



# Rocglen Mine

## Conditions of Approval Independent Environmental Audit

Whitehaven Coal Limited

July 2016

0345224 Final

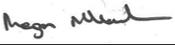
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## Rocglen Mine

### *Conditions of Approval Independent Environmental Audit*

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Whitehaven Coal Limited

Rocglen Mine  
*Conditions of Approval*  
*Independent Environmental*  
*Audit*

July 2016

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## EXECUTIVE SUMMARY

*Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to perform an independent environmental audit of the Rocglen Mine located 28km north of Gunnedah, NSW on behalf of Whitehaven Coal Limited (herein referred to as Whitehaven Coal). The primary purpose of the audit was to satisfy the Department of Planning and Environment (DPE) Ministers' Conditions of Approval (MCoA) Development Consent number PA 10\_0015, which requires completion of an independent audit every three years from the date of the approval.*

*The audit included a review of:*

- *DP&I, Ministers Conditions of Approval PA 10\_0015 (Modification 2) issued 24 August 2015;*
- *Mining Leases 1620 and 1662;*
- *Environment Protection Licence 12870;*
- *Water Access Licence 29461; and*
- *implementation of Management Plans developed as part of the Ministers Conditions of Approval.*

*This is the second independent audit period for the Rocglen Mine site under the current Project Approval and covers the period beginning April 2013 (the date the last independent environmental audit was completed) to 6 May 2016 (date of site inspection).*

*Overall, conformance was achieved with the audit documents that were reviewed. A qualitative risk assessment was also completed on the findings, consistent with AS/NZS 4360:2004 Risk management and HB 436:2004 Risk Management Guidelines Companion to AS/NZS 4360:2004 and as described in the Department of Planning & Environment publication "Independent Audit Guidelines" issued October 2015. The number of non-conformances with the statutory conditions and implementation of the management plans is summarised in Table below:*

### Summary of Audit Findings

<b>Non conformances</b>	<b>Administrative Non - conformances</b>	<b>Observations</b>	<b>Not Verifiable</b>	<b>Not Triggered</b>
<i>Statutory Instruments</i>				
28 (6 duplicates)	15	30 (2 duplicates)	7	41
<i>Implementation of Plans</i>				
31 (19 duplicates)	18 (6 duplicates)	30 (8 duplicates)	0	40
<b>59 (25 duplicates)</b>	<b>33 (6 duplicates)</b>	<b>60 (10 duplicates)</b>	<b>7</b>	<b>81</b>

*An action response table has been developed by Whitehaven Coal addressing all audit findings and will be submitted separately to this report.*

## ABBREVIATIONS AND GLOSSARY

Term	Description
AEMR	Annual Environmental Management Report (replaced by Annual Review)
ANC	Administrative Non Compliance – audit finding
BMP	Blast Management Plan
C	Compliant - audit finding
CCC	Community Consultation Committee
CHPP	Coal Handling and Preparation Plant
DPE	Department of Planning and Environment (formerly Department of Planning & Infrastructure)
DP&I	Department of Planning and Infrastructure (now Department of Planning & Environment)
DPI Water	Division of Water with Department of Primary Industries (formerly NSW Office of Water)
DRE	Division of Resources & Energy within the Department of Industry
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities
EC	electrical conductivity
EMS	Environment Management Strategy
<i>EP&amp;A Act</i>	<i>Environmental Planning and Assessment Act 1979</i>
EPA	Environment Protection Authority
EPL	Environment Protection Licence
ERM	Environmental Resources Management Australia Pty Ltd
GHG	Greenhouse Gas
GSC	Gunnedah Shire Council
IEA	Independent Environmental Audit
LDP	Licensed Discharge Point
MCoA	Ministers Conditions of Approval
mAHD	metres Above Height Datum
mbgl	metres below ground level
ML	Mining Lease
MCoA	Ministers Conditions of Approval
MOP	Mining Operations Plan
Mtpa	Million tonnes per annum
NC	Non-compliant - audit finding
NOW	New South Wales Office of Water
<i>NPW Act</i>	<i>National Parks and Wildlife Act 1974</i>
NSC	Narrabri Shire Council
NT	Not triggered – audit finding
NV	Not Verified – audit finding
O	Observation – audit finding
PA	Project Approval
<i>POEO Act</i>	<i>Protection of the Environment Operations Act 1997</i>
ROM	Run of Mine
RMP	Rehabilitation Management Plan
SDS	Safety Data Sheet
SWL	Standing Water Level
TSS	total suspended solids
WAL	Water Access Licence
WHC	Whitehaven Coal Limited
WMP	Water Management Plan

## INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to perform an independent environmental audit of the Rocglen Mine located 23km north of Gunnedah, NSW on behalf of Whitehaven Coal Limited (herein referred to as Whitehaven Coal). The primary purpose of the audit was to satisfy the Department of Planning and Environment (DPE) Ministers' Conditions of Approval (MCoA) Development Consent number PA10\_0015 (Modification 2), which requires the commissioning of an independent audit by the end of March 2013, and every 3 years thereafter, unless the Director General directs otherwise. The audit must:

- (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;*
- (b) include consultation with the relevant agencies;*
- (c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);*
- (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and*
- (e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals.*

*Within six weeks of the completion of this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.*

This is the second independent audit to be undertaken at the Rocglen Mine under the current Project Approval (PA) and covers the period commencing April 2013 (the date of the last independent environmental audit) to 6 May 2016 (date of the site inspection).

### 1.1

#### APPROVALS HISTORY

The mine was initially approved on the 15th April 2008 under PA 06\_0198 with a minor modification (PA 06\_0198 MOD 1) granted in May 2010 to address highwall stability issues. An independent audit was completed in May 2011 in accordance with Condition 6 of Schedule 5 of the original PA.

Whitehaven submitted a Project Application, and accompanying Environmental Assessment, under Part 3A of the *Environmental Planning and Assessment Act 1979 (EP&A Act)* in March 2010 (Rocglen Mine Extension Project). PA 10\_0015 was issued on 27 September 2011 and allows for additional extraction of up to 5 million tonnes of coal at a maximum recovery rate of 1.5 million tonnes per annum (Mtpa) (i.e. increased projected life of the operation for coal extraction by up to four years).

A minor modification (PA 10\_0015 MOD 1) was approved on 10 November 2014 relating to coal transport, and a further modification (PA 10\_0015 MOD 2) was approved on 24 August 2015 allowing changes to coal reject haulage to the site.

## 1.2 OVERVIEW OF OPERATIONS

The Rocglen Coal Mine (previously known as Belmont Coal Project) lies within the mining leases (MLs) 1620 and 1662. ML 1620 was issued for the Rocglen operation in June 2008 and coal production commenced in late 2008. Approximately 1.5Mtpa of run-of-mine (ROM) coal is approved to be mined within the open cut pit using truck and shovel method. The coal is transported approximately 30 kilometres by road to the Whitehaven Coal Handling and Preparation Plant (CHPP) for selective washing and subsequent transport by rail to the Port of Newcastle or by road to domestic customers.

ML 1662 was issued on 9 January 2012 to cover the Rocglen Coal Mine Extension Project, specifically the water management and overburden emplacement activities proposed to occur outside the bounds of ML 1620.

Rocglen Mine is wholly owned and managed by Whitehaven Coal.

### 1.2.1 *Description of Primary Site Processes undertaken during The Audit Period*

Current activities at the site include the following:

#### *Construction*

Mining operations used existing infrastructure and facilities with no upgrades or additional works completed during the audit period.

#### *Land Preparation – Vegetation Clearing*

Clearing during the audit period included:

December 2013 - clearing of three scattered trees to the west of the coal haul road from the pit to the ROM area.

July 2014 - clearing of several isolated trees in advance of the eastern edge of the western emplacement area, and at the eastern soil stripping area, in advance of the pits movement east between the mine void and Wean Road.

#### *Land Preparation - Soil Stripping and Stockpiling*

Soil stripping was completed in the areas listed above for vegetation clearing with additional stripping completed in the southeast wedge of the mine in March 2016.

#### *Mining Operations*

Overburden and interburden is generally blasted and then removed by excavators and haul trucks. Where the overburden overlying the uppermost coal seam is sufficiently weathered, it is ripped and removed by scraper and/or pushed up by bulldozer and loaded into haul trucks by an excavator.

To remove the coal, benches are developed along the length of coal seams by blasting and removal of the overburden and interburden. As sufficient coal is exposed, it is ripped, excavated and transported to the ROM coal pad within the on-site coal handling and processing area.

#### *Maintenance/Workshop Area*

The maintenance workshop area activities include maintenance of mining and earthmoving equipment as well as refuelling activities. The main work area is hardstand (concrete) with drainage to an oil water separator for treatment of any runoff before discharge of treated water to a dam for reporting to SD3 before discharging through an Environment Protection Licence licenced discharge point (LDP11)

The area stores waste oils and greases which are collected by a licensed waste recycling contractor every two weeks. Waste oils are removed from equipment using oil evacuation pumps to prevent spills.

#### *Overburden Emplacement*

Following ripping or blasting, haul trucks transport the overburden material to the nominated emplacement area (both in-pit and out-of-pit locations) to form the final landform.

There are two out-of-pit emplacement areas, known as the Northern and Western Emplacement Areas.

The bulk of the overburden material will be transferred within the active open cut to in-pit emplacement within and over finished areas of the open cut. The in-pit emplacement will eventually connect the Western and Northern Emplacement Areas to form the final landform.

#### *Coal Processing and Transport*

The on-site coal handling and processing area covers and comprises the following key components:

- ROM coal stockpile area/pad;
- product coal stockpile area/pad;
- conveyors;
- coal loading hopper;
- primary crusher;
- size reduction screen; and
- product bin and batch weight system.

#### *Coal Stockpiles*

ROM coal is placed in one of three stockpiles within the coal handling and processing area:

- clean bypass coal – coal only requiring on-site crushing and screening prior to dispatch;
- CHPP feed coal – coal requiring on-site crushing and screening followed by further beneficiation at the Whitehaven CHPP prior to dispatch; and
- high ash coal – coal generally obtained from the roof or floor of the coal seams and therefore diluted by the adjacent overburden/interburden layer and requiring on-site crushing and screening.

#### *Waste Management*

Wastes produced at the site include:

- general domestic-type wastes from on-site buildings and routine maintenance consumables;
- oils and other hydrocarbons;

- sewage;
- overburden and interburden;
- coal rejects from any coal preparation undertaken; and
- mine equipment tyres.

### *Rehabilitation*

Progressive rehabilitation activities have occurred during the audit period with disturbed areas generally undergoing rehabilitation within one year of overburden emplacement and reshaping.

## **1.3**      **AUDIT OBJECTIVE**

The primary objectives of the audit included:

- assessment of the environmental performance of the site, and its effects on the surrounding environment and sensitive receivers;
- assessment of whether the site is complying with the requirements in the MCoA, and any other relevant consents/approvals (including any assessment, plan or program required under these consents/approvals);
- review of the adequacy of any approved strategy, plan, or program required under the abovementioned consents/approvals; and
- recommendation of measures or actions to improve the environmental performance of the Rocglen Mine, and/or any strategy/plan/program required under these consents/approvals.

## **1.4**      **AUDIT SCOPE**

- the audit to be completed in accordance with DP&E's Guidelines for Independent Audits;
- the audit to also be completed in accordance with AS/NZS ISO 19011:2003: Guidelines for quality and/or environmental management systems auditing;
- review of compliance against the documentation identified in the MCoA (as it relates to the current activities of the Rocglen Extension Project) which will include:

- document review of compliance against the MCoA, and any other relevant consents/approvals;
- site inspection to assess compliance against field implementation of active MCoA;
- review of supporting plans developed as part of the MCoA and assessment of their adequacy towards effective environmental performance;
- review of monitoring results and trends with comparison of monitoring results against regulatory limits and MCoA limits (where applicable);
- confirmation if any additional monitoring required for identified trends;
- community complaints with review completed for any trends and identifying the source of an established trend;
- review of any regulatory actions including any letters, penalty notices and prosecutions; and
- review of previous Independent Environment Report (issued May 2013) audit report to verify close-out of actions.
- consultation with the relevant agencies such as Department of Planning and Environment (DPE), Environment Protection Agency (EPA), NSW Division of Resource and Energy within the Department of Industry (DRE) and NSW Division of Water within the Department of Primary Industries (DPI Water) and Gunnedah Shire Council (GSC);
- draft report with results of compliance assessment to be issued for comment to Whitehaven; and
- final report issued for submission to the DPE.

The audit covers the period 1 April 2013 to 6 May 2016 (date of site inspection).

## 1.5 *AUDIT CRITERIA*

The audit covered the following specifications and standards, with a particular focus on activities associated with the current stages of operation. The documents relevant to this audit included:

- Conditions of consent PA 10\_0015 (MOD 2);
- Environment Protection Licence (EPL) 12870;
- ML 1620 & 1662;

- Water Access Licence (WAL) 29461;
- implementation of Management Plans developed as Part of the MCoA including:
  - Mining Operations Plan (MOP) for Period November 2015 to October 2010 (issued October 2015);
  - Environment Management Strategy (EMS) (Edition 2, Revision 2 issued November 2015);
  - Air Quality and Greenhouse Gas (GHG) Management Plan (Edition 2, Rev 2 issued November 2015);
  - Blast Management Plan (BMP) (Edition 2, Revision 1 issued November 2015);
  - Heritage Management Plan (Edition 2, Rev 2 issued November 2015);
  - Noise Management Plan (Edition 3, Rev 2 issued November 2015);
  - Rehabilitation Management Plan (RMP) (Edition 1, Rev 1 issued April 2013);
  - Road Traffic Noise Management Plan (Edition 2, Revision 1 issued June 2013); and
  - Water Management Plan (WMP) (Edition 1, Revision 1 issued November 2015).

## 1.6 *LIMITATIONS OF THIS REPORT*

This disclaimer, together with any limitations specified in the report, applies to this report and its use.

This report was prepared in accordance with the contracted scope of services for the specific purpose stated and subject to the applicable cost, time and other constraints. In preparing this report, ERM relied on:

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- b) information taken at or under the particular times and conditions specified, and ERM do not accept responsibility for any subsequent changes.

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## 2.1

*METHODOLOGY AND PROCESS*

The audit comprised a site inspection, interviews with key personnel and review of records and other related documentation over the period 30 March 2016 to 6 May 2016. The audit process included the following primary components:

- development of a Terms of Reference developed which included:
  - audit scope and objectives;
  - date and location of audit;
  - members of audit team;
  - list of people to be audited; and
  - list of reference documents and audit criteria.
- a project inception meeting was held on 22 April 2016 to discuss the Terms of Reference, site inspection logistics and request for documentation required prior to the site inspection component of the audit;
- an opening meeting was held on 3 May 2016 at the site to confirm the audit objectives and scope for the site inspection. Attendees included:
  - Megan McLachlan (ERM Auditor);
  - Oliver Moore (ERM Auditor);
  - Tony Dwyer (Whitehaven Coal Group Superintendent – Environment (Compliance))
  - Jason Conomos (Rocglen Mine Manager); and
  - Maddie Woodhead (Rocglen Environment Officer)
- site inspections were undertaken between 3 and 6 May 2016;
- any identified gaps/issues were documented and followed up with site personnel and additional information was requested as required;
- a closeout meeting was held on 6 May 2016 to discuss initial findings and recommendations. Attendees included the same participants as the opening meeting.
- preparation of draft audit report (this report);

- response and action plan developed by Whitehaven Coal; and
- preparation of a final audit report.

## 2.2 *AGENCY AND COMMUNITY CONSULTATION*

As part of this audit, ERM has consulted with the following agencies and stakeholders:

- DPE (formerly Department of Planning and Infrastructure);
- EPA;
- GSC;
- DRE; and
- DPI Water (formerly NSW Office of Water (NOW)).

In each case a telephone discussion was held with each agency with an email consequently sent to representatives of each requesting feedback on those issues considered most relevant by their department at the time of the audit.

### 2.2.1 *Summary of Consultation*

The Terms of Reference were submitted to the DPE prior to the site inspection on 20 April 2016 to obtain feedback and draw attention to any key issues, within the agreed scope of the audit.

At the time of reporting responses had been received from DRE, EPA and GSC.

DRE responded with a request for the audit to focus on various aspects of rehabilitation including progress and accordance with the MOP and Project Approvals. Assessment of the commitments in the MOP and the implementation of the Rehabilitation Management Plan have been accessed as part of this audit (refer *Annex E* and *Annex K* respectively).

The EPA and GSC both expressed no concerns nor had any questions regarding the upcoming audit.

No response had been obtained from DPE and DPI Water by the time that this report was completed.

The Community Consultation Committee (CCC) for Rocglen Mine last met in August 2015, with the next meeting scheduled for March 2016. This meeting was cancelled as the majority of the CCC members could not make this meeting. The postponed March 2016 meeting is still pending with an alternative date to be confirmed.

The CCC was not consulted prior to this audit. It is recommended that the final audit report is tabled at the next Rocglen Mine CCC.

Refer to *Annex N* for copies of correspondence completed as part of the consultation process.

## 2.3

### CLASSIFICATION OF AUDIT FINDINGS

Findings resulting from an assessment of audit evidence were divided into six categories as follows:

- **Compliant (C):** the intent and all elements of the audit criteria requirements have been complied with within the scope of the audit.
- **Not Verified (NV):** insufficient verifiable evidence to demonstrate that the intent and all elements of the audit criteria have been complied with within the scope of the audit.
- **Non-compliant (NC):** Failure to meet the audit requirements, failure to achieve the field performance outcomes identified in documentation, or ineffective environmental management of the activity.
- **Administrative Non-compliance (ANC):** technical conformance with audit requirements that would not impact on performance and is considered minor in nature (e.g. report submitted but not on the due date, failed monitor or late monitoring session). This would not apply to performance-related aspects (e.g. exceedance of a noise limit) or where a requirement had not been met at all (e.g. noise management plan not prepared and submitted for approval).
- **Observation (O):** Observations are recorded where the audit identified issues of concern which do not strictly relate to the scope of the audit or assessment of compliance.
- **Not Triggered (NT)** - A regulatory approval requirement has an activation or timing trigger that had not been met at the time of the audit inspection, and therefore a determination of compliance could not be made.
- **Note:** A statement or fact, where no assessment of compliance is required.

A qualitative risk assessment was also completed on the findings, consistent with AS/NZS 4360:2004 Risk management and HB 436:2004 Risk Management Guidelines Companion to AS/NZS 4360:2004 and as described in the DPE publication "Independent Audit Guidelines" issued October 2015.

The overall level of risk was estimated by combining the likelihood of harm occurring with the estimated level of harm associated with each finding. Risk levels have been assigned as follows:

- **High:** Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence;
- **Medium:** Non-compliance with:
  - potential for serious environmental consequences, but is unlikely to occur; or
  - potential for moderate environmental consequences, but is likely to occur;
- **Low:** Non-compliance with:
  - potential for moderate environmental consequences, but is unlikely to occur; or
  - potential for low environmental consequences, but is likely to occur
- **Administrative non-compliance:** Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions).

## 3.1 PREVIOUS AUDIT FOLLOW-UP

An audit was completed in March 2013 with site inspection completed 26 March 2013. The 2013 audit reported on the audit actions from the audit completed in 2011 with actions completed with the exception of submission of reports within the required timeframes. The 2013 audit primarily noted incidences where incident reporting was not with required timeframes.

A summary of the previous non-compliances and their status is summarised below in *Table 3.1*.

**Table 3.1** *Previous Audit Findings: Summary of Actions Outstanding*

Assessment Requirement	Finding	Response To Audit Finding
<i>Minister's Conditions of Approval</i>		
The Applicant shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.	The site inspection and audit of compliance documentation found no significant issues relating to environmental management of the site. However, several non-conformances have been identified as documented in the compliance checklists and summarised in the audit report.	Noted - refer specific actions against conditions.
The proponent shall carry out the project generally in accordance with the: c) conditions of this approval.	A number of non-compliances with the Project Approval were identified during the audit as noted in the audit report.	Noted - refer specific actions against conditions.
The Applicant shall ensure that the noise generated by development does not exceed the criteria presented in Table 1 at any residence on, or on more than 25 percent of, any privately owned and	A review of the monitoring data identified an exceedance of 1dB at "Surrey" location 28 September 2012 of the daytime maximum of 35dB. No other exceedances were identified for the audit period.	Whitehaven continues to monitor noise levels in accordance with its approved Noise Monitoring Program and has also acquired a real time noise monitor which is located at several residences to monitor noise levels as a result of complaints. It was considered that Whitehaven's actions in investigating the noise exceedances and the continued monitoring was appropriate and no further actions were proposed.

<b>Assessment Requirement</b>	<b>Finding</b>	<b>Response To Audit Finding</b>
<p>The proponent shall not carry out any blasting on site that is within 500m of:</p> <p>(a) a public road without the approval of Council.</p>	<p>Rocglen do not currently seek approval for individual blasts from GSC when road closures are required. Council has approved the Road Closure Management Plan prepared by Rocglen for occasions when blasting is within 500m of a public road and Rocglen are relying on this approved Plan as evidence of GSC approval. However, it was noted that the Road Closure Management Plan also identified that notification to the GSC's Engineering Services Division will be completed by at least 12pm on the day prior to the road closure. This was not undertaken.</p>	<p>It was recommended that Rocglen liaise with GSC to ascertain their requirements in relation to approval of blasting and modify the Road Closure Management Plan as appropriate.</p> <p>UPDATE: The Road Closure Management Plan issued 11/10/2013 indicates notification is not required each blast to GSC but will be timed for 12noon as much as practicable. The updated Road Closure Plan was sent to GSC on 13 October 2013.</p>
<p>The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must be prepared in consultation with the EPA, DPI Water and DRE by suitably qualified and experienced persons whose appointment has been approved by the Secretary, and submitted to the Secretary for approval by the end of February 2012.</p>	<p>The Water Management Plan was submitted 6 March 2012 which is six days after the nominated due date.</p>	<p>The late submission of the Water Management Plan was not considered to have any material effect on the environmental performance of the operations and therefore no further actions were considered to be required.</p>
<p>By the end of December 2012, unless the Secretary agrees otherwise, the proponent shall upgrade and tar seal Wean Road to the satisfaction of Council from the northern end of the existing tar seal to the point of the Gunnedah/Narrabri Shire Council boundary, in general accordance with Council's Rural Local Roads Standard.</p>	<p>Letter sighted (dated 20 May 2011) advising that Stage 1 of the Wean Rd works had been completed to GSC satisfaction. Work on the Wean Rd diversion has been completed but tar seal to the boundary has not yet been completed.</p>	<p>It was understood Whitehaven had actions in progress to facilitate the upgrade and tar sealing of Wean Rd required by this conditions and no further actions were considered to be required.</p> <p>UPDATE: the site inspection completed as part of this audit confirms road is now sealed.</p>

Assessment Requirement	Finding	Response To Audit Finding
<p>As soon as is practicable after the Proponent becomes aware of any incident associated with the project, the Proponent shall notify the Secretary and any other relevant agencies of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident.</p>	<p>Discharge of sediment laden water from dam SD3 occurred 21 February 2012 reported via letters to DP&amp;I and EPA 1 March 2013 which was eight days later. An incident report was submitted to EPA on 9 March 2012 a further eight days later. Written notification did not occur within seven days on the incident.</p>	<p>Management of compliance tracking and reporting was noted in the 2011 and 2013 audit report as lacking. The 2013 audit report recommended that Rocglen further investigate whether any further mechanisms can be utilised by operations to assist with tracking of compliance and reporting requirements.</p> <p>UPDATE: Whitehaven Coal commenced implementing a Compliance Management System (CMO) in late 2015. Each site is developing compliance register and documents to feed into automated system. This program provides alerts prior to due dates and an escalation function. Incidents use INX which is an incident reporting system - information is inputted and actions can be assigned. The Group Superintendent - Environment (Compliance) reports incidents to the relevant agency.</p>
<p>Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the <i>Environment Operations Act 1997</i>.</p> <p>The Total Suspended Solids concentration limits specified for Points 11 and 12 may be exceeded for water discharged provided that:</p> <p>(a) the discharge occurs solely as a result of rainfall measured at the premises that exceeds 38.4 millimetres over any consecutive 5 day period immediately prior to the discharge occurring</p>	<p>Whitehaven received a Penalty Infringement Notice for discharge on 21 February 2012 from SD3. Total suspended solids from SD3 measured 340mg/L with 25mm of rain being recorded in the previous five days.</p>	<p>It was noted that water management on site had significantly improved since the previous audit in 2011 with no discharge non-compliances reported since the February 2012 incident.</p> <p>No further specific actions were considered to be required.</p>
<p>Noise from the premises must not exceed:</p> <p>(a) an LAeq (15 minute) noise emission criterion of 35 dB(A) at all times (day, evening and night time periods).</p>	<p>A review of the monitoring data identified an exceedance of 1dB at "Surrey" location 28 September 2012 of the daytime maximum of 35dB. No other exceedances were identified for the audit period.</p>	<p>Whitehaven continues to monitor noise associated with its operations as outlined in the approved Noise Management Plan and no further action was considered to be required.</p>

Assessment Requirement	Finding	Response To Audit Finding
<p>Notifications must be made by telephoning the Environment Line service on 131 555.</p> <p>The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.</p>	<p>Discharge of sediment laden water from dam SD3 occurred 21 February 2012 reported via letter to EPA 1 March 2013, eight days later. Written notification did not occur within seven days of the incident. It was also noted notification of the incident was not made to the Environment Line.</p>	<p>Management of compliance tracking and reporting was noted in the 2011 and 2013 audit report. The 2013 audit report recommended that Rocglen further investigate whether any further mechanisms can be utilised by operations to assist with tracking of compliance and reporting requirements.</p> <p>UPDATE: refer previous response</p>

### 3.2

#### COMPLAINTS SUMMARY

Complaints received over the auditing period include:

##### 2013

- 1 May 2013 – complaint regarding noise, dust and lights over the telephone line. The complaint was also raised at the CCC the following week. It was considered temperature inversion conditions were likely to have exacerbated noise levels.
- 14 August 2013 – telephone complaint received regarding blast shaking the complainants' house. Monitoring results confirmed all monitors set for the blast did not trigger for either vibration or overpressure. A letter was issued to the complainant which included monitoring results and details of the blast. A survey was completed August 2013 by a structural engineer with the report sent to the owner 29 November 2013. The report noted it was unlikely blasting operations had contributed to the defects observed.

##### 2014

- 19 June 2014 – blast rattled windows of the residents' house. The blast monitoring located between the mine and the complainants' property indicated compliance. No further follow up or action was requested.
- 9 July 2014 – concerned blasting was impacting groundwater availability and cracking walls in the residence. The Rocglen Environment Officer measured the Standing Water Level (SWL) of the complainant's bore on 11 July 2014, and found it to be at a depth of 27.62 metres below ground level (mbgl). The complainant agreed that the SWL measured was in general accordance with the usual depth of water in the bore.

The Rocglen Environment Officer offered to continue monitoring the bore on a quarterly basis as a part of the existing Rocglen groundwater monitoring program, which was accepted. WB15 for Kahuna was added to the quarterly monitoring program in July 2014 with SWLs consistent between quarterly events – range observed 26.88mbgl to 30.28mbgl.

Temporary blast monitoring was conducted at the complainant's property over the period 3 October 2014 - 28 April 2015 with no exceedances recorded.

A structural engineer (Kelley Covey Group Pty Ltd) assessed the property on September 2014. Letter sent to owner 28 November 2014 with the structural survey report which noted it was unlikely blasting operations had contributed to the defects observed.

- 29 August 2014 – noise and fumes from blasting which didn't normally occur. Blast monitors showed the blast was well within the overpressure limit of 115dB, and that the blast may have sounded louder than usual as the wind was blowing in the general direction of the complainant's property and the blast was relatively high in the pit. No follow up was required.

## 2015

No complaints received in 2015

## 2016 (to 6 May 2016 - up to date of site inspection)

- 14 April 2016 – complaint regarding excessive blast fumes. The EPA requested details regarding this blast which has now been supplied.

### 3.3 ENVIRONMENTAL MONITORING PERFORMANCE

#### 3.3.1 Noise

Attended noise monitoring is completed in accordance with the NSW Industrial Noise Policy, AS 1055.1-1997 'Acoustics - Description and Measurement of environmental noise - General Procedures' at two locations – "Surrey" and "Retreat". No spectral data (one third octave data) is provided in the monitoring reports, though it states that they have considered tonal and low frequency content "analysis showed the noise did not contain any tonal, impulsive or low frequency components as per definitions of "modifying factor corrections" in the NSW Industrial Noise Policy."

Exceedances of up to 1dB(A) were identified during the audit period however no non-compliance was noted for the noise criteria during the reporting period, as an exceedance of less than 2 dB(A) above a statutory noise limit specified in a licence condition is not considered to be a non-compliance as per the discussion in Section 11.1.3 of the NSW Industrial Noise Policy.

Section 11.1.3 of the policy states “a development will be deemed to be in non-compliance with a noise consent or licence condition if the monitored noise level is more than 2 dB above the statutory noise limit specified in the consent or licence condition.

The site has a real time monitor installed at the “Penryn” property which has been set to trigger an SMS alert to site personnel upon recording of a continuous noise source at 33dBA for a period of 15 minutes (which is 2dB below the noise limit). Upon the issue of the alert, site personnel access the web interface of the real time noise management unit to identify the noise source and determine if it is project related. It was noted during review of the alarm checklists that the audio is not always being reviewed when alarms are triggered. An investigation to determine the reasons for this not occurring is recommended.

The real time noise meter produces a daily report which is kept on record. The management plan recommends that each 15-minute statistic on the report will have an accompanying third-octave band spectrum; however, this would not be practicable for interpretation purposes. It is recommended that tonal content be incorporated to enable assessment against the Industrial Noise Policy (i.e. considers modifying factors).

### 3.3.2

#### *Traffic Noise*

All attended traffic noise investigations have been completed generally in accordance with NSW Industrial Noise Policy and the NSW Road Noise Policy. The Traffic Noise Management Plan requires additional information in the reports issued by Spectrum Acoustics including:

- total measured LAeq for all sources;
- calculation method used;
- the number of trucks to include note for whether they were full or empty;
- and wind speed and direction during each measurement period.

In addition, the reports will need to include emissions from Vickery Mine once it becomes operational.

All measurements for traffic noise were within the cumulative noise level generated by the two mines of less than 60 dB(A),Leq(15hour) during the day/evening.

### 3.3.3

#### *Blasting*

Blast monitoring results were within the EPL and MCoA criteria for peak vector sum velocity (ground vibration) during the audit period.

The maximum recorded overpressure was also within the criteria of 115dB<sub>L</sub> for not more than 5% of the total number with the exception of two blasts in September 2014. Both of these results were recorded at “Roseberry”, and made up 6.7% of all blasts undertaken for the period. This exceedance was not detected during reporting for the Annual Environmental Management Review (AEMR – replaced with Annual Review) EMR but was detected during reporting for the EPL. It was determined that the EPL and ML reporting years covered different periods and that a rolling 12 month average is more appropriate for assessment of compliance against the criteria.

The tracking of overpressure readings is now compared to a rolling 12 months to prevent any further oversights.

It has been determined since the audit period that the Roseberry residence is under private agreement for all affectation with subsequent discussions with the EPA indicating this monitoring point will be moved to the next nearest private residence and the EPL amended accordingly.

Blasting remains the main source of complaint however, results for each blast has indicated compliance within the criteria and structural reports that have been completed on properties in response to complaints have noted it was unlikely blasting operations had contributed to the defects observed.

### 3.3.4

#### *Air*

##### *Dust - DDGS*

DDGs averages are currently assessed over a calendar year whilst the AEMR reports for the 12 months of the AEMR reporting period. Annual averages should be assessed as a rolling 12 month average.

Review of results using a rolling 12 month average indicate location BD2A (Penryn) and BD8 (Yarrowonga) have been over the 12 month rolling average during the audit period.

BD8 had one high reading (115.6g/m<sup>2</sup>/month for December 2014) which skews the 12 month average for period December 2014 to November 2015. The ash content was 99% therefore the insoluble solids consisted mainly of inorganic material such as sand and dirt. Red sandy material was noted in the jar during collection and is therefore not considered to be related to the Rocglen Mine.

BD2A had three high readings in early 2015 (13.1, 61.3 and 6.1g/m<sup>2</sup>/month) with the annual average exceeded over the period February 2015 to January 2016 as a result of the three elevated readings. The ash content consisted of between 76% and 93% of insoluble solids indicating it consisted of primarily inorganic content i.e. sand, dirt.

It is recommended that an investigation is completed when exceedances occur which includes analysis of wind direction and speed during the monitoring period as well as analysis of other gauges in the area to enable identification of potential sources and/or causes of exceedances.

#### *PM10 - HVAS*

Review of the HVAS results indicates two 24hour exceedances for the Glenroc location on 29/12/2013 and 16/01/2014 over the audit period. As the EPL does not currently stipulate air quality criteria, these were not reported to the EPA when they occurred but were reported in the EPL Annual Return for that reporting year. The results are also reported in the Annual Reviews.

#### *HVAS - Total Suspended Particulates*

No direct monitoring of TSP is proposed as PM10 concentrations are considered of greater significance given its synergies with health-related issues, however indirect calculation of TSP will be made from PM10 measurements, using a previously determined relationship factor of 2, to determine compliance with Schedule 3 Condition 15 Table 4 of PA 10\_0015 MOD 2. TSP is not currently calculated in the HVAS monitoring Excel spreadsheet or reported in the AEMRs.

A review of the HVAS PM10 monitoring results over the audit period indicates the rolling 12 month average of TSP is below the MCoA criteria. It is recommended that the TSP is included in the monitoring results Excel spreadsheet using the relationship as described in the plan and reported in the AEMR with comparison to the criteria.

#### *TEOM - PM10*

The site has one real time air quality monitoring completed with a Tapered Element Oscillating Microbalance (TEOM) monitor (PM10) located at "Roseberry". The data provided from this TEOM is used to inform if additional works are required on site for dust prevention or mitigation. The TEOM will send an alarm via SMS to the Mine Manager and OCE when the 24hr PM10 criteria of 40µg/m<sup>3</sup> is reached so that actions can be completed immediately.

The TEOM creates daily reports which include a 24hr PM10 value. The 24hr average from the TEOM is not currently tracked or entered into an Excel spreadsheet for reporting purposes against the criteria as it's considered a management tool only. It is noted however, that the average and maximum reading from the TEOM is reported in the EPL Annual Returns and a monthly average is reported in the AEMRs.

In addition, the TEOM is accepted under the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC 2007)) and therefore the results should be tracked and reviewed against the short term and long term PM10 air quality criteria. These results can then be investigated if over criteria. Results from other Whitehaven Coal sites in the area and the EPA Tamworth air quality monitoring station can also be utilised to determine if the impacts are regional or mine related.

### 3.3.5 *Water Management*

#### *Surface Water*

There were four wet weather discharges during the audit period (28 June 2013, 30 March 2014, 7 April 2015 and 21 April 2015, with all occurring after rainfall exceeded 38.4 millimetres over any consecutive five day period immediately prior to the discharge occurring (90<sup>th</sup>tile). There were an additional four events where no discharge occurred.

When dams are nearing capacity and further rain is expected, the water is tested against the discharge criteria with coagulant (Magnafloc) applied. The water is then tested the following day and, if Total Suspended Solids (TSS) is under 50mg/L, then water is physically pumped from site. The last treatment event was in January 2016 with no discharge and then in February 2016 with discharge occurring. These are referred to as “controlled discharges”.

The controlled and wet weather discharges are reported in the Annual Reviews.

The EPL lists the monitoring points and frequency for both wet weather and other discharges. A review of the EPL Annual Returns over the audit period indicates wet weather discharges only have been reported as it has been interpreted this was the requirement. A review of the EPL indicates all discharges from the site should be reported in the EPL Annual Return.

All discharges (controlled and wet weather) have been within the EPL criteria for pH, TSS and Electrical Conductivity (EC) during the audit period.

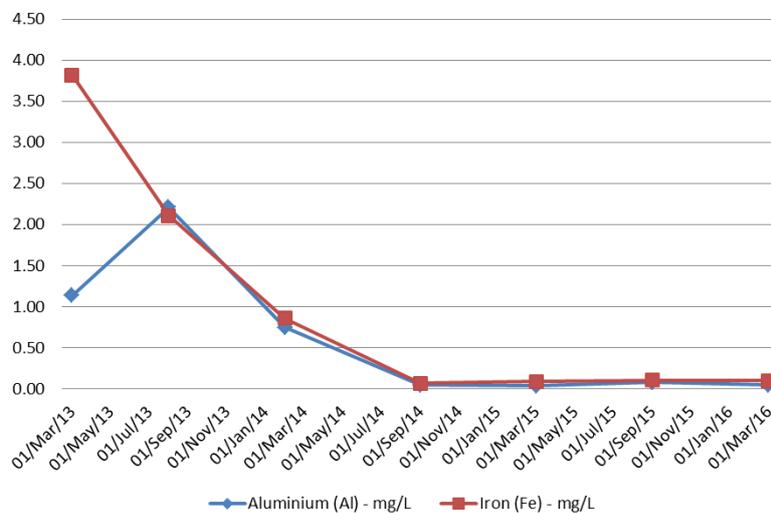
It is recommended that all EPL monitoring requirements are collated with a column added to the excel sheet clearly defining which tests are for wet weather discharges, no discharge or controlled discharge for clarity and ease of reporting with all discharges from site reported in the EPL Annual Returns.

## Groundwater

Groundwater monitoring points have not been formally included in the EPL however the EPL requires that monitoring is completed in accordance with a Department of Planning approved Water Management Plan required under Schedule 3, Condition 2 PA 06-0198 dated 15 April 2008. The Water Management Plan (which includes the Groundwater Management Plan) has since been updated and therefore it is recommended that the updated plan is emailed to the EPA highlighting any changes to the monitoring program.

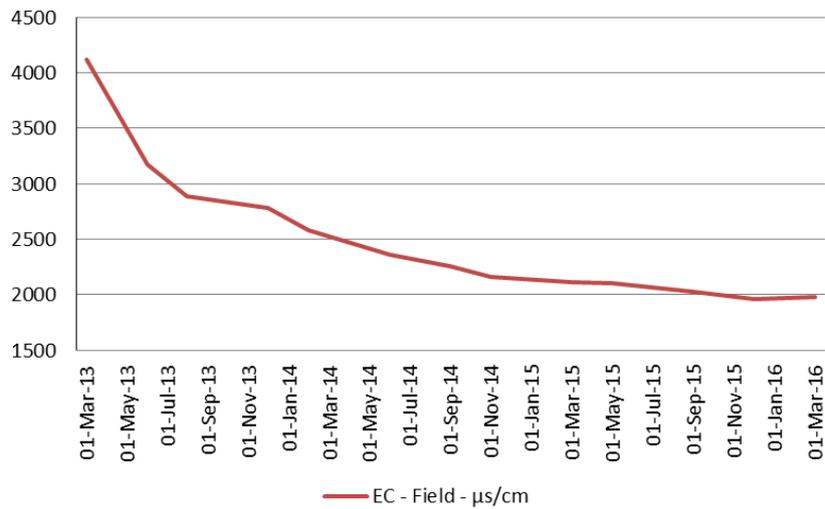
An overview of some of the groundwater monitoring results indicate the following trends:

WP3A – some metal concentrations are trending downwards. Cations and anions are consistent as is pH, EC and TDS.



WP5A – water levels have dropped 15m with the bore now dry. The AEMR 2014/15 reports that Douglas Partners predicted that at the end of the northern phase of mining during the extension of the pit, MP-5 / MP-5a could be drawn down by up to 13.4m. Results indicate that the actual drop of approximately 15.22m in the SWL is slightly higher than this prediction.

MP6 – concentrations of some metals, EC are trending down indicating potential rain/freshwater impacts. Ammonia levels are elevated and trending – sources could include decaying organic matter, excreta from humans/animals, fertilisers which supports interaction with surface water.



MP7 – concentrations of metals are trending downwards, pH is rising and TDS is falling. EC and water level remains consistent. Ammonia levels have slightly increased.

The WMP lists groundwater impact assessment criteria with trigger levels for groundwater levels and quality (pH, EC, TDS). It is recommended an investigation is completed as per Section 5.5.2 of the WMP, on groundwater results to confirm if trigger levels for investigation have been reached.

### 3.3.6 *Rehabilitation*

The AEMR for 2014/15 reports that total area rehabilitated is generally consistent with the progressive annual rehabilitation proposed in the MOP, as a total of 65.3ha has been completed to date, which aligns with that proposed to occur within MOP Year 5 (2015) (MOP now superseded by new plan issued November 2015).

The RMP summarises the areas of land to be rehabilitated within each year with Figures 3 to 6 illustrating the annual rehabilitation schedule (expanded operations). The rehabilitated year for 2015 in the RMP is year 4 with a cumulative rehabilitation target of 80ha.

The RMP and MOP rehabilitation plans state slightly different rehabilitation targets which are advised to be aligned.

The site inspection indicates mixed success with rehabilitation. The northern emplacement area designated for pasture has numerous weeds (Class 4 such as Bathurst Burr and Prickly Pear). Galvanised Burr and Black Roly Poly is the most common weed but is not a locally declared weed. These plants can also be useful as a pioneer plant on bare areas, collecting windblown grass seed, protecting young seedlings from grazing and reducing erosion.

Some areas of the western emplacement area designated as bushland has had a small degree of success however not all areas have been successful in establishing cover. The northern emplacement area has had less success with primarily galvanised burr growing in the areas designated as bushland.

Soil testing is to be completed (9 May 2016) by a recently appointed Whitehaven Coal Biodiversity specialist to advise what type and rate of ameliorant should be applied to maximise chances of rehabilitation. This will be used in conjunction with assessment of best type of planting (seed or tube stock), timing of rehabilitation activities etc.

### 3.4 COMPLIANCE WITH REGULATORY INSTRUMENTS

A compliance check of the MCoA, EPL, MLs and water access licence conditions has been completed. Non-compliances and observations for each component are summarised in *Table 3.2*.

A full review and audit findings for each component are under the following Annexures:

- *Annex A* - MCoA PA 10\_0015 (MOD 2);
- *Annex B* - Mining Leases 1620 & 1662;
- *Annex C* - EPL 12870; and
- *Annex D* - Water Access Licence 29461.

As discussed in *Section 2.2*, a qualitative risk assessment was also completed on the findings as follows:

- non-compliance assessed as 'high' have been colour coded red;
- non-compliance assessed as 'moderate' have been colour coded orange;
- non-compliance assessed as 'low' have been colour coded yellow; and
- administrative non-conformances have been colour coded blue.

**Table 3.2 Summary of Audit Findings**

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
<i>Minister's Conditions of Approval 10_0015</i>				
2.7	By the end of September 2012, or as otherwise agreed by the Secretary, the Proponent shall surrender the existing project approval for the Rocglen Coal Mine (06_0198) in accordance with section 75YA of the EP&A Act.	<p>Letter to DP&amp;I formally requesting surrender in September 2012.</p> <p>Email received from DP&amp;I October 2012 requesting confirmation of land ownership with approval from the landholder required consenting to the surrender. No further actions have been completed and therefore the surrender of this approval has not been completed.</p>	ANC	<p>Assessment of additional PA 06_198 conditions has been completed in lieu of this approval being surrendered.</p> <p>Consider formally completing the surrender of PA 06_0198.</p>
3.5	<p>The Proponent shall ensure that the blasting on site does not cause exceedances of the criteria in Table 3.</p> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</p>	<p>5% of 115dB criteria was exceeded 18 September 2014 but was not picked up in during the AEMR report development. However it was picked up through reporting for the EPL. The EPL, ML and PA all have different definitions of 12 months.</p>	NC	<p>No further actions recommended. Tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.</p>

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
3.15	<p>The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the particulate emissions generated by the project do not exceed the criteria listed in Tables 4, 5 and 6 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.</p>	<p>Review of results indicate location BD2A (Penryn)) and BD8 (Yarrowonga) are over the 12 month rolling average. Note that the Yarrowonga property is owned by the mine.</p> <p>BD8 had one high reading (115.6g/m2/month for December 2014) which skews the 12 month average for period December 2014 to November 2015. The ash content was 99% therefore the insoluble solids consisted mainly of inorganic material such as sand and dirt. Red sandy material was noted in the jar during collection and is not considered to be related to the Rocglen Mine.</p> <p>BD2A had three high readings early 2015 (13.1, 61.3 and 6.1g/m2/month) with the annual average exceeded over the period February 2015 to January 2016 as a result of the three elevated readings. The ash content consisted of between 76% and 93% of insoluble solids indicating it consisted of primarily inorganic content i.e. sand, dirt.</p> <p>HVAS indicates two 24hour exceedances for the Glenroc location on 29/12/2013 and 16/01/2014.</p> <p>The 24hr average from the TEOM is not currently tracked or entered into an Excel spreadsheet for reporting purposes against the criteria as it's used as a management tool only. The results are summarised and reported in the EPL Annual Returns</p>	NC	<p>Consider calculating the rolling 12 month average for the dust gauges to enable identification of any annual average exceedances.</p> <p>Consider reviewing the 24 hour result for the TEOM (the TEOM is accepted under the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC 2007)) and entering into Excel spreadsheet. These results can then be reviewed against the criteria and investigated if over criteria (already reported in the EPL Annual Returns as an average and maximum). Results from other Whitehaven Coal sites in the area and the EPA Tamworth air quality monitoring station can also be utilised to determine if the impacts are regional or mine related.</p> <p>The AEMR should also report the maximum daily results from the TEOM for comparison to the 24hour criteria rather than using monthly averages which is not a recognised averaging timeframe in the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC 2007)).</p>

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
3.27	<p>The Proponent shall prepare and implement a traffic management plan for the Project, to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with RMS, Gunnedah Shire Council, Narrabri Shire Council, and the owners of the Tarrawonga and Vickery coal mines;</p> <p>(b) be submitted to the Secretary for approval, by 30 June 2015;</p> <p>(c) include:</p> <ul style="list-style-type: none"> <li>• a protocol for operating haul trucks during school bus hours;</li> <li>• a protocol for maximising the backfilling of haul trucks with coarse and/or fine rejects from the Whitehaven CHPP;</li> <li>• consideration of measures to minimise dust from unsealed roads that may be used for access to the mine site;</li> <li>• arrangements to comply with cumulative coal haulage limits from the Project and the Tarrawonga and Vickery coal mines; and</li> <li>• a monitoring program to audit vehicle movements, including the origin and destination of employees, against predictions in the EA.</li> </ul>	<p>Operational/economic drivers ensure the backfilling of haul trucks with coarse and/or fine rejects occurs however it is not described in Section 3 of the Plan with other mitigants/measures.</p> <p>Arrangements to comply with cumulative coal haulage limits are not currently included in this plan. The cumulative volumes are currently tracked by the logistics manager.</p> <p>A monitoring program to audit vehicle movements, including the origin and destination of employees, against predictions in the EA is also not included in the plan.</p>	ANC	<p>Consider including following in the Road Traffic Noise Management Plan:</p> <ul style="list-style-type: none"> <li>• protocol for maximising the backfilling of haul trucks with coarse and/or fine rejects from the Whitehaven CHPP</li> <li>• arrangements to comply with cumulative coal haulage limits</li> <li>• description of a monitoring program to audit vehicle movements, including the origin and destination of employees, against predictions in the EA</li> </ul>

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
3.31	The Proponent shall:  (c) ensure that no outdoor lights shine above the horizontal; and	A light stand was noted during the site inspection at the western emplacement lookout area which appeared to shine across the valley to Belmont - site inspection at night time confirmed light is shining directly across the valley i.e. above the horizontal.	NC	Consider the placement of lights to prevent horizontal light above the horizon.
4.2	As soon as practicable after obtaining monitoring results showing:  (a) an exceedance of the relevant criteria in Schedule 3, the Proponent shall notify the affected landowner and/or tenants in writing of the exceedance, and provide regular monitoring results to each of these parties until the project is complying with the relevant criteria again; and  (b) an exceedance of the relevant air quality criteria in Schedule 3, the Proponent shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including tenants of any mine-owned land).	Review of the DDG results indicate some exceedances of the rolling 12 month average for two sampling locations which have not been reported to the landholder.  HVAS indicates two 24hour exceedances for the Glenroc location on 29/12/2013 and 16/01/2014.	NC	Consider reporting all exceedances of criteria to the affected landholder to fulfil the requirement of this MCoA.  Consider reviewing the 24 hour result for the TEOM (the TEOM is accepted under the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC 2007)) and entering into results Excel spreadsheet.  The Annual Review should also report the maximum daily results for comparison to the 24hour criteria rather than using monthly averages.
5.2	The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:  (a) detailed baseline data;	Baseline data is not included in all plans.	ANC	Consider including the air quality, noise and traffic noise baseline levels determined during the assessment phase of the project into the relevant management plans.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
5.3	By the end of each December, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:  (d) identify any trends in the monitoring data over the life of the project;	Although the previous monitoring results are included as graphs in the report for air quality, discussion on previous results and trends in data over the life of the project is not included for water, groundwater, noise and road noise.	ANC	Consider inclusion of further discussion into the next Annual Review on any previous results and trends observed in monitoring over the life of the project for all monitored aspects such as noise, road noise, water and groundwater.
5.4	Within 3 months of:  (a) the submission of an annual review under condition 3 above;  (b) the submission of an incident report under condition 6 below;  (c) the submission of an audit report under condition 8 below; 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.	Review of the Management Plans indicates reviews are completed for Project Expansion. There is no evidence for reviews completed for all requirements listed as per this condition.	ANC	Consider the creation of a spreadsheet with plan review tables and update reviews completed even if no changes are required to the plans.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
5.6	As soon as is practicable after the Proponent becomes aware of any incident associated with the project, the Proponent shall notify the Secretary and any other relevant agencies of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident.	<p>Two surface water monitoring events were missed on 19 October 2014 and 18-23 October 2014 - the written report was provided to the EPA on 11 May 2015 (7 days after occurrence).</p> <p>One incident reported during the audit period (5% of 115dB was exceeded 18 September 2014) through reporting for the EPL (7 days after occurrence). The tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.</p>	NC	Consider reviewing compliance tracking procedures/methods to improve reporting times.
<i>Minister's Conditions of Approval 06_0198</i>				
3.18	<p>During mining operations on site, the Proponent shall:</p> <p>(c) advertise the blasting hotline number in a local newspaper each year; and</p>	<p>A blasting hotline is not currently maintained however a public enquiry/complaints line is advertised on signs on Wean Rd and on the website.</p> <p>The blasting hotline number/complaints number is not currently advertised in local newspapers each year. Previous audit report noted this action was completed at that time.</p>	ANC	Consider the surrender of this approval or advertise the complaints/information line annually in the local newspaper.
3.37	The Proponent shall keep records of the amount of coal transported from the mine site, and number of coal truck movements each year, and include these records in the AEMR.	<p>Records of coal movements are kept on the website.</p> <p>AEMRs provide an annual summary of total output and movement of coal to the CHPP but do not include number of truck movements.</p>	ANC	Consider the surrender of this approval or include number of total truck movements into Figure 2 of the Annual Reviews.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
<i>Statement of Commitments</i>				
b	Within 12 months of approval, Whitehaven will review, update and integrate relevant aspects of the environmental monitoring of the Project in the existing set of environmental monitoring programs for the Rocglen Coal Mine. This will be undertaken in consultation with the relevant government agencies.	Government agencies not consulted as part of update of latest update of plans in November 2015. The previous audit report notes that the relevant agencies were consulted for the plans submitted prior to end December 2011.  Changes were mostly administrative and requirements have not changed substantially.	ANC	Consider sending link to plans on website to relevant agencies and requesting comment.
g	Prior to re-spreading stockpiled material onto completed mining or overburden emplacement areas, an assessment of weed infestation on stockpiles will be undertaken to determine if individual stockpiles require herbicide application and/or 'scalping' of weed species prior to spreading.	The NSW Pesticides Regulation requires that records be kept of pesticide use (including herbicides). Individual spraying records are maintained. All required information for the NSW Pesticides Regulation is included in the record with the exception of who has applied the pesticide/herbicide.	ANC	ANC - Consider the recording of person/company applying the pesticide onto the current records.
g	Surface water management structures will be progressively installed on the rehabilitated landform. The heights (effective depths) and cross-sectional areas of the individual banks will be determined on the basis of individual sub-catchment areas, but will typically be less than 0.7 metres and 3 square metres (m2), respectively. Rock-lined drains will be used, where required, to convey water safely from the rehabilitated landform into the surface water management system that takes water from the site.	The northern emplacement area consists of banks which divert water to an eastern and western rock lined channel. The eastern channel has recently been installed and it is noted that there is an erosion channel forming alongside (northern edge).  Tunnel erosion near the western channel has recently been repaired however it is noted that water is ponding in this area.	NC	Consider diverting water to the newly constructed eastern channel in the northern emplacement area to prevent further scouring alongside this channel. In addition, consider installing a batter shoot where water is ponding in the recently repaired tunnel erosion area or complete works to divert water to the rock lined drain on the western face of the northern emplacement area.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
c	Prior to being brought on-site, all earthmoving equipment will be tested to ensure sound power levels are consistent with the previous assessments undertaken by Spectrum Acoustics	Individual pieces of equipment do not currently have sound power levels checked to confirm within specifications and consistent with previous assessments undertaken by Spectrum Acoustics prior to being brought on site.	NC	Consider the requirement to test equipment prior to being brought on site. Consider developing a list of equipment and their sound power levels (design and measured) with comparison to previous assessments as a record of conformance.
g	Mid-high frequency broadband reverse beepers are fitted to on-site mobile mining equipment	Not all equipment is fitted with mid-high frequency reverse beepers.	NC	Consider fitting all mobile mining equipment with mid-high frequency reverse beepers.
j	For all blasts within 500 metres of Wean Road, the road will be closed with blast notice boards updated at least 24 hours prior to each blast. Road closures typically occur for a period of up to 10 minutes.	The boards are in place but are not currently used as intended.  Sentries are placed along road to prevent use of the road by traffic during blasting.	NC	Consider using the blast notice boards prior to blasting.
n	Whitehaven will erect a blast notice board near the mine entrance on Wean Road notifying passing motorists when the next blast is scheduled.	The boards are in place but are not currently used as intended.  Sentries are placed along road to prevent use of the road by traffic during blasting.	NC  Duplicated SoC	Duplicated finding
g	As required, appropriate drainage structures and erosion and sediment controls will be installed and maintained.	Historical erosion and sediment control devices noted during the site inspection in the rehabilitated and revegetated areas. Some scouring and erosion was noted in the newer areas of rehabilitation in the northern emplacement area.	NC	Consider removing erosion and sediment control structures that are damaged/no longer required. Consider installing additional controls where erosion is evident to prevent the need for extensive rework/repairs.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
p	Implementation of an effective revegetation, maintenance and monitoring program.	<p>Site inspection indicates mixed success with rehabilitation. The northern emplacement area (designated) pasture has numerous weeds (Class 4 such as Bathurst Burr and Prickly Pear). Galvanised Burr and Black Roly Poly is the most common weed but are not locally declared weeds.</p> <p>The soil is undergoing testing to determine ameliorant type and rate to encourage growth of any further seeding campaigns. A biodiversity expert has been recently (last two months) appointed fulltime to oversee the rehabilitation of the Whitehaven Coal sites. This will include investigating alternative methods for reseeded/replanting.</p>	NC	Continue to investigate alternative rehabilitation methods to increase success.
i	Monitoring of groundwater levels will initially be undertaken on a monthly basis for the first year of the Project, after which the interval may potentially be relaxed subject to review of the results. In the longer term a monitoring interval of three months is anticipated. Samples will be analysed for all major ions, including carbonate.	<p>Groundwater is monitored every three months.</p> <p>Review of the AEMR 2011-12 indicates groundwater monitoring frequency was quarterly.</p>	NC	Monitoring of groundwater levels was not completed initially monthly for the first 12 months of the Project. No further actions are recommended.
j	Pressure transducers/dataloggers will be installed in monitoring bores MP-01 to MP-05 for the continual recording of groundwater levels. These instruments will be downloaded every 2 months. MP-04 and MP-05 will be deepened to at least 10 metres below the water table.	The data is downloaded by the Environment Officer - last downloaded for reporting into the AEMR.	ANC	Consider downloading data every two months as stated in the commitment.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
i	A tree felling protocol will be developed, by a suitably qualified and licensed ecologist with previous experience supervising the felling of trees, in order to minimise harm to fauna species during clearing activities.	Clearing and Pre-strip Procedure includes operational aspects to felling trees. A tree felling protocol has not been formally developed.	ANC	Consider including ecological considerations for tree felling into the existing procedure, WHC_PRO Clearing and Pre-Strip or develop a separate tree felling protocol.
f	In areas where surface excavation might occur in the future within 25 metres of the east-west oriented drainage line, Whitehaven will follow protocols in Section 4.1(iii) of the ACHMP (Whitehaven 2008c).	This commitment is not currently included in the latest version of the Heritage Management Plan	NC	Complete a review of historical documentation and assess if this commitment is still relevant to stage of works and action accordingly.
e	An earthen bund of appropriate height will be established between the realigned Wean Road and the active pit area. This bund will be vegetated immediately following construction. The bund will provide an effective visual screen of the site from Wean Road. In addition to the bund, a strip of bushland will be established to screen the view of the final void and generally improve the visual amenity from Wean Road.	Earthen bund has been partially installed along the southern part of the eastern boundary but has not been installed along the area of the active pit area.  Bushland will be established once operations have finished in three years.	NC	Consider installing bund along Wean Rd to provide a visual screen.
f	The requirements of the Australian Standard AS 4282 1997 - Control of Obtrusive Effects of Outdoor Lighting will be taken into consideration when placing lights required when working outside of daylight hours. In particular, lighting plant will be positioned and directed away from surrounding residences and aimed downwards to avoid light spill onto adjoining lands and public roads	A light stand was noted at western emplacement lookout area which appears to shine across the valley to Belmont - site inspection at night time confirms light is shining directly across the valley i.e. above the horizontal.	NC  Duplicated with MCoA 3.31	Refer to MCoA 3.31
b	Whitehaven will respond to any community complaints within 24 hours of receipt. All complaints will be investigated and the results of the investigation reported to the complainant in a timely manner.	Review of complaints indicates date/time of complaint is recorded. The date/time of responses is not recorded therefore assessment against this commitment cannot be completed.	ANC	Consider including date/timeline of response to any complaints so that assessment against this commitment can be completed.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
<i>ML1620</i>				
b	<p>Blast Overpressure</p> <p>The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment and Climate Change.</p>	Refer Condition L5.1 EPL 12870	<p>NC</p> <p>Duplicated with EPL L5.1</p>	Refer Condition L5.1 EPL 12870
<i>ML1662</i>				
5	<p>The lease holder must report any environmental incidents. The report must:</p> <p>(i) be prepared according to any relevant Departmental guidelines;</p> <p>(ii) be submitted within 24 hours of the environmental incident occurring</p>	2014/15: exceedance of 5% of blasts above 115 dBL. Reporting of the incident was undertaken to the DP&E and EPA.	NC	Consider the review of compliance tracking and reporting procedures to ensure DRE is informed of any environmental incidents.
<i>EPL12870</i>				
P1.3	<p>The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.</p>	<p>Controlled discharges have not been reported in the EPL Annual Returns however the EPL list monitoring points as follows:</p> <ul style="list-style-type: none"> <li>• Wet weather discharge</li> <li>• Discharge water quality monitoring</li> </ul> <p>Frequency is within 12 hours of a discharge occurring.</p>	NC	Consider including in a separate file of all discharges from the licensed discharge points and report both active and passive discharges (both points are included in EPL as discharge points)

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
L5.1	The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded	Two blasts during the 2014/15 period exceeded the 115dB limit, with results of 116.1dB on the 5th September 2014 and 115.7dB on the 18th September 2014. Both of these results were recorded at "Roseberry", and made up 6.7% of all blasts undertaken for the period. This was not picked up in the AEMR however was picked up through reporting for the EPL. The EPL, ML and PA all have different definitions of 12 months. It has since been determined that the Roseberry residence is under private agreement for all affectation with subsequent discussions with the EPA indicating this monitoring point will be moved to the next nearest private residence and the EPL amended accordingly.	NC Duplicated with ML1602 (15(b))	The tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.
O3.1	All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.	HVAS results indicate two exceedances during the reporting period against the 24hour criteria for PM10 - these were not reported at the time of occurrence but are reported in the Annual Returns	NC	Consider reporting any exceedance of the MCoA criteria to the EPA as soon as practicable (the results are currently reported in the Annual Return)
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence:  (a) the date(s) on which the sample was taken;  (b) the time(s) at which the sample was collected;  (c) the point at which the sample was taken; and  (d) the name of the person who collected the sample.	Date and point of sampling included in water sampling and HVAS spreadsheets.  The time the sample was taken and the sampler name is not included.	ANC	Consider including the time the sample was taken as well as the name of the sampler into the excel sheets for the HVAS and water sampling monitoring data.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
M2.2	<p>Air Monitoring Requirements</p> <p>Point 4,6,7 - dust</p> <p>Point 10 - PM10 (HVAS)</p> <p>Point 17 - PM10 (real time)</p>	<p>A monitoring event was missed in October 2014 at EPL ID 10 and 17 with indication it would be included in the EPL Annual Return. This was notified to EPA 11 May 2015.</p> <p>Email from ALS notifying of missed sampling event for Costa Vale for the 17/01/2015 sampling round (informed Whitehaven Coal staff 21/01/2015).</p> <p>All missed sampling events are from power failures/trips of equipment.</p>	NC	Two sampling events were missed for the HVAS - no further actions are proposed.
M2.4	For the purposes of the table(s) above Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.	<p>The results do not include time of sampling and confirmation sample was taken within 12 hours of discharge.</p> <p>Spreadsheet includes wet weather discharges - controlled discharges are not included.</p>	ANC	Consider including column in monitoring sheet to confirm sampling has occurred within 12 hours to enable confirmation this condition is met.
M2.5	For the purposes of the table(s) above Special Frequency 2 means the collection of samples quarterly (in the event of a flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.	The results do not include time of sampling and confirmation sample was taken within 12 hours of discharge.	ANC	Consider including column in monitoring sheet to confirm sampling has occurred within 12 hours to enable confirmation this condition is met.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
M7.3	For the purpose of condition M8.1, the noise monitoring locations are described as:  N1 (Retreat), N2 (Surrey) and N3 (portable meter)	Monitoring at N1 and N2 completed.  No results are available for the portable meter as N3 is not currently used.	NC	The EPL lists N3 as a monitoring location and therefore monitoring should be completed at this location. Alternatively consider submitting an amendment to the EPL to reflect actual monitoring locations if N3 is not considered necessary to confirm compliance with noise limits.
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred	Incident reports do not record time of initial notification to the EPA.  Two additional reports were completed for elevated TSS in water discharges but occurred after 5 days of 90%tile rainfall and where therefore not exceedances. The date of submission of the report to EPA is not known as correspondence was not sighted.  Two surface water monitoring events were missed on 19 October 2014 and 18-23 October 2014 - the written report was provided to the EPA on 11 May 2015.  One incident reported during the audit period (5% of 115dB was exceeded 18 September 2014) through reporting for the EPL. The tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.	NC  Duplicated with MCoA 5.6	Consider reviewing compliance tracking procedures/methods to improve reporting times.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
<i>Water Access Licence 29461</i>				
MW0 635-00001	The licence holder must record the following in the logbook:  (vii) the volume of water taken in any water year from 1 July 2011, by comparison to the maximum volume of water permitted to be taken in that water year.	Logbook not currently maintained however an excel sheet is kept recording usage to confirm maximum extraction volumes are not exceeded.	NC	Consider amending the existing Water Meter Reading Excel spreadsheet to include volume of water extracted against the maximum volume allowed.
MW0 633-00001	The licence holder must record the following in the logbook:  (i) each date and period of time during which water is taken under this licence;  (ii) the volume of water taken on that date;  (iii) the water supply work approval number of the water supply work used to take the water on that date;  (iv) the purpose or purposes for which the water taken on that date.	Logbooks not currently maintained. Excel sheet logs date and meter reading.	NC  Duplicated with MW0635-00001 and MW0632-00001	Consider amending the existing Water Meter Reading Excel spreadsheet to include all requirements.
MW0 632-00001	The licence holder must keep a log book, except where the access licence nominates only a metered work with a data logger. A "logbook" means a written record, kept in hard copy or electronic form, which accurately records all information required to be kept for this licence.	Logbook not currently maintained however an excel sheet is kept recording usage to confirm maximum extraction volumes are not exceeded.	Duplicated with MW0635-00001 and MW0633-00001	Consider amending the existing Water Meter Reading Excel spreadsheet to include all logbook requirements.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
MW0 831- 00001	The licence holder must notify the Minister, in writing, immediately upon becoming aware of a breach of any condition of this licence.	As the requirement to maintain a logbook has not been met the Minister should be notified.	NC	Consider notifying the Minister for DPI Water regarding the non-maintenance of a logbook for the pumping wells with an estimated timeframe when the condition can be met.
	Note: a notification does not authorise a breach, or continuing breach, of a condition of this licence.			

### 3.5

#### *REVIEW OF MANAGEMENT PLANS IMPLEMENTATION*

A check against commitments made in the management plans developed as part of the statutory instruments for the site was completed. Non-conformances and observations for each commitment in the plans are summarised in *Table 3.3*.

A full review and audit findings for each component are under the following Annexures:

- *Annex E* - Mining Operations Plan
- *Annex F* - Environment Management Strategy
- *Annex G* - Air Quality and Greenhouse Gas Management Plan
- *Annex H* - Blast Management Plan
- *Annex I* - Heritage Management Plan
- *Annex J* - Noise Management Plan
- *Annex K* - Rehabilitation Monitoring Program
- *Annex L* - Road Traffic Noise Management Plan
- *Annex M* - Water Management Plan

As discussed in *Section 2.2*, a qualitative risk assessment was also completed on the findings as follows:

- non-conformances with the plans assessed as 'high' have been colour coded red;
- non-conformances with the plans assessed as 'moderate' have been colour coded orange;
- non-conformances with the plans assessed as 'low' have been colour coded yellow; and
- administrative non-conformances have been colour coded blue.

**Table 3.3 Summary of Plan Implementation Review Findings (Duplicate Findings with Regulatory Instruments Excluded)**

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
<i>Mining Operations Plan</i>				
3.2.5	<p>Weed Control</p> <ul style="list-style-type: none"> <li>• Control practices implemented to minimise the spread of weed species will include:</li> <li>- Campaign weed spraying prior to the stripping of topsoil;</li> <li>- Equipment coming to site to be clean and free of soil/plant material prior to entry, or subject to clean down at the workshop facilities area;</li> </ul>	<p>Mechanical inspection checklist is completed - MDG15 forms which does not include checks for weeds.</p> <p>Campaign spraying prior to stripping of topsoil does not currently occur.</p> <p>Procedure has been developed for clearing and pre-stripping activities.</p>	ANC	<p>Consider including requirement to complete campaign spraying prior to spreading topsoil into existing procedure and include checks for weeds on new equipment to site as part of initial check.</p>
3.2.5	<p>Fauna monitoring will continue to be undertaken at Rocglen and is currently completed annually by a qualified ecologist with results reported in the AEMR/Annual Review.</p>	<p>The Rehabilitation Management Plan includes detail on fauna monitoring with fauna monitoring to be undertaken biennially. Fauna monitoring plots were established during spring 2009 in areas adjacent to the site. Fauna monitoring was undertaken in 2010 and then in 2015.</p>	NC	<p>Consider aligning the EMS and RMP commitments for fauna monitoring. Also consider completing monitoring of the plots established in 2009 at least biennially.</p>
10	<p>Results of rehabilitation monitoring will be reported in the AEMR/Annual Review. The AEMR/Annual Review will also discuss rehabilitation performance against key performance measures/indicators, compliance with regulatory requirements and commitments, and identified trends and instances where potential rehabilitation failure has been identified triggering intervention in accordance with a Rehabilitation TARP</p>	<p>Monitoring of rehabilitation is discussed comprehensively in the AEMRs (Section 5) and includes all requirements.</p> <p>TARP is not included in the current version of the Rehabilitation Monitoring Plan.</p>	ANC	<p>Consider including the Rehabilitation TARP in the RMP to ensure implementation of the TARP occurs</p>

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
<i>Environment Management Strategy</i>				
4.6	A review of the mine's compliance with all conditions of PA 10_0015 MOD 2, ML 1620, ML 1662, EPL 12870 and all other approvals and licences will be undertaken prior to (and included within) each Annual Review submitted to DPE and DRE. The Annual Review will also be provided to GSC, relevant agencies, the CCC and to the public on Whitehaven's website.	Reviews of compliance against the conditions of the OA, ML, EPLS and other licences and approvals have not been completed in the last AEMR for 2014-15. These were included in Appendix 3 for previous reporting years.	ANC	Consider including tables of the approvals in the Annex of the Annual Reviews with review of compliance completed.
<i>Air Quality and Greenhouse Gas Management Plan</i>				
4.1.1	Parameters Measured  No direct monitoring of TSP is proposed as PM10 concentrations are considered of greater significance given its synergies with health-related issues, however indirect calculation of TSP will be made from PM10 measurements, using a previously determined relationship factor of 2, to determine compliance with Schedule 3 Condition 15 Table 4 of PA 10_0015 MOD 2.	TSP not currently calculated in the HVAS sheet and reported in the AEMRs.  Review of HVAS PM <sub>10</sub> monitoring results indicates rolling 12 month average of TSP is below the criteria.	ANC	Consider including TSP in the monitoring results Excel spreadsheet using the relationship as described in the plan and report accordingly in the Annual Reviews.
4.1.2	In the event that PM10 levels are determined to be high as a consequence of ambient or other sources, by confirmation from surrounding PM10 networks, the activity log will identify this source, with no specific requirement for Rocglen operations to cease activity.	Dust Alarm Checklist is completed and identifies if activities are from mining activities. A review of other PM10 monitors is not currently completed as visual review of activities on site has confirmed elevated dust levels are not from site activities.	NC	As PM10 is not visible to the naked eye, consider reviewing surrounding PM10 monitors to confirm alarm is not from site activities (addition on checklist).

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
<i>Blast Management Plan</i>				
4.11	<p>Additional education and awareness programs will be provided, on an ongoing basis, for relevant personnel working near blast areas such as sentries and drill and blast contractors. Training for relevant personnel (Drill and Blast Engineer, Shotfirers, Drillers, OCE's, drill and blast contractors) will be undertaken in accordance with WHC-OC-Training and Competency Management Plan, and covers:</p> <ul style="list-style-type: none"> <li>- The identification and rating of post-blast fumes.</li> <li>- The potential health impacts of fume gases.</li> <li>- Potential causes of blast fume.</li> <li>- Fume mitigating actions as detailed in this procedure.</li> </ul>	<p>Review of the Training and Competency Management Plan does not include requirement for additional training of personnel working near blast areas.</p> <p>Evidence of additional training not available for review during the audit.</p>	ANC	Consider including the commitment for additional training of personnel working near blast areas into the Training and Competency Management Plan.
<i>Noise Management Plan</i>				
3.4	Each 15-minute statistic will have an accompanying third-octave band spectrum.	<p>Noise and weather over time is presented with no spectral data evident. Low frequency content (low frequency on charts) is presented but not tonal content.</p> <p>Presenting 15-minute statistic that's has an accompanying third-octave band spectrum would not be practicable for interpretation purposes.</p>	ANC	Consider incorporating tonal content to enable assessment against the INP (i.e. considers modifying factors).
4.2	Data from the site weather station and the real time noise monitoring unit will be obtained for the time applicable to the complaint for use in determination of cause and identification of future remedial actions.	<p>One complaint for noise was received during the audit period:</p> <p>1 May 2013 - complaint regarding noise, dust and lights. The complaint was also raised at the CCC the following week.</p>	ANC	Consider including data from the weather station and the real time noise monitor when noise complaints are received for the site.

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
		<p>It was considered temperature inversion conditions were likely to have exacerbated noise levels.</p> <p>The complaint details do not discuss site weather station and real time data analysis.</p>		
<i>Rehabilitation Management Plan</i>				
2.3	Year 1 - Rehabilitation of approximately 27 ha on the lower slopes of the Northern Emplacement Area to the east, west and north, and approximately 11 ha on the northern section of the Western Emplacement Area. Topsoil utilised for this rehabilitation will be obtained from stripped and stockpiled sources.	<p>The AEMR states that rehabilitation of the 11.2ha of the western emplacement took place during this reporting period which is in line with the MOP.</p> <p>Cumulative rehabilitation target (RMP) is 38ha against completion of 11.2ha.</p>	NC	Review the target in the MOP and Rehabilitation Management Plan and align.
2.3	Year 2 - Rehabilitation of approximately 14 ha on the central slopes of the Northern Emplacement Area to the east, west and north, utilising topsoil from stripped and stockpiled sources.	<p>The AEMR reports rehabilitation of disturbed land undertaken during the reporting period comprised of reshaping and topsoiling approximately 20ha of the western emplacement and 18ha of the northern emplacement area. Although there was flexibility between emplacement areas, the total area rehabilitated meets the Year 1 target and is 2.8ha short of the Year 1 and 2 target.</p> <p>Cumulative rehabilitation target (RMP) is 52ha against completion of 49.2ha reported in the AEMR.</p>	NC	Review the target in the MOP and Rehabilitation Management Plan and align.

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
2.3	Year 3 - Rehabilitation of approximately 4 ha within the mine pit and approximately 10 ha at the southern end of the Western Emplacement Area. Topsoil utilised for this rehabilitation will be obtained from stripped and stockpiled sources.	AEMR states the total area rehabilitated is generally consistent with the progressive annual rehabilitation proposed in the MOP, with a total of 65.3ha completed to date, which is 7.8ha greater than proposed to occur by MOP Year 3.  Cumulative rehabilitation target (RMP) is 66ha against completion of 65.3ha.	NC	Review the target in the MOP and Rehabilitation Management Plan and align.
2.3	Year 4 - Rehabilitation of approximately 14 ha on the lower slopes of the Northern Emplacement Area to the south, using stripped and stockpiled topsoil.	The AEMR reports the total area rehabilitated is generally consistent with the progressive annual rehabilitation proposed in the MOP with a total of 65.3ha has been completed to date, which aligns with that proposed to occur within MOP Year 5 (2015).  Cumulative rehabilitation target (RMP) is 80ha against completion of 65.3ha.	NC	Review the target in the MOP and Rehabilitation Management Plan and align.
2.5	Where stockpiles become weed infested, the top 150 millimetres should be scalped off and discarded prior to the remaining material being utilised for rehabilitation.	The NSW Pesticides Regulation requires that records be kept of pesticide use (including herbicides). Individual spraying records are maintained. All required information for the NSW Pesticides Regulation with the exception of who has applied the pesticide/herbicide.	ANC	Consider the recording of person/company applying the pesticide onto the current records.
2.8	In developing the rehabilitation monitoring program, the following aspects should be taken into consideration:  • Sites should be monitored 12 months after establishment and then every two years.	Table in the RMP indicates monitoring to be completed every two years - review of AEMRs indicates Eco Logical Report completed 2015 is the first report since the report was completed for the Project Extension in 2010.	NC	Consider completing rehabilitation monitoring at the frequencies outlined in the RMP.

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
6	Five years prior to mine closure, a more detailed Rehabilitation and Mine Closure Plan will be prepared.	Update to the Rehabilitation and Mine Closure Plan currently being prepared. Closure of the site is expected financial year 2019/20 (three to four years away).	ANC	Complete development of plans and issue as soon as practicable.
<i>Traffic Noise Management Plan</i>				
5.2	<p>The monitoring report will include, as a minimum:</p> <ul style="list-style-type: none"> <li>o the total number of trucks counted during the noise measurement (identified as empty or full);</li> <li>o the total measured LAeq (1 hour) from coal trucks;</li> <li>o the total measured LAeq (1 hour) from all sources to allow comparison of contribution from coal haul trucks comparative to other sources.</li> <li>o details of any identified noisy truck(s);</li> <li>o details of the calculation methodology; and</li> <li>o wind speed and directional data and a discussion of potential meteorological influence on noise levels during each measurement period.</li> </ul>	<p>Review of the last report issued December 2015 indicates following information is included:</p> <ul style="list-style-type: none"> <li>• Total number of trucks – 31, 33 and 35 but not identified as empty or full</li> <li>• Total measured LAeq from coal trucks between 39 and 53dB(A)</li> <li>• Total measured LAeq from all sources not reported</li> <li>• Calculation methodology not detailed</li> <li>• Wind speed and directional data missing from reports.</li> </ul>	ANC	<p>Consider advising Spectrum Acoustics to include total measured LAeq for all sources, calculation method used, number of trucks to include note for whether they were full or empty and wind speed and direction during each measurement period into the Road Noise Monitoring Reports.</p> <p>Ensure monitoring include emission from Vickery Mine once it becomes operational.</p>
7.2	A summary of noise monitoring results will be reported internally on a monthly basis as well as on a quarterly basis to the Community Consultative Committee (CCC) via the Environment Monitoring Report. This report will be periodically uploaded onto the company's website (www.whitehavencoal.com.au).	<p>Monthly data is located on the website for period 2012 to March 2016.</p> <p>A quarterly summary of the noise results is not currently included on the website. CCC meetings have moved from quarterly to six monthly therefore monitoring results are reported at this time.</p>	ANC	Consider reviewing the reporting frequency to align with the CCC meeting frequency and attach the results to the CCC minutes which are uploaded to the website.

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
<i>Water Management Plan</i>				
3.6	An update of the site water balance will be undertaken on an annual basis as part of the annual review of the WMP, or following any new or modified approval conditions relevant to water management or where there is any change to the operations which are likely to materially change potential impacts	AEMRs report on total water usage and sources of water for usage.	NC	Consider including a table in the Annual Reviews which detail all water sources including rainfall, water losses including evaporation and discharges and final balance.
4.9.3	Water quality monitoring results for downstream watercourses (Driggle Draggie Creek and the unnamed creek to the south of the site) will be assessed, for each monitoring event, against key default trigger values presented in Table 7 and sourced from the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC, 2000).	Unnamed drainage channel and Driggle Draggie Creek sampled for wet weather discharges analytes only (pH, TSS, TOC, and EC). No further testing or comparison to the ANZECC guidelines listed in Table 7 has occurred.	NC	Consider the review of the water monitoring program and confirm the required analytical program and action accordingly.
4.9.5	As directed by the EPA (EPA letter dated 21st August 2015), where runoff from coal contact areas is captured in storage dams designed for sediment control, Rocglen Coal Mine will need to establish whether the discharge from these structures contains pollutants that pose a risk of non-trivial harm to human health and/or the environment. As directed by the EPA, trivial versus non-trivial pollutant concentrations can be defined with reference to the default trigger values for toxicants and physical/chemical stressors in the ANZECC (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. If a pollutant exceeds the relevant trigger value, it can be considered that it poses a risk of non-trivial harm to human health and/or the environment.	SD3 and Dam 'B' are considered coal contact dams. Additional monitoring of these sites has occurred during the audit period.  Comparison to the default trigger values for toxicants and physical/chemical stressors in the ANZECC (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality has not been completed in the excel sheet.	ANC	Consider adding a line to the excel database with ANZECC trigger values to enable assessment of results and early detection of any exceedances.

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
4.9.5	Rocglen Coal Mine will implement a monitoring program to address this data deficiency. This monitoring program is proposed to include sampling of waters from SD3 and Dam 'B' for parameters including the physio-chemical parameters pH, EC, TSS, organic nutrients, dissolved metals and oil and grease.	Monitoring is completed for pH Electrical Conductivity ( $\mu\text{S}/\text{cm}$ ), Total Suspended Solids ( $\text{mg}/\text{L}$ ), Total Organic Carbon (TOC), Grease & Oil ( $\text{mg}/\text{L}$ ), Antimony, Selenium, Arsenic, Molybdenum.	NC	Consider the monitoring of all listed parameters such as organic nutrients and dissolved metals as listed in Table 7
4.9.6	A program to monitor creek line channel stability and health of riparian vegetation within Driggle Draggie Creek and the unnamed creek to the south of the site would be undertaken throughout the mine life. The monitoring would be undertaken along a short length of the downstream watercourses. General observations of stream health will be recorded during the quarterly water quality monitoring for these watercourses.  Monitoring of the drainage lines would include:  <ul style="list-style-type: none"> <li>• Documenting general observations of water quantity and quality;</li> <li>• Documenting locations and dimensions of significant erosive or depositional features so that any subsequent changes can be evaluated quantitatively;</li> </ul>	Eco Logical completed monitoring for Spring 2014 to Autumn 2015 but includes rehabilitation monitoring only.  Quarterly sampling of the creek limited to water quality sampling.	NC	Consider completing a review of the creek monitoring program and action accordingly.
4.9.8	The results will also be compared to relevant site operations and meteorological conditions to further interpret the results. This comparison between samples, between sampling periods and against other factors will assist in identifying whether the activities on the site are in fact affecting the water quality of the local catchment.	Review of Excel spreadsheet - comments column includes comment if rainfall has exceeded 90%tile or if no discharge.  No comment on operations is noted.	ANC	If no discharge then consider adding results to surface water sampling sheet to remove confusion. In addition consider adding the rainfall reviewed the prior 5 days and note the activities on site that may impact water quality e.g. earthworks completed in western emplacement area with catchment to western drainage line etc.

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
5.4.3	Groundwater impact assessment criteria are contained in Table 10 below, and show trigger levels for groundwater levels and quality (pH, EC, TDS).	<p>Overview of groundwater results indicate following:</p> <p>WP5A - water levels have dropped 15metres with the bore now substantially dry. The AEMR reports that Douglas Partners predicted that at the end of the northern phase of mining during the extension of the pit, MP-5 / MP-5a could be drawn down by up to 13.4m. Results indicate that the actual drop of approximately 15.22m in SWL is slightly higher than this prediction.</p> <p>MP6 - EC is trending down indicating potential rain/freshwater impacts.</p> <p>MP7 - pH is rising and TDS is falling.</p>	NC	Investigation needs to be completed on groundwater results to confirm trigger levels for investigation have been reached in MP6 and MP7.
5.4.5	<p>The following two methods are used to estimate groundwater inflows to the mining operations:</p> <ul style="list-style-type: none"> <li>• Whitehaven will monitor the volume of water pumped out of the pit. If this coincides with a period of low or no rainfall, this will be used directly as a measure of groundwater inflow. If this occurs during periods of rainfall the site water balance model will be used to estimate the rainfall runoff component and, by subtraction, estimate the groundwater inflow; and</li> <li>• Monitored bore water levels is used to estimate groundwater gradients towards the open cut pit, by triangulation. Estimated gradients would be used together with estimates of strata permeability to calculate groundwater flow rates toward the pit. This would be estimated annually as part of the groundwater model verification.</li> </ul>	<p>Water balance not currently reported in the AEMR.</p> <p>Monitored bore levels are not currently used to calculate groundwater flow rates to the pit.</p>	NC	<p>Consider including a table in the Annual Reviews which detail all water sources including rainfall, water losses including evaporation and discharges and final balance.</p> <p>Consider using bore levels (mAHD) to assist with the calculation of groundwater flow rates to the pit.</p>

**CONCLUSION**

An audit of MCoA conditions has been completed as well as a check against commitments made in the management plans developed as part of MCoA conditions for the site.

Overall, conformance was achieved with the audit documents that were reviewed. The number of non-conformances with the statutory conditions and implementation of the management plans is summarised in *Table 4.1* below:

**Table 4.1** *Summary of Audit Findings*

<b>Non conformances</b>	<b>Administrative Non - conformances</b>	<b>Observations</b>	<b>Not Verifiable</b>	<b>Not Triggered</b>
<i>Statutory Instruments</i>				
26 (6 duplicates)	15	30 (2 duplicates)	7	41
<i>Implementation of Plans</i>				
31 (19 duplicates)	18 (6 duplicates)	30 (8 duplicates)	0	40
<b>59 (25 duplicates)</b>	<b>33 (6 duplicates)</b>	<b>60 (10 duplicates)</b>	<b>7</b>	<b>81</b>

An action response table has been developed by Whitehaven Coal addressing all audit findings and will be submitted separately to this report.

Annex A

## Audit Table - Conditions of Approval

**Table A1 Compliance with Ministers Conditions of Approval DA 8-1-2005 (Modification 3 issued 3 September 2015)**

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>SCHEDULE 2 - ADMINISTRATIVE CONDITIONS</b>					
<b>Obligation to Minimise Harm to the Environment</b>					
2.1	The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation or rehabilitation of the project.	This audit	Review of management plans, implementation of plans and site inspection to confirm - refer tables of this audit.	Note	
<b>Terms of Approval</b>					
2.2	The Proponent shall carry out the project:  (a) generally in accordance with the EA;  (b) in accordance with the statement of commitments; and  (c) in accordance with the conditions of this approval.	Rocglen Extension Project Environmental Assessment	Review against MCoA and Statement of Commitments which generally reflect the EA commitments and undertakings for current stage of works.  Refer to Statement of Commitments table below for assessment of compliance.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
2.3	If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	Note	Noted	Note	
2.4	<p>The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:</p> <p>(a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and</p> <p>(b) the implementation of any actions or measures contained in these documents.</p>	Note	Noted	Note	
<b>Limits On Approval</b>					
2.5	The Proponent may carry out mining operations on the site until the end of December 2022.	Interview - Mine Manager	Mining is planned to cease in financial year 2019/2020 with rehabilitation activities only to occur after this date.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>COAL EXTRACTION</b>					
2.6	The Proponent shall not extract more than 1.5 million tonnes of ROM coal from the site in a calendar year.	Interview - Group Superintendent - Environment (Compliance)  Coal Movement Records	Volume of extraction of coal confirmed through survey of the site - reports issued to Mine Manager.	C	
2.6a	For the period up until the commissioning of the Kamilaroi Highway overpass, the Proponent:  (a) may not transport more than 1.5 million tonnes of ROM coal from the site in any calendar year;  (b) shall transport all coal from the site to the Whitehaven CHPP via the approved haulage route; and  (c) shall, together with the owners of the Tarrawonga and Vickery coal mines, ensure that the cumulative haulage of coal along the approved haulage route does not exceed 3.5 million tonnes.	Interview - Group Superintendent - Environment (Compliance)  Coal Movement Records - all sites  <a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>  Complaints	Production reports available on the Whitehaven website for Rocglen Mine confirms transport of coal from site is below 1.5Mtpa (2013 - 1.3Mtpa, 2014 1.15Mtpa, 2015 - 1.1Mtpa).  Coal movements for Tarrawonga and Rocglen are below 3.5Mtpa along the haul route during the audit period (no extraction from Vickery) (Totals for period: 2013 - 3.3Mtpa, 2014 - 3.4Mtpa, 2015- 3.3Mtpa).  The tracking of coal transport is done through the central logistics manager.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
2.6b	<p>For the period following the commissioning of the Kamilaroi Highway overpass, the Proponent:</p> <p>(a) may not transport more than 1.5 million tonnes of ROM coal from the site in any calendar year;</p> <p>(b) shall transport all coal from the site to the Whitehaven CHPP via the approved haulage route and the Kamilaroi Highway overpass; and</p> <p>(c) shall, together with the owners of the Tarrawonga and Vickery coal mines, ensure that the cumulative haulage of coal along the approved haulage route does not exceed 4.5 million tonnes.</p>	Interview - Group Superintendent - Environment (Compliance)	The Kamilaroi Highway overpass has not been constructed.	NT	
<b>Structural Adequacy</b>					
2.6c	The proponent shall not receive more than 700,000 tonnes of coarse and/or fine rejects on the site in any calendar year.	Register for rejects back to Rocglen site - Rocglen Excel Sheet 2014-2015 and 2015-16	<p>Volume of rejects tracked by Logistics Manager.</p> <p>Rejects commenced being sent back to Rocglen since December 2014 with a total of 451,346tonnes transported back to Rocglen in 2015.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Surrender Of Existing Project Approval</b>					
2.7	By the end of September 2012, or as otherwise agreed by the Secretary, the Proponent shall surrender the existing project approval for the Rocglen Coal Mine (06_0198) in accordance with section 75YA of the <i>EP&amp;A Act</i> .	Interview - Group Superintendent - Environment (Compliance)  Letter 25 September 2012 to DP&I  Email 24 October 2012 from DP&I	Letter to DP&I formally requesting surrender in September 2012.  Email received from DP&I October 2012 requesting confirmation of land ownership with approval from the landholder required consenting to the surrender. No further actions have been completed and therefore the surrender of this approval has not been completed.	ANC	Assessment of additional PA 06_198 conditions has been completed in lieu of this approval being surrendered.  Consider formally completing the surrender of PA 06_0198.
2.8	Prior to the surrender of project approval 06_0198, the conditions of this approval shall prevail to the extent of any inconsistency between the two approvals.	PA 06_0198	PA 06_0198 has been reviewed and the inconsistencies highlighted as addendum to this table.	Note	
<b>Structural Adequacy</b>					
2.9	The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.	Interview - Group Superintendent - Environment (Compliance)	No additional construction of buildings or structures completed during the audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Demolition</b>					
2.10	The Proponent shall ensure that all demolition work on site is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.	Interview - Group Superintendent - Environment (Compliance)	No demolition of structures has occurred during the audit period.	NT	
<b>Operation Of Plant And Equipment</b>					
2.11	The Proponent shall ensure that all the plant and equipment used on site, or to transport coal from the site, is:  (a) maintained in a proper and efficient condition; and  (b) operated in a proper and efficient manner.	Interview - Maintenance Manager  Heavy Earthmoving Prestart Check lists  NHVAS - BIS Industries  BIS Industries - WHSE Management Plan	Mine equipment is inspected daily as part of prestart. Checklist sighted includes checks for leaks and other faults. Any defects are managed through "Pulse" program. Service planner is tracked through Excel spreadsheet which is appropriate to the scale of maintenance undertaken by Whitehaven Coal.  Contractors maintain own equipment. Transport of coal is completed by BIS Industries which operate under the National Heavy Vehicle Accreditation Scheme which requires a daily check for roadworthiness which are carried in the vehicle.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Updating &amp; Staging Strategies, Plans Or Programs</b>					
2.12	<p>With the approval of the Secretary, the Proponent may submit any strategies, plans or programs required by this approval on a progressive basis.</p> <p>To ensure the strategies, plans or programs under the conditions of this approval are updated on a regular basis, the Proponent may at any time submit revised strategies, plans or programs to the Secretary for approval.</p> <p>With the agreement of the Secretary, the Proponent may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable condition of this approval.</p>	<p>Interview - Group Superintendent - Environment (Compliance)</p> <p>Letter from DPE issued 26/02/2016</p>	<p>All plans required to date have been submitted for the project.</p> <p>Revised plans have been submitted with current versions of various management plans last approved by DPE on 26 February 2016.</p>	C	
2.13	The Proponent shall continue to implement the existing strategies, plans or programs that apply to any development on site under project approval 06_0198 until they are replaced by an equivalent strategy, plan or program approved under this approval.	This audit	Refer to Annexures for implementations of plans.	Noted	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Protection Of Public Infrastructure</b>					
2.14	<p>Unless the Proponent and the applicable authority agree otherwise, the Proponent shall:</p> <p>(a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and</p> <p>(b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project.</p>	<p>Independent Environmental Compliance Audit - Umwelt (2013)</p> <p>Road Maintenance Agreement issued August 2009</p>	<p>Wean Rd is the only infrastructure requiring relocation as a result of the project.</p> <p>Ongoing agreement with the GSC stipulates requirements for the company to maintain public roads used by the project. Road Infrastructure Coordinator based at the CHPP is the contact for GSC with any concerns regarding road conditions managed through this position.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>SCHEDULE 3 - ENVIRONMENTAL PERFORMANCE CONDITIONS</b>					
<b>Noise Criteria</b>					
3.1	<p>The Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 1 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.</p> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</p>	<p>Monitoring Records - Quarterly Reports Spectrum Acoustics</p> <p>Letter to landholder 12 February 2008</p> <p>AEMR/Annual Reviews 2012/13, 2013/14, 2014/15</p> <p>Independent Environmental Compliance Audit - Umwelt (2013)</p> <p>Email to EPA (Elliot Picone) - 7 June 2016</p>	<p>Letter to landholder at Roseberry stating noise to be 5dB above the 35dB - the letter has been signed by the landholder 26 February 2008</p> <p>Evidence of submission of this agreement to DPE was not available during the audit and was not reviewed previous audit. During the post audit period, evidence of agreement was provided to EPA 7 June 2016 in response to a blast exceedance.</p> <p>Attended noise monitoring was undertaken on a quarterly basis during the reporting period.</p> <p>Although exceedances of up to 1dB (A) were identified, no non-compliance was noted for operational noise criteria as an exceedance of less than 2 dB (A) above a statutory noise limit specified in a licence condition is not considered to be a non-compliance as per the discussion in Section 11.1.3 of the NSW Industrial Noise Policy.</p>	C	.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Road Traffic Noise Criteria</b>					
3.2	<p>The Proponent, together with the owners of the Tarrawonga and Vickery coal mines, shall ensure that the noise generated on public roads by the project and the other mines, does not exceed the criteria in Table 2 at any existing residence on privately-owned land.</p> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</p> <p>Note: Traffic noise generated by the project is to be measured in accordance with the relevant procedures in the NSW Road Noise Policy</p>	<p>Interview - Group Superintendent - Environment (Compliance)</p> <p>Spectrum Acoustics Noise Monitoring Reports</p> <p>NSW Road Noise Policy</p>	<p>Cumulative road noise monitoring occurred in December 2012 - 2014 and June 2013 2015, as required under the Road Traffic Noise Management Plan.</p> <p>No non-compliances were noted for road transport noise criteria during the reporting period.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Operating Conditions</b>					
3.3	<p>The Proponent shall:</p> <p>(a) implement best practice noise management to minimise the operational, low frequency, and road traffic noise generated by the project;</p> <p>(b) minimise the noise impacts of the project during temperature inversions; and</p> <p>(c) regularly assess the real-time noise monitoring and meteorological forecasting data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this approval,</p> <p>to the satisfaction of the Secretary.</p>	<p>Site Inspection</p> <p>Adverse weather and noise monitoring log.</p> <p>Noise System Alarm Checklists for period 1/9/2014 to 31/3/2016</p>	<p>Real time noise monitoring has a level which triggers alarm to OCE who keeps a log of events and adjusts operations accordingly. Noise log sighted which lists alarms and if mine noise identified as well as any actions required e.g. lower dumps used in response to alarm on 18/3/2016.</p> <p>Weather station data is checked for operations once per day by the Environment Officer, station is also checked monthly for maintenance, temperature inversion conditions.</p> <p>A TARP has been developed with an investigation alarm set to trigger with wind speeds of 6m/s for six consecutive 5 minute periods, and an action alarm set to trigger with sustained wind speeds of 8m/s for six consecutive 5 minute periods</p>	O	Investigate the addition of temperature inversion alarms on the meteorological station to enable adjustment of operations accordingly.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Noise Management Plan</b>					
3.4	<p>The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA, and submitted to the Secretary for approval by the end of December 2011;</p> <p>(b) describe the noise mitigation measures that would be implemented to ensure compliance with the relevant conditions of this approval;</p> <p>(c) describe the measures that would be implemented to ensure the noise impacts generated by project-related traffic on the Kamilaroi Highway overpass are minimised as far as practicable; and</p> <p>(d) include a noise monitoring program that:</p> <ul style="list-style-type: none"> <li>• uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the project; and</li> <li>• includes a protocol for determining exceedances of the relevant conditions of this approval.</li> </ul>	<p>Letter from DPE dated 26/2/2016</p> <p>Monitoring Records</p> <p>Independent Environmental Compliance Audit - Umwelt (2013)</p> <p>Interview - Group Superintendent - Environment (Compliance)</p> <p>Noise Management Plan</p>	<p>a) The current Noise Management Plan was approved By DPE on 26 February 2016. Changes were mostly administrative such as personnel, roles, wording changes however the commitments and requirements have not changed therefore the EPA was not consulted for this version of the Noise Management Plan.</p> <p>The previous audit report notes that the EPA was consulted for the plan submitted prior to end December 2011.</p> <p>b) Section 2.2</p> <p>c) Section 2.2</p> <p>d) Section 3 - attended monitoring and real time loggers used. Protocol for determining exceedances included in Section 4.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>BLASTING</b>					
<b>Blasting Criteria</b>					
3.5	<p>The Proponent shall ensure that the blasting on site does not cause exceedances of the criteria in Table 3.</p> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</p>	<p>Monitoring results</p> <p>Email to DPE 19 September 2015</p> <p>Email with incident report sent to DPE 25/09/2015</p> <p>Email to 23/10/2015 with additional information requested by DPE</p> <p>AEMR/ Annual reviews 2012/13, 2013/14, 2014/15</p>	<p>Review of the blast monitoring results for 2011/12 period indicate the maximum recorded peak overpressure level was 118.9dB recorded at "Roseberry" on the 21st March 2013. This overpressure result over 115dB is compliant, as it was not more than 5% of the total number of blasts over the 2012/13 reporting period.</p> <p>2 blasts during the 2014/15 period exceeded the 115dB limit, with results of 116.1dB on the 5th September 2014 and 115.7dB on the 18th September 2014. Both of these results were recorded at "Roseberry", and made up 6.7% of all blasts undertaken for the period.</p> <p>5% of 115dB was exceeded 18 September 2014 but was not picked up in the AEMR however was picked up through reporting for the EPL. The EPL, ML and PA all have different definitions of 12 months.</p>	NC	<p>No further actions recommended. Tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			<p>The tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.</p> <p>Post audit it has been determined that the Roseberry residence is under private agreement for all affectation with subsequent discussions with the EPA indicating this monitoring point will be moved to the next nearest private residence and the EPL amended accordingly.</p>		
<b>Blasting Hours</b>					
3.6	The Proponent shall only carry out blasting on site between 9am and 5pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Secretary.	Environmental Blast Monitoring Excel Spreadsheet  Shot reports - 245 to 250	Results checked for timing of blasts - all blasts within stipulated hours and days. Review of selection of shot reports confirms times match register.	C	
<b>Blasting Frequency</b>					
3.7	The Proponent shall not carry out more than one blast a day on site, unless an additional blast is required following a blast misfire.	Environmental Blast Monitoring Excel Spreadsheet	Results confirm one blast per day has been completed during audit period	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Property Inspections</b>					
3.8	<p>If the Proponent receives a written request from the owner of any privately-owned land within 2 kilometres of the approved open cut mining pit on site, or other landowner nominated by the Secretary, for a property inspection to establish the baseline condition of any buildings and/or structures on their land, or to have a previous property inspection report updated, then within 2 months of receiving this request the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:</p> <ul style="list-style-type: none"> <li>• establish the baseline condition of the buildings and/or structures on the land or update the previous property inspection report; and</li> <li>• identify any measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and</li> </ul> <p>(b) give the landowner a copy of the new or updated property inspection report.</p>	<p>Independent Environmental Compliance Audit - Umwelt (2013)</p> <p>Interview - Group Superintendent - Environment (Compliance)</p>	<p>Reports completed at the Surrey and Brolga residences in 2008 - refer previous audit report.</p> <p>No further written request have been received during the audit period.</p>	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Property Investigations</b>					
3.9	<p>If the owner of any privately-owned land claims that the buildings and/or structures on their land have been damaged as a result of blasting on site, then within 2 months of receiving this claim the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to investigate the claim; and</p> <p>(b) give the landowner a copy of the property investigation report.</p> <p>If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Secretary.</p> <p>If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.</p>	<p>Inspections reports for Brolga 2013, Surrey 2013, Kahana 2014</p> <p>Letter from DPE 21/08/2014 approving inspection by Kelley Covey for Brolga.</p> <p>Letter to landholder 27/03/2013 for Surrey, Kahana - 28/11/2015, Brolga - 29/11/2015</p>	<p>Three reports have been completed over the reporting period as a result of claims of damage to buildings and/or structures.</p> <p>Structural inspection reports have been completed by Kelley Covey Group Pty Ltd. Approved by DPE for Brolga - there were no records available for review during the audit for the use of Kelley Covey Group by DPE for the Surrey and Kahana structural inspection reports.</p> <p>All reports indicate that it is unlikely blasting has caused the cosmetic damage to the residences.</p>	NV	<p>Letter from DPE for approval of Kelley Covey Group for completion of Surrey and Kahana property inspections is required to complete assessment of compliance with this condition.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Operating Conditions</b>					
3.10	<p>The Proponent shall</p> <p>(a) implement best blasting management practice on site to:</p> <ul style="list-style-type: none"> <li>• protect the safety of people and livestock in the surrounding area;</li> <li>• protect public or private property in the surrounding area; and</li> <li>• minimise the dust and fume emissions of the blasting; and</li> </ul> <p>(b) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Secretary.</p>	<p>Interview - Group Superintendent - Environment (Compliance)</p> <p>Blast Notification Checklists - 15 March 2016</p> <p>Blast exclusion zone maps - 15 March 2016</p> <p>Interview - Environment Officer</p>	<p>Rocglen has blast notification checklists which lists all stakeholders to be contacted prior to blasts. The list is completed with date of notification (email and/or phone which is dependent on requested format). The checklist includes the next upcoming blast which gives preferably 24 hours' notice.</p> <p>There is no other public notification system in place for general public or community.</p> <p>Exclusion zones are calculated for each blast to prevent damage to livestock/public by the site surveyor. These are sent to the OCE, administration for the notifications, mine engineer, maintenance manager, safety manager, blast engineer, BIS Industries Manager as well as the environment officer.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			When Wean Road is within the exclusion zone, sentries are in place on the road at the start and end of the exclusion zones during the blast period to prevent traffic using Wean Rd past the mine site.		
3.11	<p>The Proponent shall not carry out any blasting on site that is within 500 metres of:</p> <p>(a) a public road without the approval of Council; and</p> <p>(b) any land outside the site that is not owned by the Proponent, unless:</p> <ul style="list-style-type: none"> <li>• the Proponent has a written agreement with the relevant landowner to allow blasting to be carried out closer to the land, and the Proponent has advised the Secretary in writing of the terms of this agreement; or</li> <li>• the Proponent has: <ul style="list-style-type: none"> <li>o demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the land, without compromising the safety of people or livestock, or damaging the buildings and/or structures on the land; and</li> </ul> </li> </ul>	<p>Interview - Group Superintendent - Environment (Compliance)</p> <p>Blast Management Plan</p> <p>Sale Contract - Roseberry</p>	<p>Landowner potentially impacted by this condition is Roseberry. Land is owned by WHC therefore written agreement is not required.</p> <p>Blast Management Plan lists measures for blasting within 500m of a public road and property.</p> <p>Agreement has been reached with GSC to not notify for every blast.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> <li>o updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land.</li> </ul>				
<b>Blast Management Plan</b>					
3.12	<p>The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> <li>(a) be prepared in consultation with the EPA, and submitted to the Secretary for approval by the end of December 2011;</li> <li>(b) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval; and</li> <li>(c) include a blast monitoring program to evaluate the performance of the project.</li> </ul>	<p>Blast Management Plan</p> <p>Letter from DPE issued 26/02/2016</p> <p>Independent Environmental Compliance Audit - Umwelt (2013)</p>	<ul style="list-style-type: none"> <li>a) Current Blast Management Plan was approved by DPE 26 February 2016.</li> <li>The original Blast Management Plan was prepared in consultation with EPA - refer previous audit report.</li> <li>b) Section 3 and 4</li> <li>c) Section 5</li> </ul>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>AIR QUALITY &amp; GREENHOUSE GAS</b>					
<b>Odour</b>					
3.13	The Proponent shall ensure that no offensive odours, as defined under the <i>Protection of the Environment Operations Act 1997 (POEO Act)</i> , are emitted from the site.	Interview - Environment Officer  OCE Checklist  Complaint Records  Site Inspection  WHC_CHK Monthly Environmental Inspection Checklist October 2015 - March 2016  Site Inspection	The monthly inspections do not currently note the presence or absence of odour. The coal is low sulphur and therefore production of hydrogen sulphide is unlikely.  No odours were noted during the site inspection. No complaints have been received for odour over the audit period.	O	Consider including a check for the presence/absence of odour to the monthly environment checklist.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Greenhouse Gas Emissions</b>					
3.14	The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site.	Interview - Environment Officer NGERs Excel spreadsheet 2015  Air Quality and Greenhouse Gas Management Plan	Refer to Annex G for assessment of implementation for the Air Quality and Greenhouse Gas Management Plan.  Spreadsheet for tracking emissions reviewed - Scope 1 emissions for 2014/15 17,399tCO <sub>2</sub> -e (below site threshold for reporting) and lowest of active coal mines in Whitehaven Coal group.	C	
<b>Air Quality Criteria</b>					
3.15	The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the particulate emissions generated by the project do not exceed the criteria listed in Tables 4, 5 and 6 at any residence on privately-owned land or on more than 25 percent of any privately- owned land.	Air Quality and Greenhouse Gas Management Plan  Monitoring results for HVAS, DDGs, TEOM  AEMR/ Annual reviews 2012/13, 2013/14, 2014/15	Refer Annex G for assessment of implementation of the plan.  DDGs averages are done on a calendar year and the AEMR reports for the 12 months of the AEMR reporting period. Annual averages should be assessed as a rolling 12 month average.	NC	Consider calculating the rolling 12 month average for the dust gauges to enable identification of any annual average exceedances.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
		<p>Document WHC-CHK-DUST SYSTEM ALARM CHECKLIST period 27/10/2014 to 30/03/2016</p>	<p>Review of results indicate location BD2A (Penryn) and BD8 (Yarrowonga) are over the 12 month rolling average. BD8 had one high reading (115.6g/m<sup>2</sup>/month for December 2014) which skews the 12 month average for period December 2014 to November 2015. The ash content was 99% therefore the insoluble solids consisted mainly of inorganic material such as sand and dirt. Red sandy material was noted in the jar during collection and is not considered to be related to the Rocglen Mine.</p> <p>BD2A had three high readings early 2015 (13.1, 61.3 and 6.1g/m<sup>2</sup>/month) with the annual average exceeded over the period February 2015 to January 2016 as a result of the three elevated readings. The ash content consisted of between 76% and 93% of insoluble solids indicating it consisted of primarily inorganic content i.e. sand, dirt.</p>		<p>Consider reviewing the 24 hour result for the TEOM (the TEOM is accepted under the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC 2007)) and entering into results Excel spreadsheet. These results can then be reviewed against the criteria and investigated if over criteria. Results from other Whitehaven Coal sites in the area and the EPA Tamworth air quality monitoring station can also be utilised to determine if the impacts are regional or mine related.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			<p>HVAS - the rolling average for the Roseberry gauge was calculated using the average for all data since 2008 but was edited during the audit to calculate a rolling 12 months average - only small changes were noted to the final figure. There were no exceedances reported for the HVAS during the audit period.</p> <p>TEOM creates daily reports - reviewed 30 March 2016 - indicates five spikes of PM10. The TEOM will send an alarm via SMS to the Mine Manager and OCE when the 24hr PM10 criteria of 40µg/m<sup>3</sup> is reached so that actions can be completed immediately.</p> <p>Other information includes alarm date and time, wind speed at time of alarm and level of alert. The 24hr average from the TEOM is not currently tracked or entered into an Excel spreadsheet for reporting purposes against the criteria as it's used as a management tool only.</p>		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Operating Conditions</b>					
3.16	<p>The Proponent shall:</p> <p>(a) implement best practice air quality management on site, including all reasonable and feasible measures to minimise odour, fume and dust emissions generated by the project, including those generated by any spontaneous combustion on site,</p> <p>(b) minimise any visible air pollution generated by the project;</p> <p>(c) minimise the surface disturbance on site; and</p> <p>(d) regularly assess the real-time air quality monitoring and meteorological forecasting data, and relocate, modify and/or stop operations on site to ensure compliance with the relevant conditions of this approval, to the satisfaction of the Secretary.</p>	<p>Interview - Environment Officer</p> <p>Monitoring results for TEOM</p> <p>Document WHC-CHK-DUST SYSTEM ALARM CHECKLIST period 27/10/2014 to 30/03/2016</p>	<p>Site has one real time air quality monitoring via a Tapered Element Oscillating Microbalance (TEOM) monitor (PM10) at Roseberry. The data provided from this TEOM is used to inform if additional works are required on site for dust prevention or mitigation.</p> <p>Meteorological forecasts are taken into consideration when planning operations on site.</p> <p>Dust carts were observed watering roads whilst on site. Dust emissions were noted to be minimal during the site inspections. Sprays on the coal conveyors were noted to be working during inspection.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Air Quality &amp; Greenhouse Gas Management Plan</b>					
3.17	<p>The Proponent shall prepare and implement an Air Quality &amp; Greenhouse Gas Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA, and submitted to the Secretary for approval by the end of December 2011;</p> <p>(b) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including a real-time air quality management system that employs reactive and proactive mitigation measures; and</p> <p>(c) include an air quality monitoring program that:</p> <ul style="list-style-type: none"> <li>• uses a combination of real-time monitors, high volume samplers and dust deposition gauges to evaluate the performance of the project; and</li> <li>• includes a protocol for determining exceedances of the relevant conditions of this approval.</li> </ul>	<p>Interview Environment Officer -</p> <p>Independent Environmental Compliance Audit - Umwelt (2013)</p>	<p>a) Refer to previous audit report for evidence of consultation.</p> <p>b) Section 3</p> <p>c) Section 4 - monitoring</p> <p>Section 5 - exceedances</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>METEOROLOGICAL MONITORING</b>					
3.18	<p>During the life of the project, the Proponent shall ensure that there is a meteorological station operating in the vicinity of the site that:</p> <p>(a) complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and</p> <p>(b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy, or as otherwise agreed by the EPA.</p>	<p>Interview - Environment Officer</p> <p>Site Inspection</p> <p>Meteorological Data - Sentinex</p>	<p>Site inspection indicates no excessive dust - approx. 21mm rainfall has been received in the week prior to the site inspection.</p> <p>Review of met data indicates temperature at 2m and 10m is measured. A tab for calculating inversion is also included however a review indicates the stability class is missing. The Tarrawonga tower is at 60m and is used to access temperature inversion, however no alerts for inversion conditions are currently relayed. For blasting the page takes the Tarrawonga reading for the stability class and has an OK to blast if weather conditions are favourable.</p>	O	Consider the inclusion of stability classes to the inversion tab of the Sentinex program for the Rocglen site and investigate if alerts can be added to this page.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>MINING</b>					
3.19	The Proponent shall ensure that the auger mining carried out on site:  (a) is restricted to the areas approved for auger mining;  (b) is designed to remain safe and stable in the long term; and  (c) does not result in vertical subsidence of greater than 20 mm.	Interview - Environment Officer and Mine Manager	Interviews indicate no auger mining has been completed on site.	NT	
<b>SOIL &amp; WATER</b>					
<b>Water Supply</b>					
3.20	The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations on site to match its available water supply to the satisfaction of the Secretary.	Interview - Environment Officer	Water is sourced from dams on site including pit water. Water access bore water is used but is low yield.  Water has been sole sourced from site sources for the period of the audit.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Surface Water Discharges</b>					
3.21	The Proponent shall ensure that all surface water discharges from the site comply with the discharge limits (both volume and quality) set for the project in any EPL.	Interview - Environment Officer  Water Quality Monitoring Results	Refer to EPL Condition L2.1 for analysis of water quality discharges from site. Discharge limits align.  AEMR 2012 - 2015 report no non-compliant discharges have taken place during the audit period.	C	Refer to EPL for full review of results.
<b>Water Management Plan</b>					
3.22	The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must be prepared in consultation with the EPA, DPI Water and DRE by suitably qualified and experienced persons whose appointment has been approved by the Secretary, and submitted to the Secretary for approval by the end of February 2012. In addition to the standard requirements for management plans (see condition 2 of schedule 5), this plan must include:	Water Management Plan  Letter from DPE issued 26/02/2016  Independent Environmental Compliance Audit - Umwelt (2013)	Refer to previous audit report for evidence of consultation and submission of Plan.  Refer to <i>Annex M</i> of this report for assessment of implementation of the Water Management Plan.	C	
3.22a	a) a Site Water Balance that: <ul style="list-style-type: none"> <li>• includes details of: <ul style="list-style-type: none"> <li>o sources and security of water supply;</li> <li>o water use on site;</li> </ul> </li> </ul>	Water Management Plan	Section 3 of the Plan addresses all requirements.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> <li>o water management on site;</li> <li>o any off-site water transfers;</li> <li>• describes what measures would be implemented to minimise water use on site; and</li> <li>• is to be updated each year during the annual review;</li> </ul>				
3.22b	<p>(b) a Surface Water Management Plan, that includes:</p> <ul style="list-style-type: none"> <li>• a detailed description of the water management system on site, including the: <ul style="list-style-type: none"> <li>o clean water diversion systems;</li> <li>o erosion and sediment controls; and</li> <li>o water storages;</li> </ul> </li> <li>• detailed plans, including design objectives and performance criteria, for: <ul style="list-style-type: none"> <li>o design and management of the final void;</li> <li>o reinstatement of drainage lines on the rehabilitated areas of the site; and</li> <li>o control of any potential water pollution from the rehabilitated areas of the site;</li> </ul> </li> </ul>	Water Management Plan	Section 4 of the WMP addresses all requirements	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> <li>• performance criteria for the following, including trigger levels for investigating any potentially adverse impacts:               <ul style="list-style-type: none"> <li>o the water management system;</li> <li>o surface water quality in Driggle Draggie Creek or the unnamed creek to the south of the site;</li> <li>o the health of any riparian vegetation in Driggle Draggie Creek or the unnamed creek to the south of the site;</li> </ul> </li> <li>• a program to monitor:               <ul style="list-style-type: none"> <li>o the effectiveness of the water management system;</li> <li>o surface water flows and quality in Driggle Draggie Creek and the unnamed creek to the south of the site;</li> <li>o the health of any riparian vegetation in Driggle Draggie Creek or the unnamed creek to the south of the site; and</li> </ul> </li> <li>• a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project;</li> </ul>				

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
3.22c	<p>(c) a Groundwater Management Plan, which includes:</p> <ul style="list-style-type: none"> <li>• performance criteria, including trigger levels for investigating any potentially adverse groundwater impacts;</li> <li>• a program to monitor: <ul style="list-style-type: none"> <li>o groundwater inflows to the mining operations;</li> <li>o the impacts of the project on any alluvial aquifers;</li> <li>o the seepage/leachate from water storages, backfilled voids, and the final void on site;</li> </ul> </li> <li>• a program to validate the groundwater model for the project, and calibrate it to site specific conditions; and</li> <li>• a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse groundwater impacts.</li> </ul>	Water Management Plan	Section 5 of the WMP addresses all requirements	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>BIODIVERSITY</b>					
<b>Biodiversity Offset</b>					
3.23	By the end of June 2012, unless the Secretary agrees otherwise, the Proponent shall enter into a BioBanking agreement with the Minister for Environment and Heritage, in accordance with Part 7A of the <i>Threatened Species Conservation Act 1995</i> , to implement the Biodiversity Offset Strategy described in the EA (for the Whitehaven Regional Biobank Site), and summarised in Table 7.	Review agreement  Refer Independent Environmental Compliance Audit - Umwelt (2013).	Closed previous audit report.	NT  Closed Previous Audit	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>HERITAGE</b>					
<b>Heritage Management Plan</b>					
3.24	<p>The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with OEH and Aboriginal stakeholders;</p> <p>(b) be submitted to the Secretary for approval by the end of December 2011;</p> <p>(c) describe the measures that would be implemented:</p> <ul style="list-style-type: none"> <li>• record and salvage the Aboriginal sites within the project disturbance area, including RPS Rocglen IF1, RPS Rocglen AS1 and RPS Rocglen AS2 at locations as shown in Appendix 6 and any potential archaeological deposits;</li> <li>• store the Aboriginal objects salvaged, both during construction and in the long term;</li> </ul>	<p>Heritage Management Plan</p> <p>Letter from DPE issued 26/02/2016</p> <p>Independent Environmental Compliance Audit - Umwelt (2013)</p> <p>WHC Generic Induction 28-03-2014 Slide Pack</p>	<p>a) Section 1.1</p> <p>b) Refer to previous audit report. Latest version approved by DPE on 26 February 2016.</p> <p>c) Sections 4-7</p> <p>Refer to assessment for implementation of the management plan in Annex I of this report.</p> <p>Generic induction includes slide on heritage.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> <li>• protect, monitor and/or manage the Aboriginal sites on site that are outside the project disturbance area on site, including measures to protect scarred trees (NPWS # 20-4-0194 and # 20-4-0195 at locations as shown in Appendix 6);</li> <li>• manage the discovery of any human remains or previously unidentified Aboriginal objects;</li> <li>• enable Aboriginal stakeholders to get reasonable access to the site during the project;</li> <li>• ensure Aboriginal stakeholders are consulted about the conservation and management of Aboriginal cultural heritage on site; and</li> <li>• ensure workers on site receive suitable heritage inductions, and that suitable records are kept of these inductions.</li> </ul>				

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>TRANSPORT</b>					
<b>Road Works</b>					
3.25	By the end of December 2012, unless the Secretary agrees otherwise, the proponent shall upgrade and tar seal Wean Road to the satisfaction of Council from the northern end of the existing tar seal to the point of the Gunnedah/Narrabri Shire Council boundary, in general accordance with Council's Rural Local Roads Standard.	Independent Environmental Compliance Audit - Umwelt (2013)	The previous audit report noted that the upgrade and tar sealing of Wean Rd required by this conditions had not been completed.  This audit site inspection confirms the whole length of Wean Rd is now sealed.	C Completed	
<b>Road Maintenance</b>					
3.26	During the project, the Proponent shall contribute towards the maintenance of the public roads used by the project, in accordance with the existing road maintenance agreement between the Proponent and Council, as may be modified from time to time through the agreement of both parties. If there is a dispute in relation to this agreement, then either party may refer the matter to the Secretary for resolution.	Independent Environmental Compliance Audit - Umwelt (2013)  Road Maintenance Agreement issued August 2009  Interview - Group Superintendent - Environment (Compliance)	Ongoing agreement with the GSC - Agreement stipulates requirements for the company to maintain public roads used by the project. Road Infrastructure Coordinator based at the CHPP is the contact for GSC with any concerns regarding road conditions managed through this position.  No reported disputed during the audit period.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Traffic Management Plan</b>					
3.27	<p>The Proponent shall prepare and implement a traffic management plan for the Project, to the satisfaction of the Secretary. This plan must:</p> <p>(d) be prepared in consultation with RMS, Gunnedah Shire Council, Narrabri Shire Council, and the owners of the Tarrawonga and Vickery coal mines;</p> <p>(e) be submitted to the Secretary for approval, by 30 June 2015;</p> <p>(f) include:</p> <ul style="list-style-type: none"> <li>• a protocol for operating haul trucks during school bus hours;</li> <li>• a protocol for maximising the backfilling of haul trucks with coarse and/or fine rejects from the Whitehaven CHPP;</li> <li>• consideration of measures to minimise dust from unsealed roads that may be used for access to the mine site;</li> <li>• arrangements to comply with cumulative coal haulage limits from the Project and the Tarrawonga and Vickery coal mines; and</li> </ul>	<p>Road Traffic Noise Management Plan</p> <p>Letter from Narrabri Shire Council dated 4 September 2015</p> <p>Letter from RMS dated 15 June 2015</p> <p>Email from Whitehaven Group Superintendent Environment (Compliance) to Tarrawonga Environment Officer and Whitehaven and Group Manager Environment describing verbal feedback from GSC</p>	<p>a) Correspondence sighted.</p> <p>b) Email to DPE 30 June 2015 submitting plan which included a track change version addressing consultation feedback.</p> <p>c)</p> <ul style="list-style-type: none"> <li>• Section 3</li> <li>• Operational/economic drivers ensure this occurs however it is not described in Section 3 of the Plan with other mitigants/measures</li> <li>• Consideration of measures to minimise dust from unsealed roads includes the use of a dust cart along the mine roads which is described in the Air Quality and Greenhouse Gas Management Plan. All other roads used to access the mine site are sealed.</li> </ul>	ANC	<p>Consider including following in the Road Traffic Noise Management Plan:</p> <ul style="list-style-type: none"> <li>• protocol for maximising the backfilling of haul trucks with coarse and/or fine rejects from the Whitehaven CHPP</li> <li>• Arrangements to comply with cumulative coal haulage limits</li> <li>• Description of a monitoring program to audit vehicle movements, including the origin and destination of employees, against predictions in the EA</li> </ul>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> <li>a monitoring program to audit vehicle movements, including the origin and destination of employees, against predictions in the EA.</li> </ul>		<ul style="list-style-type: none"> <li>Arrangements to comply with cumulative coal haulage limits are not currently included in this plan. The cumulative volumes are currently tracked by the logistics manager.</li> <li>A monitoring program to audit vehicle movements, including the origin and destination of employees, against predictions in the EA is also not included in the plan</li> </ul>		
<b>Operating Conditions</b>					
3.28	The Proponent shall ensure all coarse and fine rejects are transported from the Whitehaven CHPP to the site by road, using only the designated transport route shown in Figure 3 of Appendix 2.	Interview - Mine Manager  Transport Records  SWMS - PA3-27-2	Rejects commenced transport back to Rocglen site in December 2014 - the same trucks used to transport ROM coal to the CHPP is used to transport material back to Rocglen.  SWMS, induction and code of conduct lists route to be taken.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
3.28a	The Proponent shall maximise the backfilling of haul trucks with coarse and/or fine rejects from the Whitehaven CHPP to minimise the number of heavy vehicles on the designated transport route.	Interview - Mine Manager	Rejects commenced transport back to Rocglen site in December 2014 - the same trucks used to transport ROM coal to the CHPP is used to transport material back to Rocglen. Economic driver as well as time.	C	
3.29	<p>The Proponent shall only dispatch coal from the site by road or receive coarse and/or fine rejects on the site between the hours of:</p> <p>(a) 7 am to 9.15 pm, Monday to Friday;</p> <p>(b) 7 am to 5.15 pm Saturday; and</p> <p>(c) at no time on Sundays and public holidays.</p>	<p>Logistic Manager Excel spreadsheet</p> <p>Interview - Group Superintendent - Environment (Compliance) and ROM Operator</p> <p>Weighbridge docket for 29/04/2016</p>	<p>The coal bins automatically record the truck number, time of dispatch which gives an approximation of operating hours for the trucks. In addition, the ROM Operator loads trucks before seven but anecdotally trucks do not leave site before seven.</p> <p>Review of weighbridge dockets for 29/04/2016 reviewed - last load of coarse reject left CHPP at 21:22 which is outside the approved hours. Seven trucks arrived at the CHPP before 7:20am (route takes approximately 20 minutes).</p>	NV	Review times trucks leave and enter Rocglen Mine to confirm if trucks are leaving before 7:00am and arriving after 9:15pm and initiate appropriate actions if trucks are found to be not adhering to the approval times.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
3.29a	<p>The Proponent shall ensure that:</p> <p>(a) trucks travelling to and from the site do not exceed 40 kilometres per hour in the vicinity of the school bus when it is operating near school bus stops along the approved haulage route, unless an alternative protocol is agreed by the Secretary; and</p> <p>(b) spillage from haulage vehicles is minimised and promptly managed.</p>	<p>Interview - Group Superintendent - Environment (Compliance)</p> <p>SWMS - PA3-27-2</p> <p>BIS SWMS 30626 - Interaction with other Public Road Movement</p>	<p>SWMS's describes requirement which is issued to truck drivers.</p> <p>Haul trucks are fitted with roll over tarps.</p>	C	
<b>Monitoring of Coal Transport</b>					
3.30	<p>The Proponent shall:</p> <p>(a) keep accurate records of the amount of coal transported (on a monthly basis) from the site, as well as the number of coal truck movements generated by the project; and</p> <p>(b) make these records publicly available on its website at the end of each calendar year.</p>	<p>Coal Movement Records - all sites</p> <p><a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a></p>	<p>The tracking of coal transport is done through the central logistics manager.</p> <p>Production reports are available on the Whitehaven website for Rocglen Mine for each calendar year</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>VISUAL</b>					
<b>Visual Amenity and Lighting</b>					
3.31	<p>The Proponent shall:</p> <p>(a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the project;</p> <p>(b) establish and maintain an effective vegetative screen along the boundary of the site that adjoins public roads;</p> <p>(c) ensure that no outdoor lights shine above the horizontal; and</p> <p>(d) ensure that all external lighting associated with the project complies with <i>Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting</i>, or its latest version.</p>	<p>Site Inspection - day and evening</p> <p>Interview - Environment Officer and Mine Manager</p>	<p>a) Section 3.2.9 lists mitigation measures - refer Annex E for assessment of implementation.</p> <p>b) Wean Road runs along eastern boundary - site is visible from the road with minimal vegetation planted along this route particularly in the central section (current pit location). The life of the mine is for three more years with rehabilitation to occur at this time along the fence line.</p> <p>c) light stand was noted at western emplacement lookout area which appears to shine across the valley to Belmont - site inspection at night time confirms light is shining directly across the valley.</p>	NC	Consider the placement of lights to prevent horizontal light above the horizon.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>WASTE</b>					
3.32	<p>The Proponent shall:</p> <p>(a) minimise the waste generated by the project; and</p> <p>(b) ensure that the waste generated by the project is appropriately stored, handled and disposed of in a lawful manner.</p>	<p>Environment Management Strategy</p> <p>Site Inspection</p> <p>Interview – Maintenance Manager</p> <p>Site Waste Register</p>	<p>Refer to Annex F for assessment of waste commitments.</p> <p>Waste bins observed at the offices and maintenance areas. Recycling is picked up from site by Environment Field Officer – cans, bottles and cardboard.</p> <p>Waste oil contractors (Northern Lubequip) remove used oils, oil filters and scrap metal (drained oil filters). Material is taken to Cleanaway Tamworth (EPL10804) which is licensed to accept hazardous waste. Waste oils and associated materials stored in bins and drums in the maintenance area which is sealed and drains to an oil water separator system.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>BUSHFIRE MANAGEMENT</b>					
3.33	The Proponent shall:  (a) ensure that the project is suitably equipped to respond to any fires on site; and  (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire in the surrounding area.	Mining Operations Plan  Interview - Environment Officer  Statement of Commitments	Refer to statement of commitments assessment under Bushfire Hazards.  Refer to Mining Operations Plan assessment ( <i>Annex E</i> ) for additional commitments regarding bushfire minimisation.	C	
<b>REHABILITATION</b>					
<b>Rehabilitation Objectives</b>					
3.34	The Proponent shall rehabilitate the site to the satisfaction of DRE. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EA (and depicted conceptually in Figure 1 in Appendix 5), and comply with the objectives in Table 8.	Mining Operations Plan  Rehabilitation Management Plan  Email from DRE 26 April 2016	Refer to <i>Annex E</i> for implementation assessment of the Mining Operations Plan rehabilitation commitments and <i>Annex K</i> for implementation assessment of the Rehabilitation Management Plan.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Progressive Rehabilitation</b>					
3.35	The Proponent shall carry out the rehabilitation of the site progressively, that is, as soon as reasonably practicable following disturbance.	Site inspection  Rehabilitation Management Plan	Refer to Annex K for implementation assessment of the Rehabilitation Management Plan.  The west and north emplacement areas substantially rehabilitated and therefore the progress of rehabilitation progress is on track with the schedule. Success however, is variable and is discussed further in the assessment for implementation of the Rehabilitation Management Plan.	C	
<b>Rehabilitation Management Plan</b>					
3.36	The Proponent shall prepare and implement a Rehabilitation Management Plan to the satisfaction of DRE. This plan must:  (a) be prepared in consultation with the Department, DPI Water, OEHL, Council and the CCC;  (b) be submitted to DRE by the end of February 2012;	Rehabilitation Management Plan  Independent Environmental Compliance Audit - Umwelt (2013)	The previous audit report confirmed the development and consultation was completed as per this condition.  Refer to Annex K of this report for assessment if plan implementation.	NT  Closed Previous Audit	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(c) be prepared in accordance with any relevant DRE guideline;</p> <p>(d) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval;</p> <p>(e) address all aspects of rehabilitation including mine closure, final landform, and final land use; and</p> <p>(f) build to the maximum extent practicable on the other management plans required under this approval.</p>				
<b>SCHEDULE 4 ADDITIONAL PROCEDURES</b>					
<b>NOTIFICATION OF LANDOWNERS</b>					
4.1	By the end of December 2011, the Proponent shall notify in writing the owners of "Brolga", "Surrey" and any privately-owned land within 2 kilometres of the proposed footprint of the open-cut pit that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated.	Independent Environmental Compliance Audit - Umwelt (2013)	<p>Reports completed at the Surrey and Brolga residences in 2008 - refer previous audit report.</p> <p>No further written request have been received during the audit period.</p>	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
4.2	<p>As soon as practicable after obtaining monitoring results showing:</p> <p>(a) an exceedance of the relevant criteria in Schedule 3, the Proponent shall notify the affected landowner and/or tenants in writing of the exceedance, and provide regular monitoring results to each of these parties until the project is complying with the relevant criteria again; and</p> <p>(b) an exceedance of the relevant air quality criteria in Schedule 3, the Proponent shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including tenants of any mine-owned land).</p>	<p>Air Quality Monitoring results for DDGs, HVAS</p> <p>AEMR/Annual Reviews</p> <p>Interview – Environment Officer</p> <p>Incident Register</p>	<p>The AEMRs for the audit period indicate no exceedances of air quality for HVAS and DDG sampling. TEOM monthly and annual results are compared to criteria.</p> <p>Air quality results for audit period indicate no exceedances of air quality for the HVAS. Review of the DDG results indicate some exceedances of the rolling 12 month average for two sampling locations which have not been reported to the landholder.</p> <p>The TEOM records spikes and also records a 24 hour measurement. The spikes are recorded in the dust system alarm checklist and acted upon if it is determined the spikes are from site operations. The TEOM will send an alarm via SMS to the Mine Manager and OCE when the 24hr PM10 criteria of 40µg/m<sup>3</sup> is reached so that actions can be completed immediately.</p>	NC	<p>Consider reporting all exceedances of criteria to the affected landholder.</p> <p>Consider reviewing the 24 hour result for the TEOM (the TEOM is accepted under the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC 2007)) and entering into results Excel spreadsheet. These results can then be reviewed against the criteria and investigated if over criteria. Results from other Whitehaven Coal sites in the area and the EPA Tamworth air quality monitoring station can also be utilised to determine if the impacts are regional or mine related. The Annual Reviews should also report the maximum daily results for comparison to the 24hour criteria rather than using monthly averages.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			<p>Currently the 24hr criteria of 50µg/m<sup>3</sup> is not recorded or reported as per the Air Quality and Greenhouse Gas Management Plan for TEOM measurements as it was understood by site to be a management tool and not a tool for assessing overall compliance with the EPL and MCoA criteria.</p> <p>Anecdotal an exceedance of the air quality criteria of 50µg/m<sup>3</sup> for 24 hours was exceeded during dust storm in May 2015 however; this has not been formally recorded.</p>		
<b>INDEPENDENT REVIEW</b>					
4.3	<p>If an owner of privately-owned land considers the project to be exceeding the relevant criteria in Schedule 3, then they may ask the Secretary in writing for an independent review of the impacts of the project on their land.</p> <p>If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision the Proponent shall:</p>	Interview – Environment Officer	No requests have been received during the period of the audit	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:</p> <ul style="list-style-type: none"> <li>• consult with the landowner to determine his/her concerns;</li> <li>• conduct monitoring to determine whether the project is complying with the relevant criteria in Schedule 3; and</li> <li>• if the project is not complying with these criteria then identify the measures that could be implemented to ensure compliance with the relevant criteria; and</li> </ul> <p>(b) give the Secretary and landowner a copy of the independent review.</p>				
4.4	<p>If the independent review determines that the project is complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Secretary.</p> <p>If the independent review determines that the project is not complying with the relevant impact assessment criteria in Schedule 3, then the Proponent shall:</p>	Interview – Environment Officer	No requests have been received during the period of the audit	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	(a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until the project complies with the relevant criteria; or  (b) secure a written agreement with the landowner to allow exceedances of the relevant criteria, to the satisfaction of the Secretary.				
<b>SCHEDULE 5 - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING</b>					
<b>ENVIRONMENTAL MANAGEMENT</b>					
<b>Environmental Management Strategy</b>					
5.1	The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:  a) be submitted to the Secretary for approval by the end of December 2011;  b) provide the strategic framework for environmental management of the project;	Environmental Management Strategy  Independent Environmental Compliance Audit - Umwelt (2013) Report	a) refer to previous audit report evidence for closing  b) Section 1.2  c) Section 3  d) Section 4.1  e) Section 4.7.1, 4.7.2, 4.7.4, 4.8 and 4.9	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>c) identify the statutory approvals that apply to the project;</p> <p>d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;</p> <p>e) describe the procedures that would be implemented to:</p> <ul style="list-style-type: none"> <li>• keep the local community and relevant agencies informed about the operation and environmental performance of the project;</li> <li>• receive, handle, respond to, and record complaints;</li> <li>• resolve any disputes that may arise during the course of the project;</li> <li>• respond to any non-compliance;</li> <li>• respond to emergencies; and</li> </ul>		f) Whitehaven Coal website and Figure 2		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	f) include: <ul style="list-style-type: none"> <li>• copies of any strategies, plans and programs approved under the conditions of this approval; and</li> <li>• a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.</li> </ul>				
<b>Management Plan Requirements</b>					
5.2	The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include: <p>(a) detailed baseline data;</p> <p>(b) a description of:</p> <ul style="list-style-type: none"> <li>• the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>• any relevant limits or performance measures/criteria;</li> <li>• the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;</li> </ul>	All management plans	Environment Management Strategy a) Section 1, b) Section 3, c) Section 4, d) Section 4.4 and Section 5, e) Section 5.2, f) Section 4.4 and 5, g) Section 4.7.3, 4.7.2, 4.8, h) Section 4.4.2.  Water Management Plan a) Sections 4.9.2 & 5.4.2, b) Sections 2.0, 4.9.3 & 5.4.3, c) Sections 4 & 5, d) Sections 4 & 5, e) Sections 4.10.1 & 5.5.5, f) Sections 4.10.3, 5.5.6 & 7, g) Sections 6.1, 5.5.3, 6.2, 4.10.2 & 5.5.2, h) Section 7	ANC	Consider including the air quality, noise and traffic noise baseline levels determined during the assessment phase of the project into the relevant management plans.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> <li>• impacts and environmental performance of the project;</li> <li>• effectiveness of any management measures (see (c) above);</li> </ul> <p>(e) a contingency plan to manage any unpredicted impacts and their consequences;</p> <p>(f) a program to investigate and implement ways to improve the environmental performance of the project over time;</p> <p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> <li>• incidents;</li> <li>• complaints;</li> <li>• non-compliances with statutory requirements; and</li> <li>• exceedances of the impact assessment criteria and/or performance criteria; and</li> </ul> <p>(h) a protocol for periodic review of the plan.</p>		<p>Air Quality and Greenhouse Gas Management Plan a) the baseline air quality and predicted air quality has not been discussed in the plan b) Section 2, Section 5 c) Section 3 d) Section 4 e) Section 5 f) Section 7, Section 5</p> <p>Blast Management Plan a) not applicable b) Section 2 &amp; 2.1 c) Section 3 d) Section 5 e) Section 6 f) Section 7, Section 6</p> <p>Heritage Management Plan a) Section 3 b) Section 2 c) Section 4 d) Section 6 e) Section 7 f) Section 8 g) Section 7</p> <p>Noise Management Plan a) summary of baseline noise not discussed in plan b) Section 2 c) Section 2.2 d) Section 3 e) Section 4 f) Section 6 g) Section 4</p> <p>Road Traffic Noise Management Plan a) summary of baseline traffic noise not discussed in plan b) Section 2 c) Section 3 d) Section 5 e) Section 6 f) Section 8 g) Section 6</p>		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Annual Review</b>					
5.3	<p>By the end of each December, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:</p> <p>(a) describe the development (including any rehabilitation) that was carried out in the past year, and the development that is proposed to be carried out over the next year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the</p> <ul style="list-style-type: none"> <li>• relevant statutory requirements, limits or performance measures/criteria;</li> <li>• monitoring results of previous years; and</li> <li>• relevant predictions in the EA;</li> </ul> <p>(c) identify any non-compliance over the past year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the project;</p>	AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15 (more detailed review of last report)	<p>a) Section 2 - describes operations that were completed during the audit period. Rehabilitation activities are discussed in Section 5. Section 6 describes the activities proposed in the next AEMR period.</p> <p>b) Review of monitoring results for the different environmental aspects are discussed in Section 3 which includes a section on comparison to the EA predictions, and comparison to relevant criteria. Comparison to previous years has been completed for air quality - graphs of results include all years of monitoring for air. Complaints are discussed in Section 4.1.</p> <p>c) discussion against criteria includes discussion of any non-compliances and actions taken</p> <p>d) although the previous monitoring results are included as graphs in the report for air quality, not all aspects include discussion on previous results and trends in data (water, groundwater, noise and road noise).</p>	ANC	Consider the inclusion of further discussion into the next Annual Review any previous results and trends observed in monitoring over the life of the project for all monitored aspects such as noise, road noise, water and groundwater.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and</p> <p>(f) describe what measures will be implemented over the next year to improve the environmental performance of the project.</p>		<p>e) Discussion on predicted and actual impacts is completed – no significant discrepancies were identified in the 2014/15 report.</p> <p>f) Section 6 indicates continuation of practises to prevent non-compliances with criteria. Each aspects also discussed the methods for management of each aspect.</p>		
<b>Revision of Strategies, Plans and Programs</b>					
5.4	<p>Within 3 months of:</p> <p>(a) the submission of an annual review under condition 3 above;</p> <p>(b) the submission of an incident report under condition 6 below;</p> <p>(c) the submission of an audit report under condition 8 below; and</p> <p>(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.</p>	Management Plan review history	Review of the Management Plans indicates reviews are completed for Project Expansion. There is no evidence for reviews completed for all requirements listed as per this condition.	ANC	Consider the creation of an Excel spreadsheet with plan review tables and update reviews completed even if no changes are required to the plans.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Community Consultative Committee</b>					
5.5	The Proponent shall operate a Community Consultative Committee (CCC) for the project in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version), and to the satisfaction of the Secretary.	<a href="http://www.whitehavennews.com.au/rocg-len-mine/">http://www.whitehavennews.com.au/rocg-len-mine/</a>	Meeting for March 2016 was cancelled as majority of member could not make this meeting. The postponed March 2016 meeting is still pending with an alternative date to be confirmed.	C	
<b>REPORTING</b>					
<b>Incident Reporting</b>					
5.6	As soon as is practicable after the Proponent becomes aware of any incident associated with the project, the Proponent shall notify the Secretary and any other relevant agencies of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident.	Incident register Email to DP&E 17/09/2015 and 23/10/2015 AEMR/Annual Reviews 2012/13, 2013/14, 2014/15	Incident reports do not record time of initial notification to the EPA.  Two additional reports were completed for elevated TSS in water discharges but occurred after 5 days of 90%tile rainfall and where therefore not exceedances. The date of submission of the report to EPA is not known as correspondence was not sighted.  Two surface water monitoring events were missed on 19 October 2014 and 18-23 October 2014 - the written report was provided to the EPA on 11 May 2015.	NC	Consider reviewing compliance tracking procedures/methods to improve reporting times.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			One incident reported during the audit period (5% of 115dB was exceeded 18 September 2014) through reporting for the EPL. The tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.		
<b>Regular Reporting</b>					
5.7	The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a> - monthly summary and AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15	The website for Rocglen contains monthly summaries listing all monitoring results for the period as well as the Annual Report required by the MCoA and ML	C	
<b>INDEPENDENT ENVIRONMENTAL AUDIT</b>					
5.8	By the end of March 2013, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:  (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;	Independent Environmental Compliance Audit - Umwelt (2013)  This audit report  Letter DP&E issued 29/03/2016	a) Team approved by DP&E  b) refer Section 2.2 of this report and Annex N  c) Refer to Annexures B, C and D of this report for assessment against Approvals, EPL, MLs and WALs.  d) Refer to Annexures E to M for assessment of plans developed as part of approvals.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(b) include consultation with the relevant agencies;</p> <p>(c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);</p> <p>(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and</p> <p>(e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals.</p>		e) Refer to Section 3.4 and 3.5 of this report		
5.9	Within six weeks of the completion of this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.	Correspondence Independent Environmental Compliance Audit - Umwelt (2013) submission	<p>Completion of the audit is interpreted as six weeks after the final report has been issued to WHC.</p> <p>Previous audit completed site inspection 26 March 2013 – issue of report was May 2014.</p> <p>The Final report was issued to WHC 8 August 2016 therefore report is due 19 August 2016.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>ACCESS TO INFORMATION</b>					
5.10	<p>The Proponent shall:</p> <p>(a) make copies of the following publicly available on its website:</p> <ul style="list-style-type: none"> <li>• the documents referred to in Condition 2 of Schedule 2;</li> <li>• all current statutory approvals for the project;</li> <li>• all approved strategies, plans and programs required under the conditions of this approval;</li> <li>• a comprehensive summary of the monitoring results of the project, which have been reported in accordance with the conditions of this approval, or any approved plans and programs;</li> <li>• a complaints register, updated on a monthly basis;</li> <li>• minutes of CCC meetings;</li> <li>• the annual reviews of the project;</li> <li>• any independent environmental audit of the project, and the Proponent's response to the recommendations in any audit;</li> </ul>	<p><a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a></p>	<p>Review of Rocglen website confirms all required documents available.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> <li>any other matter required by the Secretary; and</li> </ul> (b) keep this information up-to-date, to the satisfaction of the Secretary.				
<b>PA 06-198 (Additional Conditions)</b>					
3.17	Prior to blasting within 500 metres of any public road, the Proponent shall prepare and implement a Road Closure Management Plan for the project to the satisfaction of GSC and DPI.	Previous audit report - Umwelt (2011)  Letter to GSC dated 11 October 2013	Closed in Audit 2011  Updated Road Closure Management Plan submitted to GSC 11 October 2013.	NT  (Closed Previous Audit)	
3.18	During mining operations on site, the Proponent shall:  (b) operate a Blasting Hotline, or alternate system agreed to by the Director-General, to enable the public to get up-to-date information on the blasting schedule at the project;  (c) advertise the blasting hotline number in a local newspaper each year; and	Interview - Group Environment Superintendent (Compliance)	A blasting hotline is not currently maintained however a public enquiry/complaints line is advertised on signs on Wean Rd and on the website.  The blasting hotline number/complaints number is not currently advertised in local newspapers each year. Previous audit report noted this action was completed at that time.	ANC	Consider the surrender of this approval or advertise the complaints/information line annually in the local newspaper.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
3.30	<p>The Proponent shall prepare and implement a detailed Landscape Management Plan for the site to the satisfaction of the Director-General and DPI. This plan must:</p> <p>(a) be prepared in consultation with OWE, DECC and GSC by suitably qualified expertise whose appointments have been approved by the Director-General;</p> <p>(b) be submitted to the Director-General for approval by the end of March 2009; and</p> <p>(c) include a:</p> <ul style="list-style-type: none"> <li>• Rehabilitation and Offset Management Plan;</li> <li>• Final Void Management Plan; and</li> <li>• Mine Closure Plan.</li> </ul> <p>Note: The Department accepts that the initial Landscape Management Plan may not include the detailed Final Void Management Plan and Mine Closure Plan. However, if this occurs, the Applicant will be required to seek approval from the Director-General for an alternative timetable for the completion and approval of the Final Void Management Plan and Mine Closure Plan.</p>	<p>Interview - Group Environment Superintendent (Compliance)</p> <p>Previous Audit Report Umwelt (2011 and 2013)</p>	<p>The Landscape Management Plan had not been developed as at audit completed in 2011.</p> <p>2013 audit considered the development of the Regional Biodiversity Strategy and BioBanking Agreement as well as the Rehabilitation Management Plan to close this finding from the 2011 audit.</p>	<p>NT</p> <p>Closed previous Audit</p>	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
3.37	The Proponent shall keep records of the amount of coal transported from the mine site, and number of coal truck movements each year, and include these records in the AEMR.	Website AEMRs	Records of coal movements are kept on the website.  AEMRs provide an annual summary of total output and movement of coal to the CHPP but do not include number of truck movements.	ANC	Consider the surrender of this approval or include number of total truck movements into Figure 2 of the Annual Reviews.

**Table A2 Compliance with Statement of Commitments**

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Compliance with the EA</b>					
a	Whitehaven will carry out the development for the Project generally in accordance with the Project Application and this EA report.	Refer to MCoA and management plans assessment.	This audit - refer relevant Annexures for assessments.	Noted	
<b>General Operation</b>					
<b>Production Limit</b>					
a	Whitehaven will not extract more than 1.5 Mtpa of ROM coal from the Project Site	Extraction records - <a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	Production reports available on the Whitehaven website for Rocglen Mine confirms transport of coal from site is below 1.5Mtpa (2013 - 1.3Mtpa, 2014 1.15Mtpa, 2015 - 1.1Mtpa).	C	
<b>Hours of Operation</b>					
b	Mining operations may be undertaken 24 hours a day, Monday to Saturday, with the exception of public holidays.	Interview - Group Superintendent - Environment (Compliance)	Rocglen operates two shifts, 7am - 3pm and 3pm -11pm five days a week with some extensions to Saturdays as required.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
c	Coal transport will be undertaken between 7am and 9:15pm Monday to Friday, and between 7am and 5:15pm on Saturdays.	Weighbridge docket for 29/04/2016	Refer MCoA 3.39  Review of weighbridge docket for 29/04/2016 reviewed - last load of coarse reject left CHPP at 21:22 which is outside the approved hours. Seven trucks arrived at the CHPP before 7:20am (route takes approximately 20 minutes).	NV  Duplicated with MCoA 3.39	
<b>Refinement of Mine Plan</b>					
d	Any refinements to the concept mine plan outlined in this EA report will be detailed and assessed as part of the MOP process managed by the D&I NSW.	Mining Operations Plan	The mine plan is included in the MOP - most recent update completed November 2015	C	
<b>Consultation</b>					
e	Routine consultation will be undertaken with residents surrounding the Project Site and along the coal transport route, as well as with the CCC, to ensure any concerns relating to mine operations are identified and appropriately addressed.	<a href="http://www.whitehavennews.com.au/rocg-len-mine/">http://www.whitehavennews.com.au/rocg-len-mine/</a>	Meeting for March 2016 was cancelled as majority of member could not make this meeting. The postponed March 2016 meeting is still pending with an alternative date to be confirmed.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Environmental Monitoring and Reporting</b>					
<b>Revision of Environmental Management Plans and Monitoring Programs</b>					
a	Within 12 months of approval, Whitehaven will review, update and integrate relevant aspects of the environmental management of the Project in the existing set of environmental management plans for the Rocglen Coal Mine. This will be undertaken in consultation with the relevant government agencies.	Management Plans	Dates of modifications versus plan reviews over audit period:  September 2011 - November 2012  November 2014 (MOD 1) - (updated November 2015 with MOD 2)  August 2015 MOD 2 - November 2015	C	
b	Within 12 months of approval, Whitehaven will review, update and integrate relevant aspects of the environmental monitoring of the Project in the existing set of environmental monitoring programs for the Rocglen Coal Mine. This will be undertaken in consultation with the relevant government agencies.	Refer to Management Plans developed as part of MCoA.	Government agencies not consulted as part of update of latest update of plans in November 2015. The previous audit report notes that the relevant agencies were consulted for the plans submitted prior to end December 2011.  Changes were mostly administrative and requirements have not changed substantially.	ANC	Consider sending link to plans on website to relevant agencies and requesting comment.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Annual Environmental Management Plan</b>					
c	Whitehaven will prepare an AEMR for the Project for submission to the Secretary and relevant government agencies.	AEMR/Annual Reviews 2012/13, 2013/14, 2014/15	AEMRs have been prepared and submitted.	C	
<b>Soil Stripping, Stockpiling and Re-Spreading</b>					
a	Soil materials within the Project Site will be stripped, handled and stockpiled in a manner that minimises the potential for soil loss and structural deterioration.	Site inspection  Soil inventory from survey  Interview - Environment Officer	Site inspection confirms locations of stockpiles match survey maps. Noted that the stockpiles are stabilised with vegetation with no obvious movement of sediment evident in the area surrounding the stockpiles.	C	
b	Topsoil stockpiles will be established to a maximum height of 3 metres.	Site Inspection  Interview - Mine Manager  WHC_PRO_Clearing and Pre Strip	Topsoil stockpiles were noted during the site inspection to be within 3m height. Mine Manager confirmed that topsoil stockpiles are kept to less than 3m in height.  Procedure has been developed for clearing and pre-stripping activities	O	Consider including requirement to establish topsoil stockpiles to a maximum height of 3m into the procedure WHC_PRO_Clearing and Pre Strip .

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
c	Soil material will be maintained in a slightly moist condition during stripping, and will not be stripped in either an excessively dry or wet condition.	Interview - Mine Manager  DDG and HVAS results	The chitter haul road area was stripped during the audit period. These works are completed by contractors on a campaign basis. March 2016 last stripping completed in the southeast wedge of the mine. Dust and HVAS results for this month indicate levels of dust consistent with previous months.	C	
d	If mining sequencing, equipment scheduling and weather conditions permit, stripped material will be placed directly onto reshaped emplacement areas and spread immediately to avoid the requirement for stockpiling.	Interview - Mine Manager	Economic and operational drivers ensure this is completed where possible.	C	
e	The surface of soil stockpiles will be left coarsely textured in order to promote infiltration and minimise erosion until vegetation is established, as well as to prevent anaerobic zones forming.	Site Inspection	Site inspection confirms surface is rough and vegetation has established on stockpiles.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
f	Where long-term stockpiling is planned (that is, greater than 3 months) the stockpiles will be seeded and fertilised as soon as possible. An annual cover crop that produces sterile florets or seeds will be sown.	Site Inspection  Soil Inventory	Noted during site inspection that the stockpiles are stabilised with vegetation with no obvious movement of sediment evident on the area surrounding the stockpiles.	C	
g	Prior to re-spreading stockpiled material onto completed mining or overburden emplacement areas, an assessment of weed infestation on stockpiles will be undertaken to determine if individual stockpiles require herbicide application and/or 'scalping' of weed species prior to spreading.	Management Plan  Interview - Mine Manager	<p>Environmental field officer completes this on a campaign basis.</p> <p>Scalping is unlikely to occur due to shortages of topsoil.</p> <p>Register of herbicide usage not available for review. The NSW Pesticides Regulation requires that records be kept of pesticide use (including herbicides). Individual spraying records are maintained. All required information for the NSW Pesticides Regulation with the exception of who has applied the pesticide/herbicide.</p> <p>No record of treatment for stockpiles prior to reuse.</p>	ANC  O	<p>ANC - Consider the recording of person/company applying the pesticide onto the current records.</p> <p>O - Consider including in an existing procedure (if appropriate) or developing a new procedure to ensure stockpiles are inspected and treated for weeds prior to re spreading/reuse on site.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
h	A soil inventory will be maintained to ensure adequate material is available for planned rehabilitation activities.	Soil inventory	<p>Maps are available which lists the locations of the topsoil and sub soil stockpiles. A soil inventory is maintained and kept up to date by the surveyor.</p> <p>Topsoil volumes available 285,025m<sup>3</sup>.</p> <p>Subsoil volumes available - 622,362m<sup>3</sup>.</p> <p>Rehabilitation area = 358ha</p> <p>If 100mm thickness is required then the volume of topsoil is likely to be inadequate (enough to cover 285ha). It is likely some subsoil will need to be ameliorated to enable its use as cover material.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
i	Where natural protection from surface runoff flows is not available or achievable, protective earthworks, such as contour banks, and/or straw bale protection will be installed. Silt fencing (or similar) will be installed immediately downslope of any stockpile area potentially susceptible to erosion and maintained until the stockpile is considered stable with an effective vegetation cover.	Site inspection	Soil stockpiles are kept to 3m in height. Overburden is benched as required. Straw bales noted to have been used historically along drainage lines leading off site and off the rehabilitation areas during the site inspection.	C	
j	Whitehaven will adopt the general practice, where appropriate subsoil is available and targeting areas being rehabilitated to pasture, of including an intermediate layer of subsoil between the overburden material and the topdressing to improve the water holding capacity of the rehabilitated landform and reinstate a more natural soil profile. For areas being rehabilitated to bushland, Whitehaven may preferentially reduce the subsoil replacement depth and/or exclude subsoil replacement in selected areas to establish trial areas to monitor bushland development in different soil profiles.	Interview - Mine Manager	Subsoil is stockpiled separately and used where possible between topsoil and overburden to increase stability particularly in the case of subsoil high in clay content.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
k	Where resources allow, topsoil and subsoil will each be spread to a nominal depth of between 100 to 150 mm, giving a combined depth of soil material on the rehabilitated landform of between 200 and 300 mm.	Interview - Environment Officer  Services Agreement - Contract 2015-GP047 Rocglen Northern Extension Rehabilitation	Anecdotally occurs. A procedure listing the requirement is not currently available. Contractor Scope of Works indicates commitment is not included.	O	Consider including requirement in either contractor scope of works or in a procedure.
l	The subsoil layer will be spread on an even but roughened surface that has been ripped along the line of the contour to break any compacted and/or smooth surfaces. Ripping will also assist the keying of subsoil into the overburden, which will, in turn, assist in the prevention of land slip and can help vegetation penetrate deep into the soil profile, encourage ingress of water and minimise erosion.	Interview - Environment Officer  Services Agreement - Contract 2015-GP047 Rocglen Northern Extension Rehabilitation	Anecdotally occurs. A procedure listing the requirement is not currently available. Contractor Scope of Works indicates commitment is not included.	O	Consider including requirement in either contractor scope of works or in a procedure.
m	Stripped soil material will be spread, treated with fertiliser and seeded in one consecutive operation in order to reduce the potential for soil loss to wind and water erosion.	Interview - Environment Officer  Services Agreement - Contract 2015-GP047 Rocglen Northern Extension Rehabilitation	Anecdotally occurs. A procedure listing the requirement is not currently available. Contractor Scope of Works indicates commitment is not included.	O	Consider including requirement in either contractor scope of works or in a procedure.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Geotechnical Stability - Open Cut Pit and Highwall</b>					
a	Progressive stability reviews and monitoring of geological conditions will be undertaken once the pit moves within 250 metres of the realigned Wean Road to ensure geotechnical stability and safe conditions. If any unfavourable conditions are observed or detected, a detailed assessment will be undertaken by a suitably qualified geotechnical engineer before mining is allowed to continue towards Wean Road.	Geotechnical Inspection Reports - Lambert Geotech (Sept 2013, Oct 2013, Dec 2013, Feb 2014, Aug 2014, Aug 2015)	Regular inspections and reports are completed by Lambert Geotech. Last report issued August 2015 in response to rock fall/slump in weathered rock from the eastern wall in Strip 12/13 and to review and update the current eastern highwall design.	C	
b	When the Belmont Fault (or fault zone) is more than 150 metres from Wean Road, operations will mine through the Belmont Fault. The uppermost alluvial material and weathered rock on the eastern side of the fault will have individual face angles no steeper than 45 degrees.	Site inspection	Observed as stated	C	
c	Benching will be adopted at a maximum interval of 25 metres in alluvial, weathered rock and brecciated rock.	Site inspection  Interview - geologist	Observed as stated	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
d	In fresh strata face angles will designed at 75 degrees to pit bottom. If in following the upturned Belmont Seam down to pit bottom the floor rock is strong and competent, then the face will be developed on the dip slope without the need for benches in rock beneath the Belmont Seam.	Site inspection	Floor rock is not competent therefore benches have been installed in the rock below the Belmont Fault	C	
e	When the top of the stable highwall reaches 50 metres from Wean Road (i.e. when the eastern limit of the Belmont Fault zone reaches 150 metres from Wean Road), the eastern end wall will be turned at right angles to the west. Once the turned highwall encounters sound rock, as it continues to the west, it can be turned again to develop parallel to the Belmont Fault until it reaches the planned pit limit.	Site inspection	Observed as stated	C	
f	The turned highwall in the fault zone will be notched to achieve a stable face. This notch will not approach Wean Road any closer than 150 metres without geotechnical advice.	Site inspection Interview - Mine Manager Geotechnical Reports - Lambert Geotech (Sept 2013, Oct 2013, Dec 2013, Feb 2014, Aug 2014, Aug 2015)	Geotechnical reports have been completed - small benches observed during site inspection in the area.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
g	A block of unmined ground will be left to contain the Belmont Fault zone and prevent it causing collapse back towards Wean Road. The size of this block of unmined ground will be determined by geotechnical investigation by the time a change in highwall direction is required.	Site inspection	Site inspection confirms some coal has been quarantined to support the wall further on advice from geotechnical reports.	C	
h	If the highwall is free of faulting, mining will resume southeast towards the currently planned pit limit. Such mining will cease when the pit crest reaches 50 metres from Wean Road. If additional faulting is detected in this advancing face then the relevance of such structure on highwall stability will be investigated before continuation of highwall development.	Site inspection  Interview - Mine Manager	Mine has reached southeast extent of planned pit limit and will be continuing to south.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Rehabilitation and Mine Closure</b>					
<b>Progressive Rehabilitation</b>					
a	Whitehaven will adopt a progressive approach to the rehabilitation of disturbed areas within the Project Site to ensure that, where practicable, completed mining and overburden emplacement areas are quickly shaped, top dressed and vegetated to provide a stable landform. Early reshaping and revegetation of the external batter slopes of the emplacement areas is particularly important and will be targeted as a priority.	Rehabilitation Management Plan  Site inspection	The west and north emplacement areas substantially rehabilitated and therefore the progress of rehabilitation progress is on track with the schedule. Success however, is variable and is discussed further in the assessment for implementation of the Rehabilitation Management Plan.	C	
b	Disturbed areas will generally undergo rehabilitation within one year of overburden emplacement and reshaping.	Rehabilitation Management Plan  Site inspection  Interview - Mine Manager	The northern emplacement area is now reshaped with rehabilitation underway. The western emplacement area is still receiving material along the eastern edge. Rehabilitation of this area cannot occur until after operations has ceased as infrastructure in area.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Overburden Placement and Shaping</b>					
c	Placement and shaping of overburden will be undertaken to achieve stable slopes.	Rehabilitation Management Plan  Site inspection	Site inspection confirms overburden is reasonably stable with minor rilling noticed in some areas. The western emplacement area eastern edge will require further shaping but can only be completed once operations cease as the coal handling and offices are located in the area required to achieve a stable batter angle.	C	
d	Placement and shaping of overburden will be undertaken in a manner which, wherever practicable, ensures that any friable or weathered materials are placed below the subsoil and topsoil layers in order to provide a cover of more competent material and avoid the exposure of large rocks on the final surface.	Rehabilitation Management Plan  Site inspection  Interview - Mine Manager	Clay material is used where practicable as upper layer above more weathered material to increase stability - observed during site inspection.	C	
e	Any coarse coal rejects placed in the mine void will be covered with at least 3 metres of overburden material.	Site inspection  Interview - Mine Manager	Coal rejects area is in area that will be covered in at least 3m of overburden material.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Subsoil and Topsoil Replacement</b>					
f	Refer to commitments listed above in Section 8.4.	Noted	Note	Note	
<b>Drainage and Surface Water Structure Installation</b>					
g	Surface water management structures will be progressively installed on the rehabilitated landform. The heights (effective depths) and cross-sectional areas of the individual banks will be determined on the basis of individual sub-catchment areas, but will typically be less than 0.7 metres and 3 square metres (m2), respectively. Rock-lined drains will be used, where required, to convey water safely from the rehabilitated landform into the surface water management system that takes water from the site.	Rehabilitation Management Plan  Site inspection	<p>The northern emplacement area consists of banks which divert water to an eastern and western rock lined channel. The eastern channel has recently been installed and it is noted that there is a channel forming alongside (northern edge). It is also noted that tunnel erosion near the western channel has been repaired however it is noted that water is ponding in this area.</p> <p>The western emplacement area it was noted a series of dams and rock lined channels are in place along the western boundary of the site.</p>	NC	Consider diverting water to the newly constructed eastern channel in the northern emplacement area to prevent further scouring alongside this channel. In addition, consider installing a batter shoot where water is ponding in the recently repaired tunnel erosion area or complete works to divert water to the rock lined drain on the western face of the northern emplacement area.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Revegetation</b>					
h	The top dressed surfaces of those areas designated to be restored to rehabilitated pasture will be sown with a mixture of pasture species appropriate for the season. The seed mixture will include fast growing, short-lived species and perennial grasses and legumes.	Rehabilitation Management Plan Site inspection Interview - Environment Officer	Site inspection indicates mixed success with rehabilitation. The northern emplacement area designated for pasture has numerous weeds (Class 4 such as Bathurst Burr and Prickly Pear). Galvanised Burr and Black Roly Poly is the most common weed but are not locally declared weed. These plants can also be useful as a pioneer plant on bare areas, collecting windblown grass seed, protecting young seedlings from grazing and reducing erosion.  The soil is undergoing testing to determine ameliorant type and rate to encourage growth of any further seeding campaigns. A biodiversity expert has been recently (last two months) appointed fulltime to oversee the rehabilitation of the Whitehaven Coal sites. This will include investigating alternative methods for reseeded/replanting.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
i	The top dressed surfaces of those areas designated to be restored as rehabilitated bushland will be initially stabilised with a non-persistent cover crop followed by planting of a selection of locally occurring tree and shrub species that will encourage the re-establishment of the pre-mining vegetation communities and, in the medium to longer term, create habitat and corridors for native fauna.	Rehabilitation Management Plan  Site inspection  Interview - Environment Officer	Some areas of the western emplacement area designated as bushland has had a small degree of success however not all areas have been successful in establishing cover. The northern emplacement area has had less success with primarily galvanised burr growing - see above.  The soil is undergoing testing to determine ameliorant type and rate to encourage growth of any further seeding campaigns. A biodiversity expert has been recently (last two months) appointed fulltime to oversee the rehabilitation of the Whitehaven Coal sites. This will include investigating alternative methods for reseeding/replanting.	C	
j	All areas identified for bushland and pasture re-establishment will be fenced and have stock excluded until it can be demonstrated that the vegetation is stable and self-sustaining, and that grazing will not impact upon its establishment.	Rehabilitation Management Plan  Site inspection	The site inspection notes that the boundary of the mining lease area is fenced and no stock was present. The rehabilitated areas fall within the mine site.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Rehabilitation Monitoring and Maintenance</b>					
k	<p>Areas being rehabilitated will be regularly inspected and assessed against the long and short-term rehabilitation objectives. During regular inspections, aspects of rehabilitation to be monitored will include:</p> <ul style="list-style-type: none"> <li>• Evidence of any erosion or sedimentation from areas with establishing vegetation cover;</li> <li>• Success of initial grass cover establishment;</li> <li>• Success of tree and shrub plantings;</li> <li>• Adequacy of drainage controls;</li> <li>• Presence/absence of weeds; and</li> <li>• General stability of the rehabilitation site.</li> </ul>	<p>Monthly Environment Inspection checklists  WHC_CHK Monthly Environmental Inspection Checklist October 2015 - March 2016</p>	<p>Monthly environment checklists include section on land management/rehabilitation areas which includes all checks as listed.</p> <p>Inspection completed 4 April 2016 highlights infill planting is required in the southwestern rehabilitation area. Previous month highlights infill planting required in all areas and erosion occurring in northern rehabilitation area. Site inspection as part of audit aligns with this assessment with exception of the absence of noting weeds in northern emplacement area.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
1	Where the rehabilitation success appears limited, maintenance activities will be initiated. These may include re-seeding and where necessary, re-topdressing and/or the application of specialised treatments such as composted mulch to areas with poor vegetation establishment. Tree guards will be placed around planted tube stock if grazing by native animals is found to be excessive.	Site Inspection  Interview - Group Superintendent - Environment (Compliance)	Soil testing is to be completed (9 May 2016) by Whitehaven Coal Biodiversity specialist to advise what type and rate of ameliorant should be applied to maximise chances of rehabilitation. This will be used in conjunction with assessment of best type of planting (seed or tube stock), timing of rehabilitation activities etc.	C	
m	If drainage controls are found to be inadequate for their intended purpose or compromised by grazing stock or wildlife, these will be repaired and/or temporary fences installed to exclude animals. Should areas of excessive erosion and sedimentation be identified, remedial works such as importation of additional fill, soil material and/or the redesigning of water management structures to address erosion will be undertaken.	Site Inspection  WHC_CHK Monthly Environmental Inspection Checklist October 2015 - March 2016	Site is fenced to exclude stock from mine lease area.  Noted remedial works to repair erosion on the western batter on the northern emplacement area have recently been completed.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
n	Monitoring will be conducted periodically by independent, suitably skilled and qualified persons at locations that are representative of the range of conditions on the rehabilitating areas. Annual reviews will be conducted of monitoring data to assess trends and monitoring program effectiveness.	Rocglen Mine Rehabilitation Monitoring (spring 2014 - autumn 2015), Eco Logical Australia issued June 2015  Annual Reviews - AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15	Eco Logical completed monitoring for Spring 2014 to Autumn 2015. This report acknowledges issues with rehabilitation objectives due to extended dry periods. Weed control of the woodland areas to prevent galvanised burr and black roly poly from dominating the site was also recommended. The site inspection conducted as part of this audit confirms these two species are now dominant in the northern rehabilitation area.	C	
<b>Conceptual Post-Mining Land Use</b>					
o	The disturbed area within the Project Site will be restored to either rehabilitated bushland or rehabilitated pasture, with approximately 5 hectares (1 percent) remaining as a stabilised highwall of the final void.	Rehabilitation Management Plan  Site Inspection  Interview - Group Superintendent - Environment (Compliance)	Site is still operational - Rehabilitation Plan aligns with this objective (section 1.2 and Section 2.3).	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
p	Along the eastern boundary of the Project Site, adjacent to the realigned Wean Road, a strip of rehabilitated bushland will be established to screen the view of the final void and generally improve the visual amenity from Wean Road, as well as provide vegetation connectivity north-south on the eastern side of the void.	Site inspection	Site inspection indicates these works have not been completed. Site is still operational.	NT	
q	In addition to the large area to be rehabilitated to bushland, strategically placed tree lots will be established within rehabilitated pasture areas to break-up the landform and act as wildlife refuges and linkages.	Rehabilitation Management Plan Mining Operations Plan	Plans include establishment of bushland tree lots in the northern and western emplacement areas along the eastern batter.	C	
r	Tree trunks and branches less than 300 mm diameter and other smaller vegetative debris removed during clearing activities will be spread over those areas to be restored as rehabilitated bushland where practical.	Rehabilitation Management Plan Site Inspection	Site is still operational however it was noted that tree trunks and branches were scattered around newly rehabilitated areas in the norther emplacement area which will become bushland.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Final Void Management</b>					
s	The final void will be designed and managed as a stable landform. Appropriate long-term land use options for the void will be considered and adequately assessed in consultation with relevant stakeholders as the mine approaches closure.	Interview - Group Superintendent - Environment (Compliance)	Site is planned for closure in 2019/20 - Final Void Management Plan being developed by the Group Superintendent - Environment (Compliance).	C	
<b>Final Void Stability - Low Walls</b>					
t	The low walls will be battered back from the angle of repose to ensure the long term geotechnical stability of the face, with the determination of geotechnical stability and recommendations as to the final slope undertaken by a qualified geotechnical engineer on the basis of an assessment of the overburden material, the likely degree of settlement, and the degree of weathering expected in the long term. It is expected that the low wall sides of the final void will be battered back to a maximum of 18 degrees with a goal of 10 degrees being optimal.	Interview - Group Superintendent - Environment (Compliance)	Site is planned for closure in 2019/20 - Final Void Management Plan being developed by the Group Superintendent - Environment (Compliance).	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
u	Surface water drainage on and over the low wall will be minimised through the construction of drainage control structures, the construction of Dam F, and the aim of diverting as much of the catchment as possible away from the final void and back into the surface water system.	Interview - Group Superintendent - Environment (Compliance)	Site is planned for closure in 2019/20 - Final Void Management Plan being developed by the Group Superintendent - Environment (Compliance).	NT	
v	Erosion of the low wall will be controlled by limiting the length of slope through the use of contour and graded drains, minimising the slope, and by the establishment of suitable vegetation.	Interview - Group Superintendent - Environment (Compliance)	Site is planned for closure in 2019/20 - Final Void Management Plan being developed by the Group Superintendent - Environment (Compliance).	NT	
<b>Final Void Stability - Low Walls</b>					
w	To ensure the safety of the final void, the surrounding final slopes will be left in a condition where the risk of slope failure is minimised. The highwall of the final void will be left at 45 degrees to ensure long term geotechnical stability. This will be assessed by a suitably qualified geotechnical engineer.	Interview - Group Superintendent - Environment (Compliance)	Site is planned for closure in 2019/20 - Final Void Management Plan being developed by the Group Superintendent - Environment (Compliance).	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
x	Whitehaven will undertake progressive stability reviews and monitoring of the highwall once it moves to within 250 metres of the Wean Road deviation to ensure safe working conditions. If any failures are observed, or additional faulting is detected, then a detailed assessment will be undertaken by a suitably qualified geotechnical engineer before mining is allowed to continue towards Wean Road.	Geotechnical Inspection Reports - Lambert Geotech (Sept 2013, Oct 2013, Dec 2013, Feb 2014, Aug 2014, Aug 2015)	Regular inspections and reports are completed by Lambert Geotech. Last report issued August 2015 in response to rock fall/slump in weathered rock from the eastern wall in Strip 12/13 and to review and update the current eastern highwall design.	C	
y	Whitehaven will adopt the geotechnical stability commitments listed above in Section 8.5 as the open cut pit progresses and the final landform is being formed.	Interview - Group Superintendent - Environment (Compliance)	Site is planned for closure in 2019/20 - Final Void Management Plan being developed by the Group Superintendent - Environment (Compliance).	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Biodiversity Offset Strategy</b>					
a	<p>The revised Biodiversity Offset Strategy described in Section 5.8, which has been prepared on the basis of the BioBanking Methodology to 'inform' the 'improve or maintain' assessment, will be implemented. This Strategy, in summary, comprises the retirement of 4,859 credits (for the impact to 95.44ha as a consequence of the project) from the Whitehaven Regional BioBank Site, which is in the final stages of registration by the DECCW as a BioBank Site under Part 7A of the <i>Threatened Species Conservation Act</i>.</p>	<p>Biodiversity Banking and Offsets Scheme Annual Reports 2012-2013, 2013-2014 and 2014-2015</p> <p>Letter from DP&amp;I 14 February 2013</p>	<p>Annual reports are completed which tracks implementation of the management actions for the BioBank site</p> <p>Letter from DP&amp;I informing Whitehaven Coal that BioBanking Agreement ID number 43, for the Whitehaven Regional Offset Area, meets the Biodiversity Offset requirements for the Rocglen Extension Project (10_0015) under Condition 23 of Schedule 3.</p>	C	
b	<p>The Whitehaven Regional BioBank Site will be actively managed via a BioBanking Management Plan with in-perpetuity management funding, and will have the highest level of conservation status outside of National Parks via a BioBanking Agreement registered on the land title in-perpetuity.</p>	<p>Biodiversity Management Plan</p> <p>Letter from DP&amp;I 14 February 2013</p>	<p>Plan has been developed with implementation tracked through annual reviews.</p> <p>Letter received from DP&amp;I confirming retirement of biobank credits and the establishment of a Biobank Trust Fund.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Air Quality</b>					
<b>Vegetation Clearing and Soil Stripping</b>					
c	Cleared trees and branches will be retained for use in stabilising slopes identified for restoration of rehabilitated woodland. No burning of vegetation is permitted or occurs on-site	Interview - Group Superintendent - Environment (Compliance)  Site inspection	It was noted during the site inspection that tree trunks and branches were scattered around newly rehabilitated areas in the norther emplacement area which will become bushland.	C	
d	Where practicable, soil stripping will be undertaken when there is sufficient soil moisture to prevent lift- off dust and at times that avoid periods of high winds. Where this is not possible, dust suppression by water application will be undertaken to increase soil moisture.	Interview - Mine Manager  DDG and HVAS results	The chitter haul road area was stripped during the audit period. These works are completed by contractors on a campaign basis. March 2016 last stripping completed in the southeast wedge of the mine. Dust and HVAS results for this month indicate levels of dust consistent with previous months.	C	
e	Land disturbance, including groundcover removal, will be limited in advance of mining activities consistent with operational requirements. Under normal circumstances, a maximum of 100 metres will be prepared in advance of mining.	Site inspection  Interview - Mine Manager  WHC_PRO_ Clearing and Pre-strip	Site inspection and interviews indicates groundcover and stripping occurs on a campaign basis.	O	Consider including commitment requirement in the procedure WHC_PRO_ Clearing and Pre-strip

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
f	Groundcover will be removed with the topsoil, as opposed to prior to topsoil removal.	Interview - Mine Manager  Site Inspection  WHC_PRO_ Clearing and Pre-strip	Procedure describes the removal of trees with a scraper to be used after this step to strip topsoil.	O	Consider clarifying in the procedure WHC_PRO_ Clearing and Pre-strip the requirement to retain groundcover with the topsoil.
g	Where long-term stockpiling of soil materials is planned (typically greater than 3 months) the stockpiles will be seeded and fertilised as soon as possible.	Site Inspection  Soil Inventory	Noted during site inspection that the stockpiles are stabilised with vegetation with no obvious movement of sediment evident on the area surrounding the stockpiles.	C	
<b>Drilling and Blasting Activities</b>					
h	Water injection will be used on the drilling rig.	Interview - Mine Manager	Drill rigs use water injection.	C	
i	Coarse aggregates will be used for blast hole stemming at all times.	Interview - Mine Manager  Site Inspections	Blue metal sourced from local quarries is used for blast hole stemming.  Blue metal stockpile noted during the site inspection.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
j	Where practicable, blasting will be restricted during unfavourable weather conditions.	Interview - Mine Manager  WHC-CHK Environmental Blast Checklist Rocglen	Meteorological conditions are checked prior to blasting on Sentinex.  Environment Officer checklist reviews 7 day forecast and notifies OCE of any potential issues.	C	
k	When necessary, dust aprons will be lowered during on-site drilling.	Interview - Mine Manager	Dust aprons are fitted to the drill rigs and are a permanent fixture.	C	
<b>Overburden Ripping and Placement</b>					
l	Where practicable, ripping of softer overburden material will be avoided during periods of high winds.	Mine Manager	Removal of overburden material is generally limited to within the mine void at current stage of the project. Some overburden material is removed along the southeast corner as extraction moves towards the south	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Coal Mining</b>					
m	When necessary, low moisture coal will be sprayed with water prior to excavation	Interview - Mine Manager	Coal is reasonably moist but at times if the coal is dusty then spray is used from dust cart or spray gun. Coal is exposed for limited lengths of time on the face to prevent drying out.	C	
<b>Crushing and Screening</b>					
n	Notwithstanding the generally moist nature of the ROM coal pad, when necessary, water will be applied to the coal at the feed hopper, crusher and at all conveyor transfer and discharge points	Interview - ROM Manager  Site Inspection	Demonstrated by ROM Manager spray system on conveyors. Three sprinklers are installed along the conveyor system and is in automatic i.e. sprays when the bin is being loaded and coal is on the belt otherwise system can be switched to manual if required. No excessive dust was noted during loading operations whilst on site.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
o	When necessary, some flexibility does exist to enable cessation of coal processing activities during periods of concurrent high winds and temperatures that have the potential to cause coal dust dispersal independent of water applications.	Interview - ROM Manager  Site Inspection  Adverse weather and noise monitoring log.	Prevailing wind direction is towards the north - ROM pad is exposed.  Alerts are sent to the Mine Manager and OCE when wind speeds are over 6m/s for six consecutive 5 minute periods, and an action alarm set to trigger with sustained wind speeds of 8m/s for six consecutive 5 minute periods which allows operations to be modified if required. .	C	
<b>Internal Transport</b>					
p	As required, internal roads will be watered, with emphasis on those subject to frequent trafficking.	Site Inspection	Dust cart was noted in use during site visit - also noted operating during night time inspection.	C	
q	The speed of all on-site vehicles and equipment will be restricted.	Site inspection  Interview Mine Manager	Speed limit of the site is 60km/h.  Site inspection observed mine vehicles travelling slowly.	C	
r	All internal roads will be clearly defined to control their locations.	Site Inspection	Site inspection confirms roads are clearly marked.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
s	As roads within the Project Site become obsolete, they will be promptly ripped and revegetated.	Site Inspection	Site inspection of rehabilitated areas confirms this occurs.	C	
<b>External Transport</b>					
t	All trucks hauling product coal and coal rejects between Rocglen and the Whitehaven CHPP will be required to be fitted with roll-over tarpaulins.	BIS SWMS 28410 - Loading ex Hopper Risk Assessment Site Inspection	SWMS lists requirement to cover loads with tarp - if unable to be covered then load must be tipped and unit returned to base to correct problem.  Site inspection over 3-6 May confirmed all trucks had tarps fitted and in use.	C	
u	All trucks transporting coal will be well maintained to ensure optimal operation, which will minimise the potential for noise emissions.	NHVAS - BIS Industries BIS Industries - WHSE Management Plan	BIS transports all coal from and coal reject to site which operate under the National Heavy Vehicle Accreditation Scheme which requires a daily check for roadworthiness with records carried in the vehicle.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Rehabilitation</b>					
v	As per the commitments listed in Section 8.6, Whitehaven will adopt a progressive approach to the rehabilitation of disturbed areas within the Project Site to ensure that, where practicable, completed mining and overburden emplacement areas are quickly shaped, top dressed and vegetated to provide a stable landform.	Rehabilitation Management Plan  Site inspection  Interview - Mine Manager	The northern emplacement area is now reshaped with rehabilitation underway. The western emplacement area is still receiving material along the eastern edge. Rehabilitation of this area cannot occur until after operations has ceased as infrastructure in area.	C	
<b>Monitoring</b>					
w	The existing Air Quality Monitoring Program (Whitehaven 2009a) will be reviewed and, as necessary, updated to integrate relevant aspects of the Project	Letter from DPE issued 26/02/2016	Revised plans have been submitted with current versions of various management plans last approved by DPE on 26 February 2016.	C	
x	A real-time PM10 monitor will be installed and operated. As recommended by PAE Holmes (2011), it is proposed to locate this monitor at the "Roseberry" residence, co-located within one of the existing HVAS.	Site Inspection  Interview - Group Superintendent - Environment (Compliance)  Monitoring Results	Review of results indicates Real Time Monitor and HVAS are located at Roseberry.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
y	The existing weather station and HVAS within the "Glenroc" property will be relocated. As recommended by PAE Holmes (2011), it is proposed to move these items to "Costa Vale", which is along the axis of prevailing winds	Site Inspection	Site inspection confirms location of Meteorological Station is at Costa Vale. It is proposed to move this station to site. Application to amend the EPL is underway.	C	
<b>NOISE</b>					
<b>Project Design</b>					
a	The external batter slopes of the expanded Northern Emplacement Area will be re-shaped and revegetated in Years 1 and 2 of the Project to, amongst other things, minimise the projection of noise from overburden transportation and emplacement activities towards privately owned residences located to the north and north-east later in the mine life.	Site Inspection AEMR 2011-2012	Review of AEMR for 2011-12 (Year 1) confirms batter slopes of northern emplacement area commenced with revegetation occurring in the next reporting year (Year 2).	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>General Operation</b>					
b	Contractors, including all personnel and sub-contractors, will be advised of noise compliance limits prior to their work commencing. Contractors will be expected to take practical measures to limit noise generation during their activities where possible.	WHC Generic Induction 28-03-2014 Slide Pack  WHC - Open Cut Inductions V3 - Nov 2014 Slide Pack	Generic induction includes OHS noise requirements and limits. Additional slide highlights sites have noise limits as part of the CoA and EPL.	C	
c	Prior to being brought on-site, all earthmoving equipment will be tested to ensure sound power levels are consistent with the previous assessments undertaken by Spectrum Acoustics	Emails 25/11/2015, 30/11/2015  Interview- Mine Manager	Internal emails sighted to determine sound power levels for equipment on site. Individual pieces of equipment do not currently have sound power levels checked to confirm within specifications and consistent with previous assessments undertaken by Spectrum Acoustics prior to being brought on site.	NC	Consider the requirement to test equipment prior to being brought on site. Consider developing a list of equipment and their sound power levels (design and measured) with comparison to previous assessments as a record.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
d	Site personnel will be required to pay due attention to site weather conditions and modify or stand down from operational activities if directed by mine management.	Site Inspection  Adverse weather and noise monitoring log.  TARP - wind speeds	Weather station data is checked for operations once per day by the Environment Officer, station is also checked monthly for maintenance, temperature inversion conditions.  A TARP has been developed with an investigation alarm set to trigger with wind speeds of 6m/s for six consecutive 5 minute periods, and an action alarm set to trigger with sustained wind speeds of 8m/s for six consecutive 5 minute periods	C	
e	Where possible, equipment with lower sound power levels will be used in preference to more noisy equipment.	Interview - Mine Manager	Equipment selection includes review of noise levels (fit for purpose main selection driver).	C	
f	All equipment used on-site will be regularly serviced to ensure the sound power levels remain at or below the levels used in the modelling undertaken by Spectrum Acoustics	Prestart checklist book	Mine equipment is inspected daily as part of prestart. Any defects are managed through "Pulse" program.	O	Consider including checks for excessive noise as a Category 'C' fault in the Prestart Checklist Sheet for machinery on site

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
g	Mid-high frequency broadband reverse beepers are fitted to on-site mobile mining equipment	Interview - Mine Manager Site Inspection	Not all equipment is fitted with mid-high frequency reverse beepers.	NC	Consider fitting all mobile mining equipment with mid-high frequency reverse beepers.
h	The on-site road network will be maintained to limit vehicle body noise.	Site Inspection	Roads were observed to be in good condition with minimal rilling and potholes.	C	
<b>External Transport</b>					
i	All transport activities, including the haul route used between Rocglen and the Whitehaven CHPP and the hours of coal haulage, will continue to be undertaken strictly in accordance with that approved under PA 06_0198.	Note	Noted	Note	
j	The haul route between Rocglen and the Whitehaven CHPP is fully sealed and will continue to be maintained under an existing contribution plan with Council	Site Inspection	Length of route was driven along as part of site inspection - road was in reasonable condition. Evidence of recent works.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
k	Drivers will be instructed to operate in accordance with an existing Transport Policy and Code of Conduct, which identify aspects such as travelling speeds, general behaviour, avoidance of exhaust brakes, load coverage, complaints and disciplinary procedures. The Policy and Code apply to all employee and contractor-owned vehicles.	SWMS - PA3-27-2 Gunnedah Driver Inductions Checklist (BIS Document)	Code of Conduct anecdotally given to all drivers. Copy of the Code of Conduct was not available for review during the audit therefore the content cannot be confirmed.  BIS induction checklists includes WHC Generic and & CHPP and Rocglen Inductions (also lists procedures).  Review of inductions does not include required information as per commitment.	NV	Copy of Code of Conduct and Transport Policy or other document/evidence required to confirm requirements of the commitment are relayed to the truck drivers to determine compliance.
l	The trucks will be speed limited to 93 km per hour to, amongst other things, minimise engine noise	Interview - Group Superintendent - Environment (Compliance) SWMS - PA3-27-2 BIS SWMS 30626 BIS WHSE Management Plan (issued February 2016)	Requirement for speed to be limited to 93km/h is included in the BIS WHSE Management Plan. The plan states trucks will be limited to a maximum speed of 93 km per hour via the electronic engine management system.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
m	All trucks transporting coal will be well maintained to ensure optimal operation, which will minimise the potential for noise emissions	NHVAS - BIS Industries  BIS Industries - WHSE Management Plan	BIS transports all coal from and coal reject to site which operate under the National Heavy Vehicle Accreditation Scheme which requires a daily check for roadworthiness with records carried in the vehicle.	C	
<b>Monitoring</b>					
n	As per the commitments listed in Section 8.3, the existing Noise Monitoring Program (Whitehaven 2008d) will be reviewed and, as necessary, updated to integrate relevant aspects of the Project. Specifically, "Retreat" or "Penryn" will be included as a noise monitoring location in the revised Program in place of "Costa Vale" (which is now owned by Whitehaven).	Letter from DPE issued 26/02/2016	Revised plans have been submitted with current versions of various management plans last approved by DPE on 26 February 2016.  Attended monitoring locations are Retreat and Surrey. Real time location Penryn.	C	
o	Traffic noise monitoring will continue to be conducted at the "Brooklyn" and "Werona" residences on Blue Vale Road in accordance with the existing Road Noise Management Plan (Spectrum Acoustics 2008).	Road Traffic Noise Management Plan  Road Traffic Noise Monitoring Results	Review of results (letter reports issued by Spectrum Acoustics confirms monitoring locations are at Brooklyn and Werona.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>BLASTING AND VIBRATION</b>					
<b>Blast Design</b>					
a	Blast design and implementation will be undertaken by a suitably qualified blasting engineer and/or experienced and appropriately certified shot-firer.	Interview - Mine Manager	Shot firer holds SafeWork NSW licence.	C	
b	Burden distances and stemming lengths will be designed to ensure that explosion gases are almost completely without energy by the time they emerge into the atmosphere.	Interview - Mine Manager Blast Design Checklist	Type of product and amount used is developed during blast design with hole depths and diameters considered accordingly.  Burden distances and stemming lengths are entered into design checklist.	C	
c	Blast design will ensure charges consistently detonate in carefully designed sequences	Interview - Mine Manager Blast Design Checklist	Blast design checklists include timing path to be selected (Echelon, V, Zip, ROW).	C	
d	Meteorological conditions will be analysed prior to blasting to avoid times when the potential for impact is heightened, and also endeavours will be made to blast at around midday over the winter period to avoid temperature inversions.	Interview - Mine Manager WHC-CHK Environmental Blast Checklist Rocglen	Meteorological conditions are checked prior to blasting on Sentinex.  Environment Officer checklist reviews 7 day forecast and notifies OCE of any potential issues.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Air Vibrations (Noise and Airblasts)</b>					
e	<p>Noise and airblast generation will be controlled to ensure that all, or the majority of, explosion energy is consumed in fragmenting and displacing the overburden by the time the gases vent (via the broken burden rock and/or ejected stemming material) into the atmosphere. This will be achieved via:</p> <ul style="list-style-type: none"> <li>- Ensuring blasthole spacing is implemented in accordance with blast design;</li> <li>- Careful selection and implementation of burden distance and stemming length;</li> <li>- Using appropriate materials (for example, 20 mm aggregates) for stemming;</li> <li>- Ensuring that charges detonate in the correct sequence and with inter-row delays that provide good progressive release of burden;</li> <li>- Limited the maximum weight of explosive detonated in a given delay period (the maximum instantaneous charge (MIC)) to conservative and proven levels; and</li> <li>- Refining these controls on the basis of the blast monitoring program.</li> </ul>	<p>Interview - Mine Manager Blast Design Checklists Blast Charge Design Excel Spreadsheet</p>	<p>Design sheets include check that pattern has been drilled to design - checked by drill and blast engineer.</p> <p>Burden distance and stemming length in checklists.</p> <p>Aggregate used for stemming is "blue metal".</p> <p>Sequence type selected in blast design sheet</p> <p>Blast charge design includes calculations based on tonnes of product, blast volume, area, spacings etc</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Ground Vibrations</b>					
f	Blast design will ensure the minimum practicable weight of explosive detonates at an instant (minimising the MIC) by using the maximum number of delay periods in each blast	Interview - Mine Manager Blast Design Checklists Blast Charge Design Excel Spreadsheet	Design sheets include minimum practicable weight of explosives and the timing path.	C	
g	Blast design will ensure that most of the energy liberated by the charge(s) on a given delay number is consumed in providing good fragmentation, adequate displacement and/or a loose, highly diggable muckpile.	Interview - Mine Manager Blast Design Checklists Blast Charge Design Excel Spreadsheet	Design sheets include minimum practicable weight of explosives and the timing path. Type of muck pile also requested.	C	
<b>Dust and Other Post-Blast Emissions</b>					
h	Stemming columns will be designed to ensure ejection velocities are low.	Blast Design Checklists	Checklist includes stemming column design	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
i	Appropriate aggregates for blasthole stemming and nonel delay-type or electronic detonators will be used to initiate charges.	Interview - Mine Manager  Blast Design Checklists	Type of detonation specified in checklists.  "Blue metal" used for stemming.	C	
<b>Road Closures</b>					
j	For all blasts within 500 metres of Wean Road, the road will be closed with blast notice boards updated at least 24 hours prior to each blast. Road closures typically occur for a period of up to 10 minutes.	Site Inspection  Interview - Group Superintendent - Environment (Compliance)  Site Inspection	The boards are in place but are not currently used as intended.  Sentries are placed along road to prevent use of the road by traffic during blasting.	NC	Consider using the blast notice boards prior to blasting.
k	Whitehaven will inspect the road following the blast and any rock fragments removed from the road surface prior to re-opening.	Interview - Mine Manager  Blast Clearance and Firing Procedure	Anecdotally this occurs however this is not recorded in the procedure or current blast checklists.	O	Consider including requirement for checks in procedure and add check onto one of the blasting checklists.
l	Whitehaven will monitor the distance flyrock travels (if any) beyond the designed blast envelope and identify if further safeguards are required.	Interview - Mine Manager  Blast Clearance and Firing Procedure	Anecdotally this occurs however this is not recorded in the procedure or current blast checklists.	O	Consider including requirement for checks in procedure and add check onto one of the blasting checklists.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Consultation</b>					
m	The proposed blasting schedule will be provided to all residents within a 3 km radius of the blast providing advance notice of the date and time of each proposed blast. A verbal confirmation on the day of the blast will also be undertaken.	Interview - Group Superintendent - Environment (Compliance)  Blast Notification Checklists - 15 March 2016  Interview - Environment Officer	Rocglen has blast notification checklists which lists all stakeholders to be contacted prior to blasts. The list is completed with date of notification (email and/or phone which is dependent on requested format). The checklist includes the next upcoming blast which gives preferably 24 hours' notice.	C	
n	Whitehaven will erect a blast notice board near the mine entrance on Wean Road notifying passing motorists when the next blast is scheduled.	Site Inspection	The boards are in place but are not currently used as intended.  Sentries are placed along road to prevent use of the road by traffic during blasting.	NC Duplicated SoC	Consider using the blast notice boards prior to blasting.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Monitoring</b>					
o	As per the commitments listed in Section 8.3, the existing Blasting Monitoring Program (Whitehaven 2008a) will be reviewed and, as necessary, updated to integrate relevant aspects of the Project. Specifically, "Retreat", as the nearest privately-owned residence to the north of the Project Site, will be included as a blast monitoring location in the revised Program in place of "Costa Vale" (which is now owned by Whitehaven).	Letter from DPE issued 26/02/2016	<p>Revised plans have been submitted with current versions of various management plans last approved by DPE on 26 February 2016.</p> <p>Monitoring locations include licensed points "Roseberry" and "Retreat" and the un-licensed point "Surrey", which was monitored 2012-14 in response to landholder concerns and an un-licensed point "Kahana" for 7 months in 2014-15 in response to concerns from the blast engineer regarding unexpectedly high results from the "Roseberry" monitor.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>SURFACE WATER</b>					
<b>General</b>					
a	All hydrocarbon products will be securely stored.	Site inspection	Hydrocarbon products stored in bunded area around the maintenance shed. Refuelling on site done with designated refuelling/service trucks.  Fuel to groundwater pump inside ISO tank which feeds pump. Pump for mine water has self-contained tank.	C	
b	All of the mining fleet will be refuelled within designated areas of the Project Site.	Interview - Mine Manager	Refuelling of equipment is done at the designated area at the maintenance building as much as practicable otherwise refuelling of equipment is completed by refuelling/service trucks which are fitted with non-drip fittings and automatic shot offs.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
c	With the exception of some maintenance activities on mobile equipment, all maintenance works requiring the use of oils, greases and lubricants would be undertaken within designated areas of the Project Site.	Interview - Mining Manager	Maintenance is completed primarily at the maintenance shed where practicable. Otherwise maintenance is completed by service trucks inside the pit - these vehicles contain spill kits, closed containers for oil - use evacuation hoses with non-drip spill fittings for oil collection.	C	
d	All water from wash-down areas and workshops would be directed to oil/water separators and containment systems.	Interview- Mine Manager, Maintenance Manager  Site Inspection  Site Inspection  WHC_CHK Monthly Environmental Inspection Checklist October 2015 - March 2016	Wash down area and workshop drains to pit which is treated through oil water separator before discharging to a pond. This pond drains to SD3 before discharge from site. Monthly checklists by environment checks oil/water separator and clarified water disposal area is free from hydrocarbon contamination (visible).	O	Consider the occasional check of water quality in this pond to confirm the OWS is working as per design and pre-empt any potential contamination off site.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
e	All storage tanks will be either self-bunded tanks or bunded with an impermeable surface with a capacity to contain a minimum of 110% of the largest storage tank capacity.	Site Inspection Site Inspection WHC_CHK Monthly Environmental Inspection Checklist October 2015 - March 2016	Storage tanks self bunded and/or contained within bund with impermeable surface. Monthly inspection also includes checks all hydrocarbons and chemicals are stored within bunded areas.	C	
f	Chemical flocculation to help increase the settling times of the sediment (TSS) in the water column will also be employed as required.	Interview - Group Superintendent - Environment (Compliance) AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15	Chemical flocculation is used - Magnafloc LT425 Coagulant. If visual assessment indicates dams are nearing capacity, the water is tested. Coagulant is then applied and water tested the following day - if water below 50mg/L then water is OK for release. If over then more coagulant is used. The water is then physically pumped from site. Used when dams are full and further rainfall is expected. Last treatment event was in January 2016 with no discharge and then in February 2016 with discharge occurring.  The controlled discharges are reported in the Annual Reviews.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
g	As required, appropriate drainage structures and erosion and sediment controls will be installed and maintained.	Site Inspection	Historical erosion and sediment control devices noted during the site inspection in the rehabilitated and revegetated areas. Some scouring and erosion was noted in the newer areas of rehabilitation in the northern emplacement area.	NC	Consider removing erosion and sediment control structures that are damaged/no longer required. Consider installing additional controls where erosion is evident to prevent the need for extensive rework/repairs.
h	All efforts will be undertaken to ensure that any water discharged from the Project Site via the LDPs meets the quality limits imposed by the DECCW on the site's EPL.	Water Quality Results	Refer to assessment of the discharge water under the EPL ( <i>Annex C</i> ).  All discharges (controlled and wet weather) have been within the EPL criteria for pH, TSS and Electrical Conductivity (EC) during the audit period.	C	
i	Key changes, as detailed in Appendix M, to be integrated into the existing surface water management system are:  - Additional water management controls to deal with water from the increased disturbance footprint in the northern area of the site;  - Additional water management controls to address TSS issues during wet weather	Site Inspection  Water Management Plan	Diversion for clean water system along the western boundary was noted during the site inspection.  Mine Water Dam has been relocated. Will be moved back to pit when active pit moves to south.  Refer to the Water Management Plan. Clean water from east is	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	discharge; - Relocation of the Mine Water Dam; and - More effective diversion of clean water from off-site catchments to the east.		diverted from site.		
j	Dirty water generated from disturbed areas to be captured and diverted using contour banks and drop structures in a manner that minimises the potential for concentrated overland flow and subsequent erosion. This water will be channelled through a series of sediment basins to reduce sediment loads prior to discharge.	Site Inspection	Site inspection confirms installation of banks, contouring to divert water to sediment basins. Noted also some basins were undergoing desilting.	C	
k	Water generated within the open cut pit, primarily as a result of rainfall/runoff and some groundwater seepage, to be managed within the open cut via in-pit sumps. This water will be directed to and contained within these in-pit sumps until it is necessary to pump the water to the new Mine Water Dam, which will be constructed as a 'turkeys nest' to receive mine water only.	Site Inspection	Site inspection confirms water is pumped to Mine Water Dam which is a turkey nest design.	C	
l	Clean water diversions will be constructed wherever possible upstream of disturbance areas to minimise the amount of dirty water to be contained and treated within the dirty water management system.	Site Inspection	Site inspection confirms presence of clean water diversions.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
m	Progressive rehabilitation of all re-shaped surfaces to assist in reducing the level of TSS (and possible high pH and salinity) in runoff from disturbed areas. This will also reduce the dependence on sediment controls and generally assist in improving water quality.	Rehabilitation Management Plan Site inspection Interview - Mine Manager	The northern emplacement area is now reshaped with rehabilitation underway. The western emplacement area is still receiving material along the eastern edge. Rehabilitation of this area cannot occur until after operations has ceased as infrastructure in area.	C	
n	Water collected in the open cut extraction pit and/or dirty water dams will be used, as much as possible, for dust suppression purposes. This is the preferential use of water on-site to minimise the chance of pollution to downstream waterways.	Site Inspection Interview - Mine Manger	Water is used out of each dam for dust suppression activities on site. The Mine Water Dam is used preferentially over others for dust suppression activities.	C	
o	Sediment control structures will be maintained to ensure the design capacities are preserved for optimum settling rates. This will be most critical for those 'end-of-line' sediment basins that discharge from the Project Site.	Site Inspection	Historical erosion and sediment control devices noted during the site inspection in the rehabilitated and revegetated areas particularly from the EPL discharge locations.  Sediment dams were undergoing desilting whilst on site to maintain capacity.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
p	Implementation of an effective revegetation, maintenance and monitoring program.	Site Inspection	<p>Site inspection indicates mixed success with rehabilitation. The northern emplacement area designated for pasture has numerous weeds (Class 4 such as Bathurst Burr and Prickly Pear). Galvanised Burr and Black Roly Poly is the most common weed but are not locally declared weed.</p> <p>The soil is undergoing testing to determine ameliorant type and rate to encourage growth of any further seeding campaigns. A biodiversity expert has been recently (last two months) appointed fulltime to oversee the rehabilitation of the Whitehaven Coal sites. This will include investigating alternative methods for reseeding/replanting.</p>	NC	Continue to investigate alternative rehabilitation methods to increase success.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Site Water Management Plan</b>					
q	Within 12 months of Project Approval, a new Site Water Management Plan will be prepared in accordance with regulatory requirements and the Blue Book (Volume 1 and Volume 2E).	Water Management Plan  Independent Environmental Compliance Audit - Umwelt (2013)	Refer to <i>Annex M</i> of this report for assessment of implementation of the Water Management Plan.  Previous audit confirmed condition met.	NT  Closed Previous Audit	
<b>Site Water Balance and Discharge</b>					
r	Whitehaven will consider and, where appropriate, adopt the following to improve site water balance and minimise uncontrolled overflow discharge:  - The proposed dams will be built to at least the specified sizes, and made larger where practical to provide additional storage in order to further reduce the chance of uncontrolled overflow discharge. Increasing the total storage will provide opportunity to retain and treat water prior to controlled discharge;	Water Management Plan  Letter from DPE issued 26/02/2016  Independent Environmental Compliance Audit - Umwelt (2013)  Water Monitoring Results	Refer to previous audit report for evidence of consultation.  Refer to <i>Annex M</i> of this report for assessment of implementation of the Water Management Plan.  Water is transferred to designated sediment basins to allow for use in dust suppression activities and/or treatment and testing before controlled discharge.  Controlled discharges have occurred from site during the audit period.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> <li>- Water will be promptly transferred amongst sediment basins to ensure the maximum available on-site storage capacity of rainfall events is maintained; and</li> <li>- That controlled discharge of treated (settled and/or flocculated) water will be undertaken to draw down the water storage within all the dirty water dams on-site, which will provide the capacity to contain the majority rainfall events and reduce uncontrolled overflow discharge.</li> </ul>				
<b>Drainage Lines</b>					
s	Sections of drainage lines that are or will be impacted upon by the mining operation will be rehabilitated post-mining generally in accordance with Section 5.3.3 of the Blue Book (Volume 1) and the Guidelines for Controlled Activities - In-Stream Works (DWE 2008, as cited in GSSE 2010c) for watercourse rehabilitation and riparian zone rehabilitation.	Site Inspection	The western emplacement area along the western side and the western side of the northern emplacement area has been rehabilitated generally in accordance with Section 5.3.3 of the Blue Book i.e. includes terraces, and numerous small ponds.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Licensed Discharge Points</b>					
t	While LDP 11 will continue to be used at the southern end of the Project Site, LDP 12 will be superseded and relocated in consultation with the EPA.	Email to EPA 21/09/2012	Email sent to EPA advising of location change - current EPL plan includes correct discharge locations	C	
<b>Monitoring</b>					
u	As per the commitments listed in Section 8.3, the existing surface water monitoring program will be reviewed and, as necessary, updated to integrate relevant aspects of the Project. Table 47 presents a summary of the proposed surface water monitoring.	Letter from DPE issued 26/02/2016  Section 7 - Environmental Assessment - Part 3 of the EA  Water Management Plan	Revised plans have been submitted with current versions of various management plans last approved by DPE on 26 February 2016.  Table 47 matches Table 8 in Section 4.9.4 Surface Water Monitoring Locations and Frequency of the Plan.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Groundwater Monitoring</b>					
a	All hydrocarbon products will be securely stored.	Site inspection	Hydrocarbon products stored in bunded area around the maintenance shed. Refuelling on site done with designated refuelling/service trucks.  Fuel to groundwater pump inside ISO tank which feeds pump. Pump for mine water has self-contained tank.	C	
b	All of the mining fleet will be refuelled within designated areas of the Project Site	Interview - Mine Manager	Refuelling of equipment is done at the designated area at the maintenance building as much as practicable otherwise refuelling of equipment is completed by refuelling/service trucks which are fitted with non-drip fittings and automatic shot offs.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
c	With the exception of some maintenance activities on mobile equipment, all maintenance works requiring the use of oils, greases and lubricants would be undertaken within designated areas of the Project Site.	Interview - Mining Manager	Maintenance is completed primarily at the maintenance shed where practicable. Otherwise maintenance is completed by service trucks inside the pit - these vehicles contain spill kits, closed containers for oil - use evacuation hoses with non-drip spill fittings for oil collection.	C	
d	All water from wash-down areas and workshops would be directed to oil/water separators and containment systems.	Interview- Mine Manager, Maintenance Manager Site Inspection WHC-CHK Monthly Environmental Inspection Checklist	Wash down area and workshop drains to pit which is treated through oil water separator before discharging to a pond. This pond drains to SD3 before discharge from site. Monthly checklists by environment checks oil/water separator and clarified water disposal area is free from hydrocarbon contamination (visible).	O Duplicated from SoC	Consider the occasional check of water quality in this pond to confirm the OWS is working as per design and pre-empt any potential contamination off site.
e	All storage tanks will be either self-bunded tanks or bunded with an impermeable surface with a capacity to contain a minimum of 110% of the largest storage tank capacity.	Site Inspection WHC-CHK Monthly Environmental Inspection Checklist	Storage tanks self bunded and/or contained within bund with impermeable surface. Monthly inspection also includes checks all hydrocarbons and chemicals are stored within bunded areas.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
f	As per the commitments listed in Section 8.3, the existing groundwater monitoring program will be reviewed, updated and implemented to integrate relevant aspects of the Project.	Letter from DPE issued 26/02/2016  Water Management Plan	Revised plans have been submitted with current versions of various management plans last approved by DPE on 26 February 2016.	C	
g	Bores will be cleaned out (air-lift developed) and depth checked with a weighted tape. Bores will then be geophysically wireline logged (SP/SPR and Gamma) to confirm slotted intervals and the nature of the strata over slotted intervals.	NOW Form A for MP2A, 3A, 4A, 4B, 5A	Form A's have been provided however these do not include details of bore development or confirmation bores were geophysically wireline logged.  Installation reports which includes details of the well development and logging details was not available during the audit period.	NV	Installation reports which include well development and logging details are required to complete the assessment of compliance with this condition.
h	All monitoring bores will be surveyed for location and level (both ground level and the level of the RP from which groundwater levels are measured).	NOW Form A for MP2A, 3A, 4A, 4B, 5A and Excel spreadsheet	Monitoring bores as listed have been surveyed which includes mAHD.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
i	Monitoring of groundwater levels will initially be undertaken on a monthly basis for the first year of the Project, after which the interval may potentially be relaxed subject to review of the results. In the longer term a monitoring interval of three months is anticipated. Samples will be analysed for all major ions, including carbonate.	Monitoring results  AEMR 2011-2012	Groundwater is monitored every three months.  Review of the AEMR 2011-12 indicates groundwater monitoring frequency was quarterly.  Major ions includes carbonates (generally below LOR)	NC	Monitoring of groundwater levels was not completed initially monthly for the first 12 months of the Project. No further actions are recommended.
j	Pressure transducers/dataloggers will be installed in monitoring bores MP-01 to MP-05 for the continual recording of groundwater levels. These instruments will be downloaded every 2 months. MP-04 and MP-05 will be deepened to at least 10 metres below the water table.	Interview – Environment Officer  Monitoring Results  AEMRs	Dataloggers are installed in MP2a, MP3a, MP4a, MP5a and MP6a as reported in the AEMRs. MP1 has been covered by the production area. MP4 and MP5 were superseded by new bores MP4b and MP5a. MP4b was drilled to 72mbgl with water levels at approximately 24-25mbgl. MP5a is drilled to 78.4mbgl with SWL initially at 63.80 after installation however is now substantially dry.  The data is downloaded by the Environment Officer – last downloaded for reporting into the AEMR.	ANC	Consider downloading data every two months as stated in the commitment.  Investigation required for groundwater level changes with MP5a

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
k	<p>In order to address the concerns of the NOW in regard to the potential for impact on alluvial aquifers of the Namoi River and associated tributaries, the following program of investigations will be undertaken:</p> <p>- Bores MP-04 and WB-01 are nominally located within the alluvium south and north of the mine, respectively. Once this is confirmed through the above commitments, a second bore will be drilled adjacent to each of them, to a depth at which the base of the alluvium is intersected. This adjacent bore will be completed as a monitoring bore in the Maules Creek Formation and have a pressure transducer/datalogger installed for continuous water level monitoring. Such actions will need to be agreed to by the relevant landowners; and</p>	ALS Interview	<p>WP2A - water levels were trending downwards but are now similar to starting level. Water quality is consistent between monitoring events.</p> <p>WP3A - metal concentrations are trending downwards. Cations and anions are consistent as is pH, EC and TDS.</p> <p>WP5A - water levels have dropped 15metres with the bore now substantially dry (refer above).</p> <p>MP6 - concentrations metals, EC are trending down indicating potential rain/freshwater impacts. Ammonia levels are elevated - sources could include decaying organic matter, excreta from humans/animals, fertilisers which supports interaction with surface water.</p>	O	<p>Consider analysing REDOX to determine if the conditions are reducing/oxidising to assist with interpreting reason for decreasing metal concentration trends in some wells.</p> <p>Investigation needs to be completed to confirm potential sources of ammonia.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>- There is some uncertainty regarding the nature of the interface between the southern alluvium and the weathered conglomerate profile of the Maules Creek Formation at the southern end of the proposed pit. On this basis, a pair of piezometers will be installed immediately to the south of the proposed pit, one in the Belmont Seam and one in the alluvium/weathered conglomerate. Also, hydraulic testing will be undertaken on the bore in the alluvium/weathered conglomerate to allow refinement of the groundwater model in this regard.</p>		<p>MP7 - concentrations of metals are trending downwards, pH is rising and TDS is falling. EC and water level remains consistent. Ammonia levels have slightly increased.</p> <p>MP8 - analytes are consistent with exception of ammonia which is increasing slightly.</p> <p>WB13 - water level fluctuates between 33.22 to 44.6mbgl. MP4A and 4B commenced in November 2013 - results are consistent between monitoring events</p> <p>WB14 December 2014 - water quality results are consistent however depth to water fluctuates between 10.16mbgl to 23.20mbgl.</p> <p>WB15 July 2014 - results are consistent between monitoring events.</p>		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Flora and Fauna</b>					
a	All efforts will be made by Whitehaven to avoid disturbance of the vegetation communities within the Project Site and to maintain and enhance as much of the existing remnant vegetation on-site, in addition to the proposed biodiversity offset areas (see Section 5.8), as possible.	Site Inspection	Areas not impacted by mining are fenced to prevent entry.	C	
b	A high level of hygiene will be adopted in respect to vehicle and machinery to help prevent soil-borne disease transmission and weed seed dispersal.	Site Inspection	Trucks transporting coal remain on sealed roads. On site machinery travel on designated internal roads.	C	
c	Strict erosion and sediment control measures will be installed, monitored and maintained to prevent the erosion and sedimentation impact on adjacent areas.	Site Inspection WHC_CHK Monthly Environmental Inspection Checklist October 2015 - March 2016	Some controls installed at the LDP discharge areas and the drainage line of the western emplacement area - these are in disrepair and could be removed now that the areas has been stabilised.  Monthly checks by environment officer include checks for erosion.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
d	Dust control measures will be implemented to protect adjacent retained vegetation communities.	Air Quality and GHG Management Plan  Site Inspection	Refer to <i>Annex G</i> for assessment of implementation of dust mitigation measures.  Site inspection noted dust was adequately controlled.	C	
e	The minimal practicable amount of clearing will be undertaken as a general objective, particularly within those areas that currently contain identified threatened species or ecological communities.	Site Inspection  Interview- Mine Manager	Clearing is completed prior to mine pit moving to area. Mine pit is moving towards site infrastructure areas.	C	
f	Where possible disturbance areas will be marked to protect adjoining vegetation prior to disturbance activities in order to reduce potential damage from uncontrolled or accidental access.	Site Inspection  Interview - Mine Manager	Anecdotally disturbance areas are marked. No clearing activities were being completed during the site visit.	NT	
g	Stockpiling of materials will occur within already disturbed areas.	Site Inspection  WHC_PRO Clearing and Pre-Strip  WHC_PRO Dumps and Coal Stockpiles	Procedure has been developed for clearing and pre-stripping activities as well as dumps and coal stockpiles.  Site Inspection confirms stockpiles occur in already disturbed areas in designated areas.	O	Consider including requirement to stockpile in already disturbed areas in existing procedures where applicable.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
h	Weed management, monitoring and control practices will be implemented to minimise the spread of exotic species into natural areas within the site.	WHC_CHK Monthly Environmental Inspection Checklists	<p>Monthly check for weeds in rehabilitated areas completed by Environment Officer.</p> <p>Site vehicles remain on internal roads. Weeds sprayed by contractor on campaign basis.</p>	C	
i	A tree felling protocol will be developed, by a suitably qualified and licensed ecologist with previous experience supervising the felling of trees, in order to minimise harm to fauna species during clearing activities.	<p>Interview - Group Superintendent - Environment (Compliance)</p> <p>WHC_PRO Clearing and Pre-Strip</p>	<p>Clearing and Pre-strip Procedure includes operational aspects to felling trees.</p> <p>Pre clearance fauna inspections were carried out in December 2013 for clearing three scattered trees to the west of the coal haul road from the pit to the ROM area. An inspection was also carried out in July 2014 for clearing several isolated trees in advance of the eastern edge of the western emplacement area, and at the eastern soil stripping area, in advance of the pits movement east between the mine void and Wean Road.</p> <p>Clearing along old Wean Rd alignment to still occur.</p>	ANC	Consider including ecological considerations for tree felling into the existing procedure, WHC_PRO Clearing and Pre-Strip.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
j	Where possible, tree felling will be supervised by the ecologist that developed the tree felling protocol or by another suitably qualified and licensed ecologist.	Interview - Group Superintendent - Environment (Compliance)  WHC_PRO Clearing and Pre-Strip	Clearing and Pre-strip Procedure includes operational aspects to felling trees.  Pre clearance fauna inspections were carried out in December 2013 for clearing three scattered trees to the west of the coal haul road from the pit to the ROM area. An inspection was also carried out in July 2014 for clearing several isolated trees in advance of the eastern edge of the western emplacement area, and at the eastern soil stripping area, in advance of the pits movement east between the mine void and Wean Road.  Clearing along old Wean Rd alignment to still occur.	O	Consider including ecological considerations for tree felling into the existing procedure, WHC_PRO Clearing and Pre-Strip.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
k	Where trees are to be removed an assessment of the surrounding level of tree hollow provision will be undertaken by a suitably qualified ecologist in order to determine the need for local supplementing of tree hollows (using salvaged tree hollows or nest boxes).	Interview - Group Superintendent - Environment (Compliance)  WHC_PRO Clearing and Pre-Strip	Clearing and Pre-strip Procedure includes operational aspects to felling trees.  Pre clearance fauna inspections were carried out in December 2013 for clearing three scattered trees to the west of the coal haul road from the pit to the ROM area. An inspection was also carried out in July 2014 for clearing several isolated trees in advance of the eastern edge of the western emplacement area, and at the eastern soil stripping area, in advance of the pits movement east between the mine void and Wean Road.  Clearing along old Wean Rd alignment to still occur.	O	Consider including ecological considerations for tree felling into the existing procedure, WHC_PRO Clearing and Pre-Strip.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
l	Mature and hollow-bearing trees will be retained wherever feasible within the site.	Interview - Group Superintendent - Environment (Compliance)  WHC_PRO Clearing and Pre-Strip	Clearing and Pre-strip Procedure includes operational aspects to felling trees. Unknown if this consideration was completed during tree felling activities.  Clearing along old Wean Rd alignment to still occur.	O	Consider including ecological considerations for tree felling into the existing procedure, WHC_PRO Clearing and Pre-Strip.
m	Vegetation to be removed will be clearly marked in the field using temporary fencing (flagging tape or similar) so that the boundaries are clearly established and to minimise the potential for equipment to accidentally enter areas to be retained.	Interview - Group Superintendent - Environment (Compliance)  WHC_PRO Clearing and Pre-Strip	Clearing and Pre-strip Procedure includes operational aspects to felling trees.  Unclear if commitment was completed during tree felling.  Clearing along old Wean Rd alignment to still occur.	O	Consider including ecological considerations for tree felling into the existing procedure, WHC_PRO Clearing and Pre-Strip.
n	Where possible, the timing of clearing activities will be undertaken at such times to avoid removal of hollow-bearing trees during breeding season of threatened species.	Interview - Group Superintendent - Environment (Compliance)  WHC_PRO Clearing and Pre-Strip	Clearing and Pre-strip Procedure includes operational aspects to felling trees.  Ecologist attended tree felling.  Clearing along old Wean Rd alignment to still occur.	O	Consider including ecological considerations for tree felling into the existing procedure, WHC_PRO Clearing and Pre-Strip.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
o	Regular monitoring of the vegetation within the Project Site and offset areas will be undertaken in order to enable effective management with regards to rehabilitation (planting), regeneration, watering, fencing and weed control.	Rocglen Mine Rehabilitation Monitoring (spring 2014 - autumn 2015), Eco Logical Australia issued June 2015  WHC_CHK Monthly Environmental Inspection Checklist October 2015 - March 2016	Eco Logical completed monitoring for Spring 2014 to Autumn 2015.  Monthly Inspections are completed by the Environment Officer.	C	
<b>Aboriginal Heritage</b>					
a	As per the commitments listed in Section 8.3, the existing ACHMP (Whitehaven 2008c) will be reviewed and, as necessary, updated to integrate relevant aspects of the Project.	Letter from DPE issued 26/02/2016	Revised plans have been submitted with current versions of various management plans last approved by DPE on 26 February 2016.	C	
b	All efforts will be made by Whitehaven to minimise disturbance within the Project Site.	Site Inspection  Interview - Mine Manager	Disturbance limited as much as practicable to active work areas.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
c	Liaisons will continue to be undertaken with the registered Aboriginal stakeholders and other interested parties until all issues in relation to the management of Aboriginal cultural heritage have been resolved.	Interview - Group Superintendent - Environment (Compliance)  MOP - Map 1c	No further issues have been raised/occurred during audit period. The scar trees are located extremely close to where the haul road will be relocated as the pit moves towards the south. It is recommended liaison would occur prior to the road moving to the area to ensure the groups are satisfied with protection measures to prevent accidental damage.	C	
d	If impact to the Aboriginal sites identified with the Project Site (RPS Rocglen IF1, RPS Rocglen AS1 and RPS Rocglen AS2) is unavoidable, a surface salvage will be undertaken in accordance with Section 3 of the ACHMP (Whitehaven 2008c). Artefacts salvaged will be transferred to relevant Aboriginal groups under a Care and Control Permit under Section 85A of the <i>National Parks &amp; Wildlife Act (NP &amp; W Act)</i> .	Heritage Management Plan - Section 4.1	Salvage of RPS Rocglen AS1 and RPS Rocglen AS2 was undertaken on the 17th May 2012 as they were located within the footprint of the expanded northern emplacement area. The salvage was subject to an application to transfer Aboriginal objects for safekeeping under Section 85a of the <i>NP&amp;W Act</i> .  IF1, also located with the expanded northern emplacement area, was attempted at the same time as RPS AS1 and RPS AS2, but it was unable to be re-identified at the time of the	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			salvage due to poor ground visibility. OEI was advised at the time of the inability to re-identify IF1.		
e	Protective measures designed to prevent damage to the scarred trees (NPWS # 20-4-0194 and NPWS #20-4-0195) will be enacted upon as per recommendations in Appleton (2007) and the ACHMP (Whitehaven 2008c).	Heritage Management Plan	Section 4.2.4 Details protective measures as per recommended by Appleton (2007).	C	Refer to Heritage Management Plan for implementation of the measures.
f	In areas where surface excavation might occur in the future within 25 metres of the east-west oriented drainage line, Whitehaven will follow protocols in Section 4.1(iii) of the ACHMP (Whitehaven 2008c).	Heritage Management Plan	This commitment is not currently included in the latest version of the Heritage Management Plan	NC	Complete a review of historical documentation and assess if this commitment is still relevant to stage of works and action accordingly.
g	In general during the course of the Project, if it is suspected Aboriginal cultural heritage material has been encountered, work will cease immediately in that locale. The OEI, along with the RCLALC, BBGTP, GGAC and MMAC, will be notified. Works will only recommence when an appropriate and approved management strategy has been agreed to by all of the relevant stakeholders.	Interview - Group Superintendent - Environment (Compliance)  Heritage Management Plan  WHC_PRO Clearing and Pre-Strip	Section 4.2.5 of the HMP outlines requirement.  WHC_PRO Clearing and Pre-Strip does not include commitment.	O	Consider including this commitment into the WHC_PRO Clearing and Pre-Strip procedure as this is when an encounter with cultural heritage material is likely to occur.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
h	In the event that skeletal remains are uncovered during operations, work will stop in the vicinity immediately and the NSW Coroner's Office and NSW Police contacted. If skeletal remains are deemed to be of Aboriginal origin, a representative of the local Aboriginal Community and the OEH will be consulted.	Interview - Group Superintendent - Environment (Compliance)  Heritage Management Plan  WHC_PRO Clearing and Pre-Strip	Section 4.2.5 of the HMP outlines requirement.  WHC_PRO Clearing and Pre-Strip does not include commitment.	O	Consider including this commitment into the WHC_PRO Clearing and Pre-Strip procedure as this is when an encounter with cultural heritage material is likely to occur.
<b>European Heritage</b>					
a	If significant European cultural heritage material is uncovered during site works, work will cease in that area immediately. An archaeologist will be contacted to assess the significance of the remains and works will only recommence when an appropriate and approved management strategy is instigated	Heritage Management Plan	Included in Section 5 of the plan.  The heritage investigation for the site confirmed no European Heritage features were identified at the site.	C	
<b>Visual Amenity</b>					
a	All efforts will be made by Whitehaven to minimise the visual impact of the mine during and post-operation.	Rehabilitation Management Plan  Mining Operations Plan	Plans include establishment of bushland tree lots in the northern and western emplacement areas along the eastern batter.  Pasture grasses will be established on eastern batters of western and northern emplacement areas.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
b	As per the commitments listed above in Section 8.6, Whitehaven will adopt a progressive approach to the rehabilitation of disturbed areas within the Project Site to ensure that, where practicable, completed mining and overburden emplacement areas are quickly shaped, topdressed and vegetated. Early reshaping and revegetation of the external batter slopes of the emplacement areas will be targeted as a priority.	Rehabilitation Management Plan  Site inspection  Interview - Mine Manager	The northern emplacement area is now reshaped with rehabilitation underway. The western emplacement area is still receiving material along the eastern edge. Rehabilitation of this area cannot occur until after operations has ceased as infrastructure in area.	C	
c	In addition to retaining areas of existing remnant vegetation, it is proposed to restore approximately 206 hectares (58 percent) of the disturbed area within the Project Site as rehabilitated bushland. This large area, which includes the western slopes of the Northern and Western Emplacement Areas, will blend in well with the retained remnant vegetation areas within the Project Site and within the adjacent Vickery State Forest and "Yarrawonga" property.	Site Inspection  Rehabilitation Management Plan	Areas not impacted by mining are fenced to prevent entry.  Rehabilitation Management Plan - refer Section 3.4.1 for commitment.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
d	Strategically placed bushland tree lots will be integrated into the post-mining landform to break-up the landform and provide visual texture. This will be complimented by the establishment of pasture grass areas that will provide short-term visual impact mitigation prior to the trees becoming established.	Rehabilitation Management Plan  Mining Operations Plan	Plans include establishment of bushland tree lots in the northern and western emplacement areas along the eastern batter.  Pasture grasses will be established on eastern batters of western and northern emplacement areas.	C	
e	An earthen bund of appropriate height will be established between the realigned Wean Road and the active pit area. This bund will be vegetated immediately following construction. The bund will provide an effective visual screen of the site from Wean Road. In addition to the bund, a strip of bushland will be established to screen the view of the final void and generally improve the visual amenity from Wean Road.	Site Inspection  Interview - Mine Manager	Earthen bund has been partially installed along the southern part of the eastern boundary but has not been installed along the area of the active pit area.  Bushland will be established once operations have finished in three years.	NC	Consider installing bund along Wean Rd to provide a visual screen.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
f	The requirements of the Australian Standard AS 4282 1997 – Control of Obtrusive Effects of Outdoor Lighting will be taken into consideration when placing lights required when working outside of daylight hours. In particular, lighting plant will be positioned and directed away from surrounding residences and aimed downwards to avoid light spill onto adjoining lands and public roads	Site Inspection	A light stand was noted at western emplacement lookout area which appears to shine across the valley to Belmont – site inspection at night time confirms light is shining directly across the valley i.e. above the horizontal..	NC  Duplicated with MCoA 3.31	Consider directing light downwards or relocating further down into the pit
<b>Greenhouse Gas Emissions</b>					
a	The Greenhouse and Energy Efficiency Plan prepared by Denis Cooke & Associates in June 2009 in accordance with PA 06_0198 will continue to be implemented at Rocglen in order to promote continuous change and sustainable improvement in energy management and efficiency	Rocglen Coal Mine Project Greenhouse and Energy Efficiency Plan, June 2009  Interview – Mine Manager	Review of the plan indicates savings and efficiencies were built into the design of the plant i.e. all purchased equipment and plant specified to achieve the most efficient energy usage over the expected life of the equipment and plant with consideration given to whole of life costing techniques in the evaluation and selection process.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			Operational controls include overburden movement minimum distance to final destination without re-handling if possible. Operational and economic drivers ensure this is completed. Road grades are also kept to <10% grade.		
<b>Traffic and Transport</b>					
a	Coal transportation will be undertaken via the approval haulage route between Rocglen and the Whitehaven CHPP.	SWMS - PA3-27-2 BIS SWMS 30626 - Interaction with other Public Road Movement  Site Inspection	Induction and Code of Conduct describes requirement. SWMS's also describes requirement which is issued to truck drivers.  Site inspection over period 3-6 May 2016 noted absence of coal haul trucks on Wean Rd (alternate route).	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
b	Coal transport will be undertaken between the approved times of 7am and 9:15pm Monday to Friday, and between 7am and 5:15pm on Saturdays.	Weighbridge docket for 29/04/2016	Refer MCoA 3.39  Review of weighbridge docket for 29/04/2016 reviewed - last load of coarse reject left CHPP at 21:22 which is outside the approved hours. Seven trucks arrived at the CHPP before 7:20am (route takes approximately 20 minutes).	NV  Duplicated with MCoA 3.39	
c	On school days, Whitehaven will maintain the communication system between the truck drivers and the local school bus driver. The system has been negotiated between Whitehaven and the local bus drivers and involves two-way radio communication to ensure that trucks do not exceed 40 km per hour when travelling in the vicinity of the school bus.	SWMS - PA3-27-2  BIS SWMS 30626 - Interaction with other Public Road Movement	Trucks use Channel 19 to communicate with school bus driver.  SWMS lists requirement to travel at 40km/h when in vicinity of school bus.	C	
d	All trucks transporting coal from the mine and backloading reject from the Whitehaven CHPP will be covered with fitted roll-over tarpaulins.	BIS SWMS 28410 - Loading ex Hopper Risk Assessment Site Inspection	SWMS lists requirement to cover loads with tarp - if unable to be covered then load must be tipped and unit returned to base to correct problem.  Site inspection over 3-6 May confirmed all trucks had tarps fitted and in use.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
e	All trucks transporting coal will be well maintained to ensure optimal operation.	NHVAS - BIS Industries  BIS Industries - WHSE Management Plan	BIS transports all coal from and coal reject to site which operate under the National Heavy Vehicle Accreditation Scheme which requires a daily check for roadworthiness with records carried in the vehicle.	C	
f	Drivers will be instructed to operate in accordance with a Transport Policy and Code of Conduct, which identify aspects such as travelling speeds, general behaviour, avoidance of exhaust brakes, load coverage, complaints and disciplinary procedures. The Policy and Code apply to all employee and contractor-owned vehicles.	Code of Conduct  Transport Policy  SWMS - PA3-27-2	Anecdotally the Code of Conduct and Transport Policy is given to all drivers	NV	Copy of Code of Conduct to enable review and Transport Policy or other document/evidence required to confirm requirements of the commitment are relayed to the truck drivers to determine compliance.
g	The on-going use of the road network will be covered under the arrangements of the existing road maintenance agreement with Gunnedah Shire Council to ensure the subject roads continue to be adequately maintained.	Road Maintenance Agreement issued August 2009	Ongoing agreement with the GSC stipulates requirements for the company to maintain public roads used by the project. Road Infrastructure Coordinator based at the CHPP is the contact for GSC with any concerns regarding road conditions managed through this position.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Waste Management</b>					
a	All production wastes and non-production wastes will be managed in accordance with current approved waste management strategies (see Section 4.12).	Environment Management Strategy  Site Inspection  Interview - Maintenance Manager  Site Waste Register	Refer to Annex F for assessment of waste commitments.	C	
b	Whitehaven will approach waste generation and management according to the following principles - (a) waste avoidance; (b) waste re-use; (c) waste recycling; and (d) waste removal and disposal.	Site Inspection	Wastes for site are limited to primarily wastes from maintenance activities with waste oil and scrap metal main wastes generated. This material is collected by Northern Lubequip and taken to Cleanaway Tamworth for recycling.  Recycling generated by the offices is picked up from site by Environment Field Officer - cans, bottles and cardboard.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Bushfire Hazard</b>					
a	Vegetation will be cleared away from around blast sites for a distance of greater than 20 metres.	Interview - Mine Manager	Topsoil and subsoil is removed prior to blasting new areas otherwise blasting is completed in hole.	C	
b	All coal will be removed from open cut around blast sites.	Interview - Mining Manager	Working areas are kept to a minimum with coal removed near blast areas.	C	
c	Blast design and implementation will be undertaken by a suitably qualified blasting engineer and/or experienced and appropriately certified shot-firer.	Interview - Mine Manager	Shot firer holds SafeWork NSW licence.	C	
d	An inspection of blast sites will be undertaken prior to blast.	Interview - Mining Manager  WHC_CHK_OC Blasting	Blast sites are inspected prior to firing.	C	
e	Water truck/cart will be available to douse any fire ignited or smouldering vegetation.	Interview - Mining Manager	Water cart is available on site at all times including blasts.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
f	Refuelling will be undertaken within designated fuel bays or within cleared area of the Project Site and vehicles will be turned off while refuelling.	Interview - Mine Manager  WHC_PRO_OC Servicing and Refuelling Equipment	Equipment is fitted with automatic shut offs, air vents on tanks with back valves so prevent overfilling, all trucks have spill kits.  Procedure includes warning not to prevent automatic shutoff, spills to be reported and managed.	C	
g	No smoking policy will be enforced in designated areas of the Project Site.	Interview - Mine Manager  Site Induction Slide Pack	Smoking is allowed in office area on outside veranda. As of July 1 2016 all Whitehaven Coal sites will be smoke free. This initiative has been worked towards for the last towards for 12 months. C	C	
h	Fire extinguishers will be maintained within site vehicles.	Site Inspection  Environment Officer	All vehicles contain fire extinguishers - vehicles used during site inspection confirm presence.	C	
i	Coal stockpiles will be regularly inspected and, as required, watered.	Interview - Mine Manager	Coal stockpiles are kept to within approximately 150,000tonnes which equates to 45 days. Stockpiles are checked daily by conveyor operator.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
j	The height and volume of coal stockpiles will be controlled to limit the duration coal is retained in stockpiles.	Interview - Mine Manager	Pit extraction is on campaign basis however, stockpiles are maintained as much as practicable around 150,000tonnes.	C	
k	Whitehaven will regularly liaise with the NSW Forests and NSW Rural Fire Service in relation to the bushfire hazard presented by the Vickery State Forest and to a lesser extent the nearby CCC Zone 2 Kelvin.	Email 21/08/2012 Interview - Environment	Email was received by RFS listing contacts for the Vickery State Forest and CCC Zone 2 Kelvin.  No other liaison has been completed during audit period.	O	Consider confirming with NSW Forests and RFS current contacts for Rocglen site.
<b>Socio-Economic</b>					
a	Whitehaven will continue to engage the community in consultation for the purposes of providing information relating to the Project and company operations in general. It is anticipated that consultation will include:  - Circulation of information and newsletters, as required, relating to mining activities (for example, blasting schedule); and  - Continuation of the Rocglen CCC established under PA 06_0198 for the existing Rocglen operation.	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	Meeting for March 2016 was cancelled as majority of member could not make this meeting. The postponed March 2016 meeting is still pending with an alternative date to be confirmed.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
b	Whitehaven will respond to any community complaints within 24 hours of receipt. All complaints will be investigated and the results of the investigation reported to the complainant in a timely manner.	Complaints - website	Review of complaints indicates date/time of complaint is recorded. The date/time of responses is not recorded therefore assessment against this commitment cannot be completed.	ANC	Consider including date/timeline of response to any complaints so that assessment against this commitment can be completed.

Annex B

Audit Table -Mining Lease  
1620 & 1662

**Table B1 Compliance Assessment - Mining Lease 1620**

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>ML1620</b>					
<b>Notice to Landholders</b>					
1	<p>Within a period of three months from the date of grant/renewal of this lease or within such further time as the Minister may allow. The lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface~ An adequate plan and description of the lease area must accompany the notice~</p> <p>If there are ten or more landholders affected. The lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated~ The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area~</p>	Independent Environmental Compliance Audit - Umwelt (2013)	Previous Audit report indicated this is not applicable to environmental audit.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Environmental Harm</b>					
2	The proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of the development.		Noted: Refer to individual management plans.	Note	
<b>Mining Operations Plan</b>					
3a	Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General of the Department of Primary Industries.	This audit Mining Operations Plan  Letter from DP&I (Resources & Energy) dated 30 October 2015	The Mining Operations Plan was approved by the DRE 30 October 2016 and is for the period November 2015 - October 2020.	C	
3b	The MOP must:  i) identify areas that will be disturbed by mining operations;  ii) detail the staging of specific mining operations;  iii) identify how the mine will be managed to allow mine closure;  iv) identify how mining operations will be carried out on site in order to prevent and or minimise harm to the environment;	Mining Operations Plan	i) Appendix A MOP Plans  ii) Section 2  iii) Sections 4-8  iv) Section 3  v) Section 1.2 and Section 3  vi) Section 1	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	v) reflect the conditions of approval under: <ul style="list-style-type: none"> <li>• <i>the Environmental Planning and Assessment Act 1979</i></li> <li>• <i>the Protection of the Environment Operations Act 1997</i></li> <li>• and any other approvals relevant to the development including the conditions of this lease; and</li> </ul> vi) have regard to any relevant guidelines adopted by the Director-General.				
3c	The titleholder may apply to the Director-General to amend an approved MOP at any time~	Interview with Mine Manager.	Noted	Note	
3d	It is not a breach of this condition if: <ol style="list-style-type: none"> <li>i) the operations constituting the breach were necessary to comply with a lawful order or direction given under the <i>Mining Act 1992, the Environmental Planning and Assessment Act 1979, Protection of the Environment Operations Act 1997 or the Occupational Health and Safety Act 2000</i>; and</li> <li>ii) the Director-General had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out</li> </ol>	ML1620	Noted	Note	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
3e	A MOP ceases to have affect 7 years after date of approval or other such period as identified by the Director-General. An approved amendment to the MOP under condition 5 does not constitute an approval for the purpose of this paragraph unless otherwise identified by the Director - General	MOP	Noted: MOP for Rocglen Coal Mine prepared for the period November 2015 to October 2020.	C	
<b>ENVIRONMENTAL MANAGEMENT REPORTING</b>					
4	The lease holder must lodge Environmental Management Reports (EMR) with the Director-General annually or at dates otherwise directed by the Director-General.	AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15	<p>AEMR for audit period cover ML 1620, MPL 1662 &amp; PA 10_0015 and is distributed to:</p> <ul style="list-style-type: none"> <li>• Environment Protection Authority</li> <li>• Department of Planning and Environment</li> <li>• NSW Trade and Investment - Division of Resources and Energy</li> <li>• NSW Trade and Investment - Department of Primary Industries</li> <li>• NSW Office of Water</li> <li>• Gunnedah Shire Council</li> <li>• Rocglen Coal Mine Community Consultative Committee</li> </ul>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
5	<p>The EMR must:</p> <p>a) report against compliance with the MOP;</p> <p>b) report on progress in respect of rehabilitation completion criteria;</p> <p>c) report on the extent of compliance with regulatory requirements; and</p> <p>d) have regard to any relevant guidelines adopted by the Director-General;</p>	<p>AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15</p>	<p>AEMR reviewed report against the stated criteria.</p>	C	
6	<p>Additional environmental reports may be required on specific surface disturbing operations or environmental incidents from time to time as directed in writing by the Director-General and must be lodged as instructed.</p>	<p>AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15</p> <p>Interview Mine Manger</p>	<p>No additional or specific changes to disturbing operations outside of agreed limit of disturbance within the audit period.</p>	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Rehabilitation</b>					
7	Disturbed land must be rehabilitated to a sustainable/agreed end land use to the satisfaction of the Director -General	Rehabilitation Management Plan	Rehabilitation plan approved and land form and rehabilitation planting completed in line with management plan. However planting of bush and pasture has failed, reportedly due to adverse weather. Currently in year 5 of 11 End of Mine Life.	C	
<b>Subsidence Management</b>					
8	<p>(a) The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface.</p> <p>(b) Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or mini walls, associated first workings (gate roads, installation roads and associated main headings, etc), and pillar extractions, and are otherwise defined by the Applications for Subsidence Management Approvals guidelines (EDG17)</p>	NT	No underground operations	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(c) The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-General, an approval under the Coal Mine Health and Safety Act 2002, or the document New Subsidence Management Plan Approval Process - Transitional Provisions (EDP09).</p> <p>(d) Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals.</p> <p>(e) Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document New Approval Process for Management of Coal Mining Subsidence - Policy.</p>				

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Working Requirement</b>					
9	<p>The lease holder must:</p> <p>(a) ensure that at least fifteen (15) competent people are efficiently employed on the lease area on each week day except Sunday or any week day that is a public holiday,</p> <p>OR</p> <p>(b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$262,500 per annum whilst the lease is in force.</p> <p>The Minister may at any time or times, by instrument in writing served on the lease holder, increase or decrease the expenditure required or the number of people to be employed.</p>	Interview with Group Superintendent - Environment (Compliance)	Rocglen employ 80 staff over two shifts, 7am – 3pm and 3pm -11pm five days a week.	C	
<b>Control of Operations</b>					
10	<p>(a) If an Environmental Officer of the Department-believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:-</p> <p>(i) cease working the lease; or</p>	ML1620	Noted	Note	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(ii) cease that part of the operation not complying with the Act or conditions; until in the opinion of the Environmental Officer the situation is rectified.</p> <p>(b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction</p> <p>(c) A direction referred to in this condition may be served on the Mine Manager.</p>				
<b>Reports</b>					
11	<p>The lease holder must provide an exploration report, within a period of twenty-eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year. The report must be to the satisfaction of the Director-General and contain the following:</p> <p>(a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;</p> <p>(b) Details of expenditure incurred in conducting that exploration;</p>	Interview Mine Manager	Beyond the exploration period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(c) A summary of all geological findings acquired through mining or development evaluation activities;</p> <p>(d) Particulars of exploration proposed to be conducted in the next twelve months period;</p> <p>(e) All plans, maps, sections and other data necessary to satisfactorily interpret the report</p>				
<b>Licence to Use Reports</b>					
12	<p>(a) The lease holder grants to the Minister, by way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright</p> <p>(b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.</p>	ML1620	Noted	Note	
<b>Confidentiality</b>					
13	<p>(a) All exploration reports submitted in accordance with the conditions of this lease will be kept confidential while the lease is in force, except in cases where:</p> <p>(i) the lease holder has agreed that specified reports may be made non-confidential.</p>	ML1620	Noted	Note	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(ii) reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.</p> <p>(b) Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease. The confidentiality will last until that flow-on title or any subsequent flow-on title, has terminated.</p> <p>(c) The Director-General may extend the period of confidentiality.</p>				
<b>Terms of non-exclusive licence</b>					
14	<p>The terms of the non-exclusive copyright licence granted under condition 12 are:</p> <p>(a) the Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports.</p> <p>(b) the Minister and any sub- licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database.</p>	ML1620	Noted	Note	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(c) the lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright.</p> <p>(d) there is no royalty payable by the Minister for the licence.</p> <p>(e) if the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder, that licence is revocable on the giving of a period of not less than three months' notice.</p>				
<b>Blasting</b>					
a	<p>Ground Vibration</p> <p>The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 Mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment and Climate Change.</p>	<p>EPL AEMR/Annual Reviews 2012/13, 2013/14, 2014/15</p>	<p>Refer Condition L5.3 EPL 12870</p>	<p>C</p>	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
b	<p>Blast Overpressure</p> <p>The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment and Climate Change.</p>	<p>EPL</p> <p>AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15</p>	<p>Refer Condition L5.1 EPL 12870</p>	<p>NC</p> <p>Duplicated with MCoA 3.5 and EPL L5.1</p>	<p>Refer Condition L5.1 of the EPL 12870</p>
<b>Safety</b>					
16	<p>Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director -General.</p>	<p>Interview Mine Manager Safety and training coordinator.</p>	<p>No shafts located on Site.</p> <p>The site is an open cut design.</p> <p>Site is fenced to prevent stock ingress on to the Site.</p> <p>The Site has an H&amp;S management system at a group level which captures group policies and standards.</p> <p>Safe operation procedures and safe work method statements at Site level through risk assessment or consultation.</p> <p>Safety documentation has not been assessed as part of this inspection.</p>	<p>C</p>	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Exploratory Drilling</b>					
17a	At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Water and Energy Regional Hydrologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes	Interview manager Mine	Beyond the exploration period.	NT	
17b	<p>If the lease holder drills exploratory drill holes he must satisfy the Director-General that:-</p> <p>(i) all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established;</p> <p>(ii) all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface;</p> <p>(iii) all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwater;</p> <p>(iv) if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape;</p>	Interview manager Mine	Beyond the exploration period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>{v} if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers.</p> <p>{vi} once any drill hole ceases to be used the hole must be sealed in accordance with Departmental guidelines. Alternatively, the hole must be sealed as instructed by the Director -General</p> <p>{vii} once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.</p>				
<b>Prevention of Soil Erosion and Pollution</b>					
18	Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwater. The lease holder must observe and perform any instructions given by the Director-General in this regard.	Conditions of Approval	Refer Conditions of Approval assessment - <i>Annex A</i> and assessment of implementation of the Mining Operations Plan - <i>Annex E</i> .	Note	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations	
<b>Transmission lines, Communication lines and Pipelines</b>						
19	Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions he may stipulate.	Interview Manager	Mine	No transmission line, communication line, pipeline or any other utility identified within lease area.	NT	
<b>Fences, Gates</b>						
20	(a) Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate.  (b) Gates within the lease area must be closed or left open in accordance with the requirements of the landholder.	Interview Manager	Mine	Roglen is the lease and land holder.	NT	
<b>Roads and Trucks</b>						
21	(a) Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director -General and subject to any conditions he may stipulate.	MOP  Interview Manager	Mine	Mine trucks are restricted to the haul road in accordance with the MOP.  Shared service and cost with two mines using haul road.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	(b) The lease holder must pay to the designated authority in control of the road (generally the local council or the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.				
22	Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, topsoiled and revegetated as soon as possible after they are no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Environment and Climate Change	Interview Mine Manager	Ring road on the pit crest included in the rehabilitation plan.	C	
<b>Trees and Timber</b>					
23	(a) The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber. or if such a landholder refuses consent or attaches unreasonable conditions to the consent. without the approval of a warden.	Interview - Group Superintendent - Environment (Compliance)	No tree felling occurred in the last three years.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(b) The lease holder must not cut, destroy, ring bark or remove any timber or other vegetative cover on the lease area except such as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the Mining Act 1992 must comply with the provisions of the Native Vegetation Act 2003.</p> <p>(c) The lease holder must obtain all necessary approvals or licences before using timber from any Crown land within the lease area.</p>				
<b>Resource Recovery</b>					
25a	<p>Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered; he may give notice in writing to the lease holder requiring the holder to recover such minerals.</p>	ML1620	Noted	Note	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
25b	The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.	ML1620	Noted	Note	
25c	The lease holder must, when requested by the Director-General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.	ML1620	Noted	Note	
25d	The Director-General shall issue no such notice unless the matter has firstly been thoroughly discussed with and a report to the Director-General has incorporated the views of the lease holder.	ML1620	Noted	Note	
25e	The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a Warden for inquiry and report under Section 334 of the Mining Act, 1992.	ML1620	Noted	Note	
25f	After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.	ML1620	Noted	Note	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Indemnity</b>					
26	The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.	Note	Noted	Note	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Security</b>					
27a	A security in the sum of \$100,000 must be given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under this lease. If the lease holder fails to fulfil any one or more of such obligations the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of this lease if the lease holder fails to comply with any condition or provision hereof. Any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder.	Interview Mine Manager	MOP indicates that the total security deposit for the mining project is \$5,218,117.	C	
27b	The lease holder must provide the security required by sub-clause (a) in one of the following forms:  (i) cash,  (ii) a security certificate in a form approved by the Minister and issued by an authorised deposit-taking institution.	ML1620	Noted	Note	

**Table B2 Compliance Assessment - Mining Lease 1662 (additional to ML1620)**

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Environmental Incident Report</b>					
5	The lease holder must report any environmental incidents. The report must:  (i) be prepared according to any relevant Departmental guidelines;  (ii) be submitted within 24 hours of the environmental incident occurring	Incident Register  Email to DP&E 17/09/2015 and 23/10/2015.	2014/15: exceedance of 5% of blasts above 115 dBL. Reporting of the incident was undertaken to the DP&E and EPA.	NC	Consider the review of compliance tracking and reporting procedures to ensure DRE is informed of any environmental incidents.
<b>Single Security (extended)</b>					
21	The single security given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under Mining Lease No. 1620 (Act 1992) is extended to apply to this lease	ML1620	Noted	Note	
<b>Cooperation Agreement</b>					
24	The lease holder must make every reasonable attempt, and be able to demonstrate their attempts, to enter into a cooperation agreement with the holder(s) of any overlapping title(s).	Interview - Mine Manager	ML1662 and ML1620 land is owned by WHC.	C	

Annex C

Audit Table -EPL12870

**Table C.1 Compliance with Environment Protection Licence (EPL) 12870**

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>ADMINISTRATIVE CONDITIONS</b>					
<b>A1 What the licence authorises and regulates</b>					
A1.1	<p>This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.</p> <p>Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.</p> <p>Coal Works 0 - 2000000 T handled</p> <p>Mining for Coal &gt;500000 T - 2000000 T produced</p>	<p>POEO Schedule 1</p> <p>Site Inspection</p> <p>Interview - Group Superintendent - Environment (Compliance)</p> <p>Production reports</p>	<p>Coal Movement Records indicate the following quantities for the compliance period:</p> <p>2015 - 1,145,918 T</p> <p>2014 - 1,153,455 T</p> <p>2013 - 1,298,422 T</p> <p>The EPA varied the Environment Protection License No. 12870, dated 14/07/2015, to incorporate additional standard conditions relating to noise limits, blast fume and PIRMP as detailed below.</p> <p>A licence variation dated 10 March has been submitted to correct premises details, request weather station relocation, remove outdated water management plan, remove reference to AMRs and to include reference to a standalone site plan. The license variation is currently pending.</p>	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>A2 Premises or plant to which this licence applies</b>					
A2.1	<p>The licence applies to the following premises:</p> <p>ROCGLEN COAL MINE</p> <p>WEAN Road</p> <p>GUNNEDAH</p> <p>NSW 2380</p>	Site Inspection	Site is at stated location.	C	
<b>A3 Information supplied to the EPA</b>					
A3.1	<p>Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.</p> <p>In this condition the reference to “the licence application” includes a reference to:</p> <p>(a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and</p> <p>(b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.</p>	<p>Independent environmental audit</p> <p>Site Inspection</p>	Works and activities carried out in accordance with EPL.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>2 DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND</b>					
<b>P1 Location of monitoring/discharge points and areas</b>					
P1.1	The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point	Monitoring Results	Review of results indicates the five points were monitored as required (BD4 (Surrey), BD6 (Roseberry), BD7 (Roseglass), PM10 (Roseberry), Real Time Monitor (Roseberry).	C	
P1.2	The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.	Monitoring Results	Review of results indicates all sample points were monitored as required.	C	
P1.3	The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.	Monitoring Results	2 wet weather discharge points 3 ambient water quality monitoring points (drainage channels on south, north and south sides of mining lease) 1 location - mine water dam AEMRs report active/controlled discharges but these have not been reported in the EPL Annual Returns.	NC	Consider including in a separate file all discharges from the licensed discharge points and report both active and passive discharges (both points are included in EPL as discharge points)
P1.4	The following point(s) in the table are identified in this licence for the purpose of the monitoring of weather parameters at the point.	Site inspection	Weather station located on "Costa Vale"	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>3 LIMIT CONDITIONS</b>					
<b>L1 Pollution of Waters</b>					
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with Section 120 of the Protection of the Environment Operations Act 1997.	Water Management Plan Site inspection Monitoring Results	Water Management Plan last updated 11/2015 in accordance with Project Approval 10_0015 MOD 2 Schedule 3. Condition 22.	C	
<b>L2 Concentration Limits</b>					
L2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.	Monitoring Results - Excel Sheet covering audit period  AEMR/Annual Reviews 2012/13, 2013/14, 2014/15  Interview - Environment Officer	AEMR 2012 - 2015 report no non-compliant discharges have taken place during the audit period.  There were four wet weather discharges during the audit period (28 June 2013, 30 March 2014, 7 April 2015 and 21 April 2015, with all occurring after rainfall exceeded 38.4 millimetres over any consecutive five day period immediately prior to the discharge occurring (90th%tile). There were an additional 4 events where no discharge occurred.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
L2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15 and Monitoring Results - Excel Sheet covering audit period	AEMR 2012 - 2015 reports no non-compliant discharges have taken place during the audit period.  Review of monitoring results indicate pH is within range of 6.5 and 8.5.	C	
L2.3	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\.	EPL	Noted	Note	
L2.4	Table: Water and/or Land Concentration Limits  Refer Point 11 and 12 in EPL.  Oil and Grease - 10 mg/l  pH - 6.5 - 8.5  TSS - 50 mg/l	Monitoring Results - Excel Sheet covering audit period  AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15	Noted - refer L2.1 (Table)	Note	
L2.5	The Total Suspended Solids concentration limits specified for Points 11 and 12 may be exceeded for water discharged provided that:  (a) the discharge occurs solely as a result of rainfall measured at the premises that exceeds 38.4 millimetres over any consecutive 5 day period immediately prior to the discharge occurring; and	AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15	AEMR 2014 - 2015 provides discharge monitoring for the specified locations.  Monitoring on 7 <sup>th</sup> April 2015 recorded TSS levels of 222mg/l; and 21 <sup>st</sup> April 2015, TSS levels of 353mg/l. In the five days prior to the monitored discharge, the Rocglen weather station recorded 67mm; and 52.2 of rainfall respectively.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
	(b) all practical measures have been implemented to dewater all sediment dams within 5 days of rainfall such that they have sufficient capacity to store run off from a 38.4 millimetre, 5 day rainfall event.		<p>Consequently elevated TSS results are not considered a non-compliance as rainfall exceeded the five day 90<sup>th</sup> percentile rainfall amount.</p> <p>AEMR 2013 - 2014 monitoring on 30<sup>th</sup> March 2014 identified elevated TSS levels of 1660mg/l. In the five days prior to the monitored discharge, the Rocglen weather station recorded 51.1 of rainfall. Consequently elevated TSS results not considered a non-compliance as rainfall exceeded the five day 90<sup>th</sup> percentile rainfall amount.</p> <p>AEMR 2012 - 2013 provides discharge monitoring for the specified locations. Monitoring on 31<sup>st</sup> January 2013 recorded TSS levels of 404mg/l; 2<sup>nd</sup> March 2013, TSS levels of 374mg/l; and 28<sup>th</sup> June TSS levels of 164mg/l LDP-11 and 751mg/l at LDP-12. In the five days prior to the monitored discharge, the Rocglen weather station recorded 114.8mm; 69.8mm; and 43mm of rainfall respectively. Consequently elevated TSS results were not considered a non-compliance as rainfall exceeded the five day 90<sup>th</sup> percentile rainfall amount.</p>		

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>L3 Waste</b>					
L3.1	Reject material from the Whitehaven CHPP can be disposed of at the premises in accordance with the Project Approval 10_0015.	Register for rejects back to Rocglen site - Rocglen Excel Sheet 2014-2015 and 2015-16.	Volume of rejects tracked by Logistics Manager.  Rejects commenced being sent back to Rocglen since December 2014 with a total of 451,346tonnes transported back to Rocglen in 2015.	C	
<b>L4 Noise Limits</b>					
L4.1	Noise generated at the premises must not exceed the noise limits in the table below.	Site Inspection Monitoring Results	Attended noise monitoring was undertaken on a quarterly basis during the reporting period (September 2012 - 2014, December 2012 - 2014, March 2013 - 2015 and June 2013 - 2015).  Although exceedances of up to 1dB(A) were identified no non-compliance was noted for either operational or road transport noise criteria during the reporting period, as an exceedance of less than 2 dB(A) above a statutory noise limit specified in a licence condition is not considered to be a non-compliance as per the discussion in Section 11.1.3 of the NSW Industrial Noise Policy.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
L4.2	<p>The noise limits identified in the above table do not apply at privately owned residences that are:</p> <p>a) identified as residences subject to acquisition or noise mitigation on request within the Project Approval; or</p> <p>b) subject to a private agreement, relating to the noise levels, between the licensee and the land owner.</p>	EPL	Noted: "Roseberry" is subject to a private agreement that enables noise levels up to 40 dB(A).	Note	
L4.3	<p>For the purpose of the table above:</p> <p>a) Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays;</p> <p>b) Evening is defined as the period from 6pm to 10pm;</p> <p>c) Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.</p>	EPL	Noted	Note	
L4.4	<p>To determine compliance:</p> <p>a) with the Leq(15 minute) noise limits in the Noise Limits table, the noise measurement equipment must be located:</p> <p>i) approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or</p> <p>ii) within 30 metres of a dwelling façade, but</p>	<p>Site Inspection</p> <p>Monitoring Results</p>	<p>The current Noise Management Plan was approved By DPE on 26 February 2016. The Noise Management Plan states noise monitoring locations are at "Retreat" and "Surrey".</p> <p>"Retreat" and "Surrey" monitoring points are located north and southeast of operations and therefore within wind directions characteristic</p>	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
	<p>not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable</p> <p>iii) within approximately 50 metres of the boundary of a National Park or a Nature Reserve.</p> <p>b) with the LA1(1 minute) noise limits in the Noise Limits table, the noise measurement equipment must be located within 1 metre of a dwelling façade.</p> <p>c) with the noise limits in the Noise Limits table, the noise measurement equipment must be located:</p> <p>i) at the most affected point at a location where there is no dwelling at the location; or</p> <p>ii) at the most affected point within an area at a location prescribed by part (a) or part (b) of this condition.</p>		<p>of the area. The landholders of both properties have provided consent to the undertaking of noise monitoring at their properties.</p> <p>The location of the real time monitor has been established in consultation with EPA, on the basis that it can be relocated on an as needs basis based on prevailing weather conditions, community complaints/concerns and operations at site so as RCM has capacity to effectively measure noise levels at the most likely affected receiver.</p>		

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
L4.5	<p>The noise limits set out in the Noise Limits table apply under all meteorological conditions except for the following:</p> <p>a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or</p> <p>b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or</p> <p>c) Stability category G temperature inversion conditions.</p> <p>For the purposes of this condition:</p> <p>a) Data recorded by the meteorological station identified as EPA Identification Point(s) W1 must be used to determine meteorological conditions; and</p> <p>b) Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.</p>	WHC_PLN_ROC Noise Management Plan	<p>Exceptions to conditions noted in WHC_PLN_ROC Noise Management Plan</p> <p>Weather conditions recorded by Meteorological Station</p>	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
L4.6	For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment	WHC_PLN_ROC Noise Management Plan	Modification factors referred to in Section 4 of the NSW Industrial Noise Policy are noted in the Rocglen Noise Management Plan.	C	
L4.7	<p>The noise limits set by this licence do not apply where a current legally binding agreement exists between the licensee and the occupant of a residential property that:</p> <p>a) agrees to an alternative noise limit for that property; or</p> <p>b) provides an alternative means of compensation to address noise impacts from the premises.</p> <p>A copy of any agreement must be provided to the EPA before the licensee can take advantage of the agreement.</p>	Email to EPA (Elliot Piccone) sent 07/06/2016	<p>“Roseberry” is subject to a private agreement that enables noise levels up to 40 dB(A).</p> <p>Post audit period – email was sent to the EPA in response to a blast exceedance which outlines the conditions from the contract of sale which states that the residence is classified as project related and therefore no claim can be made.</p>	C	
<b>L5 Blasting</b>					
L5.1	The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded	<p>AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15</p> <p>Notification of non-compliance to EPA with subsequent report issued 25 September 2014.</p>	All blasts were monitored using a combination of portable and permanent blast monitors and remained within the compliance criteria specified for the period 2012-2014, note exceedance detailed below for the 2014-15 period.	<p>NC</p> <p>Duplicated with MCoA 3.5 and ML1602 (15(b))</p>	The tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
			Two blasts during the 2014/15 period exceeded the 115dB limit, with results of 116.1dB on the 5th September 2014 and 115.7dB on the 18th September 2014. Both of these results were recorded at "Roseberry", and made up 6.7% of all blasts undertaken for the period. This was not picked up in the AEMR however was picked up through reporting for the EPL. The EPL, ML and PA all have different definitions of 12 months.		
L5.2	The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	AEMR/Annual Reviews 2012/13, 2013/14, 2014/15	No overpressure levels recorded as exceeding 120dB (Lin Peak) during the audit period.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
L5.3	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15	All blasts were monitored using a combination of portable and permanent blast monitors and remained within the compliance criteria specified for the period 2012-2015. The maximum recorded ground vibration during each reporting period was 1.64 mm/s recorded at "Surrey" on the 21st February 2013, 0.93 mm/s recorded at "Roseberry" on 4th March 2014 and 1.15 mm/s recorded at "Roseberry" on 29th August 2014, respectively.	C	
L5.4	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15	Refer condition L5.3 No recorded ground vibration exceeded 10mm/sec.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>4 OPERATING CONDITIONS</b>					
<b>O1 Activities must be carried out in a competent manner</b>					
O1.1	<p>Licensed activities must be carried out in a competent manner.</p> <p>This includes:</p> <p>(a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and</p> <p>(b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.</p>	Site Inspection	<p>Diesel for refuelling is stored in double skinned tank in the maintenance workshop area. Refuelling area is sealed with concrete and contains a small rollover bund.</p> <p>Refer to Annex F for assessment of waste commitments.</p> <p>Waste oils and associated materials stored in bins and drums in the maintenance area which is sealed and drains to an oil water separator system.</p>	C	
<b>O2 Maintenance of plant and equipment</b>					
O2.1	<p>All plant and equipment installed at the premises or used in connection with the licensed activity:</p> <p>(a) must be maintained in a proper and efficient condition; and</p> <p>(b) must be operated in a proper and efficient manner.</p>	<p>Whitehaven Coal Monthly Environmental Checklists Maintenance Reports</p> <p>Interview - Maintenance Manager</p> <p>Training records</p>	<p>Mine equipment is inspected daily as part of prestart. Any defects are managed through "Pulse" program. Service planner is tracked through Excel spreadsheet which is appropriate to the scale of maintenance undertaken by Whitehaven Coal.</p>	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>O3 Dust</b>					
O3.1	All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.	Site inspection Interview - Mine Manager	A number of dust suppression and avoidance methods adopted: mine pit water used for dust suppression; dust suppression alarm and adverse weather alarm recorded in environmental alarm checklist folder; and daily dust suppression rounds with one dust carts (two on stand-by).  No excessive dust levels noted during site inspection.  HVAS results indicate two exceedances during the reporting period against the 24hour criteria for PM10 - these were not reported at the time of occurrence but are reported in the Annual Returns	NC	Consider reporting any exceedance of the MCoA criteria to the EPA as soon as practicable (the results are currently reported in the Annual Return)
O3.2	Trucks transporting coal from the premises must be covered immediately after loading to prevent wind-blown emissions and spillage. The covering must be maintained until immediately before unloading the trucks.	Site inspection	Coal truck loading observed - covered immediately. No truck unloading observed.  All trucks noted on road to have tarpaulins in place.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>O4 Other operating conditions</b>					
<b>Blast Fume</b>					
O4.1	<p>Offensive blast fume must not be emitted from the premises.</p> <p>Definition: Offensive blast fume means post-blast gases (whether visible or invisible, odorous or odourless) from the detonation of explosives at the premises that by reason of their nature, duration, character or quality, or the time at which they are emitted, or any other circumstances:</p> <p>(i) are harmful to (or is likely to be harmful to) a person that is outside the premises from which it is emitted, or</p> <p>(ii) interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted.</p>	<p>Site inspection WHC_CHK_OC shotfirer WHC_PRO_OC Blast Clearance and Firing Procedure Interview - Mine Manager</p>	<p>Blast exclusion zones are expanded if there is a risk of blast fume i.e. extended sleep time or water intrusion, soft ground.</p> <p>Procedure indicates shot firer will conduct inspection of shot material and adjacent areas. If there is risk of post blast fume or harmful gas is present, the use of gas monitors will indicate harmful gas particulates and should be used prior to undertaking any post-blast inspection.</p>	O	<p>Consider including on the shotfirer checklist assessment of whether a blast is high risk of creating blast fume and post blast checks, including gas monitoring.</p>

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>Pollution Incident Response Management Plan</b>					
O4.2	The licensee must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises. The PIRMP must document systems and procedures to deal with all types of incidents (e.g. spills, explosions, fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment.	PIRMP	PIRMP dated 13/11/2014, updated if there is an event.  Requirement for plan to be tested at least once every 12 months - last tested 24/11/2015 with a 40L diesel spill and actions noted.  26/11/2014 tested light fuel spill  30/09/2014 fuel spill from dozer  Toolbox talk presentation dated November 2014 and Sept 2013 detailing requirements. No toolbox talk completed for 2015.  Site Plan included in PRIMP.	C	
O4.3	The licensee must keep the PIRMP on the premises at all times.	Site inspection  <a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	Full version of PIRMP held electronically and updated August 2015. Relevant sections of PIRMP located on company website and in Site office.	C	
<b>5 MONITORING AND RECORDING CONDITIONS</b>					
<b>M1 Monitoring Records</b>					
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Monitoring Records  Website	Records are kept in excel files. Monthly monitoring reports also uploaded to Rocglen website.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
M1.2	<p>All records required to be kept by this licence must be:</p> <p>(a) in a legible form, or in a form that can readily be reduced to a legible form;</p> <p>(b) kept for at least 4 years after the monitoring or event to which they relate took place; and</p> <p>(c) produced in a legible form to any authorised officer of the EPA who asks to see them.</p>	<p>Monitoring results</p> <p>Air Quality &amp;GHG Management Plan</p> <p>Water Management Plan</p> <p>Environment Management Strategy</p>	<p>Monitoring results available for review from 2008.</p> <p>EMS includes requirement to maintain records for four years. Air Quality and Water Management Plans do not include requirement to maintain records for four years.</p> <p>Spreadsheet for wet weather discharges does not include controlled discharges from site.</p>	O	<p>Consider including controlled discharges into the EPL discharge database to assist reporting for the Annual Return.</p>
M1.3	<p>The following records must be kept in respect of any samples required to be collected for the purposes of this licence:</p> <p>(e) the date(s) on which the sample was taken;</p> <p>(f) the time(s) at which the sample was collected;</p> <p>(g) the point at which the sample was taken; and</p> <p>(h) the name of the person who collected the sample.</p>	<p>Water Quality monitoring results - excel database</p>	<p>Date and point of sampling included in Excel spreadsheet.</p> <p>The time the sample was taken and the sampler name is not included.</p>	ANC	<p>Consider including the time the sample was taken as well as the name of the sampler into the water monitoring excel sheet.</p>

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>M2 Requirement to monitor concentration of pollutants discharged</b>					
M2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Monitoring results - excel database	Monitoring completed as required by this condition.	C	
M2.2	Air Monitoring Requirements Point 4,6,7 - dust Point 10 - PM10 (HVAS) Point 17 - PM10 (real time)	Email to EPA 11/05/2015 Email from ALS Gunnedah 21/01/2015	A monitoring event was missed in October 2014 at EPL ID 10 and 17 with indication it would be included in the EPL Annual Return. This was notified to EPA 11 May 2015.  Email from ALS notifying of missed sampling event for Costa Vale for the 17/01/2015 sampling round (informed Whitehaven Coal staff 21/01/2015).  All missed sampling events are from power failures/trips of equipment.	NC	Two sampling events were missed for the HVAS - no further actions are proposed.
M2.3	Water and/ or Land Monitoring Requirements Point 11,12 - conductivity, oil and grease, pH, TOC, TSS Point 13, 14, 15 - conductivity, oil and grease, pH, TOC, TSS	Monitoring results - Water Quality Monitoring Results excel database	Monitoring completed as required by this condition.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
	Point 16 - Annually (Al, As, HCO <sub>3</sub> , Cl, Na, Fe, Mn) and quarterly (conductivity, oil and grease, pH, , TOC, TSS)				
M2.4	For the purposes of the table(s) above Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.	Water discharge monitoring results	The results do not include time of sampling and confirmation sample was taken within 12 hours of discharge.  Spreadsheet includes wet weather discharges - controlled discharges are not included.	ANC	Consider including column in monitoring sheet to confirm sampling has occurred within 12 hours to enable confirmation this condition is met.
M2.5	For the purposes of the table(s) above Special Frequency 2 means the collection of samples quarterly (in the event of a flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.	Surface Water Data Results	As above	ANC	As above.
Note	Groundwater monitoring points have not been formally included in the licence. However, the licensee is required to undertake groundwater monitoring in accordance with a Department of Planning approved Water Management Plan required under Schedule 3, condition 2 Project Approval 06-0198 dated 15 April 2008. The licensee has submitted the document "Site Water Management Plan for the Rocglen Coal Mine, Whitehaven Coal Mining Pty Ltd, 2008."	Water Management Plan and results AEMRs	Groundwater monitoring program is included in WMP and monitoring is completed as per this plan.  Latest Plan is dated 2015.  Results are reported in AEMRs	O	Consider emailing updated plan to EPA to confirm program is unchanged from 2008 plan.

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
	This document has been approved by Planning following consultation by the licensee with the EPA. The results of this monitoring are required to be reported in the Annual Environmental Management Report (AEMR).				
<b>M3 Testing Methods - concentration limits</b>					
M3.1	<p>Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:</p> <p>a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or</p> <p>b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or</p> <p>c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.</p>	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW	Monitoring of dust is done in accordance with AM-19 (DDGs), AM-18 (HVAS) and AM-22 (TEOM), which are all approved methods.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
M3.2	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW	Analysis is done through NATA accredited laboratory (ALS).	C	
<b>M4 Weather Monitoring</b>					
M4.1	For each monitoring point specified in the table below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.	Site Inspection Sentinex Program	Meteorological Station - continuous sampling of rainfall, wind speed, wind direction, temperature at 2m, 10m, sigma theta at 10m, solar radiation. As per AM2 & AM4.  Siting requirements AM1 & AM4	C	
M4.2	The meteorological weather station must be maintained so as to be capable of continuously monitoring the parameters specified in this section.	Interview - Environment Officer	Weather station is maintained by Novercom with inspection and maintenance completed monthly.  Monthly checklist also lists checks for the weather station but not currently completed as Novercom completes the same checks.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>M5 Recording of pollution complaints</b>					
M5.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Website	Complaints are kept on website - all records are available	C	
M5.2	The record must include details of the following: (a) the date and time of the complaint; (b) the method by which the complaint was made; (c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; (d) the nature of the complaint; (e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and (f) if no action was taken by the licensee, the reasons why no action was taken.	Complaints Records Complaints Register	Review of complaints on website indicates all details are maintained with exception of name of complainant due to privacy. Complainant details are recorded separately on an offline report.	C	
M5.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	Complaints Register on Website	Complaints area available for life of project (since 2008)	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
M4.4	The record must be produced to any authorised officer of the EPA who asks to see them.	Interview - Group Superintendent - Environment (Compliance)  <a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	No requests for data made during audit period. Results available on website.	C	
<b>M6 Telephone complaints line</b>					
M6.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	Website lists phone number 0428 114 814.  Tested number on 4/5/2016 at 13:00 - goes directly to Rocglen Group Superintendent - Environment (Compliance) and is manned while site is operational.	C	
M6.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	Interview - Group Superintendent - Environment (Compliance)	Complaints line number is provided on website.  Rocglen Mine. Community Consultation Committee meeting minutes reminded community members that Whitehaven Coal can be contacted at any time if there are any concerns so these can be acted upon in a timely manner.	C	
M6.3	The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.	EPL licence last version issued 14 July 2015	Noted	Note	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>M7 Blasting</b>					
M7.1	<p>To determine compliance with condition(s) L4.1, L4.2, L4.3 and L4.4:</p> <p>a) Airblast overpressure and ground vibration levels experienced at the following noise sensitive locations must be measured and recorded for all blasts carried out in or on the premises and electronically recorded at points BB1 and BB3.</p> <p>b) Instrumentation used to measure the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard AS 2187.2-2006.</p>	Environmental Blast Monitoring Excel Spreadsheet	<p>Blast monitoring is completed at locations.</p> <p>Instrumentation meets requirements of Australian Standard AS 2187.2-2006.</p>	C	
M7.2	<p>For the purpose of condition M7.1, the blasting monitoring locations are described as:</p> <p>BB1 (Retreat) and BB3 (Roseberry)</p>	Environmental Blast Monitoring Excel Spreadsheet	<p>Monitoring results align with EPL</p> <p>One portable blast monitor was also located at the unlicensed point "Kahana" for 7 months, in response to landholder concern, until the 21st of May 2015 when it was relocated to the "Roseberry" property to sense check results from the permanent Roseberry meter.</p>	C	
M7.3	<p>For the purpose of condition M8.1, the noise monitoring locations are described as:</p> <p>N1 (Retreat), N2 (Surrey) and N3 (portable meter)</p>	Reports issued by Spectrum Acoustics - Audit period	<p>Monitoring at N1 and N2 completed.</p> <p>No results are available for the portable meter as N3 is not currently used.</p>	NC	The EPL lists N3 as a monitoring location and therefore monitoring should be completed at this location or the location removed from the EPL.

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
M7.4	Note: N3 is a portable monitor enabling the monitor to be relocated to areas of potential greatest impact.  The licensee is responsible to ensure that it is located at the most suitable location.	Reports issued by Spectrum Acoustics - Audit period	Noted.	Note	
M7.5	The location, frequency of monitoring and the parameters to be monitored may be varied by the EPA once the variability of the noise impact is established.	EPL	Noted.	Note	
<b>M8 Other monitoring and recording conditions</b>					
<b>Noise Monitoring</b>					
M8.1	For each monitoring point specified below, the Licensee must monitor the noise or vibration parameter specified in Column 1. The Licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns.  Points N1 and N2 - ambient noise using Type 1 noise meter	Reports issued by Spectrum Acoustics - Audit period	Attended noise monitoring was conducted with Brüel & Kjær Type 2250 Precision Sound Analysers. These instruments have Type 1 characteristics as defined in AS1259-1982 "Sound Level Metres" and have current NATA calibration.	C	
M8.2	To assess compliance with the noise limits presented in the Noise Limits table, attended noise monitoring must be undertaken in accordance with the condition titled Determining Compliance, outlined above, and:  a) at each one of the locations listed in the Noise Limits table;	Reports issued by Spectrum Acoustics - Audit period	Section 1.2 includes monitoring frequency and duration which acknowledges and aligns with EPL requirement.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
	<p>b) occur quarterly in a reporting period;</p> <p>c) occur during each day, evening and night period as defined in the NSW Industrial Noise Policy for a minimum of:</p> <p>i) 1.5 hours during the day;</p> <p>ii) 30 minutes during the evening; and</p> <p>iii) 1 hour during the night.</p> <p>d) occur for three consecutive operating days.</p>				
<b>6 REPORTING CONDITIONS</b>					
<b>R1 Annual return documents</b>					
R1.1	<p>The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:</p> <p>(a) a Statement of Compliance; and</p> <p>(b) a Monitoring and Complaints Summary.</p> <p>At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.</p>	<p>Annual Returns EPA EPL website (<a href="http://www.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=12870&amp;id=12870&amp;option=licence&amp;searchrange=licence&amp;range=POEOlicence&amp;prp=no&amp;status=Issued">http://www.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=12870&amp;id=12870&amp;option=licence&amp;searchrange=licence&amp;range=POEOlicence&amp;prp=no&amp;status=Issued</a>)</p>	<p>EPA website indicates all returns completed for each reporting period, these were reviewed during Site inspection.</p> <p>Statement of compliance and monitoring and complaints summary are detailed in each of the Annual Returns during the audit period.</p>	C	
R1.2	<p>An Annual Return must be prepared in respect of each reporting period, except as provided below.</p>	<p>Annual Returns EPA EPL website</p>	<p>EPA website indicates all returns completed for each reporting period.</p>	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
R1.3	<p>Where this licence is transferred from the licensee to a new licensee:</p> <p>(a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and</p> <p>(b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.</p>	<p>EPL</p> <p>Interview - Group Superintendent - Environment (Compliance)</p>	<p>Licence holder is Whitehaven Coal. Transfer of the EPL to new licensee not completed during the audit period.</p>	<p>NT</p>	
R1.4	<p>Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:</p> <p>(a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or</p> <p>(b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.</p>	<p>Interview - Group Superintendent - Environment (Compliance)</p>	<p>EPL remains current</p>	<p>NT</p>	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
R1.5	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	EPA EPL website	The EPA website indicates all returns completed within 60 days of end of reporting period.	C	
R1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	Interview - Group Superintendent - Environment (Compliance) EPL annual returns for audit period	Electronic copies of annual returns are retained on share drive as reviewed on site	C	
R1.7	Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:  (a) the licence holder; or  (b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	EPL annual returns sighted	The annual returns are signed by the company directors.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>R2 Notification of environmental harm</b>					
R2.1	<p>Notifications must be made by telephoning the Environment Line service on 131 555.</p> <p>Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.</p>	<p>Incident Register</p> <p>Interview - Group Superintendent - Environment (Compliance)</p> <p>Environment Event Reports - last overpressure events September 2014, non-monitoring of Air Quality October 2014</p>	<p>Incident reports submitted do not record time of initial notification to EPA and EPA incident number.</p> <p>No evidence was provided during the audit to confirm notifications are made to the Environment Line Service once WHC was aware an incident had occurred.</p>	O	<p>Consider adding the time of notification to the Environment Line as well as the Notification number to the written reports (and incidents register if not already included).</p>
R2.2	<p>The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.</p>	<p>Incident Register</p> <p>Interview - Group Superintendent - Environment (Compliance)</p> <p>Environment Event Reports - last overpressure events September 2014, non-monitoring of Air Quality October 2014</p>	<p>Incident reports do not record time of initial notification to the EPA.</p> <p>Two additional reports were completed for elevated TSS in water discharges but occurred after 5 days of 90%tile rainfall and where therefore not exceedances. The date of submission of the report to EPA is not known as correspondence was not sighted.</p> <p>Two surface water monitoring events were missed on 19 October 2014 and 18-23 October 2014 - the written report was provided to the EPA on 11 May 2015.</p>	<p>NC</p> <p>Duplicated with MCoA 5.6</p>	<p>Consider reviewing compliance tracking procedures/methods to improve reporting times.</p>

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
			One incident reported during the audit period (5% of 115dB was exceeded 18 September 2014) through reporting for the EPL. The tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.		
<b>R3 Written report</b>					
R3.1	Where an authorised officer of the EPA suspects on reasonable grounds that:  (a) where this licence applies to premises, an event has occurred at the premises; or  (b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	Interview - Group Superintendent - Environment (Compliance)  Incident Register  Environment Event Reports	No request made and no concerns raised in correspondence with EPA.	NT	
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	Interview - Group Superintendent - Environment (Compliance)	No concerns raised in correspondence with EPA.	NT	
R3.3	The request may require a report which includes any or all of the following information:	Interview - Group Superintendent - Environment	No concerns raised in correspondence with EPA.	NT	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
	<p>(a) the cause, time and duration of the event;</p> <p>(b) the type, volume and concentration of every pollutant discharged as a result of the event;</p> <p>(c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;</p> <p>(d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;</p> <p>(e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;</p> <p>(f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and</p> <p>(g) any other relevant matters.</p>	<p>(Compliance)</p> <p>Review of incident reports submitted to EPA</p>			
R3.4	<p>The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.</p>	<p>Interview - Group Superintendent - Environment (Compliance)</p>	<p>Noted.</p>	<p>NT</p>	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>R4 Other reporting conditions</b>					
R4.1	The licensee must report any exceedance of the licence blasting limits to the regional office of the EPA as soon as practicable after the exceedance becomes known to the licensee or to one of the licensee's employees or agents.	Blasting records	No exceedance of licence limit in reporting period.	C	
R4.2	A noise compliance assessment report must be submitted to the EPA within thirty (30) days of the completion of the quarterly noise monitoring. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include:  a) an assessment of compliance with noise limits detailed in the limit conditions of this licence; and  b) an outline of any management actions taken within the monitoring period to address any exceedance of the limits detailed in the limit conditions of this licence.	Reports issued by Spectrum Acoustics - Audit period  Emails to EPA and 21/12/2015 and 11/03/2016	Reports have been completed by Spectrum Acoustics which includes assessment of compliance against noise limits.  No noise limit exceedances have been reported during the audit period.  Emails to EPA sighted for last two monitoring rounds - emailed within 30 days.	C	
<b>7 GENERAL CONDITIONS</b>					
<b>G1 Copy of licence kept at premises or plant</b>					
G1.1	A copy of this licence must be kept at the premises to which the licence applies.	Site inspection	Observed during Site inspection	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	Interview - Group Superintendent - Environment (Compliance)	No EPA officers visited site during audit period.	NT	
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	EPL	Noted	Note	

## 8 POLLUTION STUDIES AND REDUCTION PROGRAMS

### U1 Coal Mine Wind Erosion of Exposed Land Assessment

U1.1	<p>The licensee must undertake the following steps:</p> <ol style="list-style-type: none"> <li>1. Calculate the wind erosion exposed surface area (in hectares) within the premises as of 31 October 2015.</li> <li>2. Determine the wind erosion exposed surface area (in hectares) predicted as at 31 October 2015 within the licensee's Environmental Assessment for the premises.</li> <li>3. Compare the areas calculated in steps 1 and 2.</li> <li>4. Submit a written report to the EPA at <a href="mailto:armidale@epa.nsw.gov.au">armidale@epa.nsw.gov.au</a> containing the analysis required in steps 1 to 3, by 31 December 2015.</li> </ol>	Email to EPA 17 December 2015	<p>1 - wind erosion exposed area as at 31 October 2015 estimated at 235ha</p> <p>2 - predicted in the EA as at 31 October 2016 was 213ha</p> <p>3 - exposed surface area is 22ha more than predicted.</p> <p>Email sent to EPA satisfying requirements of the PRP including submission of shapefiles.</p>	C	
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Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
	<p>The report submitted to the EPA must be accompanied by spatial data to confirm the wind erosion exposed surface area calculations. The following data is required:</p> <ul style="list-style-type: none"> <li>• Shapefiles showing the premises boundary.</li> <li>• Shapefiles showing the wind erosion exposed area within the premises as of 31 October 2015</li> <li>• Shapefiles showing areas classified as stabilised surface as of 31 October 2015</li> <li>• Details of any studies undertaken to verify that the areas of stabilised surface meet the definition.</li> </ul>				

Annex D

Audit Table – Water Access  
Licence 29461

**Table D.1 Compliance with Water Access Licence 29461**

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>Take of water</b>					
MW0716-00001	<p>The maximum volume of water that may be taken under this licence in any water year must not exceed a volume equal to:</p> <p>(A) the sum of water allocations accrued to the water allocation account for this licence from available water determinations in that year; plus</p> <p>(B) the water allocations carried over from the water year prior to that water year; plus</p> <p>(C) the net amount of any water allocations assigned to or from the water allocation account for this licence under section 71T of the Act; plus</p> <p>(D) any water allocations re-credited to the water allocation account for this licence in accordance with section 76 of the Act in that water year.</p>	<p>Whitehaven Coal site inspections 2012-2015</p> <p>AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15</p> <p>Water Meeting Records are maintained</p>	<p>Annual water allocation is 120ML</p> <p>Water extraction is recorded on monthly environmental inspection sheets and entered into an Excel spreadsheet. Minimal water is extracted from the water bores – bulk of water use on site is from captured water from site/mine pit water.</p>	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
MW0631-00001	Water must not be taken under this access licence otherwise than in compliance with the conditions of the nominated water supply work approval.		Noted.	Note	
<b>Monitoring and recording</b>					
MW0635-00001	The licence holder must record the following in the logbook:  (vii) the volume of water taken in any water year from 1 July 2011, by comparison to the maximum volume of water permitted to be taken in that water year.	Interview - Group Superintendent - Environment (Compliance)  Water Meter Reading Excel spreadsheet	Logbook not currently maintained however an excel sheet is kept recording usage to confirm maximum extraction volumes are not exceeded.	NC	Consider amending the existing Water Meter Reading Excel spreadsheet to include volume of water extracted against the maximum volume allowed.
MW0633-00001	The licence holder must record the following in the logbook:  (i) each date and period of time during which water is taken under this licence;  (ii) the volume of water taken on that date;  (iii) the water supply work approval number of the water supply work used to take the water on that date;  (iv) the purpose or purposes for which the water taken on that date.	Interview - Group Superintendent - Environment (Compliance)  Water Meter Reading Excel spreadsheet	Logbooks not currently maintained. Excel sheet logs date and meter reading.	NC  Duplicated with MW0635-00001 and MW0632-00001	Consider amending the existing Water Meter Reading Excel spreadsheet to include all requirements.

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
MW0639-00001	When directed by the Minister by notice in writing, the licence holder of an access licence that nominates only a metered water supply work with a data logger must keep a logbook in accordance with any requirements that are specified in the notice.	Interview - Group Superintendent - Environment (Compliance)	Logbook has not been requested for inspection by the Minister during the audit period.	NT	
MW0636-00001	The licence holder must produce the logbook to the Minister for inspection, when requested.	Interview - Group Superintendent - Environment (Compliance)	Logbook has not been requested for inspection by the Minister during the audit period.	NT	
MW0632-00001	The licence holder must keep a log book, except where the access licence nominates only a metered work with a data logger. A "logbook" means a written record, kept in hard copy or electronic form, which accurately records all information required to be kept for this licence.	Interview - Group Superintendent - Environment (Compliance)	Logbook not currently maintained however an excel sheet is kept recording usage to confirm maximum extraction volumes are not exceeded.	NC Duplicated with MW0635-00001 and MW0633-00001	Consider amending the existing Water Meter Reading Excel spreadsheet to include all logbook requirements.
MW0637-00001	The licence holder must retain the information required to be recorded in the logbook for 5 years from the date to which that information relates.	Interview - Environment Officer Water Management Plan	Noted - excel sheet has recently commenced and will be maintained for life of project	O	Consider including logbook requirements and record keeping requirements of the WAL into the Water Management Plan

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>Reporting</b>					
MW0831-00001	<p>The licence holder must notify the Minister, in writing, immediately upon becoming aware of a breach of any condition of this licence.</p> <p>Note: a notification does not authorise a breach, or continuing breach, of a condition of this licence.</p>	Interview - Group Superintendent - Environment (Compliance)	As the requirement to maintain a logbook has not been met the Minister should be notified.	NC	Consider notifying the Minister for DPI (Water) regarding the non-maintenance of a logbook for the pumping wells with an estimated timeframe when the condition can be met.
<b>Additional Conditions</b>					
MW0717-00001	<p>The maximum water allocation that may be carried over in the water allocation account for this access licence from one water year to the next is either:</p> <p>(A) 25 % of the access licence share component for access licences with share components expressed as ML/year; or</p> <p>(B) 0.25 ML per unit share of access licence share component for access licences with share components expressed as a number of unit shares.</p>	Interview - Group Superintendent - Environment (Compliance)	Water Meter Reading Excel spreadsheet recently commenced - not triggered.	NT	
<b>Other Conditions</b>					
NIL					

Annex E

## Audit Table -Mining Operations Plan

**Table E.1 Compliance Assessment -Implementation of the Mining Operations Plan**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Air Quality and Greenhouse Gases</b>					
Air quality and greenhouse gas at Rocglen will continue to be managed in accordance with the approved Air Quality and Greenhouse Gas Management Plan (including a monitoring program) prepared in accordance with Condition 17 of Schedule 3 of PA 10_0015. The air quality criteria for Rocglen, are outlined in the Air Quality and Greenhouse Gas Management Plan.	Section 3.2.1	Air Quality and Greenhouse Gas Management Plan	Refer to Air Quality and Greenhouse Gas Management Plan for final commitments to manage impacts to air quality.	C	
<b>Surface Water (including Erosion and Sedimentation)</b>					
Surface water at Rocglen will continue to be managed in accordance with the approved Water Management Plan, which includes a Surface Water Monitoring Program and an Erosion and Sediment Control Plan. These documents have been prepared in compliance with Managing Urban Stormwater Volume 1: Soils and Construction (Landcom 2004) (the "Blue Book") and Managing Urban Stormwater Volume 2E: Mines and Quarries (DECC 2008). The surface water criteria adopted at Rocglen, along with the surface water mitigation and management measures that will be implemented during the MOP term are summarised below.	Section 3.2.2	Water Management Plan	Refer to Water Management Plan for final commitments to manage impacts to surface water.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Groundwater</b>					
Groundwater at Rocglen will continue to be managed in accordance with the approved Water Management Plan, which includes a Groundwater Monitoring Program.	Section 3.2.3	Water Management Plan	Refer to Water Management Plan implementation assessment	C	
<b>Land Contamination</b>					
<p>General</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> All hydrocarbon products will be securely stored.</li> <li><input type="checkbox"/> With the exception of some maintenance activities on mobile equipment, all maintenance works requiring the use of oils, greases and lubricants would be undertaken within designated areas of Rocglen.</li> <li><input type="checkbox"/> All water from wash-down areas and workshops would be directed to oil/water separators and containment systems.</li> <li><input type="checkbox"/> All storage tanks will be either self-bunded tanks or bunded with an impermeable surface with a capacity to contain a minimum of 110 percent of the largest storage tank capacity.</li> </ul>	Section 3.2.4	<p>Site Inspection</p> <p>Interview - Group Superintendent - Environment (Compliance) and Environment Officer</p> <p>Mine Manager</p>	<p>Preventative maintenance is completed within the maintenance area as much as practicable however some maintenance activities will occur in the pit if required.</p> <p>Hydrocarbon products stored in bunded area around the maintenance shed. Refuelling on site done with designated refuelling/service trucks.</p> <p>OWS pond - is checked for visible hydrocarbon contamination monthly by Environment Officer.</p> <p>OWS reports to SD3 which then discharges to LDP11.</p>	O  Duplicated with SoCs	Consider testing the water from the OWS or dam to confirm it is operating as per design.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p><b>Waste Oils and Grease</b></p> <p><input type="checkbox"/> Waste oils and grease from routine maintenance of mining and earthmoving equipment will be removed from the equipment to bunded storage tanks by oil evacuation pumps.</p> <p><input type="checkbox"/> Waste oils and grease stored at the maintenance workshop will be collected by a licensed waste recycling contractor approximately once every two months.</p>	Section 3.2.4	Site Inspection	<p>Wastes for site are limited to primarily wastes from maintenance activities with waste oil and scrap metal main wastes generated. This material is collected by Northern Lubequip and taken to Cleanaway Tamworth for recycling.</p> <p>Site inspection confirms waste oils are stored in bunded areas in the maintenance workshop area.</p>	C	
<p><b>Hydrocarbon-Contaminated Water</b></p> <p><input type="checkbox"/> Any hydrocarbon-contaminated water will be collected in the oil/water separator and regularly removed from site by a licensed contractor.</p>	Section 3.2.4	Interview - Maintenance Manager	Contaminated water/oil is removed from OWS every two weeks by Northwest	C	
<b>Flora and Fauna</b>					
<p><b>General</b></p> <p><input type="checkbox"/> All efforts will be made to avoid disturbance of the vegetation communities within Rocglen and to maintain and enhance as much of the existing remnant vegetation on-site as possible.</p>	Section 3.2.5	<p>Site Inspection</p> <p>Rocglen Mine Rehabilitation Monitoring (spring 2014 - autumn 2015), Eco Logical Australia issued June 2015</p>	<p>Areas not impacted by mining are fenced to prevent entry.</p> <p>Monthly Inspections are completed by the Environment Officer.</p> <p>Procedure includes operational aspects to felling trees.</p>	ANC Duplicated with SoC	Consider including ecological considerations for tree felling into the existing procedure, WHC_PRO Clearing and Pre-Strip.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<ul style="list-style-type: none"> <li><input type="checkbox"/> The minimal practicable amount of clearing will be undertaken as a general objective, particularly within those areas that currently contain identified threatened species or ecological communities.</li> <li><input type="checkbox"/> Weed control practices will be implemented to minimise the spread of exotic species.</li> <li><input type="checkbox"/> A tree felling protocol will be implemented in order to minimise harm to fauna species during clearing activities.</li> <li><input type="checkbox"/> Where possible, tree felling will be supervised by a suitably qualified and experienced ecologist.</li> <li><input type="checkbox"/> Where trees are to be removed an assessment of the surrounding level of tree hollow provision will be undertaken by a suitably qualified and experienced ecologist in order to determine the need for local supplementing of tree hollows (using salvaged tree hollows or nest boxes).</li> <li><input type="checkbox"/> Mature and hollow-bearing trees will be retained wherever feasible within the site.</li> </ul>		<p>WHC_CHK Monthly Environmental Inspection Checklist October 2015 - March 2016</p> <p>Interview - Group Superintendent - Environment (Compliance)</p> <p>WHC_PRO Clearing and Pre- Strip Clearing and Pre-strip</p>	<p>Unclear if tree felling protocol has been developed.</p> <p>Pre clearance fauna inspections were carried out in December 2013 for clearing three scattered trees to the west of the coal haul road from the pit to the ROM area. An inspection was also carried out in July 2014 for clearing several isolated trees in advance of the eastern edge of the western emplacement area, and at the eastern soil stripping area, in advance of the pits movement east between the mine void and Wean Road.</p> <p>Clearing along old Wean Rd alignment to still occur.</p>		

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<ul style="list-style-type: none"> <li><input type="checkbox"/> Vegetation to be removed will be clearly marked in the field using temporary fencing (flagging tape or similar) so that the boundaries are clearly established and to minimise the potential for equipment to accidentally enter areas to be retained.</li> <li><input type="checkbox"/> Regular monitoring of the vegetation within Rocglen will be undertaken in order to enable effective management with regards to rehabilitation (planting), regeneration, watering, fencing and weed control.</li> <li><input type="checkbox"/> Specialist ecologists will be engaged to conduct pre-clearing inspections for fauna impact mitigation, as required.</li> </ul>					
<p><b>Weed Control</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Control practices implemented to minimise the spread of weed species will include: <ul style="list-style-type: none"> <li>- Campaign weed spraying prior to the stripping of topsoil;</li> <li>- Equipment coming to site to be clean and free of soil/plant material prior to entry, or subject to clean down at the workshop facilities area;</li> <li>- Herbicide spraying or scalping weeds off topsoil stockpiles prior to re-spreading; and</li> </ul> </li> </ul>	Section 3.2.5	<p>Interview – Mine Manager and Group Superintendent – Environment (Compliance)</p> <p>WHC_PRO Clearing and Pre Strip</p> <p>Monthly Environment Inspections</p>	<p>Mechanical inspection checklist is completed - MDG15 forms which does not include checks for weeds.</p> <p>Campaign spraying prior to stripping of topsoil does not currently occur.</p> <p>Procedure has been developed for clearing and pre-stripping activities.</p> <p>Monthly environment inspections include checks for weeds in rehabilitated areas.</p>	ANC	Consider including requirement to complete campaign spraying prior to spreading topsoil into existing procedure and include checks for weeds on new equipment to site as part of initial check.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
- Rehabilitation inspection to identify potential weed infestations.			Topsoil shortage on site precludes the practise of scalping.		
<p><b>Fauna Monitoring</b></p> <p>Fauna monitoring will continue to be undertaken at Rocglen and is currently completed annually by a qualified ecologist with results reported in the AEMR/ Annual Review.</p>	Section 3.2.5	AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15 2014/15	<p>Whitehaven engaged RPS Harper Somers O'Sullivan to undertake a Flora and Fauna Assessment to support the application for the Extension Approval.</p> <p>The Rehabilitation Management Plan includes detail on fauna monitoring with fauna monitoring to be undertaken biennially. Fauna monitoring plots were established during spring 2009 in areas adjacent to the site. Fauna monitoring was undertaken in 2010 and then in 2015.</p> <p>Pre clearance fauna inspections were carried out in December 2013 for clearing three scattered trees to the west of the coal haul road from the pit to the ROM area. An inspection was also carried out in July 2014 for clearing several isolated trees in advance of the eastern edge of the western emplacement area, and at the eastern soil stripping area, in advance of the pits movement east between the mine void and Wean Road.</p>	NC	Consider aligning the EMS and RMP commitments for fauna monitoring. Also consider completing monitoring of the plots established in 2009 at least biannually.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Blasting and Vibration</b>					
Blasting and vibration at Rocglen will continue to be managed in accordance with the approved Blast Management Plan prepared in accordance with Condition 12 of Schedule 3 of PA 10_0015.	Section 3.2.7	Blast Management Plan	Refer to Blast Management Plan Annex H for assessment of implementation	C	
<b>Noise</b>					
Noise emissions at Rocglen will continue to be managed in accordance with the approved Noise Management Plan (incorporating a Noise Monitoring Program) and Road Traffic Noise Management Plan prepared in accordance with PA 10_0015. The noise criteria adopted at Rocglen, along with the noise mitigation and management measures that will be implemented during the MOP term, are detailed in the Noise Management Plan.	Section 3.2.8	Noise Management Plan  Road Traffic Noise Management Plan	Refer to Annex J of this report for assessment of implementation of plans.	C	
<b>Visual Amenity and Lighting</b>					
A progressive approach to the rehabilitation of disturbed areas will be adopted to ensure that, where practicable, completed mining and overburden emplacement areas are quickly shaped, top-dressed and vegetated.	Section 3.2.9	Rehabilitation Management Plan  Site inspection  Interview - Mine Manager	The northern emplacement area is now reshaped with rehabilitation underway. The western emplacement area is still receiving material along the eastern edge. Rehabilitation of this area cannot occur until after operations has ceased as infrastructure in area.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Strategically placed bushland tree lots will be integrated into the post-mining landform to break up the landform and provide visual texture.	Section 3.2.9	Rehabilitation Management Plan Mining Operations Plan	Plans include establishment of bushland tree lots in the northern and western emplacement areas along the eastern batter.	C	
A vegetated earthen bund of appropriate height will be maintained between the realigned Wean Road and the active pit area to provide an effective visual screen from Wean Road. In addition, a strip of bushland will be maintained in the post-mining landform to screen the view of the final void and generally improve the visual amenity from Wean Road.	Section 3.2.9	Site Inspection Interview – Mine Manager	Earthen bund has been partially installed along the southern part of the eastern boundary but has not been installed along the area of the active pit area.  Bushland will be established once operations have finished in three years.	NC Duplicated with SoC	Consider installing bund along Wean Rd to provide a visual screen.
The requirements of the Australian Standard AS 4282 1997 – Control of Obtrusive Effects of Outdoor Lighting will be taken into consideration when placing lights required when working outside of daylight hours.	Section 3.2.9	Site Inspection - evening	A light stand was noted at western emplacement lookout area which appears to shine across the valley to Belmont – site inspection at night time confirms light is shining directly across the valley i.e. above the horizontal.	NC Duplicated with MCoA 3.31	Consider the placement of lights to prevent horizontal light above the horizon.
<b>Heritage (Aboriginal and Non-Indigenous)</b>					
The approved Heritage Management Plan will continue to be implemented.	Section 3.2.10	Heritage Management Plan Site Inspection	Refer to the Annex I of this report for assessment of implementation of the Heritage Management Plan	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Spontaneous Combustion</b>					
<p><input type="checkbox"/> Any observed indications of spontaneous combustion will be investigated by excavation to identify and extinguish the source via water saturation with the sites water cart or fire tender.</p> <p><input type="checkbox"/> Should any outbreaks of spontaneous combustion occur during mining operations, details on the materials involved, presence of pyrites, location, date, time and climatic conditions will be recorded on surveyed plans.</p> <p><input type="checkbox"/> Accumulations of coal, coal rejects and other carbonaceous material will be buried under a minimum of three metres of inert overburden material.</p>	Section 3.2.11	Interview – Mine Manager	<p>Low sulphur coal means that the risk of spontaneous combustion is low. Residence time of stockpiles is kept to around 45 days which also reduces risk.</p> <p>No reports of spontaneous combustion have occurred during the audit period.</p> <p>Coal reject material is buried within the mine pit with at least 3m of overburden emplaced.</p>	C	
<b>Bushfire</b>					
<p>The mitigation and management measures that will be implemented during the MOP term to minimise the potential for bushfire hazard and/or incidents are summarised below.</p> <p><input type="checkbox"/> The existing firebreaks around Rocglen will be appropriately maintained in consultation with the NSW Rural Fire Service.</p> <p><input type="checkbox"/> Fire-fighting equipment, as well as earthmoving equipment and a water truck, will be maintained on site.</p>	Section 3.2.12	<p>Site Inspection</p> <p>Interview – Group Superintendent – Environment (Compliance)</p> <p>Interview – Mine Manager</p>	<p>Site is bounded to the south and east by public road. The west boundary of the site has a small road running along the boundary and the northern emplacement area is cleared paddock with an access road providing a break.</p> <p>Large watercart has a water cannon installed.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<ul style="list-style-type: none"> <li><input type="checkbox"/> Vegetation will be cleared away from around blast sites for a distance of greater than 20 metres.</li> <li><input type="checkbox"/> Blast design and implementation will be undertaken by a suitably qualified blasting engineer and/or experienced and appropriately certified shot-firer.</li> <li><input type="checkbox"/> Water truck/cart will be available to douse any fire ignited or smouldering vegetation.</li> <li><input type="checkbox"/> Refuelling will be undertaken within designated fuel bays or within cleared area of Rocglen.</li> <li><input type="checkbox"/> No smoking policy will be enforced in designated areas of Rocglen.</li> <li><input type="checkbox"/> Fire extinguishers will be maintained within site vehicles.</li> <li><input type="checkbox"/> Coal stockpiles will be are regularly inspected and, as required, watered.</li> <li><input type="checkbox"/> Regular consultation will be undertaken with the Forestry Corporation of NSW (NSW Forests) and NSW Rural Fire Service, including in relation to the bushfire hazard presented by the adjacent Vickery State Forest.</li> </ul>			<p>Shot firer holds SafeWork NSW licence.</p> <p>Refuelling of equipment is done at the designated area at the maintenance building as much as practicable otherwise refuelling of equipment is completed by refuelling/service trucks which are fitted with non-drip fittings and automatic shot offs.</p> <p>Smoking is allowed in office area on outside veranda. As of July 1 2016 all Whitehaven Coal sites will be smoke free. This initiative has been worked towards for the last 12 months.</p>		

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Traffic and Transport</b>					
<p>The mitigation and management measures that will be implemented during the MOP term to minimise the potential for traffic-related issues are summarised below:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Coal transportation will be undertaken via the approved haulage route between Rocglen and the Whitehaven CHPP.</li> <li><input type="checkbox"/> Coal transportation will be undertaken between the approved hours of 7:00 am and 9:15 pm Monday to Friday, and between 7:00 am and 5:15 pm on Saturdays.</li> <li><input type="checkbox"/> On school days, the two-way radio communication system will be maintained between the truck drivers and the local school bus driver to ensure that the trucks do not exceed 40 kilometres per hour when travelling in the vicinity of the school bus.</li> <li><input type="checkbox"/> All trucks transporting coal from the mine and back-loading reject from the Whitehaven CHPP will be well maintained to ensure optimal operation and will be required to be covered with fitted roll-over tarpaulins.</li> </ul>	Section 3.2.13	<p>Site Inspection</p> <p>Interview - Group Superintendent - Environment (Compliance)</p> <p>SWMS - PA3-27-2</p> <p>BIS SWMS 30626- Interaction with other Public Road Movement</p> <p>BIS SWMS 28410 - Loading ex Hopper Risk Assessment</p> <p>Road Maintenance Agreement issued August 2009</p>	<p>Environment Management Strategy - Section 2</p> <p>Trucks use Channel 19 to communicate with school bus driver.</p> <p>SWMS lists requirement to travel at 40km/h when in vicinity of school bus.</p> <p>SWMS lists requirement to cover loads with tarp - if unable to be covered then load must be tipped and unit returned to base to correct problem.</p> <p>Site inspection over 3-6 May confirmed all trucks had tarps fitted and in use.</p> <p>Coal transportation appears to be occurring outside allowed hours - raised previously in MCoA.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p><input type="checkbox"/> Drivers will be instructed to operate in accordance with the Transport Policy and Code of Conduct, which identify aspects such as travelling speeds, general behaviour, avoidance of exhaust brakes, load coverage, complaints and disciplinary procedures.</p> <p><input type="checkbox"/> The on-going use of the road network will be covered under the arrangements of the existing road maintenance agreement with Gunnedah Shire Council to ensure the subject roads continue to be adequately maintained.</p>			<p>Ongoing agreement with the GSC stipulates requirements for the company to maintain public roads used by the project. Road Infrastructure Coordinator based at the CHPP is the contact for GSC with any concerns regarding road conditions managed through this position.</p>		
<b>Rehabilitation Implementation</b>					
<p><b>Status at MOP Commencement</b></p> <p><b>Primary Domains</b></p> <p>All areas are active and subject to ongoing operations with exception of Domain 5 - Rehabilitation.</p> <p>This domain is currently active. Rehabilitation has been undertaken to date on approximately 119.7 ha at Rocglen.</p>	Section 7.1	Site Inspection	Confirmed	C	
<p><b>Secondary Domains</b></p> <p>All domains are active with exception of following:</p>	Section 7.1	Site Inspection	Confirmed - bushland rehabilitation has been substantially unsuccessful but is designated bushland.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Domain C - Pasture Rehabilitation Area - Approximately 22ha of pasture rehabilitation has been established at the commencement of the MOP term/</p> <p>Domain D - Bushland Rehabilitation Area - Approximately 97.7 ha of bushland rehabilitation has been established at the commencement of the MOP term.</p>					
<b>Proposed Rehabilitation Activities during the MOP Term</b>					
Table 20 summarises the forecast total disturbance and rehabilitation areas at Rocglen for each year of the MOP term.	Section 7.2  Table 20	MOP 2015	November 2015 to October 2016 - No additional rehabilitation is proposed in Year 1 of the MOP period.	NT	
<b>Rehabilitation Monitoring Methodology</b>					
<p>Rehabilitation monitoring will continue annually throughout the MOP period and be reported in the AEMR/Annual Review. Aspects of rehabilitation to be monitored will include:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Evidence of any erosion or sedimentation from areas with establishing vegetation cover;</li> <li><input type="checkbox"/> Success of initial grass cover establishment;</li> <li><input type="checkbox"/> Success of tree and shrub plantings;</li> </ul>	Section 8.1.2	AEMR/Annual Reviews 2012/13, 2013/14, 2014/15	Monitoring of rehabilitation is discussed comprehensively in the AEMRs (Section 5) and includes all requirements.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<input type="checkbox"/> Adequacy of drainage controls; <input type="checkbox"/> Presence/absence of weeds; and <input type="checkbox"/> General stability of the rehabilitation site.					
<p>Where the rehabilitation success appears limited, maintenance activities will be initiated. These may include re-seeding and where necessary, re-topdressing and/or the application of specialised treatments such as composted mulch to areas with poor vegetation establishment. Tree guards will be placed around planted tube stock if grazing by native animals is found to be excessive.</p>	Section 8.1.2	Site Inspection  Interview - Group Superintendent - Environment (Compliance)	Soil testing is to be completed (9 May 2016) by Whitehaven Coal Biodiversity specialist to advise what type and rate of ameliorant should be applied to maximise chances of rehabilitation. This will be used in conjunction with assessment of best type of planting (seed or tube stock), timing of rehabilitation activities etc.	C	
<p>If drainage controls deteriorate they will be repaired and/or temporarily fenced to exclude animals. Should areas of excessive erosion and sedimentation be identified, remedial works such as importation of additional soil material and/or the redesigning of water management structures to address erosion will be undertaken.</p>	Section 8.1.2	Site Inspection  WHC_CHK Monthly Environmental Inspection Checklist October 2015 - March 2016	<p>Site is fenced to exclude stock from mine lease area.</p> <p>Noted remedial works to repair erosion on the western batter on the northern emplacement area have recently been completed.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>A MOP will be prepared during the reporting period (planned for mid - 2016) in consultation with DRE to address rehabilitation and closure, with this document providing details of post-mining rehabilitation monitoring and maintenance.</p> <p>The key monitoring parameters to be included in the program include:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Landform and drainage design details;</li> <li><input type="checkbox"/> Substrate (spoil) characterisation;</li> <li><input type="checkbox"/> Site preparation techniques (for example, topsoil source and depth, soil ameliorants used etc.);</li> <li><input type="checkbox"/> Revegetation methodologies (for example, rate and type of fertiliser, cover crop and rate, time of sowing /planting);</li> <li><input type="checkbox"/> Weather conditions;</li> <li><input type="checkbox"/> Photographic records; and</li> <li><input type="checkbox"/> Initial follow-up care and maintenance works.</li> </ul>	Section 8.1.2	<p>This audit</p> <p>Mining Operations Plan</p> <p>Approval from DRE for most recent MOP</p>	<p>The Mining Operations Plan has been developed and covers the period November 2015 - October 2020.</p> <p>Site is planned for closure in 2019/20 - Final Void Management Plan being developed by the Group Superintendent - Environment (Compliance).</p> <p>A MOP will be prepared in mid-2016 to address rehabilitation and closure, with the current MOP providing details of post-mining rehabilitation monitoring and maintenance.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Biodiversity Offset Management</b>					
<p>To address and offset the impacts of the Rocglen Coal Mine, EcoLogical Australia prepared a Biodiversity Offset Strategy as part of the Rocglen Coal Mine Extension Project EA. EcoLogical prepared a Regional Whitehaven Biodiversity Management Plan in August 2013.</p> <p>Section 3 of the Regional Whitehaven Biodiversity Management Plan outlines management strategies for the offset area. Plan 4 outlines the location of the regional Whitehaven Offsets.</p>	Section 8.3	<p>Biodiversity Banking and Offsets Scheme Annual Reports 2012-2013, 2013-2014 and 2014-2015</p> <p>Letter from DP&amp;I 14 February 2013</p>	<p>Annual reports are completed which tracks implementation of the management actions for the BioBank site</p> <p>Letter from DP&amp;I informing Whitehaven Coal that BioBanking Agreement ID number 43, for the Whitehaven Regional Offset Area, meets the Biodiversity Offset requirements for the Rocglen Extension Project (10_0015) under Condition 23 of Schedule 3.</p>	C	
<b>Reporting</b>					
<p>Results of rehabilitation monitoring will be reported in the AEMR/Annual Review. The AEMR/Annual Review will also discuss rehabilitation performance against key performance measures/indicators, compliance with regulatory requirements and commitments, and identified trends and instances where potential rehabilitation failure has been identified triggering intervention in accordance with a Rehabilitation TARP</p>	Section 10	<p>AEMR/Annual Reviews 2012/13, 2013/14, 2014/15</p> <p>Rehabilitation Monitoring Plan</p>	<p>Monitoring of rehabilitation is discussed comprehensively in the AEMRs (Section 5) and includes all requirements.</p> <p>TARP is not included in the current version of the Rehabilitation Monitoring Plan.</p>	ANC	<p>Consider including the Rehabilitation TARP in the RMP to ensure implementation of the TARP occurs</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
AEMR/Annual Reviews will be submitted to relevant government agencies and made publically available on the Whitehaven website.	Section 10	Letters to Agencies and Stakeholders 30 October 2015  <a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	AEMRs area available on the Rocglen website. Letters sighted sending cop of AEMR to DP&E, GSC, DRE, DPI-Water, EPA & CCC.	C	

Annex F

## Audit Table – Environment Management Strategy

**Table F.1 Compliance Assessment -Implementation of the Environment Management Strategy**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Training and Competencies</b>					
<p>All training, competency assessment and maintenance of training records in relation to this EMS must be conducted in accordance with the requirements of the Rocglen Coal Mine’s Training and Competency Management Plan.</p> <p>The Training and Competency Management Plan defines the induction and training requirements for each classification of employee based on the type of work and the work environments that each classification is exposed to.</p>	Section 4.2	Training & Competency Management Plan	<p>Training Needs Analysis (TNA) defines the training required for a worker, a role, work group and/or department is used at Whitehaven Coal to analyse training requirements.</p> <p>The TNA identifies required training as well as if any specific training such as EMS is required as part of the role, workgroup or department.</p>	C	
<b>Rocglen Coal Mine Internal Communication</b>					
Communication of information related to this EMS must be conducted and recorded in accordance with the requirements of the Whitehaven’s Information and Communication Arrangements Standard.	Section 4.3	Procedure - Information and Communication Arrangements	Standard indicates information to be disseminated primarily via notice boards and tool box talks.	C	
<b>Retention of Records</b>					
The assigned persons will ensure this EMS and associated records are retained on file for a period of at least 5 years.	Section 4.4	<p>Interview - Environment Officer</p> <p>Site Inspection</p>	<p>Most documents are stored electronically to start of mine.</p> <p>Noted during review of documents that electronic records date back to 2008.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Information Dissemination, Complaints &amp; Incident Management &amp; Dispute Resolution</b>					
<b>Information Dissemination</b>					
The minutes of the CCC meetings will be available on the Whitehaven website.	Section 4.5.1	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	Minutes of all meetings are on the Rocglen website	C	
In addition to their tabling at CCC meetings, relevant environmental monitoring results pertaining to individual landholders will be provided on request, and all results will be available for public examination on the Whitehaven website.	Section 4.5.1	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	Monitoring results for each month are available on the website for Rocglen.	C	
WHC will provide the opportunity for the CCC and local residents, landholders, schools and community groups to visit the mine, as well as maintaining an open door policy for interested local residents, where practically possible.	Section 4.5.1	Interview - Mine Manager	CCC have visited site. No other groups have been invited to the mine.	O	Consider holding an open day annually or similar.
Copies of all management plans/strategies or monitoring programs, together with the results of independent audits undertaken in accordance with PA 10_0015 MOD 2 are publicly available on the Whitehaven website.	Section 4.5.1	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	All plans are available on the website.	C	
Each year, Whitehaven will prepare an Annual Review in accordance with NSW Government Annual Review Guideline (October, 2015).  The Annual Review will be provided to GSC, relevant agencies and to the CCC and also made available on Whitehaven's website.	Section 4.5.1	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	AEMRs available on website	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Whitehaven may also utilise the local press to present feature articles on the mine's progress. Other forms of communication with the community will include the provision of newsletters to the landholders around the mine site, with copies made available at the Council offices and on the Whitehaven website. These newsletters will provide updates as to site developments and will be issued generally every 6 months or following specific events at the site for which community updates are warranted.</p>	Section 4.5.1	<a href="http://www.whitehavencoal.com.au/community/rocglen-community-news.cfm">http://www.whitehavencoal.com.au/community/rocglen-community-news.cfm</a>	<p>Newsletters are available on the website - last one was completed Summer 2014. No major developments have occurred on the site since this time.</p> <p>No articles have been published in the local press.</p>	O	Consider developing a more up to date newsletter.
<b>Complaints Management</b>					
<p>A publicly advertised telephone complaints line will be in place to receive complaints during operating hours and record complaints at other times.</p> <ul style="list-style-type: none"> <li>• Each complaint received will be recorded on a Complaints Register, which will include the following details: <ul style="list-style-type: none"> <li>o The date and time of complaint.</li> <li>o Any personal details the complainant wishes to provide or if no such details are provided a note to that effect.</li> <li>o The nature of the complaint.</li> <li>o The action taken by Whitehaven in relation to the complaint, including any follow-up contact with the complainant.</li> <li>o If no action was taken by Whitehaven, the reason why no action was taken.</li> </ul> </li> </ul>	Section 4.5.2	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a> AEMRs	<p>Website lists phone number 0428 114 814.</p> <p>Tested number on 4/5/2016 at 13:00 - goes directly to Rocglen Group Superintendent - Environment (Compliance) and is manned while site is operational.</p> <p>Review of complaints indicates all details are maintained with exception of name of complainant due to privacy.</p> <p>Complaints are discussed in the AEMRs.</p>	<b>ANC  Duplicated  with EPL</b>	Consider maintaining version of complaints register offline which includes name of complainant and address/residence when available.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<ul style="list-style-type: none"> <li>• 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).</li> <li>• The cause of the complaint and any required remedial actions identified.</li> <li>• 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.</li> <li>• Once the identified measures are undertaken, the Environmental Officer will sign off on the relevant complaint within the Complaints Register.</li> <li>• If necessary, the Environmental Officer will follow-up to confirm the source of the complaint is adequately mitigated.</li> <li>• A copy of the Complaints Register will be kept by Whitehaven 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.</li> </ul>					

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Incident Management</b>					
In addition to the protocol for complaints management, environmental incidents at the mine will be managed in accordance with the site's emergency management plan, and the site's Pollution Incident Response Management Plan (PIRMP), and categories of environmental incidents will be determined using Whitehaven's Risk Matrix. Environmental incidents will be reported using Whitehaven's Incident Report Form. Any corrective/preventative actions identified as a result of the incident will be implemented by the Group Manager - Environment in accordance with Section 4.4.4.	Section 4.5.3	PRIMP Incident Register	PIRMP dated 13/11/2014, updated if there is an event.	C	
<b>Dispute Resolution</b>					
Dispute resolution will be undertaken in accordance with Conditions 3 and 4, Schedule 4 of PA 10_0015 MOD 2.	Section 4.5.4	Interview - Group Superintendent - Environment (Compliance)	No disputes have occurred over the audit period.	NT	
<b>Response to Non-Compliances</b>					
Any non-compliance with regulations, licences or approvals will be reported to the relevant authority, together with details of the corrective actions taken to avoid future occurrences. Areas of potential non-compliance which have the potential to cause environmental harm or result in complaints will also be reported to the relevant authority.	Section 4.6	Environment Event Reports - last overpressure events September 2014, non-monitoring of Air Quality October 2014	Reports have been completed and submitted to DP&E and EPA.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Non-compliances with the requirements of the mine's EPL will also be reported in each EPL Annual Return.	Section 4.6	EPA EPL Website	Non compliances have been reported with details available on the EPA EPL website	C	
A review of the mine's compliance with all conditions of PA 10_0015 MOD 2, ML 1620, ML 1662, EPL 12870 and all other approvals and licences will be undertaken prior to (and included within) each Annual Review submitted to DPE and DRE. The Annual Review will also be provided to GSC, relevant agencies, the CCC and to the public on Whitehaven's website.	Section 4.6	AEMRs  Whitehaven Rocglen Website	Reviews of compliance against the conditions of the OA, ML, EPLS and other licences and approvals have not been completed in the last AEMR for 2014-15. These were included in Appendix 3 for previous reporting years.	ANC	Consider including tables of the approvals in the Annex of the Annual Reviews with review of compliance completed.
<b>ENVIRONMENTAL PERFORMANCE</b>					
<p>The success of RCM's environmental performance will be assessed by way of its satisfaction of the conditions of PA 10_0015 MOD 2, Conditions of Authority appended to the Mining Lease, and conditions within the EPL, other approvals, licences or leases. This, in turn, will be measured by way of achievement of key performance outcomes and satisfaction of RCM's objectives with respect to the management of:</p> <ul style="list-style-type: none"> <li>• Aboriginal cultural heritage;</li> <li>• Flora and fauna;</li> <li>• Surface and groundwater;</li> <li>• Soil resources;</li> <li>• Bushfire;</li> </ul>	Section 5	AEMR/Annual Reviews 2012/13, 2013/14, 2014/15  Management Plans	Refer <i>Annexures</i> for audit of plan implementations.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<ul style="list-style-type: none"> <li>• Air quality;</li> <li>• Noise and blasting;</li> <li>• Visibility;</li> <li>• Waste;</li> <li>• Rehabilitation; and</li> <li>• Socio-economic issues.</li> </ul> <p>The assessment of performance, which may be quantitative and/or qualitative, will be reported in each relevant Annual Review.</p>					

Annex G

## Audit Table - Air Quality and Greenhouse Gas Management Plan

**Table G.1 Compliance Assessment -Implementation of the Air Quality and Greenhouse Gas Management Plan**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>INTRODUCTION</b>					
<p>The AQGGMP has been prepared with reference to relevant legislation, approvals and guidelines, follows the management plan requirements specified in Schedule 5 Condition 2 of PA 10_0015 MOD 2 and is consistent with the following documents:</p> <ul style="list-style-type: none"> <li>• Rocglen Coal Mine Extension Project EA February 2011 (“Extension EA”) - specifically Section 7.2; and</li> <li>• Rocglen Coal Mine Extension EA - Appendix C Air Quality Impact Assessment (PAE Holmes 2011).</li> </ul>	Section 1		Noted	Note	
<b>AIR QUALITY CONTROLS AND MANAGEMENT PROCEDURES</b>					
<b>Vegetation Clearing and Soil Stripping</b>					
Cleared trees and branches are retained for the use in providing habitat diversity and stabilising slopes of emplacement areas identified for rehabilitation to woodland. No burning of vegetation is permitted or occurs on-site.	Section 3	Interview - Group Superintendent - Environment (Compliance)  Site inspection	It was noted during the site inspection that tree trunks and branches were scattered around newly rehabilitated areas in the norther emplacement area which will become bushland.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Where practicable, soil stripping is undertaken at a time when sufficient soil moisture is available to prevent significant dust lift-off.</p>	<p>Section 3</p>	<p>Interview - Mine Manager  DDG and HVAS results</p>	<p>The chitter haul road area was stripped during the audit period. These works are completed by contractors on a campaign basis. March 2016 last stripping completed in the southeast wedge of the mine. Dust and HVAS results for this month indicate levels of dust consistent with previous months.</p>	<p>C</p>	
<p>When practicable, soil stripping is ceased during periods of high winds. Wind speeds of 6m/s or greater sustained for six consecutive 5 minute periods triggers a visual inspection of any soil stripping activities, as well as a review of the operations and adequacy of dust control measures in place. If soil stripping activities are continued, dust suppression by water application is increased in order to improve soil moisture levels and minimise dust generation. Scraper speeds may also be reduced from 60km/h while hauling material. The determination of timing for soil stripping activities is undertaken by the Operations Manager in consultation with the Environmental Officer to verify conditions are suitable.</p>	<p>Section 3</p>	<p>Adverse weather and noise monitoring log.</p>	<p>Alerts are sent to the Mine Manager and OCE when wind speeds are over 6m/s for six consecutive 5 minute periods, and an action alarm set to trigger with sustained wind speeds of 8m/s for six consecutive 5 minute periods which allows operations to be modified if required. .</p>	<p>C</p>	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Land disturbance, including groundcover removal, will be limited in advance of mining activities consistent with operational requirements. Under normal circumstances, a maximum of 100 metres will be prepared in advance of mining.	Section 3	Site inspection  Interview - Mine Manager  WHC_PRO_Clearing and Pre-strip	Site inspection and interviews indicates groundcover and stripping occurs on a campaign basis.	O  Duplicated with SoC	Consider including commitment requirement in the procedure WHC_PRO_Clearing and Pre-strip
Groundcover will be removed with the topsoil, as opposed to prior to topsoil removal.	Section 3	Interview - Mine Manager  Site Inspection  WHC_PRO_Clearing and Pre-strip	Procedure describes the removal of trees with a scraper to be used after this step to strip topsoil.	O  Duplicated with SoC	Consider clarifying in the procedure WHC_PRO_Clearing and Pre-strip the requirement to retain groundcover with the topsoil.
Where long term stockpiling of soil materials is planned (typically >3 months) the stockpiles will be seeded and fertilised.	Section 3	Site Inspection  Soil Inventory	Noted during site inspection that the stockpiles are stabilised with vegetation with no obvious movement of sediment evident on the area surrounding the stockpiles.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Drilling and Blasting Activities</b>					
The drill rigs on site utilise water injection and are fitted with dust collectors	Section 3	Interview - Mine Manager	Drill rigs use water injection.	C	
Coarse aggregates will be used for blast-hole stemming at all times	Section 3	Interview - Mine Manager Site Inspections	Blue metal sourced from local quarries is used for blast hole stemming.  Blue metal stockpile noted during the site inspection.	C	
Where practicable, blasting will be restricted during unfavourable weather conditions.	Section 3	Interview - Mine Manager  WHC-CHK Environmental Blast Checklist Rocglen	Meteorological conditions are checked prior to blasting on Sentinex.  Environment Officer checklist reviews 7 day forecast and notifies OCE of any potential issues.	C	
When necessary, dust aprons will be lowered during on-site drilling.	Section 3	Interview - Mine Manager	Dust aprons are fitted to the drill rigs and are a permanent fixture.	C	
Blast fume emissions are managed in accordance with the Blast Management Plan.	Section 3	Blast Management Plan	Refer to assessment of Blast Management Plan ( <i>Annex H</i> ) commitments for assessment of implementation.  Blast fume is rated on Environmental Blast Checklist.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Overburden Ripping and Placement</b>					
Where practicable, ripping of softer overburden material is avoided during periods of high wind.	Section 3	Mine Manager	Removal of overburden material is generally limited to within the mine void at current stage of the project. Some overburden material is removed along the southeast corner as extraction moves towards the south	C	
Consideration is given to minimising dumping at higher elevations during periods of high winds greater than 6m/s sustained for 6 consecutive 5 minute periods; and ceasing dumping at higher elevations in periods of high winds greater than 8m/s sustained for six consecutive 5 minute periods, where practicable and necessary, in accordance with the RCM Air Quality TARP.	Section 3	Adverse weather and noise monitoring log.	Alerts are sent to the Mine Manager and OCE when wind speeds are over 6m/s for six consecutive 5 minute periods, and an action alarm set to trigger with sustained wind speeds of 8m/s for six consecutive 5 minute periods which allows operations to be modified if required. .	C	
<b>Crushing and Screening</b>					
Notwithstanding the generally moist nature of the ROM coal pad, when it is identified that elevated dust is being generated, water will be applied to the coal at the feed hopper, crusher, and at all conveyor transfer and discharge points.	Section 3	Interview- ROM Manager  Site Inspection	Demonstrated by ROM Manager spray system on conveyors. Three sprinklers are installed along the conveyor system and is in automatic i.e. sprays when the bin is being loaded and coal is on the belt otherwise system can be switched to manual if required.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
			No excessive dust was noted during loading operations whilst on site.		
When necessary, some flexibility does exist to enable cessation of coal processing activities during periods of concurrent high winds and temperatures that have the potential to cause coal dust dispersal despite water applications.	Section 3	Adverse weather and noise monitoring log.	Alerts are sent to the Mine Manager and OCE when wind speeds are over 6m/s for six consecutive 5 minute periods, and an action alarm set to trigger with sustained wind speeds of 8m/s for six consecutive 5 minute periods which allows operations to be modified if required.	C	
Water carts are available for application of water sprays around the ROM pad.	Section 3	Site Inspection	Dust cart was noted in use during site visit including in ROM pad area. Dust levels were noted to be very low during the site inspection.	C	
<b>Internal Transport</b>					
As required, internal roads will be watered, with emphasis on those subject to frequent trafficking	Section 3	Site Inspection	Dust cart was noted in use during site visit - also noted operating during night time inspection.	C	
The speed of all on-site vehicles and equipment will be restricted. The OCE or Operations Manager is responsible for ensuring site speed limits are adhered to by operational personnel	Section 3	Site inspection Interview Mine Manager	Speed limit of the site is 60km/h. Site inspection observed mine vehicles travelling slowly.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
All internal roads will be clearly defined to control their locations	Section 3	Site Inspection	Site inspection confirms roads are clearly marked.	C	
As roads within the Project Site become obsolete, they will be ripped and revegetated.	Section 3	Site Inspection	Site inspection of rehabilitated areas confirms this occurs.	C	
All operators on site have the responsibility of reviewing the dust generation from their activities, and will contact the water cart direct, or their supervisor for action on dust control. Overall management responsibility for ensuring operators follow this protocol rests with the Operations Manager.	Section 3	WHC Generic Induction 28-03-2014 Slide Pack  WHC - Open Cut Inductions V3 - Nov 2014 Slide Pack	Generic induction includes slide on air quality which includes mitigation measures including the use of the dust cart.  Open Cut Induction slide pack also includes mitigation measures	C	
Dust management will be reviewed regularly, and, in the event of water application not achieving required dust control from the active haul roads, consideration will be given to the use of other dust suppressants.	Section 3	Site inspection  Interview Mine Manager  Adverse weather and noise monitoring log  Environmental Monthly Inspection Checklists	Environmental Officer reviews dust management monthly. Adverse weather condition alarms are reviewed by Mine Manager.  Site inspection noted very low levels of visible dust within the active mine pit only.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>External Transport</b>					
All trucks hauling product coal and coal rejects between RCM and the Whitehaven CHPP will be fitted with roll-over tarpaulins.	Section 3	BIS SWMS 28410 – Loading ex Hopper Risk Assessment  Site Inspection	SWMS lists requirement to cover loads with tarp – if unable to be covered then load must be tipped and unit returned to base to correct problem.  Site inspection over 3-6 May confirmed all trucks had tarps fitted and in use.	C	
All trucks transporting coal will be well maintained to ensure optimal operation, which will minimise the potential for air quality impacts from emissions.	Section 3	NHVAS – BIS Industries  BIS Industries - WHSE Management Plan	BIS transports all coal from and coal reject to site which operate under the National Heavy Vehicle Accreditation Scheme which requires a daily check for roadworthiness with records carried in the vehicle.	C	
A TARP has been developed based on PRP findings using adverse weather criteria, with an investigation level alarm set to trigger with sustained wind speeds of 6m/s for six consecutive 5 minute periods, and an action alarm set to trigger with sustained wind speeds of 8m/s for six consecutive 5 minute periods.	Section 3	Adverse weather and noise monitoring log	Alerts are sent to the Mine Manager and OCE when wind speeds are over 6m/s for six consecutive 5 minute periods, and an action alarm set to trigger with sustained wind speeds of 8m/s for six consecutive 5 minute periods which allows operations to be modified if required.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>MONITORING AND REPORTING</b>					
<b>Monitoring Program</b>					
<p>Parameters Measured</p> <p>Activities on the mine site will emit dust in various forms, namely total suspended particulate matter (TSP), particulate matter with aerodynamic diameters less than 10µm (PM<sub>10</sub>), and deposited dust (which is assessed as insoluble solids as defined in Australian Standard AS 3580.10.1-2003 Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method).</p> <p>No direct monitoring of TSP is proposed as PM<sub>10</sub> concentrations are considered of greater significance given its synergies with health-related issues, however indirect calculation of TSP will be made from PM<sub>10</sub> measurements, using a previously determined relationship factor of 2, to determine compliance with Schedule 3 Condition 15 Table 4 of PA 10_0015 MOD 2.</p>	Section 4.1.1	Monitoring Results	<p>TSP not currently calculated in the HVAS sheet and reported in the AEMRs.</p> <p>Review of HVAS PM<sub>10</sub> monitoring results indicates rolling 12 month average of TSP is below the criteria.</p>	ANC	<p>Consider including TSP in the monitoring results Excel spreadsheet using the relationship as described in the plan and report accordingly in the Annual Reviews.</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Monitoring Locations</p> <p>Figure 2 presents the locations of the dust deposition gauges, and location of the HVAS and TEOM for measuring PM10 concentrations, as specified in Condition P1.1 of EPL 12870.</p> <p>Table 2 lists the air monitoring locations</p>	Section 4.1.2	EPL	Locations align with EPL.	C	
<p>An alert system from the TEOM is established that provides site with adequate response time to address any site related dust generation activities. An initial trigger level is set at 40µg/m<sup>3</sup> for the PM10 24hr maximum. This trigger initiates a response from the site to review existing weather conditions and confirm if site operations are contributing to elevated PM10 levels. In the event that conditions at site are deemed to be a contributing factor to elevated PM10 levels, actions to modify activities will be undertaken and the impact on PM10 levels assessed.</p>	Section 4.1.2	Document WHC-CHK-DUST SYSTEM ALARM CHECKLIST period 27/10/2014 to 30/03/2016	<p>The TEOM will send an alarm via SMS to the Mine Manager and OCE when the 24hr PM10 criteria of 40µg/m<sup>3</sup> is reached so that actions can be completed immediately.</p> <p>A check sheet listing actions and checks for weather is completed.</p>	C	
<p>Site will maintain an active log of identified PM10 levels triggering a response and the actions initiated to reduce dust levels.</p>	Section 4.1.2	Document WHC-CHK-DUST SYSTEM ALARM CHECKLIST period 27/10/2014 to 30/03/2016	Checklist is completed and includes response and actions.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
In the event that PM10 levels are determined to be high as a consequence of ambient or other sources, by confirmation from surrounding PM10 networks, the activity log will identify this source, with no specific requirement for Rocglen operations to cease activity.	Section 4.1.2	Document WHC-CHK-DUST SYSTEM ALARM CHECKLIST period 27/10/2014 to 30/03/2016	Checklist is completed and identifies if activities are from mining activities. A review of other PM10 monitors is not currently completed as visual review of activities on site has confirmed elevated dust levels are not from site activities.	NC	As PM10 is not visible to the naked eye, consider reviewing surrounding PM10 monitors to confirm alarm is not from site activities (addition on checklist).
<p>Monitoring Frequency</p> <p>The monitoring frequency, as specified in Condition M2.1 of EPL 12870, for deposited dust and PM10 is as follows:</p> <ul style="list-style-type: none"> <li>• Deposited dust – continuous</li> <li>• PM10 – every 6 days (in accordance with the EPA schedule for PM10 monitoring)</li> <li>• PM10 – continuous</li> </ul>	Section 4.1.3	Monitoring Results	Monitoring frequency aligns with EPL and is completed (with exception of some missed events due to power failures which have been reported to the EPA as discussed previously).	C	
<b>Data Reporting</b>					
A summary of air quality monitoring results will be reported internally on a monthly basis as well as to the Community Consultative Committee (CCC) via the Environment Monitoring Report. This report will be uploaded onto the Company website (www.whitehavencoal.com.au).	Section 4.2.3	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	<p>Monitoring results for each month are available on the website for Rocglen.</p> <p>Environment Monitoring Reports for the CCC are not available for review (raised previously).</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Each year, the results of the air quality monitoring program will be summarised and presented in the AR together with reference to the prevailing meteorological data and site activities during the measurement period(s). Reporting will also include an analysis of the monitoring results against the exceedance criteria, previous monitoring results, and predictions made in the EA.	Section 4.2.3	AEMRs for audit period	Review of AEMRs/ARs confirms all information included.	C	
Dust monitoring results will be issued to the EPA via the Annual Return for EPL 12870 and presented monthly on the Company website.	Section 4.2.3	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	Annual returns have been completed for audit period (on EPA EPL website). Monthly results available on Rocglen website.	C	
<b>MANAGEMENT OF EXCEEDANCES, COMPLAINTS AND NON-COMPLIANCE</b>					
<b>Notification (of exceedance)</b>					
In the event that the PM10 level recorded for a single 24 hour period exceeds 50µg/m <sup>3</sup> , the Group Manager - Environment will notify the EPA as to the nature of the exceedance(s) and all relevant records of activities and weather conditions during the 24 hour period. A single exceedance may be considered anomalous, however repeated exceedances will require the preparation of a corrective action plan.	Section 5.1	Monitoring Results  AEMR 2013-14  EPL Non Compliance Details on Website for Annual Return 2013-2014	Review of HVAS results indicate criteria have been exceeded for following dates:  Glenroc (BA1) - 29/12/2013, 16/01/2014. These exceedances were reported in the AEMR but were not reported to the EPA as the EPL does not include specific criteria for air quality.	NC  Duplicated with EPL O3.1	Consider the reporting of exceedances of the MCoA criteria to the EPA (refer to EPL Condition O3.1).

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
			TEOM results not available for review and comparison against criteria. TEOMs are an approved method for assessment of PM10 air quality criteria.		Consider the review and recording of the 24 hour results for PM10 from the TEOM. Any exceedances can be compared to the regional TEOM network to confirm if exceedance is from Mine activities.
In the event that the annual average dust deposition recorded at any off-site monitoring location exceeds 4g/m2/month, or PM10 exceeds 30µg/m3, the Group Manager - Environment will notify the EPA as to the nature of the exceedance(s). In consultation with the EPA, and following further analysis of the results to determine dust composition and review of historical trends over prior annual periods, it will be determined if the annual exceedance is related to mining activities.	Section 5.1	Monitoring Results	<p>DDGs averages are done on a calendar year and the AEMR reports for the 12 months of the AEMR reporting period. Annual averages should be assessed as a rolling 12 month average.</p> <p>Review of results indicate location BD2A (Penryn) and BD8 (Yarrowonga) are over the 12 month rolling average.</p> <p>BD8 had one high reading (115.6g/m2/month for December 2014) which skews the 12 month average for period December 2014 to November 2015.</p>	NC Duplicated with MCoA 3.15	Consider calculating the rolling 12 month average for the dust gauges to enable identification and reporting of any annual average exceedances as they occur.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
			<p>Red sandy material was noted in the jar during collection and is not considered to be related to the Rocglen Mine.</p> <p>Reporting of DDG criteria exceedances of the MCoA are not currently reported to the EPA as the EPL does not list specific air quality criteria however, the EPL does include O3.1 - All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises</p> <p>BD2A had three high readings early 2015 (13.1, 61.3 and 6.1g/m2/month) with the annual average exceeded over the period February 2015 to January 2016 as a result of the three elevated readings. The ash content consisted of between 76% and 93% of insoluble solids indicating it consisted of primarily inorganic content i.e. sand, dirt</p> <p>Review of HVAS results confirms 12 month rolling average below annual MCoA criteria.</p>		

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
In the event of a blast fume exceedance i.e. a fume event rated at Level 3 that leaves the site, or any Level 4 or Level 5 event the notification protocol identified in the Pollution Incident Response Management Plan will be carried out, with notification to the relevant government agencies/departments, and affected landholders.	Section 5.1	Interview - Mine Manager  Site inspection  WHC_CHK_OC shotfirer  WHC_PRO_OC Blast Clearance and Firing Procedure	Shot firer rates the fumes - reports from last blast.  Procedure indicates shot firer will conduct inspection of shot material and adjacent areas. If there is risk of post blast fume or harmful gas is present, the use of gas monitors will indicate harmful gas particulates and should be used prior to undertaking any post-blast inspection.	O  Duplicated with EPL	Consider including on the shotfirer checklist assessment of whether a blast is high risk of creating blast fume and post blast checks, including gas monitoring.
In addition, in the event of an exceedance in 24 hour PM10 criteria or the annual average PM10 or dust deposition criteria Schedule 4, Condition 2 of PA 10_0015 MOD 2 requires RCM to notify the affected landowner of an air quality criteria exceedance, and provide regular monitoring results to each of these parties until the project is complying with relevant criteria again.	Section 5.1	Air Monitoring Results	Air quality results for audit period indicate no exceedances of air quality for the HVAS.  Review of the DDG results indicate some exceedances of the rolling 12 month average for two sampling locations which have not been reported to the landholder.	NC  Duplicated with MCoA 4.2	Consider reporting all exceedances of criteria to the affected landholder.
<b>Non-Compliance</b>					
Non-compliances relating to air quality would most likely relate to issues with monitoring such as monitor interference/malfunction. All non-compliances will be detailed in the EPL Annual Return and AR.	Section 5.3	Annual Returns and AEMRs for Audit Period	As air quality criteria are not listed in the EPL, exceedances with the MCoA criteria have not been reported. These have been reported in the AEMRs/ARs.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Unpredicted Impact Protocol</b>					
In the event that unpredicted or unforeseen air quality impacts are identified, the following protocol (Table 4) will be adopted.	Section 5.4	AEMRs	Results are compared to the EA predictions with no unpredicted impacts reported to date	C	
<b>GREENHOUSE GAS MANAGEMENT</b>					
RCM forms part of the Whitehaven Group's National Greenhouse and Energy Reporting Scheme (NGERS) reporting requirements.	Section 6	NGERS Excel spreadsheet 2015	Spreadsheet for tracking emissions reviewed - Scope 1 emissions for 2014/15 17,399tCO <sub>2</sub> -e (below site threshold for reporting) and lowest of active coal mines in Whitehaven Coal group.	C	

Annex H

## Audit Table - Blast Management Plan

**Table H.1 Compliance Assessment -Implementation of the Blast Management Plan**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>INTRODUCTION</b>					
Blasting may only take place on site between 9am and 5pm Monday to Saturday inclusive, and no blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Secretary	Section 1	Environmental Blast Monitoring Excel Spreadsheet  Shot reports - 245 to 250	Results checked for timing of blasts - all blasts within stipulated hours and days. Review of selection of shot reports confirms times match register.	C	
A maximum of 1 blast a day on site, unless an additional blast is required following a blast misfire	Section 1	Environmental Blast Monitoring Excel Spreadsheet	Results confirm one blast per day has been completed during audit period	C	
<b>BLASTING CONTROLS AND MANAGEMENT PROCEDURES</b>					
<b>Blast Design</b>					
Blast design and implementation will continue to be undertaken by a suitably qualified blasting engineer and/or experienced and appropriately certified shot-firer.	Section 3.2	Interview - Mine Manager	Shot firer holds SafeWork NSW licence.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Blast design will continue to include the following features to ensure industry standards are met:</p> <ul style="list-style-type: none"> <li>- Ensuring that burden distances and stemming lengths are such that explosion gases are almost completely without energy by the time they emerge into the atmosphere; and</li> <li>- Ensuring that charges consistently detonate in carefully designed sequences.</li> </ul>	Section 3.2	<p>Interview - Mining Manager</p> <p>Blast Design Checklist</p>	<p>Type of product and amount used is developed during blast design with hole depths and diameters considered accordingly.</p> <p>Burden distances and stemming lengths are entered into design checklist.</p> <p>Blast design checklists include timing path to be selected (Echelon, V, Zip, ROW)</p>	C	
<p>Whitehaven will continue to analyse meteorological conditions prior to blasting to avoid times when the potential for impact is heightened, and also endeavour to blast at around midday over the winter period to avoid temperature inversions.</p>	Section 3.2	<p>Interview - Mine Manager</p> <p>WHC-CHK Environmental Blast Checklist Rocglen</p>	<p>Meteorological conditions are checked prior to blasting on Sentinex.</p> <p>Environment Officer checklist reviews 7 day forecast and notifies OCE of any potential issues.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Air Vibrations (Overpressure)</b>					
<p>Noise (the audible part of the air vibration spectrum) and airblast (the remaining sub-audible part of the air vibration spectrum) generation can be controlled by ensuring that all, or nearly all, of the explosion energy is consumed in fragmenting and displacing the overburden by the time the gases vent (via the broken burden rock and/or ejected stemming material) into the atmosphere.</p> <p>This objective is met by ensuring that:</p> <ul style="list-style-type: none"> <li>• Blasthole spacing is implemented in accordance with blast design;</li> <li>• The burden distance and stemming length are carefully selected;</li> <li>• Appropriate materials (e.g. 20mm aggregates) are used for stemming;</li> <li>• Charges detonate in the correct sequence and with inter-row delays that provide good progressive release of burden.</li> <li>• The maximum weight of explosive detonated in a given delay period (the MIC) is limited to conservative and proven levels; and</li> <li>• Refining these controls on the basis of the blast monitoring program.</li> </ul>	Section 3.3	<p>Interview – Mine Manager</p> <p>Blast Design Checklists</p> <p>Blast Charge Design Excel Spreadsheet</p>	<p>Design sheets include check that pattern has been drilled to design – checked by drill and blast engineer.</p> <p>Burden distance and stemming length in checklists.</p> <p>Aggregate used for stemming is “blue metal”.</p> <p>Sequence type selected in blast design sheet</p> <p>Blast charge design includes calculations based on tonnes of product, blast volume, area, spacings etc</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Ground Vibrations</b>					
<p>Ground vibration is controlled by ensuring:</p> <ul style="list-style-type: none"> <li>• The minimum practicable weight of explosive detonates at an instant (i.e. minimising the MIC) by using the maximum number of delay periods in each blast; and</li> <li>• Most of the energy liberated by the charge(s) on a given delay number is consumed in providing good fragmentation, adequate displacement and/or a loose, highly dig-able muckpile, rather than in creating ground vibrations (i.e. by ensuring that the burden distance and effective sub-drilling are not too large).</li> </ul>	Section 3.4	<p>Interview - Mine Manager</p> <p>Blast Design Checklists</p> <p>Blast Charge Design Excel Spreadsheet</p>	<p>Design sheets include minimum practicable weight of explosives and the timing path.</p> <p>Type of muck pile also requested.</p>	C	
<b>Fume and Other Post-Blast Emissions</b>					
<p>Blast generated dust would be minimised by ensuring that stemming columns are not ejected for considerable distances into the atmosphere. Stemming column lengths would be such that their ejection velocities are low.</p>	Section 3.5	<p>Interview - Mine Manager</p> <p>Blast Design Checklist</p>	<p>Burden distances and stemming lengths are entered into design checklist.</p> <p>Blue metal is used for stemming to prevent dust.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Road Closures</b>					
<p>The limit of open cut mining encroaches within 500 metres of Wean Road in its realigned position. As per the existing 2013 Road Closure Management Plan (originally approved by Gunnedah Shire Council in 2009), the safety of traffic on Wean Road is ensured via the following actions:</p> <ul style="list-style-type: none"> <li>• For all blasts within 500 metres of Wean Road, the road will be closed with blast notice boards updated at least 24 hours prior to each blast. Road closures will typically occur for a period of up to 10 minutes;</li> <li>• Following the blast, Whitehaven will inspect the road surface and remove any rock fragments from the road surface prior to re-opening; and</li> <li>• Whitehaven will monitor the distance flyrock travels (if any) beyond the designed blast envelope and identify if further safeguards are required.</li> </ul>	Section 3.6	Site Inspection  Interview - Group Superintendent - Environment (Compliance)  Site Inspection	The boards are in place but are not currently used as intended	NC  Duplicated with SoC	Consider using the blast notice boards prior to blasting.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>INSPECTIONS AND NOTIFICATIONS</b>					
<b>Pre-Blasting Notification</b>					
RCM will provide the proposed blasting schedule to all residents within a 3 kilometre radius of the blast, and any other person who registers an interest, in order to provide advance notice of the date and time of each proposed blast.	Section 4.2	Interview - Group Superintendent - Environment (Compliance)	<p>The only private residents within 3 kilometres of the expanded open cut pit limit is "Roseberry" as all other residences that fall within the 3 kilometre limit are mine-owned.</p> <p>Notification is currently provided via phone call to the residents of "Surrey", "Yarrari", "Penryn", and "Yarrowonga". As per their request, an email is sent to the resident of "Brolga", and a text message to the resident at "Kahana".</p>	C	
Notification to the general public about proposed blasting dates and times is provided via a blast notice board near the mine entrance on Wean Road. This will notify passing motorists when the next blast is scheduled. Two additional signs are provided to the north and the south of the mine site on Wean Road to notify motorists of potential road delays between 9am to 5pm, a contact phone number is also provided. A second blast notice board is displayed on the western entrance to notify traffic entering RCM from the Whitehaven haul route of proposed blasting dates and times.	Section 4.2	Site Inspection	<p>The boards are in place but are not currently used as intended.</p> <p>Sentries are placed along road to prevent use of the road by traffic during blasting.</p> <p>Two additional signs on Wean Rd notifying of potential delays are in place. Blast board at western entrance to notify traffic using the haul road is also in place (inside site).</p>	NC Duplicated SoC	Consider using the blast notice boards prior to blasting.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>MONITORING AND REPORTING</b>					
<b>Blast Monitoring Program</b>					
EPL 12870 specifies the following monitoring parameters to be monitored at the locations stated in Section 5.1.2. Monitoring must be undertaken for each blast as specified in Table 3.	Section 5.1.1	Monitoring Results	Monitoring aligns with EPL	C	
In addition to blast monitoring at the nominated sites, RCM will also inspect the area around the blast for flyrock distribution.	Section 5.1.1	Interview - Mine Manager  Blast Clearance and Firing Procedure	Anecdotally this occurs however this is not recorded in the procedure or current blast checklists.	O  Duplicated with SoC	Consider including requirement for checks in procedure and add check onto one of the blasting checklists.
Condition M7.1 of EPL 12870 specifies that monitoring is to be conducted at the residences listed in Table 4 (Retreat and Roseberry residences)	Section 5.1.2	Monitoring Results	Monitoring locations included licensed points "Roseberry" and "Retreat" and the un-licensed point "Surrey", which was monitored 2012-14 in response to landholder concerns and an un-licensed point "Kahana" for 7 months in 2014-15 in response to concerns from the blast engineer regarding unexpectedly high results from the "Roseberry" monitor.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Permanent blast monitors are established at the "Retreat" and "Roseberry" properties to monitor air-blast overpressure (dBL) and peak particle velocity in a radial, vertical, and transverse direction (mm/s), i.e. ground vibration. After each blast, information gathered on a blast can be downloaded via the internet or wireless download. This information is then analysed by the drill and blast engineer and the Environmental Officer to check compliance with blasting criteria.	Section 5.1.2	Monitoring Results WHC_CHK Environmental Blast Checklist	Checklists confirm monitoring results are received from Ecotech and saved to server. The blast is categorised (blast fume rating) and entered into the Dynamaster web platform. Results are compared to the criteria.	C	
The sensors are calibrated annually.	Section 5.1.2	Interview - Environment Officer  Calibration Certificates - Ecotech	Blast monitor calibration certificates sighted for Retreat and Roseberry - completed 1 March 2016.	C	
In the case of any issues or faults with the permanent monitors, portable monitors will be utilised in the same locations.	Section 5.1.2	Note	One portable blast monitor was also located at the unlicensed point "Kahana" for 7 months, in response to landholder concern, until the 21st of May 2015 when it was relocated to the "Roseberry" property to sense check results from the permanent Roseberry meter.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Reporting</b>					
Blast monitoring results will be reported via Community Consultative Committee (CCC) meetings and annually to relevant government agencies through the Annual Review.	Section 5.2	Rocglen Website AEMRs	Monitoring results for each month are available on the website for Rocglen.  Results are included in the AEMRs.	C	
<b>MANAGEMENT OF INCIDENTS, EXCEEDANCES, NON COMPLIANCES AND COMPLAINTS</b>					
<b>Blasting Criteria Exceedance</b>					
In the event that the monitoring results of a blast identify an exceedance of: <ul style="list-style-type: none"> <li>• Peak vector sum velocity (ground vibration) - 5mm/s (ppv); and/or</li> <li>• Peak overpressure - 115dB,</li> </ul> RCM will initiate investigation as to the cause of the exceedance.	Section 6.1.2.1	Monitoring results  Email to DPE 19 September 2015  Email with incident report sent to DPE 25/09/2015  Email to 23/10/2015 with additional information requested by DPE  AEMR/ Annual reviews 2012/13, 2013/14, 2014/15	Review of the blast monitoring results for 2011/12 period indicate the maximum recorded peak overpressure level was 118.9dB recorded at "Roseberry" on the 21st March 2013. This overpressure result over 115dB is compliant, as it was not more than 5% of the total number of blasts over the 2012/13 reporting period.  2 blasts during the 2014/15 period exceeded the 115dB limit, with results of 116.1dB on the 5th September 2014 and 115.7dB on the 18th September 2014. Both of these results were recorded at "Roseberry", and made up 6.7% of all blasts undertaken for the period.	NC  Duplicated with MCoA 3.5, EPL L5.1 and ML1602 (15(b))	No further actions recommended. Tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
			<p>5% of 115dB was exceeded 18 September 2014 but was not picked up in the AEMR however was picked up through reporting for the EPL. The EPL, ML and PA all have different definitions of 12 months.</p> <p>The tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.</p>		
RCM will notify DPE and EPA of any blasting related non-compliances or exceedances as soon as practicable after RCM becomes aware of the issue.	Section 6.1.2.1	<p>Email to DPE 19 September 2015</p> <p>Email with incident report sent to DPE 25/09/2015</p> <p>Email to 23/10/2015 with additional information requested by DPE</p> <p>AEMR/ Annual reviews 2012/13, 2013/14, 2014/15</p>	Reported to DPE once aware of exceedance. Reported to EPA as part of Annual Return.	<p>NC</p> <p>Duplicated with MCoA 3.5 and above</p>	Refer above

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Within 7 days of the date of the incident, RCM will provide DPE and EPA with a detailed written report on the incident. The report would include details such as the date, time and nature of the non-compliance or exceedance, the cause or likely cause, the action taken to date and proposed measures to minimise potential for non-compliances or exceedances with future blasts.</p> <p>Exceedances will also be reported in the blasting discussion in the Annual Review.</p>	Section 6.1.2.1	<p>Incident register</p> <p>Email to DP&amp;E 17/09/2015 and 23/10/2015</p> <p>AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15</p>	<p>AEMRs for audit period report the following incidents:</p> <p>2012-13: no environmental incidents reported</p> <p>2013-14: no environmental incidents reported</p> <p>2014/15: exceedance of 5% of blasts above 115 dBL. Reporting of the incident was undertaken to the DP&amp;E post the reporting period as rolling averages not calculated - this has now been added to the monitoring Excel spreadsheet.</p>	<p>NC</p> <p>Duplicated with MCoA 5.6 and EPL R2.2</p>	<p>Tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.</p> <p>Consider reviewing the compliance tracking and reporting procedure to ensure EPA and DP&amp;E are informed of any exceedances.</p>
<p>RCM has notified in writing the owners of "Brolga", "Surrey", and "Roseberry" of their entitlement to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated.</p>	Section 6.1.2.2	<p>Independent Environmental Compliance Audit - Umwelt (2013)</p>	<p>Reports completed at the Surrey and Brolga residences in 2008 - refer previous audit report.</p> <p>No further written request have been received during the audit period.</p>	<p>NT</p>	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
As soon as practical after obtaining monitoring results showing an exceedance of the blasting criteria, RCM shall notify the affected landholder and/or tenants in writing of the exceedance, and provide regular monitoring results to each of these parties until the project is complying with the relevant criteria again.	Section 6.1.2.2	Group Superintendent - Environment (Compliance) Sale Contract - Roseberry	Exceedance of the blasting criteria was at the Roseberry property. Conditions from the contract of sale states that the residence is classified as project related and therefore no claim can be made.	O	Consider informing the tenants of Roseberry of any exceedances as per this commitment or adjust the commitment to notification to non-project related properties only.
<b>Complaints</b>					
Any complaints received will be managed in accordance with complaints management protocol.	Section 6.2	Complaints Register	Complaints are investigated and resolved as soon as practicable.	C	
<b>APPENDIX 1 FUME MANAGEMENT STRATEGY</b>					
<b>BLAST DESIGN AND PLANNING</b>					
Blast designs will be developed to consider:  <input type="checkbox"/> Geological constraints such as weak or hard bands of overburden, coal bands and faults.  <input type="checkbox"/> Blast performance requirements in terms of fragmentation, heave, dig rates, etc.  <input type="checkbox"/> Control of potential blast impacts including flyrock, fume, overpressure, vibration etc.	Section 4.1	Interview – Mine Manager	Blasts design mitigations may include:  <ul style="list-style-type: none"> <li>• reducing bench heights or ensuring adequate relief in deep holes;</li> <li>• selecting explosives products appropriate to the blast design and ground conditions;</li> </ul>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
			<ul style="list-style-type: none"> <li>• Following manufacturer's recommendations for priming, timing and sleep time of bulk explosives;</li> <li>• Increasing the level of control and QA/QC checks on deeper shots;</li> <li>• Providing appropriate separation of blast holes and explosive decks; and</li> <li>• Reducing the powder factor or modifying the timing, depth or size of a blast.</li> </ul>		
<p><b>Geology</b></p> <p>Where clay or other unfavourable geological conditions are identified, explosive product selection will be modified to suit conditions. When blasting in soft ground, or areas with a history of producing blast fume, increased blast clearance may also be required to ensure the safety of personnel.</p>	Section 4.1	<p>Interview - Mine Manager</p> <p>WHC_PRO_OC Blast Clearance and Firing Procedure</p> <p>D&amp;B Design Checklist</p>	<p>Procedure indicates blast exclusion zones are expanded if there is a risk of blast fume i.e. extended sleep time or water intrusion, soft ground.</p> <p>Drill and blast checklist assesses ground condition and water - completed by shotfirer.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p><b>Sleep Time</b></p> <p>All blasts will be designed and planned to be fired within 5 days of first being loaded. Approval from the Operations Manager is needed for shots requiring longer sleep times up to a maximum of 7 days. The prevailing and forecast weather conditions as well as the Fume Risk rating and manufacturers recommendations will be taken into account when planning the required blast sleep time.</p>	Section 4.1	<p>Interview – Mine Manager</p> <p>WHC_CHK Environmental Blast Checklist</p> <p>D&amp;B Design Checklist</p>	<p>Sleep times are kept to less than 5 days.</p> <p>D&amp;B checklists and environmental blast checklists include requirement.</p>	C	
<p><b>Explosive Selection</b></p> <p>The following Table 2 and text define the relative risk levels of fume generation at RCM and explosive product selection guidelines</p>	Section 4.1	<p>Interview – Mine Manager</p> <p>WHC_CHK Environmental Blast Checklist</p>	<p>Since January 2014, Whitehaven Coal has contracted LDE Pty Ltd to supply and load down hole bulk explosive products for all open cut mines including RCM. LDE specialise in low density explosives suited for blasting in ‘soft’ ground conditions and allowing effective rock breakage at lower powder factors than higher density explosives, with reduced potential for fume generation.</p> <p>Fume generation is assessed after the blast and recorded in the Environmental Blast Checklist.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>METEOROLOGICAL CONDITIONS</b>					
Before each blast, weather conditions will be assessed by the site Environmental Officer, or alternate, in accordance with the Environmental Blast Checklist. Shots will not be fired during adverse weather conditions, unless for safety reasons, or to minimise further deterioration of the product due to extended sleep time.	Section 4.2	Interview - Mine Manager  WHC-CHK Environmental Blast Checklist Rocglen	Meteorological conditions are checked prior to blasting on Sentinex.  Environment Officer checklist reviews 7 day forecast and notifies OCE of any potential issues.	C	
If there is a risk of blast fume, the Shot firer must extend the blast danger zone to allow for the safety of all personnel. This is particularly important if a shot has had an extended sleep time, where water intrusion may have affected the bulk explosive, and when firing misfires.	Section 4.2	WHC_PRO_OC Blast Clearance and Firing Procedure  Interview - Mine Manager	Blast exclusion zones are expanded if there is a risk of blast fume i.e. extended sleep time or water intrusion, soft ground.	C	
Main Pit Blasting - If inversion conditions are detected or wind speeds are greater than 7m/s, blasting may be delayed if it is considered these conditions pose a risk to environmental compliance, until more favourable weather conditions are encountered.	Section 4.2	WHC_PRO_OC Blast Clearance and Firing Procedure  Interview - Mine Manager	The Current Weather Page must confirm that environmental conditions are suitable for firing. If the Weather Page indicates unfavourable conditions, consultation with D&B Engineer and Manager of Mining Engineering must be sought prior to firing.	O	Consider defining what unfavourable weather conditions are in the Blast Clearance and Firing Procedure.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>BLAST MONITORING &amp; FUME RATING</b>					
<b>For each blast the following monitoring will be carried out:</b>					
Fixed vibration monitors – measures the peak blast overpressure (dBL) and peak ground vibration (mm/s). Portable blast monitors will be used if the fixed monitors are inoperable.	Section 4.3	Interview – Mine Manager WHC-CHK Environmental Blast Checklist Rocglen  Monitoring results	All blasts were monitored using a combination of portable and permanent blast monitors.	C	
A video record of every blast fired will record the shot initiating, blast movement and post blast fume generation. This will then be reviewed to improve future blasting performance and to further minimise blast fumes, flyrock or vibrations. All records will be kept on site for a minimum of two years.	Section 4.3	Interview – Mine Manager WHC-CHK Environmental Blast Checklist Rocglen	Video is recorded and noted in environmental checklist.	C	
All blasts will be rated for fume levels on a scale between 0 - 5, based on the AEISG COP (Appendix 5.2), refer Blast Management Plan. In the event that a blast produces fume that rates a 3 at its highest extent and leaves the mine site, or if it rated at 4 or 5, notification will be provided in accordance with Schedule 5 Condition 8, at the earliest opportunity to the Department of Planning and Environment.	Section 4.3	Interview – Mine Manager WHC-CHK Environmental Blast Checklist Rocglen	Blast fume is rated on Environmental Blast Checklist Rocglen.	O	Consider including blast fume rating on monitoring results Excel spreadsheet to enable trending/reporting of results.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
An Environmental Blast Checklist will be used for each blast. This includes a notification checklist; pre-blast weather conditions assessment prior to and at the time of the blast (commencing at 5 hours prior to the blast); and a post-blast assessment which includes fume rating.	Section 4.3	Interview – Mine Manager WHC-CHK Environmental Blast Checklist Rocglen	Review of checklists for blasts 245-250 completed with all information recorded.	C	
<b>BLASTING WITHIN 500M OF A PUBLIC ROAD OR PROPERTY</b>					
If blasting is to be carried out within 500m of a public road, the road will be closed for the duration of the blast. The road will be reopened once an inspection has indicated it is free of significant fly-rock and/or dust/fumes as described in WHC_PRO_OC – Blast Clearance and Firing.	Section 4.4	WHC_CHK Environmental Blast Checklist  WHC_CHK-OC Blasting	Road is closed. Sentries are placed along road to prevent use of the road by traffic during blasting.  Check for flyrock not currently included on checklists however is anecdotally completed.	O  Duplicated with SoC	Consider including check for flyrock on one of the blasting checklists.
Tenants who may live on a WHC owned property near the blast area will be notified of the planned blasting date and time.	Section 4.4	WHC_CHK Environmental Blast Checklist	Notification is currently provided via phone call to the residents of “Surrey”, “Yarrari”, “Penryn”, and “Yarrawonga”. As per their request, an email is sent to the resident of “Brolga”, and a text message to the resident at “Kahana”.  Environmental Blast Checklist includes trigger to complete notification.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Should an unexpected fume cloud occur, neighbouring properties in line with the fume cloud will be notified in accordance with the site Pollution Incident Response Management Plan (PIRMP), and if necessary evacuated.	Section 4.4	WHC_CHK Environmental Blast Checklist  Interview- Mine Manger  AEMRs - audit period	Blast fume is rated on Environmental Blast Checklist.  Blast fume results are not currently recorded/reported in the AEMR.	O	Consider including blast fume rating on blast monitoring results Excel spreadsheet to enable trending/reporting of results.  Consider including blast fume results in Annual Reviews.
The date, time and location of the blast/s will be posted on appropriate signs, located on Wean Road.	Section 4.4	Site Inspection  Interview - Group Superintendent - Environment (Compliance)  Site Inspection	The boards are in place but are not currently used as intended.  Sentries are placed along road to prevent use of the road by traffic during blasting.	NC Duplicated with SoC	Consider using the blast notice boards prior to blasting.
<b>BLAST EXCLUSION ZONES AND TIMING</b>					
Establishment of exclusion zones, refer example in Appendix 5.3, and the time of blasts will be conducted in accordance with the WHC PRO - OC - Blast Clearance and Firing.	Section 4.5	Shotfirer sheets for 251-252	Exclusion zones are created. Time of blasts is recorded on all checklists.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>TECHNICAL AND SAFETY DATA SHEETS</b>					
Copies of all relevant Technical and Safety Data sheets shall be supplied to the Drill and Blast Engineer and Shotfirers by the Explosives Manufacturer. Copies will be kept on site for reference.	Section 4.6	Interview – Mine Manager	LDE Pty Ltd supply and load down hole bulk explosive products for all open cut mines including RCM.	NT	
<b>INCIDENT AND HAZARD MANAGEMENT</b>					
Blast fume incidents will be managed in accordance with the WHC-STD-Incident and Hazard Management which provides a generic process that is to be followed for all health, environment and safety incidents that may occur at WHC.	Section 4.7	Copy of WHC-STD-Incident and Hazard Management procedure  AEMRs	No blast fume incidents have been reported in the AEMRs for the audit period.	NT	
In the event of NOx exposure (or suspected exposure) medical assistance should be engaged, and the Medical Advice from the AEISG COP (Appendix 5.4) provided to medical personnel.	Section 4.7	AEMRs	No blast fume incidents have been reported in the AEMRs for the audit period.	NT	
<b>INVESTIGATION - POST FUME INCIDENT</b>					
Should an excessive blast fume (level 3 or higher that is not localised) be generated from a blast, a fault tree (refer to Figure 1 below) will be used during the ICAM incident investigation to identify contributing factors that caused the excessive blast fume.	Section 4.8	AEMRs	No blast fume incidents have been reported for the audit period.	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Once the contributing factors have been identified, an appropriate action plan will be developed to mitigate and reduce the generation of fume from future blasts.	Section 4.8	AEMRs	No blast fume incidents have been reported for the audit period.	NT	
<b>REPORTING</b>					
<p>Blast fume reporting includes:-</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> All blast fume events (Level 1 and above) are reported as Environmental Incidents;</li> <li><input type="checkbox"/> Significant blast fume events Level 3 and above are investigated using the ICAM incident investigation method;</li> <li><input type="checkbox"/> Blast fume events Level 3 that leave the mine site or Level 4 &amp; 5 fume events are to be reported to DPE Lead Compliance Officer for the Northern Region at the earliest opportunity; and</li> <li><input type="checkbox"/> All blast fume events leaving the mine site boundary require consideration of the site's PIRMP regulatory/emergency and community notification protocols.</li> </ul>	Section 4.9	<p>WHC_CHK Environmental Blast Checklist Incident Register</p> <p>WHC_PRO_OC Blast Clearance and Firing Procedure</p>	<p>Blast fume is rated on Environmental Blast Checklist.</p> <p>No blast fume incidents have been reported for the audit period.</p>	O	<p>Consider recording blast fume ratings in blast monitoring Excel spreadsheet to confirm absence/presence of blast fumes.</p> <p>Consider including blast fume reporting requirements into the Blast Clearance and Firing Procedure.</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>AUDITING</b>					
<p>This document will be reviewed, and if necessary revised, in accordance with Schedule 5 Condition 5 of PA 11_0047 i.e. within 3 months of the submission of:-</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Annual Review;</li> <li><input type="checkbox"/> Incident report;</li> <li><input type="checkbox"/> Independent Environmental Audit; or</li> <li><input type="checkbox"/> Any modification to the conditions of PA 10_0015.</li> </ul>	Section 4.10	Management Plan review history	Review of the Management Plans indicates reviews are completed for Project Expansion. There is no evidence for reviews completed for all requirements listed as per this condition.	ANC Duplicated with MCoA 4.5	Consider the creation of an excel sheet with plan review tables and update reviews completed even if no changes are required to the plans.
<b>EDUCATION AND TRAINING</b>					
All employees will have a general blast fume awareness session delivered through the site induction program.	Section 4.11	WHC - Open Cut Inductions V3 - Nov 2014 Slide Pack	Open Cut induction slide pack includes general safety requirements for blasting and includes raising awareness regarding the possible generation of blast fumes as well as precautions.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Additional education and awareness programs will be provided, on an ongoing basis, for relevant personnel working near blast areas such as sentries and drill and blast contractors. Training for relevant personnel (Drill and Blast Engineer, Shotfirers, Drillers, OCE's, drill and blast contractors) will be undertaken in accordance with WHC-OC-Training and Competency Management Plan, and covers:</p> <ul style="list-style-type: none"> <li>- The identification and rating of post-blast fumes.</li> <li>- The potential health impacts of fume gases.</li> <li>- Potential causes of blast fume.</li> <li>- Fume mitigating actions as detailed in this procedure.</li> </ul>	Section 4.11	WHC-OC-Training and Competency Management Plan	<p>Review of the Training and Competency Management Plan does not include requirement for additional training of personnel working near blast areas.</p> <p>Evidence of additional training not available for review during the audit.</p>	ANC	Consider including the commitment for additional training of personnel working near blast areas into the Training and Competency Management Plan.

Annex I

## Audit Table -Heritage Management Plan

**Table I.1 Compliance Assessment –Implementation of the Heritage Management Plan**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>INTRODUCTION</b>					
The contents of this plan have been drawn from relevant sections of a report prepared by RPS Group, included as Appendix O of the Rocglen Extension Environmental Assessment (2011).	Section 1	Noted	Note	Note	
<b>Site Protection</b>					
<p>Aboriginal Archaeological Management of sites Btree 1 and Btree 2</p> <p>Protective measures designed to prevent damage to the scarred trees (NPWS #20-4-0194 and NPWS #20-4-0195) will be enacted upon as per recommendations in Appleton (2007) and this plan. These include:</p> <ul style="list-style-type: none"> <li>Restricting the mine extension in this area and committing to ensuring that no disturbance to the scarred trees or immediate surrounds will occur as a result of the Project.</li> <li>Registration of the trees on the Aboriginal Sites Register (AHIMS).</li> <li>Not disturbing the trees in any way and undertaking appropriate fencing and signage in consultation with the Aboriginal Community and OEH.</li> </ul>	Section 4.2.4	<p>MOP – Map 1c</p> <p>Interview – Mine Manager</p> <p>AIHMS database</p>	<p>The scar trees are located extremely close to where the haul road will be relocated as the pit moves towards the south.</p> <p>Site inspection noted scar trees are marked with tape with signage installed and located in the road corridor for the original Wean Rd alignment.</p> <p>Trees are registered in AIHMS</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
During the course of the Project, if it is suspected Aboriginal cultural heritage material has been encountered, work will cease immediately in that locale. OEHL, along with the RCLALC, BBGTP, GGAC and MMAC, will be notified. Works will only recommence when an appropriate and approved management strategy has been agreed to by all of the relevant stakeholders	Section 4.2.5	Interview - Group Superintendent - Environment (Compliance)  Heritage Management Plan  WHC_PRO Clearing and Pre-Strip	Section 4.2.5 of the HMP outlines requirement.  WHC_PRO Clearing and Pre-Strip does not include commitment.	O	Consider including this commitment into the WHC_PRO Clearing and Pre-Strip procedure as this is when an encounter with cultural heritage material is likely to occur.
In the event that skeletal remains are uncovered during operations, work will stop in the vicinity immediately and the NSW Police contacted. If skeletal remains are deemed to be of Aboriginal origin, a representative of the local Aboriginal Community and OEHL will be consulted	Section 4.2.5	Interview - Group Superintendent - Environment (Compliance)  Heritage Management Plan  WHC_PRO Clearing and Pre-Strip	Section 4.2.5 of the HMP outlines requirement.  WHC_PRO Clearing and Pre-Strip does not include commitment.	O	Consider including this commitment into the WHC_PRO Clearing and Pre-Strip procedure as this is when an encounter with cultural heritage material is likely to occur.
<b>Workforce Education</b>					
Prior to any person undertaking work on the mine site, they will undergo cultural awareness training as provided in the general mine site induction. All persons inducted at site are maintained on a site based register.	Section 4.3	WHC Generic Induction 28-03-2014 Slide Pack  WHC - Open Cut	Generic induction includes slide on heritage awareness.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
		Inductions V3 - Nov 2014 Slide Pack			
Any person undertaking soil stripping activities will undertake such works in consultation with the Environmental Officer and representative members of the Aboriginal community undertaking site monitoring during pre-strip works.	Section 4.3	Interview - Mine Manager  AEMRs  WHC_PRO Clearing and Pre-Strip	On 23rd September 2013, correspondence was received from Gunida Gonyah Aboriginal Corporation stating that they no longer wished to be involved with any surveying or mining activities.  In accordance with the agreement with the representative Aboriginal group, being the Min Min Aboriginal Corporation, notification of planned topsoil stripping is provided by the soil stripping contractor or site Environmental Officer directly to the nominated Aboriginal site monitors approximately 2 to 3 days in advance of planned activities.	O	Consider including heritage considerations into the existing procedure, WHC_PRO Clearing and Pre-Strip

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Management of Other Aboriginal Sites</b>					
<p>RCM will continue to invite representatives from the local Aboriginal community to monitor all ground disturbances work throughout the life of the mine.</p> <p>As per current practise, RCM will continue to invite representatives from the Gunida Gunyah Aboriginal Corporation (GGAC) and Min Min Aboriginal Corporation (MMAC) to attend all ground disturbance monitoring.</p>	Section 4.3	Interview – Mine Manager	<p>Ground disturbances during audit period were restricted to within mine footprint which was scanned prior to works commencing as part of the Environmental Assessment.</p> <p>Some ground disturbance works have occurred during the audit period.</p>	O	Consider including heritage considerations into the existing procedure, WHC_PRO Clearing and Pre-Strip
<p>In the event of the discovery of a new potential site or artefact, the following procedure will be followed.</p> <ol style="list-style-type: none"> <li>1. Work will cease in the area of discovery.</li> <li>2. If the area of discovery is in deposited material, then work will also cease in the area where the material originated from.</li> <li>3. The person discovering the artefact will notify their supervisor who will ensure that work has ceased and the area(s) is (are) cordoned off with tape.</li> <li>4. The supervisor will notify the Operations Manager or senior RCM person on site.</li> </ol>	Section 4.3	Interview – Mine Manager	No finds reported during audit period.	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>5. The Operations Manager/Environmental Manager will:</p> <p>(a) request a qualified archaeologist to attend the site and advise on its archaeological significance;</p> <p>(b) request the site monitors representing the local Aboriginal community, if not already present, to attend and advise on its cultural significance in consultation with the qualified archaeologist; and</p> <p>(c) if the find is determined to be a site, notify OEH with the advice from the archaeologist and the representative members of the local Aboriginal Community for determination of further procedures.</p> <p>6. If the find is confirmed as a site, the archaeologist will complete a Sites Register Card and forward to OEH for inclusion on the Aboriginal Heritage Information Management System (AHIMS) database.</p> <p>7. If the find is confirmed as a site, RCM will offer to facilitate inspection of the new site by other registered Aboriginal groups (Section 1.1) prior to salvage.</p>					

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>CONSULTATION, MONITORING AND REPORTING</b>					
<b>Consultation Protocol</b>					
<p>Prior to any topsoil stripping campaign, the Operations Manager, or authorised delegate, will notify RAPs undertaking pre-strip monitoring or, if so directed by the manager, the nominated Sites Officer advising of the extent, location, timing and expected duration of the planned campaign and inviting a representative to monitor the topsoil stripping activities.</p>	Section 6.1	<p>Interview - Mine Manager</p> <p>AEMRs</p> <p>WHC_PRO Clearing and Pre-Strip</p>	<p>AEMRs report clearing activities during audit period.</p> <p>On 23rd September 2013, correspondence was received from Gunida Gonyah Aboriginal Corporation stating that they no longer wished to be involved with any surveying or mining activities.</p> <p>In accordance with the agreement with the representative Aboriginal group, being the Min Min Aboriginal Corporation, notification of planned topsoil stripping is provided by the soil stripping contractor or site Environmental Officer directly to the nominated Aboriginal site monitors approximately 2 to 3 days in advance of planned activities.</p>	O	<p>Consider including heritage considerations into the existing procedure, WHC_PRO Clearing and Pre-Strip</p>

<b>Commitment</b>	<b>Commitment Reference</b>	<b>Reference / Evidence</b>	<b>Comments</b>	<b>Audit Classification</b>	<b>Recommendations</b>
At the request of the RAPs, the Operations Manager, or authorised delegate, will avail themselves to attend community meetings at the representative Aboriginal community group offices or to arrange site visit for interested personnel or members.	Section 6.1	Interview - Environment Officer	No requests received during audit period	NT	
In the event that any possible archaeological sites are identified in the absence of the RAPs, the Operations Manager, or authorised delegate, will notify the manager and/or member of staff of the representative local Aboriginal community groups following the initiation of the procedures identified in Section 4.4	Section 6.1	Interview- Environment Officer and Mining Manager	No finds during audit period.	NT	
If requested by members of the RAPs, RCM will facilitate access to sites within ML 1620, ML 1662 and along the Haul Route.	Section 6.1	Interview - Mining Manager	No requests made during audit period.	NT	
If requested by members of the Aboriginal community, RCM will facilitate access to artefactual material salvaged and stored within the Cumbo Gunerah Keeping Place, subject to any access requirements of the Red Chief LALC.	Section 6.1	Interview - Mining Manager	No requests made during audit period.	NT	
<b>Monitoring and Reporting</b>					
Monitoring undertaken by RAPs will be documented.	Section 6.2	AEMRs	AEMRs report on any monitoring undertaken during reporting period.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
In the event that an Aboriginal artefact or site is identified, and in accordance with the procedure documented in Section 4.4, a site register card will be completed and forwarded to OEH for entry onto the AHIMS database.	Section 6.2	AEMRs	AEMRs list all identified artefacts and current status of item. NO new finds have been reported during audit period.	C	
In addition, the results of monitoring undertaken on the mine site will be summarised in each relevant Annual Review, with the RAPs kept informed as to developments by virtue of the ongoing consultation with those groups. RCM will discuss the measures implemented to preserve and protect Aboriginal cultural heritage in the Annual Review.	AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15	AEMRs	AEMRs include results of heritage monitoring completed during reporting period.	C	

Annex J

## Audit Table - Noise Management Plan

**Table J.1 Compliance Assessment –Implementation of the Noise Management Plan**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>INTRODUCTION</b>					
<p>The NMP has been prepared with reference to relevant legislation, approvals and guidelines, follows the management plan requirements specified in Schedule 5, Condition 2 of PA 10_0015 MOD 2, and is consistent with the following documents:</p> <ul style="list-style-type: none"> <li>• Rocglen Coal Mine Extension Project Environmental Assessment February 2011 (“Extension EA”) – specifically Section 7.3; and</li> <li>• Appendix Q of the Extension EA - Noise and Blasting Vibration Impact Assessment.</li> </ul>	Section 1	Noted	Note	Note	
<b>NOISE IMPACT ASSESSMENT CRITERIA</b>					
<b>General and Specific Noise Mitigation Measures</b>					
<p>Contractors, including all personnel and sub-contractors, will be advised of noise compliance limits prior to their work commencing. Contactors will be expected to take practical measures to limit noise generation during their activities where possible.</p>	Section 2.2	<p>BIS Industries WHSE Management Plan</p> <p>WHC Generic Induction 28-03-2014 Slide Pack</p>	<p>BIS Industries Management Plan indicates trucks have bene tested for noise and compared against manufacturing standards.</p> <p>Generic induction includes OHS noise requirements and limits. Additional slide highlights sites have noise limits as part of the CoA and EPL.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Prior to being brought on-site, all earthmoving equipment will be tested to ensure sound power levels are consistent with the previous assessments undertaken by Spectrum Acoustics. The sound power levels adopted are those identified in the Rocglen Extension EA Volume 3 Appendix Q (Table 2, Page 10).</p>	<p>Section 2.2</p>	<p>Emails 25/11/2015, 30/11/2015</p> <p>Interview- Mine Manager</p>	<p>Internal emails sighted to determine sound power levels for equipment on site. Individual pieces of equipment do not currently have sound power levels checked to confirm within specifications and consistent with previous assessments undertaken by Spectrum Acoustics prior to being brought on site.</p>	<p>NC</p> <p>(Duplicated from SoC)</p>	<p>Consider the requirement to test equipment prior to being brought on site. Consider developing a list of equipment and their sound power levels (design and measured) with comparison to previous assessments as a record.</p>
<p>Site personnel will be required to pay due attention to site weather conditions and modify or stand down from operational activities if required by mine management.</p>	<p>Section 2.2</p>	<p>Site Inspection</p> <p>Adverse weather and noise monitoring log.</p> <p>TARP - wind speeds</p>	<p>Weather station data is checked for operations once per day by the Environment Officer, station is also checked monthly for maintenance, temperature inversion conditions.</p> <p>A TARP has been developed with an investigation alarm set to trigger with wind speeds of 6m/s for six consecutive 5 minute periods, and an action alarm set to trigger with sustained wind speeds of 8m/s for six consecutive 5 minute periods</p>	<p>C</p>	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Where possible, equipment with lower sound power levels will be used in preference to more noisy equipment.	Section 2.2	Interview - Mine Manager	Equipment selection includes review of noise levels (fit for purpose main selection driver).	C	
All equipment used on-site will be regularly serviced to ensure the sound power levels remain at or below the levels used in the modelling undertaken by Spectrum Acoustics, listed in Table 2, Appendix Q of the RCM Extension EA.	Section 2.2	Prestart checklist book	Mine equipment is inspected daily as part of prestart. Any defects are managed through "Pulse" program.	O	Consider including checks for excessive noise as a Category 'C' fault in the Prestart Checklist Sheet for machinery on site
Mid-high frequency broadband beepers are fitted to on-site mobile mining equipment.	Section 2.2	Interview - Mine Manager  Site Inspection	Not all equipment is fitted with mid-high frequency reverse beepers.	NC  Duplicated with SoC	Consider fitting all mobile mining equipment with mid-high frequency reverse beepers.
The on-site road network will be maintained to limit vehicle body noise.	Section 2.2	Site Inspection	Roads were observed to be in good condition with minimal rilling and potholes.	C	
Whitehaven will undertake routine consultation with residents surrounding Rocglen, as well as with the Community Consultative Committee (CCC), to ensure that any concerns relating to operational or traffic noise is addressed.	Section 2.2	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	Meeting for March 2016 was cancelled as majority of member could not make this meeting. The postponed March 2016 meeting is still pending with an alternative date to be confirmed.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>The controls and management procedures will be reviewed in response to the results of noise monitoring, complaints or comments identified through Rocglen's consultation effort.</p>	Section 2.2	Noise Management Plan	<p>The current Noise Management Plan was approved by DPE on 26 February 2016. Changes were mostly administrative such as personnel, roles, wording changes however the commitments and requirements have not changed.</p>	C	
<p>As part of the ongoing noise management of the site, operations will be undertaken giving due consideration to actual noise levels recorded by the real time noise monitor, which can be stationed at different locations around the site depending upon operations and prevailing wind conditions at the time.</p> <p>On triggering of a noise alert, operations will be tasked with determining if the noise is mine related, and if confirmed, actions to modify operations to reduce noise levels will be undertaken. This may include:</p> <ul style="list-style-type: none"> <li>• relocation of dump position to reduce noise impacts;</li> <li>• stand down items of equipment to achieve noise compliance;</li> <li>• changes in operator behaviour (speed of trucks, haul road used, speed of dozers); and</li> <li>• use of predictive forecasts to determine suitable dumping locations (i.e. upper dumps during the day, and in-pit dumping at night where possible).</li> </ul>	Section 2.2	Noise System Alarm Checklists for period 1/9/2014 to 31/3/2016	<p>Real time noise monitoring has a level which triggers alarm to OCE who keeps a log of events and adjusts operations accordingly. Noise log sighted which lists alarms and if mine noise identified as well as any actions required e.g. lower dumps used in response to alarm on 18/3/2016.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>MONITORING PROGRAM</b>					
<b>Monitoring Activities</b>					
Attended noise monitoring will be undertaken on a quarterly basis by an independent acoustic consultant.	Section 3.1	Monitoring Records - Quarterly Reports Spectrum Acoustics	Noise monitoring completed by consultant	C	
All attended noise monitoring will be conducted in accordance with the NSW Industrial Noise Policy, AS 1055.1-1997 'Acoustics - Description and Measurement of environmental noise - General Procedures', and will expressly monitor the modification factors referred to in the NSW Industrial Noise Policy.	Section 3.1	Monitoring Records - Quarterly Reports Spectrum Acoustics	The monitoring reflects the intent of the INP and AS1055.  No spectral data (one third octave data) is provided in the report, though they state that they have considered tonal and low frequency content "...analysis showed the noise did not contain any tonal, impulsive or low frequency components as per definitions of "modifying factor corrections" in the NSW Industrial Noise Policy."	C	
Attended noise monitoring will be undertaken during day, evening and night time periods.	Section 3.1	Reports issued by Spectrum Acoustics - Audit period	Section 1.2 of reports includes monitoring frequency and duration which acknowledges and aligns with EPL requirement.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>The real time continuous noise management unit has been set to trigger an SMS alert to site personnel upon recording of a continuous noise source at 33dBA for a period of 15 minutes (which is 2dB below the noise limit). Upon the issue of the alert, site personnel access the web interface of the real time noise management unit to identify the noise source and determine if it is project related. In the event that the noise source is identified as a low frequency, mine related noise, site personnel will closely monitor noise levels to verify if noise levels remain below threshold.</p>	Section 3.1	<p>WHC_CHK-NOISE SYSTEM ALARM CHECKLIST</p> <p>Audio for 31/03/2016 - three events at 7:30pm, 8:00pm and 8:50pm</p>	<p>Reviewed checklists completed over period 01/09/2014 to 31/03/2016. Streamed audio was reviewed and assessment of noise completed however it appears that the operators are having difficulty accessing the audio. Numerous alarms have been received over March 2016 all around the mid evening i.e. between 8:00pm and 9:00pm.</p>	O	<p>Consider investigating the reason for the streamed audio not being listened to and action accordingly.</p>
<p>In the event that a second SMS alert triggers within a 2 hour timeframe, and is confirmed as mine related, the Operations Manager will investigate and implement operational measures to bring noise levels back to compliance limits.</p>	Section 3.1	<p>WHC_CHK-NOISE SYSTEM ALARM CHECKLIST</p> <p>Noise recordings for 31/03/2016 - 7:30, 8:00 and 8:50 (time of alarms)</p>	<p>Events where two consecutive alarms have been received includes:</p> <p>07/03/2016 - two events</p> <p>18/03/2016 - two events</p> <p>31/03/2016 - three events - reviewed recordings with what sounds like a plane or dogs barking over a period of time the main noise - no mine noise detected.</p> <p>Noise sources listed as non-mine related however the recording had not been reviewed.</p>	O	<p>Ensure the recording is reviewed each time to confirm the noise is not mine related especially if more than one alarm is received within a two hour time frame.</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Attended monitoring will also be used to ensure calibration of the monitor and to provide specialist advice on monitoring outcomes on a quarterly basis.</p>	Section 3.1	<p>Reports issued by Spectrum Acoustics - Audit period</p>	<p>Attended noise monitoring was conducted with Brüel &amp; Kjær Type 2250 Precision Sound Analysers which have current NATA calibration.</p> <p>Field calibration is carried out at the start and end of each monitoring period.</p>	C	
<b>Monitoring Locations</b>					
<p>The attended noise monitoring locations with monitor locations and land ownership details as follows:</p> <ul style="list-style-type: none"> <li>• "Surrey"; and</li> <li>• "Retreat".</li> </ul>	Section 3.2	<p>Reports issued by Spectrum Acoustics - Audit period</p>	<p>Attended monitoring locations in reports are Surrey and Retreat.</p>	C	
<b>Monitoring Frequency</b>					
<p>Noise monitoring frequencies are nominated in Table 2. If conditions on the day of monitoring are not suitable (i.e. high winds, rain etc) then the monitoring event must be rescheduled within the following 3 weeks (weather permitting) to ensure ongoing compliance with monitoring frequency. Monitoring will only be undertaken during periods representative of mining operations.</p> <p>Attended noise - quarterly</p> <p>Real Time - continuous</p>	Section 3.3	<p>Reports issued by Spectrum Acoustics - Audit period</p>	<p>Attended noise is completed quarterly and real time noise monitored continuously.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Monitoring Procedures</b>					
Attended noise surveys will be conducted as follows:					
All noise investigations will be carried out in accordance with NSW EPA Industrial Noise Policy, 2000 (INP), Environmental Noise Control Manual (ENCM) and applicable Australian Standards	Section 3.4	Reports issued by Spectrum Acoustics - Audit period	The monitoring reflects the intent of the INP.  No spectral data (one third octave data) is provided in the report, though they state that they have considered tonal and low frequency content "...analysis showed the noise did not contain any tonal, impulsive or low frequency components as per definitions of "modifying factor corrections" in the NSW Industrial Noise Policy."	C	
Noise levels will be measured in one-third octave bands using an instrument with IEC Type 1 characteristics as defined in Australian Standard AS IEC 61672.1 - 2004 "Electroacoustics - Sound Level Metres - Specifications". The instrument will have current calibration as per manufacturer's instructions, and field calibration will be confirmed before and after measurements with a sound level calibrator.	Section 3.4	Reports issued by Spectrum Acoustics - Audit period	Attended noise monitoring was conducted with Brüel & Kjær Type 2250 Precision Sound Analysers. These instruments have Type 1 characteristics as defined in AS1259-1982 "Sound Level Metres" and have current NATA calibration.  Field calibration is carried out at the start and end of each monitoring period.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
			Each 1 or 2 second measurement is accompanied by a third-octave band spectrum from 20 - 20k Hz which is required for analysing INP 'modifying factors'.		
The instrument will be set to A-weighting, "fast" response and measurements of LAeq (15 minute), LAmx, LA1 (1 minute), LA10, LA90, and LAmin will be taken at each location in Figure 2. Each measurement will be stored at a sampling rate of no greater than 5 seconds for further analysis.	Section 3.4	Reports issued by Spectrum Acoustics - Audit period	Results reported as Leq (15 min), Lmax, L1, L10, L90 and Lmin percentiles.  Table of results report dB (A).  Data acquired at 1 or 2 second statistical intervals and the meter set to "fast" response.	C	
Attended surveys will be conducted during the approved hours of operation with measurements taken at each noise monitoring location in Figure 2, so that noise levels during the full range of operating times (day, evening and night) are monitored. In accordance with EPL requirements, this will comprise:  - quarterly within a reporting period;  - occur during each day, evening and night period as defined in the NSW INP for a minimum of;  - 1.5 hours during the day;  - 30 minutes during the evening; and	Section 3.4	Reports issued by Spectrum Acoustics - Audit period	Section 1.2 lists duration and frequency of monitoring which aligns with this commitment.  The operational noise criteria for compliance with Section L3.1 of EPL 12870 are based on a 15 minute Leq noise level. To determine compliance with the EPL conditions, the worst case 15 minute period, in relation to mine noise, was extracted from each measurement and compared to the criteria in Section L3.1.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>- 1 hour during the night.</p> <p>- occur for 3 consecutive operating days.</p>					
<p>Field notes will be taken during each measurement recording the time and duration of noise events, noise sources, instantaneous noise levels and the frequency range of identified site noise sources. Where a noise exceedance is detected, the noise monitor must notify the Environmental Officer of the exceedance and obtain relevant information as to the possible source of the exceedance, i.e. malfunctioning equipment, additional activity contributing to noise levels etc to ensure appropriate reporting and action on the exceedance</p>	Section 3.4	<p>Reports issued by Spectrum Acoustics - Audit period</p> <p>Field notes - March 2016 monitoring round</p>	<p>Field notes are not included in the reports issued.</p> <p>Field notes March 2016 quarter reviewed. Notes time and duration of event, dominant noise as well as instantaneous noise.</p>	C	
<p>Extraneous noise sources will be filtered from the measured signal using robust methods approved by EPA and DPE and the LAeq (15-minute) level attributable to RCM activities will be identified and compared with the relevant criteria. The methods used to filter extraneous noise sources will be on the basis of expert advice from the recognised noise consultant.</p>	Section 3.4	<p>Reports issued by Spectrum Acoustics - Audit period</p>	<p>Where the noise from RCM was audible, Brüel &amp; Kjaer "Evaluator" analysis software was used to quantify the contributions of the mine and other significant noise sources to the overall noise level.</p>	C	
<p>Details regarding plant configuration, survey interval, weather conditions, extraneous noise sources, monitoring locations and times of measurement will be recorded for inclusion in the noise monitoring report.</p>	Section 3.4	<p>Reports issued by Spectrum Acoustics - Audit period</p>	<p>Report includes all details as listed.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Real-time noise surveys will be conducted as follows:					
A mobile real-time noise monitoring system utilising IEC Type 1 sound level meter with statistical and third-octave band capabilities will be utilised. Site selection will be based on location of operational activity most likely to impact on that receiver.	Section 3.4	Daily Noise Met Charts for period 25/03/2016 to 31/03/2016	Current location is at Penryn using a Sentinex115-G1 (Noise) - this meter is a Type 1 capable of statistical and third-octave band measurements.  This property was determined to have potential impact from operations, along with the landholders expressing concern regarding noise from the operation.	C	
The unit will calculate, as a minimum, 15-minute statistics comprising LA90, LAeq and LA10 and low-frequency filtered LAeq (12.5 to 630Hz range) but able to be changed).	Section 3.4	Daily Noise Met Charts for period 25/03/2016 to 31/03/2016	Unit records Leq (A), L10, L90, low frequency.	C	
Each 15-minute statistic will have an accompanying third-octave band spectrum.	Section 3.4	Daily Noise Met Charts for period 25/03/2016 to 31/03/2016	Noise and weather over time is presented with no spectral data evident. Low frequency content (low frequency on charts) is presented but not tonal content.  Presenting 15-minute statistic that's has an accompanying third-octave band spectrum would not be practicable for interpretation purposes.	ANC	Consider incorporating tonal content to enable assessment against the INP (i.e. considers modifying factors).

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Statistical data and digital audio files (minimum duration one minute per 15 minute interval) will be continuously uploaded to the internet using an appropriate communications format.	Section 3.4	Daily Noise Met Charts for period 25/03/2016 to 31/03/2016	Sentinex data and digital audio files able to be downloaded.	C	
A computer accessible to site personnel will display statistical results in real time via an internet browser and daily charts will be stored for later reference or printing.	Section 3.4	Daily Noise Met Charts for period 25/03/2016 to 31/03/2016	Daily charts available for review.	C	
Noise levels nominally at 2dB below site noise criteria will be set as trigger points in the real-time system to send pre-programmed SMS messages to relevant personnel.	Section 3.4	WHC_CHK-NOISE SYSTEM ALARM CHECKLIS	An SMS alert is sent to site personnel upon recording of a continuous noise source at 33dBA for a period of 15 minutes (which is 2dB below the noise limit).	C	
On receipt of an SMS alert, audio files will be reviewed to determine the cause of the noise and, if necessary, the management safeguards and ameliorative actions in Section 4 will be initiated.	Section 3.4	WHC_CHK-NOISE SYSTEM ALARM CHECKLIST	Upon the issue of the alert, site personnel access the web interface of the real time noise management unit to identify the noise source and determine if it is project related. Audio files are not always reviewed.	C	
If the real-time noise monitor is situated at an attended monitoring location, both the attended and real-time results will be included in the attended monitoring report.	Section 3.4	Monitoring results (real and attended)	Attended monitoring locations are Retreat and Surrey. Real time location is at Penryn.	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
The site meteorological station is capable of continuous real-time measurement of sigma theta and identifies the stability class prevalent in real time. This will allow Whitehaven to identify temperature inversions and minimise noise impacts of the project accordingly.	Section 3.4	Met Station Data	Weather station data is checked for operations once per day by the Environment Officer, station is also checked monthly for maintenance, temperature inversion conditions.	O  Duplicated with MCoA 3.3	Investigate the addition of temperature inversion alarms on the meteorological station to enable adjustment of operations accordingly.
Predictive weather forecasting is currently undertaken through reference to weekly Bureau of Meteorology (BOM) forecasts. This approach to weather forecasting to inform operations have shown to be effective to date with the operations remaining compliant with received noise criteria.	Section 3.4	Note	Noted	Note	
<b>MANAGEMENT OF EXCEEDANCES, COMPLAINTS AND NON-COMPLIANCE</b>					
<b>Noise Compliance Criteria Exceedance</b>					
If noise levels from the mine exceed the levels outlined in Section 2, as measured from attended noise monitoring events, advice will be sought from the acoustic consultant to verify the source of the elevated noise and identify options to address noise related impacts. Such actions may include: <ul style="list-style-type: none"> <li>• Additional testing to confirm the elevated noise is systemic in nature;</li> <li>• Changes to operational procedure or equipment type; and</li> </ul>	Section 4.1	Monitoring Results	No exceedances of the noise criteria have been reported during the audit period.	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<ul style="list-style-type: none"> <li>The installation of sound attenuation measures to plant and equipment, where necessary.</li> </ul> <p>Where it is identified that the above options cannot achieve compliance with noise criteria, RCM will undertake negotiations with the affected landowners with a view to entering into private agreements.</p>					
<b>Complaints (additional to EMS)</b>					
Data from the site weather station and the real time noise monitoring unit will be obtained for the time applicable to the complaint for use in determination of cause and identification of future remedial actions.	Section 4.2	Complaints Register AEMR 2012-2013	<p>One complaint for noise was received during the audit period:</p> <p>1 May 2013 - complaint regarding noise, dust and lights. The complaint was also raised at the CCC the following week. It was considered temperature inversion conditions were likely to have exacerbated noise levels.</p> <p>The complaint details do not discuss site weather station and real time data analysis.</p>	ANC	Consider including data from the weather station and the real time noise monitor when noise complaints are received for the site.
If necessary, follow-up monitoring will take place to confirm the source of the complaint is adequately mitigated.	Section 4.2	Complaints Register AEMR 2012-2013	No further complaints or monitoring completed.	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Non-compliance</b>					
With the exception of noise compliance criteria exceedances (as discussed in Section 4.1), non-compliances relating to noise would most likely relate to not achieving the required quarterly attended monitoring events. Any non-compliances of this nature will be detailed in the EPL Annual Return and/or Annual Review, and include details as to why the non-compliance occurred.	Section 4.3	Reports issued by Spectrum Acoustics - Audit period	All quarterly attended monitoring rounds completed during audit period.	C	
<b>Unpredicted Impact Protocol</b>					
In the event that unpredicted or unforeseen noise impacts are identified, the following protocol (Table 3) will be adopted.	Section 4.4	AEMRs	AEMRs discuss noise results and compare against the EA predictions. No unpredicted impacts have occurred during the audit period.	NT	
<b>RECORD KEEPING AND REPORTING REQUIREMENTS</b>					
<b>Record Keeping</b>					
Attended noise monitoring reports issued by the acoustic consultant will include details on the date and time of monitoring, location of monitoring and monitoring personnel (as required by Condition M1.3 of the EPL).	Section 5.1	Reports issued by Spectrum Acoustics - Audit period	Date and time of monitoring reported. Reports are signed by monitoring personnel.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Data obtained from the real-time noise monitor will be available in real time, as well as through daily reporting from the monitoring unit to selected personnel. Key personnel for the provision of daily reports will be the Operations Manager for the Rocglen site and the Environmental Officer.	Section 5.1	Interview - Environment Officer  Review of Sentinex program	Daily report is generated by Sentinex and emailed to Environment Officer, Group Superintendent Operations.  Mine Manager receives summaries and alerts (phone and text message).	C	
In addition to daily reports, the monitor will be downloaded at regular intervals with data available on an archival basis.	Section 5.1	Site Inspection  Sentinex Program Review  Interview - Environment Officer	Download of monitor data is completed by Sentinex  Sentinex suppository is available back approximately 3 months; any further backlog needs to be ordered through Sentinex. Request for file reviewed with data going back to start of mine (2008).	C	
A record will be maintained of daily actions taken in response to noise alarms from the real time noise unit to demonstrate ongoing proactive management of noise from the site.	Section 5.1	Noise System Alarm Checklists for period 1/9/2014 to 31/3/2016	Noise log sighted which lists alarms and if mine noise identified as well as any actions required e.g. lower dumps used in response to alarm on 18/3/2016.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Reporting Requirements</b>					
A summary of noise monitoring results, including real time monitoring, will be reported internally on a monthly basis as well as to the CCC via the Environment Monitoring Report. This report will be periodically uploaded onto the company's website (www.whitehavencoal.com.au).	Section 5.2	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	Monitoring results for each month are available on the website for Rocglen.	C	
Each year, the results of the noise monitoring program, including real time monitoring, will be summarised and presented in the Annual Review together with reference to prevailing meteorological data and site activities during the measurement period(s), where relevant. Reporting will also include an analysis of the monitoring results against the exceedance criteria, previous monitoring results and predictions made in the EA.	Section 5.2	AEMRs	AEMRs include all required information.	C	
The extent of notification and reporting requirements depends on the severity of the issue but will include notification to DPE and EPA and/or the affected landholder as soon as practicable after the exceedance is known, as well as discussion in CCC Environment Monitoring Reports and the Annual Review. Regular monitoring results will continue to be supplied to the affected landholder and/or tenants until the project is complying with the relevant criteria.	Section 5.2	AEMRs Monitoring Reports	No exceedances have been reported during the audit period.	NT	

Annex K

## Audit Table – Rehabilitation Management Plan

**Table K.1 Compliance Assessment -Implementation of the Rehabilitation Management Plan**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>INTRODUCTION</b>					
<b>Scope</b>					
This Rehabilitation Management Plan has been prepared to identify and detail the progressive rehabilitation strategies to be implemented at Rocglen, along with the conceptual final rehabilitated landform and post-mining land use. It has been prepared to address and/or fulfil Conditions 34 to 36 of Schedule 3 of Project Approval PA 10_0015, as listed in Table 1.	Section 1.3.2	Independent Environmental Compliance Audit - Umwelt (2013)	The previous audit report confirmed the development and consultation was completed as per this condition.	NT  Closed Previous Audit	
Additionally, this Rehabilitation Management Plan has been prepared in accordance with the requirements of Condition 2 of Schedule 5 of Project Approval PA 10_0015 (management plan requirements), as applicable and/or warranted.	Section 1.3.2	Independent Environmental Compliance Audit - Umwelt (2013)	The previous audit report confirmed the development and consultation was completed as per this condition.	NT  Closed Previous Audit	
The Plan has been prepared with reference to relevant legislation and guidelines and is consistent with the commitments made in the Environmental Assessment (EA) (GSSE 2011) that accompanied the application seeking Project Approval PA 10_0015 for the Rocglen Extension Project. This EA includes the Rehabilitation and Decommissioning Strategy (GSSE 2011) prepared for Rocglen, along with the Statement of Commitments.	Section 1.3.2	Independent Environmental Compliance Audit - Umwelt (2013)	The previous audit report confirmed the development and consultation was completed as per this condition.	NT  Closed Previous Audit	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>REHABILITATION MANAGEMENT STRATEGY</b>					
<b>Progressive Rehabilitation</b>					
Disturbed areas will generally be rehabilitated within one year of overburden placement and reshaping. Table 3 summarises the areas of land to be rehabilitated within each year, with Figures 3 to 6 illustrating the annual rehabilitation schedule (expanded operations).	Section 2.3	Interview - Mine Manager	The west and north emplacement areas substantially rehabilitated and therefore the progress of rehabilitation progress is on track with the schedule. Success however, is variable.	C	
Year 1 - Rehabilitation of approximately 27 ha on the lower slopes of the Northern Emplacement Area to the east, west and north, and approximately 11 ha on the northern section of the Western Emplacement Area. Topsoil utilised for this rehabilitation will be obtained from stripped and stockpiled sources.	Section 2.3	AEMR Annual Reviews 2011/12	AEMR states that rehabilitation of the 11.2ha of the western emplacement took place during this reporting period. The Year 1 target was met during reporting period 2012/13, while the year 2 target was short during year 1. However, rehabilitation progress aligns by Year 5.  Cumulative rehabilitation target (RMP) is 38ha against completion of 11.2ha.	NC	Review the target in the MOP and Rehabilitation Management Plan and align.
Year 2 - Rehabilitation of approximately 14 ha on the central slopes of the Northern Emplacement Area to the east, west and north, utilising topsoil from stripped and stockpiled sources.	Section 2.3	AEMR Annual Reviews 2012/13	Rehabilitation of disturbed land undertaken during the reporting period comprised of reshaping and topsoiling approximately 20ha of the western emplacement and 18ha of the northern emplacement.	NC	Review the target in the MOP and Rehabilitation Management Plan and align.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
			<p>Although there was flexibility between emplacement areas, the total area rehabilitated meets the Year 1 target and is 2.8ha short of the Year 1 and 2 target.</p> <p>Cumulative rehabilitation target (RMP) is 52ha against completion of 49.2ha.</p>		
<p>Year 3 - Rehabilitation of approximately 4 ha within the mine pit and approximately 10 ha at the southern end of the Western Emplacement Area. Topsoil utilised for this rehabilitation will be obtained from stripped and stockpiled sources.</p>	<p>Section 2.3</p>	<p>AEMR Annual Reviews 2013/14,</p>	<p>AEMR states the total area rehabilitated is generally consistent with the progressive annual rehabilitation proposed in the MOP, as a total of 65.3ha has been completed to date, which is 7.8ha greater than proposed to occur by MOP Year 3.</p> <p>Cumulative rehabilitation target (RMP) is 66ha against completion of 65.3ha.</p>	<p>NC</p>	<p>Review the target in the MOP and Rehabilitation Management Plan and align.</p>
<p>Year 4 - Rehabilitation of approximately 14 ha on the lower slopes of the Northern Emplacement Area to the south, using stripped and stockpiled topsoil.</p>	<p>Section 2.3</p>	<p>AEMR Annual Reviews 2014/15</p>	<p>The AEMR states that the total area rehabilitated is generally consistent with the progressive annual rehabilitation proposed in the MOP, as a total of 65.3ha has been completed to date, which aligns with that proposed to occur within MOP Year 5 (2015).</p>	<p>NC</p>	<p>Review the target in the MOP and Rehabilitation Management Plan and align.</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
			Cumulative rehabilitation target (RMP) is 80ha against actual completion of 65.3ha.		
Year 5 - Rehabilitation of approximately 17 ha on the upper slopes of the Northern Emplacement Area and approximately 12 ha on the southern end of the Western Emplacement Area. Topsoil utilised for this rehabilitation will be obtained from stripped and stockpiled sources.	Section 2.3	Site inspection	According to the October 2015 MOP cumulative rehabilitation by the 2015/2016 reporting period should be 119.7ha-. Reported to be up to date however this would require 54.4ha rehabilitation in the reporting period, considering the completion of 65.3ha reported in the 2014/15 AEMR.	NT	Align commitments in MOP and RMP.  To be reviewed in next reporting period.
Year 6 - Rehabilitation of approximately 13 ha within the northern area of the mine pit, utilising stripped and stockpiled topsoil.	Section 2.3	N/A	According to the October 2015 MOP cumulative rehabilitation by the 2016/2017 reporting period should be 140.9ha. To be reviewed in next reporting period.	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Rehabilitation of Disturbed Land</b>					
<b>Task 1: Overburden Placement and Shaping</b>					
<p>Placement and shaping of overburden to the nominated area at slopes with gradients around 10 degrees will be undertaken in a manner which, wherever practicable, ensures that any friable or weathered materials are placed below the subsoil and topsoil layers in order to provide a cover of more competent material and avoid the exposure of large rocks on the final surface. Any coarse rejects placed in the mine void would be covered with at least 3 metres of overburden material.</p>	Section 2.4.1	<p>Rehabilitation Management Plan</p> <p>Site inspection</p>	<p>Site inspection confirms overburden is reasonably stable with minor rilling noticed in some areas. No large rocks were observed exposed in the overburden stockpiles and final surface. Final placement of overburden still continuing</p>	C	
<b>Task 2: Subsoil and Topsoil Replacement</b>					
<p>In accordance with Whitehaven's adopted general practice, an intermediate layer of subsoil will be placed between the overburden material and the topdressing to improve the water holding capacity of the rehabilitated landform and reinstate a more natural soil profile. For areas being rehabilitated to bushland, Whitehaven may preferentially reduce the subsoil replacement depth and/or exclude subsoil replacement in targeted areas to establish trial areas to monitor bushland development in different soil profiles.</p>	Section 2.4.2	<p>Site inspection</p> <p>Interview - Mine Manager</p>	<p>Clay material is used where practicable as upper layer above more weathered material to increase stability - observed during site inspection.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Where resources allow, topsoil and subsoil will each be spread to a nominal depth of between 100 to 150 millimetres, giving a combined depth of soil material on the rehabilitated landform of between 200 and 300 millimetres. The subsoil layer will be spread on an even but roughened surface that has been ripped along the line of the contour to break any compacted and/or smooth surfaces. Ripping will also assist the keying of subsoil into the overburden, which will, in turn, assist in the prevention of land slip and can help vegetation penetrate deep into the soil profile, encourage ingress of water and minimise erosion.</p>	Section 2.4.2	<p>Interview - Environment Officer</p> <p>Services Agreement - Contract 2015-GP047 Rocglen Northern Extension Rehabilitation</p>	<p>Anecdotally occurs. A procedure listing the requirement is not currently available. Contractor Scope of Works indicates commitment is not included.</p>	O	<p>Consider including requirement in either contractor scope of works or in a procedure.</p>
<p>Tree trunks and branches less than 300 millimetres diameter and other smaller vegetative debris removed during clearing will be spread over those areas to be restored as bushland where practical.</p>	Section 2.4.2	<p>Rehabilitation Management Plan</p> <p>Site Inspection</p>	<p>Site is still operational however it was noted that tree trunks and branches were scattered around newly rehabilitated areas in the norther emplacement area which will become bushland.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Task 3: Drainage and Surface Water Structure Installation</b>					
<p>Surface water management structures will be progressively installed on the rehabilitated landform. The heights (effective depths) and cross-sectional areas of the individual banks will be determined on the basis of individual sub-catchment areas, but will typically be less than 0.7 metres and three square metres, respectively. Rocklined drains will be used, where required, to convey water safely from the rehabilitated landform into the surface water management system that takes water from the site. Consideration may also be given to trialling other erosion control devices or systems as rehabilitation processes across the site.</p>	Section 2.4.3	<p>Rehabilitation Management Plan</p> <p>Site inspection</p>	<p>The northern emplacement area consists of banks which divert water to an eastern and western rock lined channel. The eastern channel has recently been installed and it is noted that there is a channel forming alongside (northern edge). It is also noted that tunnel erosion near the western channel has been repaired however it is noted that water is ponding in this area.</p> <p>The western emplacement area it was noted a series of dams and rock lined channels are in place along the western boundary of the site.</p>	<p>NC</p> <p>Duplicated with SoC</p>	<p>Consider diverting water to the newly constructed eastern channel in the northern emplacement area to prevent further scouring alongside this channel. In addition, consider installing a batter shoot where water is ponding in the recently repaired tunnel erosion area or complete works to divert water to the rock lined drain on the western face of the northern emplacement area.</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Task 4: Agricultural Land Pasture Sowing</b>					
<p>The topdressed surface of those areas designated to be restored to rehabilitated pasture will be sown with a mixture of pasture species appropriate for the season. The seed mixture will include fast growing, short-lived species and perennial grasses and legumes.</p>	Section 2.4.4	<p>Rehabilitation Management Plan</p> <p>Site inspection</p> <p>Interview - Environment Officer</p>	<p>Site inspection indicates mixed success with rehabilitation. The northern emplacement area designated for pasture has numerous weeds (Class 4 such as Bathurst Burr and Prickly Pear). Galvanised Burr and Black Roly Poly is the most common weed but are not locally declared weed. These plants can also be useful as a pioneer plant on bare areas, collecting windblown grass seed, protecting young seedlings from grazing and reducing erosion.</p> <p>The soil is undergoing testing to determine ameliorant type and rate to encourage growth of any further seeding campaigns. A biodiversity expert has been recently (last two months) appointed fulltime to oversee the rehabilitation of the Whitehaven Coal sites. This will include investigating alternative methods for reseeding/replanting.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Soil tests will be undertaken on a frequent basis as an aid to match suitable species using appropriate advice from a local agronomist.	Section 2.4.4	Site Inspection  Interview - Group Superintendent - Environment (Compliance)	Soil testing is to be completed (9 May 2016) by Whitehaven Coal Biodiversity specialist to advise what type and rate of ameliorant should be applied to maximise chances of rehabilitation. This will be used in conjunction with assessment of best type of planting (seed or tube stock), timing of rehabilitation activities etc.	C	
<b>Task 5: Native Vegetation Establishment</b>					
The topdressed surfaces of those areas designated to be restored as rehabilitated bushland will be initially stabilised with a non-persistent cover crop followed by planting of a selection of locally occurring trees. Table 5 lists possible tree and shrub species for the re-establishment the bushland within the Site.	Section 2.4.5	Site inspection  Interview - Environment Officer	Some areas of the western emplacement area designated as bushland has had a small degree of success however not all areas have been successful in establishing cover. The northern emplacement area has had less success with primarily galvanised burr growing - see above.  The soil is undergoing testing to determine ameliorant type and rate to encourage growth of any further seeding campaigns. A biodiversity expert has been recently (last two months) appointed fulltime to oversee the rehabilitation of the Whitehaven Coal sites. This will include investigating alternative methods for reseeded/replanting.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Tube stock will generally be propagated from locally-collected seed through Whitehaven's seed collection program and will be used in strategic landscape planting around the site for visual mitigation.	Section 2.4.5	Native Seed Supply Docket  Interview with Mine Manager	Evidence provided to demonstrate sourcing of native seed stock.	C	
Large areas will be planted by direct seeding methods if site conditions allow, and will require the purchase of bulk seed mixes. Where possible, these mixes will be complimented with the addition of seed collected in the immediate area.	Section 2.4.5	Planting Records	Evidence provided to demonstrate planting of large areas through 2011 - 2015 planting records.	C	
All areas identified for bushland and pasture re-establishment will be fenced and have stock excluded until it can be demonstrated that the vegetation is stable and self-sustaining, and that grazing will not impact upon its establishment.	Section 2.4.5	Site inspection	The site inspection notes that the boundary of the mining lease area is fenced and no stock was present. The rehabilitated areas fall within the mine site.	C	
<b>Topsoil Management</b>					
<b>Stripping of Topsoil and Subsoil</b>					
Where practicable, topsoil from the bushland and pasture areas will be preferentially stripped and stockpiled separately so that it can be placed in designated areas in accordance with the revegetation types on the site. Some subsoils will be stripped to be used as a topsoil substitute or to establish a more natural soil profile over the reshaped overburden.	Section 2.5	Interview - Mine Manager	Subsoil is stockpiled separately and used where possible between topsoil and overburden to increase stability particularly in the case of subsoil high in clay content.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Minimise Handling of Topsoil</b>					
<p>Topsoil will generally be stripped ahead of the mining activities, transported and re-spread using a scraper.</p> <p>Direct placement is always the best management option as it reduces soil degradation and minimises later compaction. Where direct placement is not possible stockpiling will be necessary.</p>	Section 2.5	Note	Noted	Note	
<b>Stockpiling</b>					
<p>Ideally, where possible, topsoil should not be stockpiled. However, difficulties associated with mining and rehabilitation sequencing typically necessitate stockpiling. Stockpiles should be constructed to minimise deterioration of seed, nutrients and soil biota by avoiding topsoil collection when saturated following rainfall, thus avoiding composting and compaction, and by forming stockpiles to a suitable height. Topsoil stockpiles should be no higher than 3 metres. There is generally no requirement for limiting the height of subsoil stockpiles, however, if there is adequate available stockpiling area, 3 metres is good practice. Clayey soils should be stored in lower stockpiles for shorter periods of time compared to sandier soils (GSSE 2010).</p>	Section 2.5	<p>Site Inspection</p> <p>Interview - Mine Manager</p> <p>WHC_PRO_Clearing and Pre Strip</p>	<p>Topsoil stockpiles were noted during the site inspection to be within 3m height. Mine Manager confirmed that topsoil stockpiles are kept to less than 3m in height.</p> <p>Procedure has been developed for clearing and pre-stripping activities</p>	<p>O</p> <p>Duplicated with SoC</p>	<p>Consider including requirement to establish topsoil stockpiles to a maximum height of 3m into the procedure WHC_PRO_Clearing and Pre Strip .</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
The duration of stockpiling should be minimised (where possible), as periods longer than about 6 to 12 months may cause structural degradation and death of seeds and micro-organisms, especially when soil moisture content is high.	Section 2.5	Interview - Mine Manager	Economic and operational drivers ensure this is completed where possible.	C	
Seeding of the stockpile with an appropriate grass/legume mixture will minimise erosion, enhance weed control and reduce the loss of beneficial micro-organisms.	Section 2.5	Site Inspection	Site inspection confirms surface is rough and vegetation has established on stockpiles.	C	
Stockpiles should be placed outside of drainage areas where water is likely to be backed up.	Section 2.5	Site inspection Soil inventory	Site inspection confirms locations of stockpiles match survey maps avoiding areas where water is likely to back up.  Straw bales noted to have been used historically along drainage lines leading off site and off the rehabilitation areas during the site inspection.	C	
Where stockpiles become weed infested, the top 150 millimetres should be scalped off and discarded prior to the remaining material being utilised for rehabilitation.	Section 2.5	Interview - Mine Manager	Environmental field officer completes this on a campaign basis.  Scalping is unlikely to occur due to shortages of topsoil.	ANC O Duplicated with SoC	ANC - Consider the recording of person/company applying the pesticide onto the current records.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
			<p>The NSW Pesticides Regulation requires that records be kept of pesticide use (including herbicides). Individual spraying records are maintained. All required information for the NSW Pesticides Regulation with the exception of who has applied the pesticide/herbicide.</p> <p>No record of treatment for stockpiles prior to reuse.</p>		<p>O - Consider including in an existing procedure (if appropriate) or developing a new procedure to ensure stockpiles are inspected and treated for weeds prior to re-spreading/reuse on site.</p>
<b>Weed Management</b>					
<p>Weed control measures include:</p> <ul style="list-style-type: none"> <li>• Hosing down equipment in an approved wash down area before entry to site;</li> <li>• Herbicide spraying or scalping weeds off topsoil stockpiles prior to re-spreading;</li> <li>• Rehabilitation inspection to identify potential weed infestations; and</li> <li>• Identifying and spraying existing weed populations on-site together with on-going weed spraying over the life of the mine.</li> </ul>	Section 2.6	<p>Interview – Mine Manager and Group Superintendent – Environment (Compliance)</p> <p>WHC_PRO Clearing and Pre Strip</p> <p>Monthly Environment Inspections</p>	<p>Mechanical inspection checklist (MDG15 form) is completed on new equipment entering site which does not include checks for weeds.</p> <p>Campaign spraying prior to stripping of topsoil does not currently occur.</p> <p>Procedure has been developed for clearing and pre-stripping activities.</p> <p>Monthly environment inspections include checks for weeds in rehabilitated areas.</p>	<p>ANC</p> <p>Duplicated with SoC</p>	<p>Consider including requirement to complete campaign spraying prior to spreading topsoil into existing procedure and include checks for weeds on new equipment to site as part of initial check.</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
			Topsoil shortage on site precludes the practise of scalping.		
Records should be maintained of weed infestations and control programs implemented according to best management practice for the weed species concerned.	Section 2.6	Interview - Environment Officer Monthly Checklists	Although there is not a standalone register, weed infestations are recorded within monthly checklists.	C	
<b>Water Management (Rehabilitation Land)</b>					
Where practicable, water management structures such as contour banks and drains will be constructed with longitudinal gradients that permit the transfer of water at non-erosive velocities (for example, 1:200 (V:H)).	Section 2.7	Site Inspection	Site inspection confirms installation of banks, contouring to divert water to sediment basins. Noted also some basins were undergoing desilting. The geotechnical characteristics were not assessed as part of this assessment.	C	
However, to aid in ensuring the newly constructed water management structures are well grassed, outlet channels will be seeded with a fast establishing cover crop. During the groundcover establishment phase, hay bales and/or sediment fencing will be installed at strategic locations along the channel length of the water management structure to reduce the potential for sediment transfer.	Section 2.7	Site inspection	Straw bales noted to have been used historically along drainage lines leading off site and off the rehabilitation areas during the site inspection.	C	
Rock-lined drains constructed on the slopes of the emplacements and final void will be retained and allowed to revegetate naturally.	Section 2.7	Site inspection	Rock-lined drains noted and revegetated during site inspection.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
In the event that unacceptable levels of erosion are observed, fast growing species identified as having a particular soil conservation application and/or specialised treatments such as bitumen/jute meshing or rock lining will be applied.	Section 2.7	Note	Noted	Note	
<b>Rehabilitation Monitoring and Maintenance</b>					
<p>Areas being rehabilitated will be regularly inspected and assessed against the long and short-term rehabilitation objectives. Aspects of rehabilitation to be monitored will include:</p> <ul style="list-style-type: none"> <li>• Evidence of any erosion or sedimentation from areas with establishing vegetation cover;</li> <li>• Success of initial grass cover establishment;</li> <li>• Success of tree and shrub plantings;</li> <li>• Adequacy of drainage controls;</li> <li>• Presence/absence of weeds; and</li> <li>• General stability of the rehabilitation site.</li> </ul>	Section 2.8	<p>AEMR/Annual Reviews 2012/13, 2013/14, 2014/15</p> <p>Rocglen Mine Rehabilitation Monitoring Report (Spring 2014 – Autumn 2015)</p>	Areas assessed against stated criteria	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Where the rehabilitation success appears limited, maintenance activities should be initiated. These may include re-seeding and where necessary, re-topdressing and/or the application of specialised treatments such as composted mulch to areas with poor vegetation establishment. Tree guards will be placed around tube stock if grazing by native animals is found to be excessive.	Section 2.8	Site Inspection  Interview - Group Superintendent - Environment (Compliance)	Soil testing is to be completed (9 May 2016) by Whitehaven Coal Biodiversity specialist to advise what type and rate of ameliorant should be applied to maximise chances of rehabilitation. This will be used in conjunction with assessment of best type of planting (seed or tube stock), timing of rehabilitation activities etc.	C	
If drainage controls are found to be inadequate for their intended purpose or compromised by grazing stock or wildlife, these should be repaired and/or temporary fences installed to exclude animals. Should areas of excessive erosion and sedimentation be identified, remedial works such as importation of additional soil material and/or the redesigning of water management structures to address erosion will be undertaken.	Section 2.8	Site Inspection  WHC_CHK Monthly Environmental Inspection Checklist October 2015 - March 2016	Site is fenced to exclude stock from mine lease area.  Noted remedial works to repair erosion on the western batter on the northern emplacement area have recently been completed.	C	
Monitoring should be conducted periodically by independent and suitably skilled persons at locations that are representative of the range of conditions on the rehabilitating areas.	Section 2.8	Rocglen Mine Rehabilitation Monitoring Report (Spring 2014 - Autumn 2015)	Areas assessed against stated criteria	C	
Annual reviews should be conducted of monitoring data to assess trends and monitoring program effectiveness. The outcome of these reviews will be reported in the AEMR/Annual Report.	Section 2.8	AEMR/Annual Reviews 2012/13, 2013/14, 2014/15	Annual reviews of monitoring are completed and reported into the AEMR	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>In developing the rehabilitation monitoring program, the following aspects should be taken into consideration:</p> <ul style="list-style-type: none"> <li>Replicated monitoring sites should be established in representative rehabilitation areas of different ages.</li> </ul> <p>One monitoring site per 20 to 40 hectares is appropriate for each major age class of the rehabilitation areas.</p> <ul style="list-style-type: none"> <li>Sites should be monitored 12 months after establishment and then every two years.</li> <li>A standard monitoring plot design for areas rehabilitated with trees should be used: <ul style="list-style-type: none"> <li>2 metre by 2 metre quadrats - these will provide some estimate of statistical variance, so that if required, statistical analyses can be undertaken to objectively compare different rehabilitation treatments and changes over time;</li> <li>a 20 metre by 10 metre plot overlying the 2 metre quadrats and located 5 metres either side of the centerline, for ease of monitoring; and</li> <li>a 50 metre erosion monitoring transect on contour, running through the centre of the plot.</li> </ul> </li> </ul>	Section 2.8	<p>Rocglen Mine Rehabilitation Monitoring Report (Spring 2014 - Autumn 2015)</p> <p>Rehabilitation Monitoring Plan</p> <p>AEMRs</p>	<p>Monitoring report states methods are in accordance with the RMP. Appendix A includes extract from RMP.</p> <p>Table in RMP indicates monitoring to be completed every two years - review of AEMRs indicates Eco Logical Report completed 2015 is the first report since the report was completed for the Project Extension in 2010.</p>	NC	Consider completing rehabilitation monitoring at the frequencies outlined in the RMP.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>For the areas rehabilitated as pasture, it is proposed that a 100 metre transect be established across a 'typical' section of rehabilitation at the site and monitored for:</p> <ul style="list-style-type: none"> <li>• Grass cover in 2 metre by 2 metre (4 square metres) plots every 20 metres;</li> <li>• Pasture species present;</li> <li>• Weed species present and percentage area noted;</li> <li>• Percentage of bare ground; and</li> <li>• Extent and type of erosion.</li> </ul> <p>Along the 100 metre transect general comments such as rocks present, presence/absence of topsoil and other factors likely to influence rehabilitation development should be noted.</p>	Section 2.8	<p>Rocglen Mine Rehabilitation Monitoring Report (Spring 2014 - Autumn 2015)</p> <p>Rehabilitation Monitoring Plan</p>	Monitoring report states methods are in accordance with the RMP. Appendix A includes extract from RMP.	C	
Table 6 presents the monitoring program, including the specific aspects and elements to be monitored and monitoring frequencies for the various aspects.	Section 2.8	<p>AEMRs</p> <p>Rocglen Mine Rehabilitation Monitoring (spring 2014 - autumn 2015) Eco Logical</p>	Review of the last report indicates requirements for monitoring completed.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Biodiversity Offset Strategy</b>					
In summary, the Biodiversity Offset Strategy is to retire the full 4,859 credit requirement (as calculated by Eco Logical Australia) from the Whitehaven Regional BioBank Site (see Figure 1), which is 100 percent owned by Whitehaven. It provides an offset to impact ratio of 4.75:1.	Section 2.9	Note	Noted	Note	
The Regional BioBank Site will be protected on title by a BioBanking Agreement entered into with the NSW Minister for the Environment under the <i>Threatened Species Conservation Act 1995</i> and will be managed in perpetuity in accordance with a BioBanking Management Plan approved by the Minister with management funds (calculated for in-perpetuity management) held in Trust.	Section 2.9	Biodiversity Banking and Offsets Scheme Annual Reports 2012-2013, 2013-2014 and 2014-2015  Letter from DP&I 14 February 2013	Annual reports are completed which tracks implementation of the management actions for the BioBank site  Letter from DP&I informing Whitehaven Coal that BioBanking Agreement ID number 43, for the Whitehaven Regional Offset Area, meets the Biodiversity Offset requirements for the Rocglen Extension Project (10_0015) under Condition 23 of Schedule 3.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>CONCEPTUAL FINAL LANDFORM AND LAND USE</b>					
<b>Conceptual Final Rehabilitated Landform</b>					
The intended post-mining landform has been designed to achieve a stable topography with consideration to financial feasibility, environmental outcomes and potential future agricultural production. Primarily based on the annual sequencing of coal extraction and progressive rehabilitation, the post-mining landform has been developed and refined in order to ensure that a low maintenance, stable and safe landform remains that blends in with the surrounding topography and can support a mixture of rehabilitated bushland with areas of grazing consistent with the pre-mining conditions.	Section 3.1	Interview – Environment Officer	Site is still operational	NT	
<b>Geotechnical Stability of Final Void</b>					
Whitehaven will undertake progressive stability reviews and monitoring of geological conditions once the pit moves within 250 metres of the realigned Wean Road to ensure geotechnical stability and safe conditions.	Section 3.2	Geotechnical Inspection Reports – Lambert Geotech (Sept 2013, Oct 2013, Dec 2013, Feb 2014, Aug 2014, Aug 2015)	Regular inspections and reports are completed by Lambert Geotech. Last report issued August 2015 in response to rock fall/slump in weathered rock from the eastern wall in Strip 12/13 and to review and update the current eastern highwall design.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>If any unfavourable conditions are observed or detected, a detailed assessment will be undertaken by a suitably qualified geotechnical engineer before mining is allowed to continue towards Wean Road.</p>	Section 3.2	<p>Geotechnical Inspection Reports - Lambert Geotech (Sept 2013, Oct 2013, Dec 2013, Feb 2014, Aug 2014, Aug 2015)</p>	<p>Regular inspections and reports are completed by Lambert Geotech.</p>	C	
<p>Low Wall</p> <p>Stability of the low wall will be achieved in the following manner:</p> <ul style="list-style-type: none"> <li>• The low wall will be battered back from the angle of repose to ensure the long term geotechnical stability of the face. Determination of geotechnical stability and recommendations as to the final slope will be undertaken by a qualified geotechnical engineer on the basis of an assessment of the overburden material, the likely degree of settlement, and the degree of weathering expected in the long term. It is expected that the low wall sides of the final void will be battered back to a maximum of 18 degrees with a goal of 10 degrees being optimal.</li> <li>• Surface water drainage on and over the low wall will be minimised through the construction of drainage control structures, the construction of Dam F and the diversion of as much of the catchment as possible away from the final void and back into the surface water system.</li> </ul>	Section 3.2	<p>Interview - Group Superintendent - Environment (Compliance)</p>	<p>Site is planned for closure in 2019/20 - Final Void Management Plan being developed by the Group Superintendent - Environment (Compliance).</p>	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<ul style="list-style-type: none"> <li>Erosion of the low wall should be controlled by limiting the length of slope through the use of contour and graded drains, minimising the slope and by the establishment of suitable vegetation (as detailed in this report).</li> </ul>					
<p>High Wall</p> <p>The highwall of the final void will be left at 45 degrees to ensure long term geotechnical stability. This will be assessed by a suitably qualified geotechnical engineer.</p>	Section 3.2	<p>Interview - Group Superintendent - Environment (Compliance)</p> <p>Geotechnical Inspection Reports - Lambert Geotech (Sept 2013, Oct 2013, Dec 2013, Feb 2014, Aug 2014, Aug 2015)</p>	<p>Site is planned for closure in 2019/20 - Final Void Management Plan being developed by the Group Superintendent - Environment (Compliance).</p> <p>Regular inspections and reports are completed by Lambert Geotech.</p>	NT	
<b>Conceptual Post-Mine Land Capability and Agricultural Suitability</b>					
Table 7 listed the pre-mining and conceptual post-mining land capability classes within the Project Site as advised by GSSE (2010). Figure 9 illustrates these land capability classes.	Section 3.3	Interview - Environment Officer	Mine is still operational	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Conceptual Post-Mining Land Use</b>					
Figure 7 presents the conceptual post-mining land uses at the completion of the Rocglen Project. Of the total anticipated disturbance area of approximately 358 hectares, it is intended to restore approximately 206 hectares as rehabilitated bushland (58 percent), 147 hectares as rehabilitated pasture (41 percent), with the remaining five hectares comprising the retained highwall (one percent). Furthermore, there will be areas of retained remnant vegetation within the Project Site.	Section 3.4.1	Interview - Environment Officer	Mine is still operational. Areas not impacted by mining are fenced to prevent entry.	NT	
<b>STAKEHOLDER CONSULTATION</b>					
Environmental management and rehabilitation activities undertaken in the previous 12 months are reported in the AEMR/Annual Report, which is submitted to relevant government agencies and made available to the public via publication on Whitehaven's website. The AEMR/Annual Report summarises activities undertaken in the previous reporting period and planned activities for the subsequent period, including rehabilitation activities, management and monitoring.	Section 5	AEMR/Annual Reviews 2012/13, 2013/14, 2014/15  <a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	Activities reported and made available to the public as required	C	
Outcomes of rehabilitation activities are also communicated through the Rocglen Community Consultative Committee (CCC).	Section 5	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	AEMRs available on website	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>REVIEW OF REHABILITATION MANAGEMENT PLAN</b>					
Five years prior to mine closure, a more detailed Rehabilitation and Mine Closure Plan will be prepared.	Section 6	Noted	Update to Rehabilitation and Mine Closure Plan currently being prepared. Closure of the site is expected financial year 2019/20 which is three to four years away.	ANC	
<p>Throughout the life of the operation, the key triggers for a review of this Rehabilitation Management Plan will include, but not be limited to, the following:</p> <ul style="list-style-type: none"> <li>• Amendments to the mining operation and/or Project Approval;</li> <li>• Changes in legislation or policy that applies to the operation; and</li> <li>• Progressively throughout the life of the operation, in particular when there is a change in operations (scheduling or other associated variation to the mining plan) that may impact on rehabilitation timing and/or extent.</li> </ul>	Section 6	Note	Noted	Note	

Annex L

## Audit Table - Traffic Noise Management Plan

**Table L.1 Compliance Assessment –Implementation of the Traffic Noise Management Plan**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>INTRODUCTION</b>					
<p>The RTNMP has been prepared with reference to relevant legislation, approvals and guidelines, follows the management plan requirements specified in Schedule 5, Condition 2 of PA 10_0015 and is consistent with the following documents:</p> <ul style="list-style-type: none"> <li>• Rocglen Coal Mine Extension Project Environmental Assessment February 2011 (“Extension EA”) – specifically Section 7.3; and</li> <li>• Appendix Q of the Extension EA - Noise and Blasting Vibration Impact Assessment.</li> </ul>	Section 1	Note	Noted	Note	
<b>NOISE CONTROLS AND MANAGEMENT PROCEDURES</b>					
Coal transportation will be undertaken via the approval haulage route between Rocglen and the Whitehaven CHPP.	Section 3	<p>SWMS – PA3-27-2</p> <p>BIS SWMS 30626 – Interaction with other Public Road Movement</p> <p>Site Inspection</p>	<p>Induction and Code of Conduct describes requirement. SWMS’s also describes requirement which is issued to truck drivers.</p> <p>Site inspection over period 3-6 May 2016 noted absence of coal haul trucks on Wean Rd (alternate route)</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Coal transport will be undertaken between the approved times of 7am and 9:15pm Monday to Friday, and between 7am and 5:15pm on Saturdays.	Section 3	Weighbridge docket for 29/04/2016	Review of weighbridge docket for 29/04/2016 reviewed - last load of coarse reject left CHPP at 21:22 which is outside the approved hours. Seven trucks arrived at the CHPP before 7:20am (route takes approximately 20 minutes).	NV Duplicated with MCoA3.39	
All trucks are speed limited to 93 km per hour to, amongst other things, minimise engine noise.	Section 3	Interview - Group Superintendent - Environment (Compliance)  SWMS - PA3-27-2  BIS SWMS 30626  BIS WHSE Management Plan (issued February 2016)	Requirement for speed to be limited to 93km/h is included in the BIS WHSE Management Plan. The plan states trucks will be limited to a maximum speed of 93 km per hour via the electronic engine management system.	C	
On school days, Whitehaven will maintain the communication system between the truck drivers and the local school bus driver. The system has been negotiated between Whitehaven and the local bus drivers and involves two-way radio communication to ensure that trucks do not exceed 40 km per hour when travelling in the vicinity of the school bus.	Section 3	SWMS - PA3-27-2  BIS SWMS 30626 - Interaction with other Public Road Movement	Trucks use Channel 19 to communicate with school bus driver.  SWMS lists requirement to travel at 40km/h when in vicinity of school bus.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
All trucks transporting coal from the mine and backloading reject from the Whitehaven CHPP will be covered with fitted roll-over tarpaulins.	Section 3	BIS SWMS 28410 – Loading ex Hopper Risk Assessment	SWMS lists requirement to cover loads with tarp – if unable to be covered then load must be tipped and unit returned to base to correct problem.  Site inspection over 3-6 May confirmed all trucks had tarps fitted and in use.	C	
All trucks transporting coal will be well maintained to ensure optimal operation, which will minimise the potential for noise emissions.	Section 3	NHVAS – BIS Industries  BIS Industries - WHSE Management Plan	BIS transports all coal from and coal reject to site which operate under the National Heavy Vehicle Accreditation Scheme which requires a daily check for roadworthiness with records carried in the vehicle.	C	
Drivers will be instructed to operate in accordance with an existing Transport Policy and Code of Conduct, which identify aspects such as travelling speeds, general behaviour, avoidance of exhaust brakes, load coverage, complaints and disciplinary procedures. The Policy and Code apply to all employee and contractor-owned vehicles.	Section 3	Traffic Noise Management Plan  Interview – Group Superintendent – Environment (Compliance)	The Code of Conduct for coal transport is provided to drivers on commencement of operations with the transport contractor.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
The on-going use of the road network will be covered under the arrangements of the existing road maintenance agreement with Gunnedah Shire Council to ensure the subject roads continue to be adequately maintained.	Section 3	Traffic Noise Management Plan	Road maintenance requirements are confirmed with the Gunnedah Shire Council through regular reviews of road condition undertaken by the Whitehaven Project Development Manager with the relevant Council personnel.	C	
<b>MONITORING PROGRAM</b>					
<b>Monitoring Locations</b>					
Product coal transportation noise compliance monitoring is operator attended in order to accurately determine the noise contribution from the road transportation alone. Road noise monitoring will continue to be conducted at the nearest residential locations to the transport route that are potentially affected by cumulative road noise from traffic generated by the Rocglen and Tarrawonga mines, as listed in Table 1 (Brooklyn 1, Brooklyn 2 and Werona)	Section 5.1	Road Traffic Noise Management Plan  Road Traffic Noise Monitoring Results	Review of results (letter reports issued by Spectrum Acoustics confirms monitoring locations are Brooklyn 1 and Brooklyn 2 and Werona.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Road traffic noise modelling for the Project, and previous monitoring conducted for the Canyon (Whitehaven) and Tarrawonga mines, has identified road noise levels below, but close to, the criterion at the "Brooklyn (1)" residence. If the monitoring confirms that road traffic noise levels at "Brooklyn (2)" are below the criterion at all times, then approval may be sought from EPA and DoPI to discontinue monitoring at this receiver.	Section 5.1	Road Traffic Noise Monitoring Results	Review of results (letter reports issued by Spectrum Acoustics confirms monitoring locations are Brooklyn 1 and Brooklyn 2 and Werona. No exceedances of the criteria have been reported for the audit period.	C	
<b>Attended Noise Survey Procedure</b>					
Attended noise surveys will be conducted as follows.					
All noise investigations will be carried out in accordance with NSW Industrial Noise Policy (INP, 2000), NSW Road Noise Policy and applicable Australian Standards	Section 5.2	Reports issued by Spectrum Acoustics - Audit period	Reports state traffic noise generated by the project(s) is to be measured in accordance with the relevant procedures in the NSW Road Noise Policy	C	
Noise levels will be measured in one-third octave bands using an instrument with IEC Type 1 characteristics as defined in AS 1259-1990 "Sound Level Metres". The instrument will have current calibration as per manufacturer's instructions and field calibration will be confirmed before and after measurements with a sound level calibrator.	Section 5.2	Reports issued by Spectrum Acoustics - Audit period	Attended noise monitoring was conducted with Brüel & Kjær Type 2250 Precision Sound Analysers. These instruments have Type 1 characteristics as defined in AS1259-1982 "Sound Level Metres" and have current NATA calibration.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
			<p>Field calibration is carried out at the start and end of each monitoring period.</p> <p>Each 1 or 2 second measurement is accompanied by a third-octave band spectrum from 20 - 20k Hz which is required for analysing INP 'modifying factors'.</p>		
<p>The instrument will be set to A-weighting, "fast" response mode and measurements of LAeq (1 hour) will be taken at each location in Table 1. Each measurement will be stored at a sampling rate of no greater than 2 seconds for further analysis.</p>	<p>Section 5.2</p>	<p>Reports issued by Spectrum Acoustics - Audit period</p>	<p>A-weighted noise levels were measured over the appropriate monitoring periods (90 minutes/day, 30 minutes/evening and 60 minutes/night) with data acquired at 1 or 2 second statistical intervals and the meter set to "fast" response.</p>	<p>C</p>	
<p>Attended road noise surveys will be conducted on a 6 monthly basis, and staggered each year in order to assess impacts over different times of the year (cooler and warmer months). One full one-hour measurement of road noise will be taken at each location in Table 1 during either the morning between 7:00 am and 9:30 am or the evening period after 6.00 pm. In keeping with the approved coal transport times, any measurements on Saturdays would be conducted during the morning period.</p>	<p>Section 5.2</p>	<p>Interview - Group Superintendent - Environment (Compliance)</p> <p>Spectrum Acoustics Noise Monitoring Reports</p> <p>NSW Road Noise Policy</p>	<p>Cumulative road noise monitoring occurred in December 2012 - 2014 and June 2013 2015, as required under the Road Traffic Noise Management Plan.</p> <p>No non-compliances were noted for road transport noise criteria during the reporting period.</p>	<p>C</p>	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Field notes will be taken during each road noise measurement recording the time and number of truck pass-bys, and all extraneous noise sources.	Section 5.2	Reports issued by Spectrum Acoustics - Audit period	Time based field notes allow for determination of the relative contributions to the overall noise level of all significant noise sources.	C	
Extraneous noise sources will be filtered from the measured signal using suitable software acceptable to EPA (such as Brüel & Kjaer "Evaluator" Software) and the noise level attributable to coal trucks will be identified and compared with the relevant criteria.	Section 5.2	Reports issued by Spectrum Acoustics - Audit period	Where the noise from RCM was audible Brüel & Kjaer "Evaluator" analysis software was used to quantify the contributions of the mine and other significant noise sources to the overall noise level.	C	
If an individual truck seems particularly loud or has an observable fault resulting in elevated noise emissions, this will be recorded in the field notes.	Section 5.2	Reports issued by Spectrum Acoustics - Audit period  Field notes for last four rounds	Time based field notes allow for determination of the relative contributions to the overall noise level of all significant noise sources.  Field notes are diary style.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>The monitoring report will include, as a minimum:</p> <ul style="list-style-type: none"> <li>o the total number of trucks counted during the noise measurement (identified as empty or full);</li> <li>o the total measured LAeq (1 hour) from coal trucks;</li> <li>o the total measured LAeq (1 hour) from all sources to allow comparison of contribution from coal haul trucks comparative to other sources.</li> <li>o details of any identified noisy truck(s);</li> <li>o details of the calculation methodology; and</li> <li>o wind speed and directional data and a discussion of potential meteorological influence on noise levels during each measurement period.</li> </ul>	Section 5.2	Reports issued by Spectrum Acoustics - Audit period	<p>Review of the last report issued December 2015 indicates following information is included:</p> <ul style="list-style-type: none"> <li>• Total number of trucks - 31, 33 and 35 but not identified as empty or full</li> <li>• Total measured LAeq from coal trucks between 39 and 53dB(A)</li> <li>• Total measured LAeq from all sources not reported</li> <li>• Calculation methodology not detailed</li> <li>• Wind speed and directional data missing from reports.</li> </ul>	ANC	<p>Consider advising Spectrum Acoustics to include total measured LAeq for all sources, calculation method used and wind speed and direction during each measurement period into the Road Noise Monitoring Reports.</p> <p>Ensure monitoring include emission from Vickery Mine once it becomes operational.</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Monitoring Frequency</b>					
Road noise monitoring will be undertaken on a six monthly basis and will assess cumulative noise impacts from the Rocglen and Tarrawonga transport activities against road noise compliance criteria.	Section 5.3	Interview - Group Superintendent - Environment (Compliance)  Spectrum Acoustics Noise Monitoring Reports  NSW Road Noise Policy	Cumulative road noise monitoring occurred six monthly as required under the Road Traffic Noise Management Plan.  No non-compliances were noted for road transport noise criteria during the reporting period.  The reports assessed the cumulative noise impacts from the Rocglen and Tarrawonga projects and compared results to the road noise compliance criteria.	C	
<b>MANAGEMENT OF EXCEEDANCES, COMPLAINTS AND NON-COMPLIANCE</b>					
<b>Noise Compliance Criteria Exceedance</b>					
If road noise exceeds the levels outlined in Section 2, advice will be sought from an appropriate acoustic consultant to verify the source of the elevated noise and identify options to address noise related impacts.	Section 6.1	Spectrum Acoustics Noise Monitoring Reports	No non-compliances were noted for road transport noise criteria during the reporting period.	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Where it is identified that the above options cannot achieve compliance with noise criteria, RCM will undertake negotiations with the affected landowners with a view to entering into private agreements. Such negotiations would include options with regard to provision of insulation, double-glazing of windows, air-conditioning, or other measures designed to reduce noise impact at the affected property.	Section 6.1	Spectrum Acoustics Noise Monitoring Reports	No non-compliances were noted for road transport noise criteria during the reporting period.	NT	
<b>Complaints (additional traffic noise requirements)</b>					
Data from the site weather station and the real time noise monitoring unit will be obtained for the time applicable to the complaint for use in determination of cause and identification of future remedial actions.	Section 6.2	Complaints	No complaints were received during the audit period for road traffic noise.	NT	
<b>Non- Compliance</b>					
With the exception of noise compliance criteria exceedances, non-compliances relating to noise would most likely relate to not achieving the required six monthly attended monitoring events. Any non-compliances of this nature will be detailed in the EPL Annual Return and/or AEMR/Annual Review, and include details as to why the non-compliance occurred.	Section 6.3	AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15  EPL Annual Returns 2013,2014,2015	No non-compliances were noted for road transport noise criteria during the reporting period.	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Unpredicted Impact Protocol</b>					
In the event that unpredicted or unforeseen noise impacts are identified, the protocol (in Table 2) will be adopted.	Section 6.4	AEMR/Annual Reviews 2012/13, 2013/14, 2014/15	No unpredicted or unforeseen impacts have occurred during the audit period.	NT	
<b>RECORD KEEPING AND REPORTING REQUIREMENTS</b>					
<b>Record Keeping</b>					
Attended noise monitoring reports issued by the acoustic consultant will include details on the date and time of monitoring, location of monitoring and monitoring personnel.	Section 7.1	Spectrum Acoustics Noise Monitoring Reports	Reports include requirements.	C	
Results from the attended monitoring will be maintained by the Environmental Officer. The results will be reviewed to determine any mining related exceedances in order to instigate an appropriate response.	Section 7.1	Spectrum Acoustics Noise Monitoring Reports  Interview - Environment Officer	Reports were available for review during the audit. The Environment Officer receives and reviews the reports	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Reporting Requirements</b>					
A summary of noise monitoring results will be reported internally on a monthly basis as well as on a quarterly basis to the Community Consultative Committee (CCC) via the Environment Monitoring Report. This report will be periodically uploaded onto the company's website (www.whitehavencoal.com.au).	Section 7.2	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	<p>Monthly data is located on the website for period 2012 to March 2016.</p> <p>A quarterly summary of the noise results is not currently included on the website. CCC meetings have moved from quarterly to six monthly therefore monitoring results are reported at this time.</p>	ANC	Consider reviewing the reporting frequency to align with the CCC meeting frequency and attach the results to the CCC minutes which are uploaded to the website.
Each year, the results of the noise monitoring program will be summarised and presented in the AEMR/Annual Review together with reference to prevailing meteorological data and site activities during the measurement period(s), where relevant. Reporting will also include an analysis of the monitoring results against the exceedance criteria, previous monitoring results and predictions made in the EA.	Section 7.2	AEMR/Annual Reviews 2012/13, 2013/14, 2014/15	AEMRs include required information.	C	
The extent of notification and reporting requirements depends on the severity of the issue but generally includes notification to DoPI and EPA and/or the affected landholder as soon as practicable after obtaining monitoring results with regular monitoring results to be provided to each of these parties until compliance with the criteria can be demonstrated.	Section 7.2	Spectrum Acoustics Noise Monitoring Reports	No non-compliances were noted for road transport noise criteria during the reporting period.	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Discussion of all results will also be included in CCC Environment Monitoring Reports and the AEMR/Annual Review.	Section 7.2	AEMR/Annual Reviews 2012/13, 2013/14, 2014/15  Environmental Monitoring Reports - Rocglen website	AEMRs include discussion of results.  CCC Environmental Monitoring reports on Rocglen website.	C	
In addition to the reporting requirements listed above, noise quality monitoring data will be made available to the public upon request.	Section 7.2	Interview - Environment Officer	No requests for noise quality monitoring data have been made during the reporting period - results are available on the Rocglen website which is accessible by the public.	C	
<b>DOCUMENT REVIEW AND CONTINUOUS IMPROVEMENT</b>					
This document will be reviewed at least every two years and following any significant changes (i.e. changes to approval/licence requirements or monitoring protocol). Each review will be undertaken in consultation with relevant stakeholders and will be submitted to the Director-General for approval.	Section 8	Management Plan review history	Review of the Management Plans indicates reviews are completed for Project Expansion. There is no evidence for reviews completed for all requirements listed as per this condition.	ANC Duplicated with MCoA 4.5	Consider the creation of an excel sheet with plan review tables and update reviews completed even if no changes are required to the plans.

Annex M

## Audit Table – Water Management Plan

**Table M.1 Compliance Assessment –Implementation of the Water Management Plan**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>SITE WATER BALANCE</b>					
<b>Measures to Reduce Water Loss/Usage</b>					
<p>The principal measures to reduce water use and water loss will include the following:</p> <ul style="list-style-type: none"> <li>• Avoiding un-necessary use of the water cart and dust suppression equipment;</li> <li>• Where a small amount of water is contained in a number of sediment dams, this will be transferred to a single dam to reduce the potential for evaporation (in general water for re-use will be consolidated within the Mine Water Dam). Implementation of this measure depends on distances between dams and may not be practical in some situations;</li> <li>• The Bore Pump Dam will not be kept full at all times, thereby reducing evaporation from the surface;</li> <li>• Bore water will only be pumped into the Bore Pump Dam (and subsequently used on site) when storage levels within the Mine Water Dam and dirty water dams fall to levels that would constrain site operations due to insufficient water for dust suppression purposes.</li> </ul>	Section 3.5	<p>Site Inspection</p> <p>Interview – Mine Manager</p>	<p>Water is used out of each dam for dust suppression activities on site. The dam marked as Bore Water Dam on the plan is used for the storage of the pit water. This dam is used preferentially over others for dust suppression activities.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Water Balance Review</b>					
An update of the site water balance will be undertaken on an annual basis as part of the annual review of the WMP, or following any new or modified approval conditions relevant to water management or where there is any change to the operations which are likely to materially change potential impacts	Section 3.6	AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15	AEMRs report on total water usage and sources of water for usage.	NC	Consider including a table in the Annual Reviews which detail all water sources including rainfall, water losses including evaporation and discharges and final balance.
<b>SURFACE WATER MANAGEMENT PLAN</b>					
<b>Principles and Objectives</b>					
Containment of runoff from open cut areas by directing this water into in-pit sumps	Section 4.1	Site Inspection	Open cut areas drain to pit which is pumped to the mine water dam.	C	
Pumping excess water from the in-pit sumps into the Mine Water Dam	Section 4.1	Site Inspection	Open cut areas drain to pit which is pumped to the mine water dam.	C	
Directing sediment-laden runoff from disturbance areas and rehabilitated areas into designated sediment control dams	Section 4.1	Site Inspection	Disturbed and rehabilitated areas drain to a series of dams along the western and eastern boundaries of the site.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Installing temporary erosion and sediment control devices as required (i.e. sediment fences, sand bag weirs) to minimise the discharge of sediment laden water from newly disturbed areas	Section 4.1	Site Inspection	Historical erosion and sediment control devices noted during the site inspection in the rehabilitated and revegetated areas. Some scouring and erosion was noted in the newer areas of rehabilitation in the northern emplacement area.	NC Duplicated with SoC	Consider removing erosion and sediment control structures that are damaged/no longer required. Consider installing additional controls where erosion is evident to prevent the need for extensive rework/repairs.
Diverting clean water runoff unaffected by the operations away from disturbed areas and offsite, where possible	Section 4.1	Site Inspection	Site inspection confirms presence of clean water diversions.	C	
Maintaining sediment control structures to ensure that the designed capacities are maintained for optimum settling of sediments	Section 4.1	Site Inspection	Historical erosion and sediment control devices noted during the site inspection in the rehabilitated and revegetated areas particularly from the EPL discharge locations.  Sediment dams were undergoing desilting whilst on site to maintain capacity.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Implementing an effective revegetation and maintenance program for the site	Section 4.1	Rehabilitation Management Plan  Site Inspection	<p>Site inspection indicates mixed success with rehabilitation. The northern emplacement area designated for pasture has numerous weeds (Class 4 such as Bathurst Burr and Prickly Pear). Galvanised Burr and Black Roly Poly is the most common weed but are not locally declared weed.</p> <p>The soil is undergoing testing to determine ameliorant type and rate to encourage growth of any further seeding campaigns. A biodiversity expert has been recently (last two months) appointed fulltime to oversee the rehabilitation of the Whitehaven Coal sites. This will include investigating alternative methods for reseeding/replanting.</p>	NC  Duplicated with SoC	Continue to investigate alternative rehabilitation methods to increase success.
Management of dirty water dams in accordance with the Blue Book	Section 4.1	Site Inspection	The western emplacement area along the western side and the western side of the northern emplacement area has been rehabilitated generally in accordance with Section 5.3.3 of the Blue Book i.e. includes terraces, and numerous small ponds.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Clean Water Management</b>					
<p>Clean water runoff from the Vickery State Forest to the west of the site, and north of SB17, is diverted around the disturbance area to Driggle Draggie Creek in the north. The nominal amount of clean water inflow entering the site to the south of SB17 will report into the dirty water management system and discharged through LDP11 at SD3.</p> <p>Clean water runoff from the agricultural lands to the east of the site is diverted around the site via clean water diversion channels running along the eastern side of the Wean Road re-alignment.</p>	Section 4.3	Site Inspection	Site inspection confirms statement	C	
<b>Dirty Water Management System</b>					
<p>Rainfall runoff collected in the basins is reused for dust suppression as required, with any excess water discharged offsite via Storage Dam 3 (LDP 11) or Dam B (LDP 12) - provided the water is of an acceptable quality following treatment. A series of dirty water diversion channels constructed around the site will ensure dirty water is conveyed at non erosive velocities to the sediment basins for treatment.</p>	Section 4.4.2	Site Inspection	<p>Site inspection confirms statement.</p> <p>Water is tested prior to active discharge.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Runoff from site south of the watershed is collected by water management structures and ultimately directed to SD3 (LDP 11). Runoff from the site north of the watershed will report to Dam B (LDP12).</p> <p>LDP 11, located on the outlet of SD3, and LDP 12, located below the outlet of Dam B, allows for the discharge of water according to the conditions stated in EPL 12870, and controlled discharge will occur only when the water parameter conditions stated in EPL 12870 are met.</p>	Section 4.4.2	<p>Site Inspection</p> <p>Water Monitoring Results</p>	<p>Site inspection confirms statement.</p> <p>Water is tested prior to active discharge.</p>	C	
<p>Runoff from the workshop area is directed into an oil/water separator before being directed to one of the adjacent sediment basins. This water will be directed into small sumps prior to entering the dirty water management system, and ultimately reporting to Storage Dam 3.</p>	Section 4.4.2	Site Inspection	<p>Wash down area and workshop drains to pit which is treated through oil water separator before discharging to a pond. This pond drains to SD3 before discharge from site.</p> <p>Monthly checklists by environment checks oil/water separator and clarified water disposal area is free from hydrocarbon contamination (visible).</p>	<p>O</p> <p>Duplicated with SoC</p>	<p>Consider the occasional check of water quality in this pond to confirm the OWS is working as per design and preempt any potential contamination off site.</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>On-going Erosion and Sediment Management Practices (additional to previous commitments in other plans)</b>					
<p>Whitehaven will also adopt the following ESC management practices to further reduce the potential for adverse erosion or sedimentation developing:</p> <p>Where localised flooding or ponding occurs, access will be restricted until such time as the ground is no longer waterlogged in order to reduce the potential for additional sediment mobilisation;</p>	Section 4.4.3	<p>Site Inspection</p> <p>Interview - Mine Manager</p>	<p>Rainfall had been received on site previous to site inspection. During drive some areas were observed to be waterlogged and therefore alternate ways to access areas was made to avoid damaging roads.</p> <p>Operational drivers ensure access is restricted from waterlogged areas.</p>	C	
<p>Where practical, disturbance areas will be shaped such as to provide a free draining surface to direct dirty water runoff into the relevant sediment dams</p>	Section 4.4.3	Site Inspection	<p>Disturbed areas drain to sediment dams. No large areas of ponding were evident during site inspections.</p>	C	
<p>If erosion is identified on the rehabilitating landform or in the operational area, it will be remediated as quickly as practical to reduce the potential for significant erosion to develop.</p>	Section 4.4.3	<p>Site Inspection</p> <p>Monthly Site Inspections</p>	<p>Minor erosion identified in northern emplacement area.</p> <p>Noted remedial works to repair erosion on the western batter on the northern emplacement area have recently been completed.</p> <p>Monthly checklists note erosion in rehabilitation areas.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Where necessary, temporary ESC measures will be utilised to prevent and/or reduce the potential for adverse erosion developing. Temporary ESC structures and management practices will be constructed in accordance with the construction principles presented in the Blue Book and may include sediment fences, check dams, surface protection and advanced revegetation methods such as hydromulching.</p>	Section 4.4.3	Site Inspection	<p>Temporary ESC measures noted along drainage lines from sediment dams discharging to LDP and also along western drainage line along western emplacement area.</p> <p>These controls are no longer effective and require removal or replacement.</p> <p>Check dams, sediment dams and berms are used to permanently stabilise areas.</p>	C	
<b>Sediment Dam Management</b>					
<p>Sediment dams are to be cleaned out (de-silted) when the accumulated sediment has reduced the capacity to below 70%</p>	Section 4.4.4	Site Inspection	<p>Site inspection noted some sediment dams were undergoing desilting (SB7) after recent survey noted decrease in capacity.</p>	C	
<p>Sediment dams will be drawn down following rainfall to provide available storage capacity for subsequent rainfall events, with draw down achieved by:</p> <ul style="list-style-type: none"> <li>o Transfer of water to the Mine Water Dam or other water storages on site; or</li> <li>o Controlled discharge of treated water (e.g. settled and/or flocculated).</li> </ul>	Section 4.4.4	<p>Site Inspection</p> <p>Interview - Mine Manager</p> <p>Monitoring Results</p>	<p>Water is used out of each dam for dust suppression activities on site.</p> <p>Water is treated and discharged (reported in AEMR).</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Draw down and controlled discharge would occur such that:</p> <ul style="list-style-type: none"> <li>o Dam B and SD3 are fully drawn down (within 5 days of the rainfall event) where practically possible; and</li> <li>o All other dams are drawn down as much as practically possible to minimise inflows from upstream storages into Dam B and SD3, thereby maintaining storage capacity.</li> </ul>	Section 4.4.4	<p>Site Inspection</p> <p>Monitoring Results</p>	Anecdotally occurs – unclear from monitoring results when discharges from dams have occurred if active.	O	Consider including controlled discharges into the EPL discharge database to confirm this commitment is met.
<p>Use of chemical flocculation to help settle suspended solids prior to discharge offsite. The flocculent currently used to reduce TSS concentrations prior to discharge is the organic coagulant Magnafloc.</p>	Section 4.4.4	Interview – Environment Officer	Confirmed Magnafloc is used to reduce TSS concentrations.	C	
<b>“Coal Contact” Water Management</b>					
<p>Water that has come into contact with coal (coal contact water) may be contaminated with dissolved salts and metals. Following advice from the EPA, Rocglen Coal Mine has identified that dirty water dams SD3 and Dam ‘B’ may contain coal contact water runoff. As such, these dams have been reclassified as “dirty water dams with potential coal contact water”.</p>	Section 4.4.5	Noted	<p>This change in interpretation is as directed by the Department of Planning &amp; Environment (DPE dated 24th October 2014) and Environment Protection Authority (EPA dated 13th October 2014, EPA dated 21st August 2015) despite the previous approvals (PA 10_0015 &amp; MOD 1-2) and EPL 12870 approving the coal stockpile catchments to be within dirty water discharge catchments.</p>	Note	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Mine Water Management</b>					
<p>Runoff from within the open cut pit is directed into in-pit sumps where it is contained and pumped to the Mine Water Dam as required. The Mine Water Dam is a 'turkeys nest' dam with no catchment (other than its own footprint) and is maintained at a level so that it does not overflow.</p>	Section 4.5	<p>Site Inspection</p> <p>Interview - Mine Manager</p>	<p>Site inspection confirms runoff from open cut is retained within pit and pumped to Mine Water Dam. Mine Water Dam is a turkey nest.</p> <p>Mine Manager indicated dam has not been full - if required, water can be pumped back to open cut to prevent overflow.</p>	C	
<b>Potable Water Supply and Sewage Disposal</b>					
<p>Sewage will continue to be disposed of by one or a combination of the following two methods:</p> <ul style="list-style-type: none"> <li>• A bio-cycle (or equivalent) system with effluent irrigation onto undisturbed areas of the 'Belmont' property, and/or</li> <li>• Storage and pump-out systems, with pump outs and disposal undertaken by a licensed waste disposal contractor to an approved sewage treatment plant.</li> </ul>	Section 4.8	Interview - Group Superintendent - Environment (Compliance)	Sewage is passed through an Envirocycle unit before irrigation to the area to the east of the office/administration area. The area has a swale constructed around the area to prevent runoff into surface water. Grass and vegetation in area appears healthy with no evidence of ponding water visible.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Surface Water Monitoring Program</b>					
<b>Impact Assessment Criteria and Trigger Levels</b>					
Impact assessment criteria for surface water are only relevant to water actually discharged from the site. EPL 12870 contains two LDPs for wet weather discharge. The concentration limits set in EPL 12870 for both discharge locations are presented in Table 5.	Section 4.9.3	EPL	Confirmed discharge locations align with EPL	C	
Water quality monitoring results for downstream watercourses (Driggle Draggie Creek and the unnamed creek to the south of the site) will be assessed, for each monitoring event, against key default trigger values presented in Table 7 and sourced from the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC, 2000).	Section 4.9.3	Monitoring Results	Unnamed drainage channel and Driggle Draggie Creek sampled for wet weather discharges analytes only (pH, TSS, TOC, and EC). No further testing or comparison to the ANZECC guidelines listed in Table 7 has occurred.	NC	Consider the review of the water monitoring program and confirm the required analytical program and action accordingly.
Whitehaven currently adopts the concentration limits stated in EPL 12870 as the assessment criteria for pH and Total Suspended Solids (TSS) as opposed to the ANZECC Guidelines. It does however adopt the ANZECC upper limit of 350 µS/cm for conductivity and notes the default trigger values for numerous other indicators presented in the ANZECC guidelines. In the event of trigger values for any of the indicators included in Table 7 being reached, a review of upstream water quality results will be undertaken, along with a general review of the water management practices undertaken on site.	Section 4.9.3	Monitoring Results	Comparison to EPL limits only has occurred as no other testing has been completed.	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Surface Water Monitoring Locations and Frequency</b>					
The monitoring locations, pollutants to be monitored and the required frequency are detailed in Table 8 with the position of these monitoring locations detailed on Figure 5.	Section 4.9.4	EPL12870  Monitoring Results	The locations and frequencies align with the EPL. A review of the results indicates all parameters at the required frequencies are monitored at each location.	C	
<b>Additional Operational Monitoring</b>					
<b>Internal Dams Surface Water Quality and Monitoring</b>					
In addition to the monitoring required under EPL 12870, Whitehaven will also undertake surface water monitoring for internal dams within the mine site. This additional monitoring will allow the performance of the surface water management system to be assessed for various areas around the mine site, with additional controls targeting these potential problem areas to be implemented. It will also allow for the monitoring of salt and alkalinity in dams collecting water from subsoils.	Section 4.9.5	Monitoring Results	Excel database confirms additional monitoring is completed.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>"Coal Contact" Dams Water Quality and Monitoring</b>					
As directed by the EPA (EPA letter dated 21st August 2015), where runoff from coal contact areas is captured in storage dams designed for sediment control, Rocglen Coal Mine will need to establish whether the discharge from these structures contains pollutants that pose a risk of non-trivial harm to human health and/or the environment. As directed by the EPA, trivial versus non-trivial pollutant concentrations can be defined with reference to the default trigger values for toxicants and physical/chemical stressors in the ANZECC (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. If a pollutant exceeds the relevant trigger value, it can be considered that it poses a risk of non-trivial harm to human health and/or the environment.	Section 4.9.5	Monitoring results	SD3 and Dam 'B' are considered coal contact dams. Additional monitoring of these sites has occurred during the audit period.  Comparison to the default trigger values for toxicants and physical/chemical stressors in the ANZECC (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality has not been completed in the excel sheet.	ANC	Consider adding a line to the excel database with ANZECC trigger values to enable early detection of any exceedances.
Rocglen Coal Mine will implement a monitoring program to address this data deficiency. This monitoring program is proposed to include sampling of waters from SD3 and Dam 'B' for parameters including the physio-chemical parameters pH, EC, TSS, organic nutrients, dissolved metals and oil and grease.	Section 4.9.5	Monitoring results	Monitoring is completed for pH Electrical Conductivity ( $\mu\text{S}/\text{cm}$ ), Total Suspended Solids (mg/L), Total Organic Carbon (TOC), Grease & Oil (mg/L), Antimony, Selenium, Arsenic, Molybdenum.	NC	Consider the monitoring of all listed parameters such as organic nutrients and dissolved metals as listed in Table 7

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>It is not possible to provide a definitive timeline to gather sufficient data for a robust analysis of the potential impact of coal contact water. Notwithstanding this, once sufficient data becomes available and on completion of detailed analysis, Rocglen Coal Mine will consult with the EPA in regard to the outcomes of the monitoring.</p>	Section 4.9.5	<p>Monitoring results</p> <p>Interview - Environment Officer</p>	Monitoring to be completed and results reported to EPA	NT	
<b>Channel Flow and Riparian Vegetation Monitoring</b>					
<p>A program to monitor creek line channel stability and health of riparian vegetation within Driggle Draggie Creek and the unnamed creek to the south of the site would be undertaken throughout the mine life. The monitoring would be undertaken along a short length of the downstream watercourses. General observations of stream health will be recorded during the quarterly water quality monitoring for these watercourses.</p> <p>Monitoring of the drainage lines would include:</p> <ul style="list-style-type: none"> <li>• Documenting general observations of water quantity and quality;</li> <li>• Documenting locations and dimensions of significant erosive or depositional features so that any subsequent changes can be evaluated quantitatively;</li> </ul>	Section 4.9.6	<p>Rocglen Mine Rehabilitation Monitoring (spring 2014 - autumn 2015), Eco Logical Australia issued June 2015</p> <p>Annual Reviews - AEMR/ Annual Reviews 2012/13, 2013/14, 2014/15</p>	<p>Eco Logical completed monitoring for Spring 2014 to Autumn 2015 but includes rehabilitation monitoring only.</p> <p>Quarterly sampling of the creek limited to water quality sampling.</p>	NC	Consider the review of the creek monitoring program and action accordingly.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<ul style="list-style-type: none"> <li>• Establishing multiple photographic points at representative locations, so that photos can be taken over multiple inspections in a repeatable manner;</li> <li>• Written descriptions of the stream at each of the photographic points, focussing on evidence of erosion and exposed soils; and</li> <li>• Documenting general indicators of stream health, including abundance of flora and fauna.</li> </ul>					
<p>Results of monitoring data will be reviewed and compared to previous rounds of monitoring to assess whether there is any degradation of the riparian vegetation or stream channel. Where degradation or adverse erosion is occurring, additional investigations will be undertaken to assess whether the impacts may be associated with the operation of the mine and ameliorative actions undertaken as required.</p>	Section 4.9.6	Refer above	Monitoring has not been completed	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Inspections and Maintenance</b>					
Regular inspections are undertaken for all water management and erosion and sediment control structures throughout the mine life. Inspections are undertaken monthly or following a significant rainfall event of >25mm/hr. Various information, such as the general condition of dams, evidence of overflow, condition of downstream catchments, water colour, evidence of eroding surfaces and approximate retained dam capacity is recorded as required.	Section 4.9.7	Monthly Environment Inspection Checklists  Interview - Mine Manager  Site Inspection	Inspection checklists include required checks.  Dams recently surveyed to check capacities with some dams undergoing desilting (some works noted during site inspection).  Inspection sheets include check for erosion and sediment controls after rainfall >25mm on last page.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Data Recording</b>					
<p>Recording of monitoring data is undertaken in accordance with the requirements outlined within EPL 12870. Whitehaven will collate and maintain an up to date database of surface water quality monitoring data for all sampling at the mine inclusive of a hard copy (laboratory results) and electronic (results) database. Monitoring results are interpreted as they are received in order to ensure appropriate operational guidance on maintaining water quality within the desired parameters.</p>	Section 4.9.8	Monitoring results - wet weather and surface monitoring sheets	Spreadsheet maintained for wet weather discharges and all other monitoring.	O	<p>Consider formatting sheet to highlight exceedances of EPL criteria. Consider including all EPL discharges (controlled discharges and wet weather discharges on the same sheet for the EPA annual report (if no discharges then report into surface water monitoring sheet to prevent confusion. Consider adding column to clearly delineate between wet weather, controlled and no discharges.</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>The results will also be compared to relevant site operations and meteorological conditions to further interpret the results. This comparison between samples, between sampling periods and against other factors will assist in identifying whether the activities on the site are in fact affecting the water quality of the local catchment.</p>	Section 4.9.8	Monitoring Results	<p>Review of Excel spreadsheet – comments column includes comment if rainfall has exceeded 90%tile or if no discharge.</p> <p>No comment on operations is noted.</p>	ANC	<p>If no discharge then consider adding results to surface water sampling sheet to remove confusion. In addition consider adding the rainfall reviewed the prior 5 days and note the activities on site that may impact water quality e.g. earthworks completed in western emplacement area with catchment to western drainage line etc.</p>
<p>Results of surface water quality monitoring are reported in the Annual Review (AR). The results will also be made available to the Community Consultative Committee (CCC) members on a regular basis.</p>	Section 4.9.8	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	<p>Monitoring results for each month are available on the website for Rocglen and are discussed in the AEMRs.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Surface Water Response Plan</b>					
<b>Identification, Notification and Mitigation of Identified Exceedances or Non Compliances</b>					
Any exceedance of discharge criteria or non-compliance with statutory requirements will trigger an immediate investigation to determine the cause of the exceedance/non-compliance and preparation of a corrective action plan to re-establish or introduce additional appropriate controls as necessary. Resampling may be undertaken to verify results in exceedance of the performance criteria.	Section 4.10.2	AEMRs Monitoring Results	TSS was over criteria a number of times over the audit period but as rainfall was over the 90%tile, these were not considered to be exceedances.	NT	
In the event that an exceedance in surface water quality criteria is identified, the exceedance will be reported to the relevant government agencies in accordance with the requirements of EPL 12870 and PA 10_0015 MOD 2, with subsequent actions being taken by Whitehaven to mitigate these and prevent reoccurrence.	Section 4.10.2	Environmental Event Report for discharges 7th April 2015 and 21st April 2015	Report was sent to EPA for exceedance of TSS in April 2015 discharge events but both events were after receiving 90%tile of rain on site and are therefore not exceedances.	O	Consider limiting reporting to relevant government agencies of actual exceedances for efficiency.
Any mitigation required will be done in consultation with the relevant government agencies, with the mitigation actions determined at that time, as relevant to the exceedance. Where mitigation is not feasible or cannot be achieved, Whitehaven will seek to offset or compensate for any environmental harm caused.	Section 4.10.2	Interview - Environment Officer	Noted - no exceedances reported during audit period therefore no mitigation measures have been proposed.	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Continual Improvement</b>					
Ongoing review of water quality monitoring data for the site will assist in determining where there are any noticeable trends towards non-compliant parameter levels at the monitoring sites. This information is used to modify, if necessary, work practices or scheduling of equipment to ensure that future non-compliances are avoided.	Section 4.10.3	AEMRs	Review of water quality monitoring is included in the AEMRs.	C	
<b>GROUNDWATER MANAGEMENT PLAN</b>					
<b>Groundwater Assessment Criteria</b>					
Groundwater impact assessment criteria are contained in Table 10 below, and show trigger levels for groundwater levels and quality (pH, EC, TDS).	Section 5.4.3	EA  Groundwater Monitoring Results	Overview of groundwater results indicate following:  WP5A - water levels have dropped 15metres with the bore now substantially dry. The AEMR reports that Douglas Partners predicted that at the end of the northern phase of mining during the extension of the pit, MP-5 / MP-5a could be drawn down by up to 13.4m. Results indicate that the actual drop of approximately 15.22m in SWL is slightly higher than this prediction.	NC	Investigation needs to be completed on groundwater results to confirm if trigger levels for investigation have been reached in MP6 and MP7 (as a minimum).

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
			<p>MP6 - EC is trending down indicating potential rain/freshwater impacts.</p> <p>MP7 - pH is rising and TDS is falling.</p>		
Due to the high variability in data, the trigger values will be reviewed annually to continually revise and improve the environmental performance of the project over time. The annual review will also include a trend analysis of the full suite of groundwater quality parameters.	Section 5.4.3	AEMRs	AEMR review monitoring results and includes an analysis of trends for all groundwater parameters analysed.	C	
<b>Groundwater Monitoring Locations and Frequency</b>					
<p>Monitoring of groundwater levels and groundwater quality parameters is undertaken at the bores listed in Table 11.</p> <p>Additional bores recommended in the hydrogeological assessment (Douglas Partners, 2010) have also been included in the monitoring program.</p>	Section 5.4.4	Monitoring Results	Review of results confirms all bores listed in Table 11 are monitored including additional bores in the hydrogeological assessment.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Groundwater Inflows to Mining Operations</b>					
<p>The following two methods are used to estimate groundwater inflows to the mining operations:</p> <ul style="list-style-type: none"> <li>• Whitehaven will monitor the volume of water pumped out of the pit. If this coincides with a period of low or no rainfall, this will be used directly as a measure of groundwater inflow. If this occurs during periods of rainfall the site water balance model will be used to estimate the rainfall runoff component and, by subtraction, estimate the groundwater inflow; and</li> <li>• Monitored bore water levels is used to estimate groundwater gradients towards the open cut pit, by triangulation. Estimated gradients would be used together with estimates of strata permeability to calculate groundwater flow rates toward the pit. This would be estimated annually as part of the groundwater model verification.</li> </ul>	Section 5.4.5	AEMRs	<p>Volume of water pumped out of the pit is reported in the AEMRs (Section 2.8.2). Water balance not currently reported in the AEMR.</p> <p>Monitored bore levels are not currently used to calculate groundwater flow rates to the pit.</p>	<p>NC</p> <p>Duplicated in this plan</p>	<p>Consider including a table in the Annual Reviews which detail all water sources including rainfall, water losses including evaporation and discharges and final balance.</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Groundwater Response Plan</b>					
<b>Identification, Notification and Mitigation of Identified Groundwater Exceedances or Non-Compliances</b>					
Groundwater monitoring data is continually reviewed, and where exceedances to the trigger values occur, the following procedure will be adopted. It should be noted that due to the high variability in data, the trigger levels are reviewed annually to continually revise and improve the environmental performance of the project over time.	Section 5.5.2	Monitoring Results	Results are entered into excel sheet to enable tracking and reported in the AEMR.	C	
<p>Groundwater exceedance procedure:</p> <ol style="list-style-type: none"> <li>1. Check and validate the data which indicates an exceedance of the assessment criteria / trigger level (as soon as possible and within 7 days).</li> <li>2. Notify NSW Department of Planning and Environment (DPE) and any other relevant department as soon as practicable (within 7 days after becoming aware of the exceedance).</li> </ol>	Section 5.5.2	Monitoring Results	Review of results indicate some triggers may have been reached - refer above.	<p>NC</p> <p>Duplicated with this plan</p>	Consider the review and check of data to confirm if trigger values have been reached for some parameters and action accordingly.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>3. A preliminary investigation will be undertaken to identify the cause and determine whether changes to the groundwater management system are required. This will comprise analysis of the exceedance result, baseline groundwater monitoring, current monitoring results in the vicinity of the exceedance, meteorological conditions of the period, current site activities and adjacent land use activities, including pumping from nearby irrigation bores.</p> <p>4. A preliminary investigation report of the exceedance is to be prepared and submitted to the DPE and any other relevant department (within 28 days of the incident).</p> <p>5. Any further investigations recommended by the preliminary investigation report will be conducted in consultation with DPE and any other relevant departments (timeframe to be determined in consultation with DPE).</p> <p>6. Remedial measures will be developed in consultation with DPE and any other relevant department and implemented in response to the outcomes of the investigations (timeframe to be determined in consultation with DPE).</p> <p>7. In emergency situations water will be supplied to the impacted landholder within 7 days of the exceedance, at least on an interim basis, until investigations are completed.</p>					

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
8. Additional monitoring would be implemented to measure the effectiveness of contingency measures where necessary (timeframe to be determined in consultation with DPE).					
<b>Procedure to address Complaints from Nearby Groundwater Users</b>					
<p>In the event that a complaint is received from nearby groundwater users, the following procedure will be followed:</p> <ol style="list-style-type: none"> <li>1. Check and validate the nature of the complaint (as soon as possible and within 7 days).</li> <li>2. Where the complaint is potentially attributable to Rocglen's mining operations, DPE and any other relevant department is to be notified within 7 days of receipt of the complaint (where practical).</li> <li>3. An investigation will be undertaken to establish the cause and mitigation measures to improve the groundwater supply to the affected property (within 28 days of complaint).</li> <li>4. In the event that the investigation identifies an adverse impact to the existing groundwater supply due to Rocglen operations, Rocglen Coal Mine will investigate appropriate remedial and contingency measures (timeframe to be determined in consultation with landholder, DPE and any other relevant department).</li> </ol>	Section 5.5.3	Complaints Register	<p>One complaint regarding groundwater was received during the audit period:</p> <p>9 July 2014 - concerned blasting was impacting groundwater availability and cracking walls in residence. The Rocglen EO measured the SWL of the complainant's bore on July 11 2014, and found it to be at a depth of 27.62 m. The complainant agreed that the SWL measured was in general accordance with the usual depth of water in the bore. The Rocglen EO offered to continue monitoring the bore on a quarterly basis as a part of the existing Rocglen groundwater monitoring program, which was accepted.</p> <p>WB15 for Kahuna was added to the quarterly monitoring program in July 2014 with SWLs consistent between quarterly events - range observed 26.88mbgl to 30.28mbgl.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>The details of the contingency measures (including water source) will be determined in consultation and agreement with the affected landholder.</p> <p>5. In emergency situations water will be supplied to the impacted landholder within 7 days of the exceedance, at least on an interim basis, until investigations are completed.</p>					
<b>Measures for Groundwater Leakage from Namoi River Alluvium</b>					
<p>The groundwater monitoring program and trigger levels are designed to identify potential leakage from the Namoi River Alluvium in excess of predictions. Potential impacts to the Namoi River Alluvium will also be monitored in the annual groundwater model validation and predictions updated, as necessary.</p>	Section 5.5.4	AEMRs	AEMRs include discussion of groundwater levels against the EA predictions.	C	
<b>Continual Improvement</b>					
<p>Ongoing review of groundwater monitoring data will assist in determining where there are any noticeable trends towards non-compliant parameter levels at the monitoring sites. This information is used to modify, if necessary, work practices or scheduling of equipment to ensure that future non compliances are avoided</p>	Section 5.5.6	Monitoring Results	<p>Groundwater monitoring data is entered into excel database.</p> <p>Water levels are graphed in the sheet.</p>	O	<p>Consider the addition of graphs for the trigger parameters (drawdown, pH, EC, TDS) for each well with trigger values also marked to highlight any trends/exceedances of trigger levels</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>INCIDENTS AND COMPLAINTS</b>					
<b>Incidents</b>					
Incidents will be managed and reported in accordance with requirements of the Project Approval, EPL, Pollution Incident Response Management Plan and relevant environmental management plans.	Section 6.1	AEMRs	No groundwater incidents have been reported during the audit period.	NT	

Annex N

## Correspondence with Government Agencies

**From:** [John Trotter](#)  
**To:** [Megan McLachlan](#)  
**Subject:** Rocglen Coal Mine - Proposed Independent Environmental Audit  
**Date:** Tuesday, 26 April 2016 3:00:20 PM

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Dear Megan,

In response to your email to DRE dated 20 April 2016 with respect to your proposed IEA for the Rocglen Coal Mine, DRE considers that the audit should assess key rehabilitation issues and hence consider the following (along with any other aspect considered appropriate by the auditor):

Audit Component - Desktop

- Is there a current Mining Operations Plan (MOP) in place and has it been approved by DRE?
- Has the MOP been prepared in consultation with the relevant agencies as outlined in the Project Approval?
- Is the rehabilitation strategy as outlined in the MOP consistent with the Project Approval in terms of progressive rehabilitation schedule; and proposed final land use(s)?
- Has the rehabilitation objectives and completion criteria as outlined in the MOP been developed in accordance with the proposed final land(s) as outlined in the Project Approval?
- Has a rehabilitation monitoring program been developed and implemented to assess performance against the nominated objectives and completion criteria? – verified by reviewing monitoring reports and rehabilitation inspection records.
- Has a rehabilitation care and maintenance program been developed and implemented based on the outcomes of monitoring program? – verified by reviewing Annual Rehabilitation Programs or similar documentation.

Audit Component - Site Inspection

- Are mining operations being conducted in accordance with the approved MOP (production, mining sequence etc.), including within the designated MOP approval boundary? – to be verified by site plans and site inspection.
- Is rehabilitation progress consistent with the approved MOP as verified by site plans and a site inspection? This should include an evaluation against rehabilitation targets and whether the final landform is being developed in accordance with conceptual final landform in Project Approval.
- Based on a visual inspection, are there any rehabilitation areas that appear to have failed or that have incurred an issue that may result in a delay in achieving the successful rehabilitation?

In addition to the above, the audit should note observations where rehabilitation procedures, practices and outcomes represent best industry practice.

I note that the Rocglen Mine has experienced recent challenges in establishing woodland ecosystems.

**John Trotter**

A/Snr Inspector Environment

Environmental Sustainability Unit

NSW Department of Industry | 516 High Street | Maitland NSW 2320 | PO Box 344 | Hunter Region Mail Centre NSW 2310

T: 02 4931 6553 | M: 0409 360 414 | E: [john.trotter@industry.nsw.gov.au](mailto:john.trotter@industry.nsw.gov.au)

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**From:** [Hunt, Carolyn](#)  
**To:** [Megan McLachlan](#)  
**Subject:** Independent Environmental Audit - Whitehaven Rocglen Mine  
**Date:** Friday, 29 April 2016 4:02:18 PM  
**Attachments:** [image001.png](#)

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Hi Megan,  
Council does not have any questions or concerns regarding the Rocglen Mine project from an environmental perspective.  
Regards,  
Carolyn

**Carolyn Hunt** | Manager Development & Planning  
Gunnedah Shire Council (63 Elgin Street) | PO Box 63, Gunnedah NSW 2380  
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**From:** Megan McLachlan [<mailto:Megan.McLachlan@erm.com>]  
**Sent:** Wednesday, 20 April 2016 10:56 AM  
**To:** Council Email  
**Subject:** Independent Environmental Audit - Whitehaven Rocglen Mine

Hello General Manager

As discussed via telephone, I am currently completing an independent environmental audit on behalf of the Department of Planning & Environment on the Conditions of Approval (PA 10\_0015 (MOD 2) issued to Whitehaven Coal for the Rocglen Mine located 23km north of Gunnedah.

One of the requirements of the audit is that it is to be undertaken in consultation with the relevant stakeholders including the local council. To that end, this email invites the Gunnedah Shire Council to raise any questions or concerns regarding this project particularly from an environmental perspective.

The site inspection will be completed over the period 3-6 May 2016 therefore it would be appreciated any concerns etc, are raised before this date.

I can be contacted at the details listed below to discuss further or to clarify the request.

Kind regards



**Megan McLachlan**  
Principal Environmental Scientist  
Environmental Resources Management Australia  
Level 15, 309 Kent Street, Sydney NSW 2000  
Locked Bag 3012, Australia Square NSW 1215

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Phone: +61 2 8584 8809 (direct)  
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Email: [megan.mclachlan@erm.com](mailto:megan.mclachlan@erm.com) Web: [www.erm.com](http://www.erm.com)

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**From:** [Ingrid Morrison](#)  
**To:** [Megan McLachlan](#)  
**Cc:** [Jessica Creed](#)  
**Subject:** Independent Environmental Audit - Whitehaven Rocglen Mine  
**Date:** Wednesday, 4 May 2016 9:26:11 AM

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Good Morning Megan,

Thank you for your email and for the opportunity to provide input into the Independent Environmental Audit (IEA) for Whitehaven Rocglen Coal Mine.

The EPA does not have any specific requirements for inclusion in the IEA. However, please note that it is a requirement for activities at the premises to remain consistent with relevant approvals, Environment Protection Licence No. 12870 and the *Protection of the Environment Operations Act 1997*.

If you have any questions, or wish to discuss this matter further, please feel free to contact me on the details listed below.

Thank you and kind regards,

### **Ingrid Morrison**

**Operations Officer – Armidale Region**

North Branch, NSW Environment Protection Authority  
+61 2 6773 7000 +61427 028 791

[ingrid.morrison@epa.nsw.gov.au](mailto:ingrid.morrison@epa.nsw.gov.au) [www.epa.nsw.gov.au](http://www.epa.nsw.gov.au) @EPA\_NSW

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**From:** Megan McLachlan [<mailto:Megan.McLachlan@erm.com>]  
**Sent:** Wednesday, 20 April 2016 10:30 AM  
**To:** EPA RSD Armidale Mailbox  
**Cc:** Tony Dwyer; Oliver Moore  
**Subject:** Independent Environmental Audit - Whitehaven Rocglen Mine

Hello Elliot (Picone)

As discussed, I am currently completing an independent environmental audit on the Conditions of Approval issued to Whitehaven Coal for the Rocglen Mine located 23km north of Gunnedah. The project also holds EPL12870.

One of the requirements of the audit is that it is to be undertaken in consultation with the EPA and Council. To that end, this email invites the EPA to raise any questions or concerns regarding this project from an environmental management aspect.

The site inspection will be completed over the period 3-6 May 2016 therefore it would be

appreciated if there are any concerns, areas of focus etc, they are raised before this date.

I can be contacted at the details listed below to discuss further.

Kind regards

**Megan McLachlan**  
**Principal Environmental Scientist**  
Environmental Resources Management Australia  
Level 15, 309 Kent Street, Sydney NSW 2000  
Locked Bag 3012, Australia Square NSW 1215

---

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### **Environmental Resources Management**

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