts were undertaken during the reporting period.

6.3.3 Proposed Improvements to Environmental Management

No blasting is proposed within the next reporting period.

6.4 Operational Noise

6.4.1 Criteria

SSD-5000 details the noise criteria for site operations and coal haulage, however there was no requirement for noise monitoring during the reporting period.

6.4.2 Key Environmental Performance/Management Issues

No key environmental performance/management issues were identified during the reporting period.

6.4.3 Proposed Improvements to Environmental Management

No improvements are proposed within the next reporting period.

6.5 Aboriginal Heritage Management

6.5.1 Environmental Management Measures

An assessment of the cultural heritage of the mine site was conducted by Landskape in 2012.

A total of 34 Aboriginal cultural heritage sites (including those sites that had been previously recorded and were reinspected as part of the field surveys) were identified during the field surveys of the Project mining area. See Figure 2.

Six sites were identified in the proposed haul road and overpass Project area. The sites comprise 25 scatters of stone artefacts, one containing axe-grinding grooves, and 15 isolated finds of stone artefacts.

The majority of sites located within the Project mining area were associated with the open plains and the banks of ephemeral streams or drainage lines. Lower artefact densities occurred along the ridge top and upper slope areas. Stone assemblages are generally small in size ranging from single artefacts to 67 artefacts discovered in one scatter.

A number of small to medium artefact scatters were located in the proposed haul road and overpass area on the banks of the Namoi River. The largest scatter (AHIMS site number 20-4-0037) comprised approximately 57 flakes and one core.

6.5.2 Consultation

No soil stripping has been undertaken for the VCP. No additional Aboriginal cultural heritage items have been discovered and no consultation with Aboriginal stakeholders was conducted during the reporting period.

6.5.3 Environmental Management Measures

Given the status of the site the environmental management measures for Aboriginal Heritage are limited to ensuring that any identified heritage sites remain undisturbed.

6.5.4 Key Environmental Performance/Management Issues

No key environmental performance/management issues were identified during the reporting period.

6.5.5 Proposed Improvements to Environmental Management

No improvements are proposed within the next reporting period.

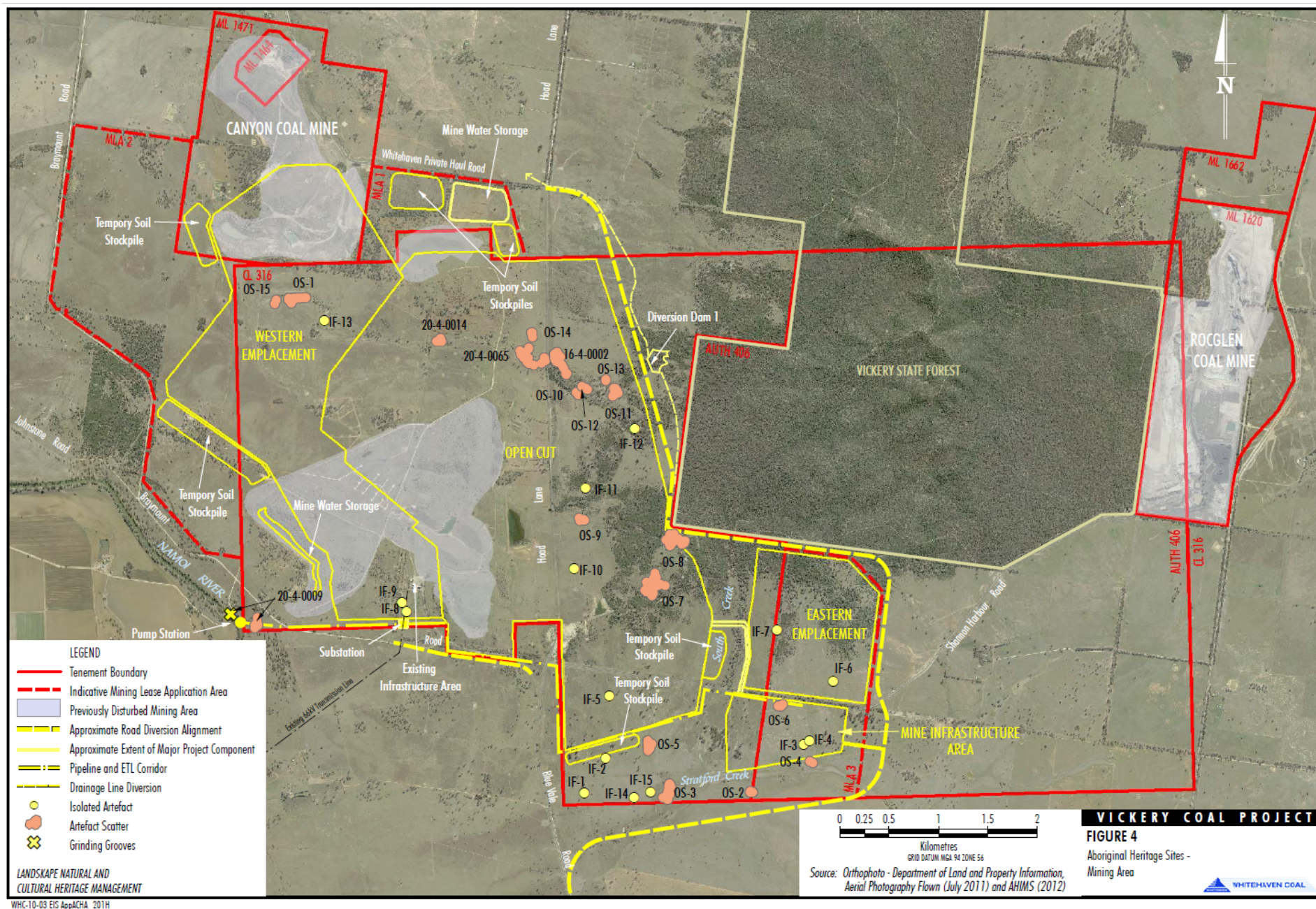


Figure 2- Aboriginal Heritage Sites- Proposed Mining Area

6.6 Natural Heritage

There are no features of natural heritage within the Project Approval area and hence no specific management procedures are required.

6.7 Bushfire Management

6.7.1 Environmental Management Measures

VCP is located within an area of cleared agricultural land. Whitehaven Coal personnel liaise with the local Rural Fire Service, as required.

There have been no bushfire incidents on, or adjacent to, the mine site since SSD-5000 as granted.

6.7.2 Key Environmental Performance/Management Issues

No key environmental performance/management issues were identified during the reporting period.

6.7.3 Proposed Improvements to Environmental Management

No improvements are proposed within the next reporting period.

6.8 Waste Management

6.8.1 Environmental Management Measures

No waste generating activities were undertaken at the VCP during the reporting period.

6.8.2 Key Environmental Performance/Management Issues

No key environmental performance/management issues were identified during the reporting period.

6.8.3 Proposed Improvements to Environmental Management

No improvements are proposed within the next reporting period.

6.9 Meteorological Monitoring

Meteorological monitoring is undertaken south of the Project Area as shown in EA Figure 4.14. A summary of weather data for the reporting period is shown in Table 4 below.

Table 4 - 2016 Summary Weather Data

Month (2016)	Rain (mm)	Minimum Wind Speed (m/s)	Average Wind Speed (m/s)	Maximum Wind Speed (m/s)	Average Wind Direction (degrees)
Jan	103.2	0	2.1	13.5	168
Feb	0	0	2.5	10.3	163
Mar	9.0	0	1.8	9.0	128
Apr	12.6	0	1.7	9.6	154
May	41.4	0	1.0	8.9	179
Jun	93.2	0	1.9	9.0	208
Jul	46.4	0	1.2	6.9	196
Aug	139.2	0	1.1	7.0	172
Sep	106.4	0	1.5	13.7	222
Oct	29.6	0	1.6	10.0	249
Nov	12.8	0	1.2	10.8	189
Dec	40.4	0	1.3	11.5	193

6.10 Environmental Performance Summary

An environmental performance summary for VCP is presented in Table 5 below.

Table 5 – Environmental Performance

Aspect	Approval Criteria / EIS Prediction	Performance during the reporting period	Trend / Key Management Implications	Implemented / proposed management actions
Biodiversity	EPBC 2012/6263 and 3(33) of SSD-5000, requiring the translocation and protection of the Winged Peppercross within the disturbance boundary.	The area of Winged Peppercross has been successfully fenced off and signposted for protection.	Nil	Upon approval of the Biodiversity Management Plan the translocation of the Winged Peppercross will be undertaken.

7 WATER MANAGEMENT

7.1.1 Surface Water Management

No surface water monitoring was undertaken during the reporting period, as construction of the VCP is yet to commence.

7.1.2 Discharges

There were no wet weather discharges during the reporting period.

7.1.3 Water Take

During the reporting period no water was used on site.

7.2 Groundwater Management

7.2.1 Environmental Performance/Management

No groundwater monitoring for compliance purposes has been undertaken during the reporting period, as construction of the VCP is yet to commence.

There has been no requirement for provision of any compensatory water supply during the reporting period, as construction of the VCP is yet to commence.

7.3 Rehabilitation Performance During the Reporting Period

7.3.1 Status of Mining and Rehabilitation

No disturbance has yet been undertaken for the VCP, and as such there has been no requirement for rehabilitation (refer Table 6).

Table 6 – Rehabilitation Status

Mine Area Type ¹	Previous Reporting Period (Actual) 2015 (ha)	This Reporting Period (Actual) 2016 (ha)	Next Reporting Period (Forecast) 2017 (ha)
A. Total Mine Footprint	0	0	0
B. Total Active Disturbance	0	0	0
C. Land Being Prepared for Rehabilitation	0	0	0
D. Land Under Active Rehabilitation	0	0	0
E. Completed Rehabilitation	0	0	0

¹ Refer Annual Review Guideline (p.11) for description of mine area types.

7.3.2 Post Rehabilitation Land Uses

Two final rehabilitation land uses are to be established at Vickery, being land suitable for grazing (780 ha), and native forest/woodland (1,360 ha).

7.3.3 Renovation or Removal of Buildings

No renovation or removal of buildings occurred during the reporting period.

7.3.4 Other Rehabilitation Undertaken

No additional rehabilitation of exploration areas, infrastructure, shafts, adits, dams, fence lines or bunds occurred during the reporting period.

7.3.5 Departmental Sign-off of Rehabilitated Areas

Departmental sign-off has not been requested for any rehabilitated areas.

7.3.6 Variations in Activities against MOP/RMP

Not applicable.

7.3.7 Trials, Research Projects and Initiatives

No rehabilitation trials, research projects or other initiatives were undertaken during the reporting period.

7.3.8 Key Issues to Achieving Successful Rehabilitation

No specific issues in achieving rehabilitation success have been determined to date.

7.4 Actions for Next Reporting Period

No specific rehabilitation actions are proposed for the next reporting period.

8 COMMUNITY

No complaints were received during the 2016 reporting period, consistent with the previous reporting period.

Community Consultative Committee (CCC) meetings for the site were held during the reporting period in April, June, and November.

Community contributions are managed in accordance the Whitehaven Coal Donations and Sponsorship Policy.

9 INDEPENDENT AUDIT

No independent audit was undertaken of VCP during the reporting period. The first scheduled independent audit will take place within 2 years from the commencement of construction.

10 INCIDENTS AND NON-COMPLIANCES DURING THE REPORTING PERIOD

10.1 Reportable Incidents

No environmental incidents occurred at VCP during the reporting period.

10.2 Non-compliances

There were no non-compliances found during the reporting period.

10.3 Regulatory Actions

No regulatory actions were received for the VCP during the reporting period.

11 ACTIVITIES TO BE COMPLETED IN THE NEXT REPORTING PERIOD

The following measures will be continued, or implemented, in the next reporting period to improve the environmental or community performance of the operation:-

- Continued undertaking of CCC meetings;
- Continued weed and feral animal control, as required; and
- Continued environmental monitoring and reporting, as required.