



# Canyon Mine

## Conditions of Approval Independent Environmental Audit

Whitehaven Coal Limited

April 2016

0335478 Final

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# Canyon Mine

## Conditions of Approval

### Independent

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Date:	22 April, 2016

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Whitehaven Coal Limited

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Environmental Resources Management Australia Pty Ltd Quality System

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## EXECUTIVE SUMMARY

*Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to perform an independent environmental audit of the Canyon Mine located 15km east of Boggabri, 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 (DP&E) Ministers' Conditions of Approval (MCoA) Development Consent number DA 8-1-2005, 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 DA 8-1-2005 (Modification 3) issued 3 September 2015;*
- Mining Leases 1464 and 1471;*
- Environment Protection Licence 10094;*
- Water Access Licence 29458; and*
- implementation of Management Plans developed as part of the Ministers Conditions of Approval.*

*This is the fourth independent audit period for the Canyon Mine site and covers the period September 2012 (the date the last independent environmental review was due for completion) to 23 March 2016 (date of the site visit completed as part of this audit).*

*Whitehaven Coal has established the control systems generally required for the stage of development i.e. rehabilitation. All staff interviewed demonstrated an understanding of requirements and a commitment to the application of the requisite management systems and plans.*

*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:*

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

Non conformances	Administrative Non - conformances	Observations	Not Verifiable
<i>Statutory Instruments</i>			
18 – low risk	10	9	4
2 – medium risk (3 duplicates)			
<i>Implementation of Plans</i>			
12 – low risk	2	6	3
(2 duplicates)		(1 duplicate)	
32	12	15	7

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

## ABBREVIATIONS AND GLOSSARY

Term	Description
AEMR	Annual Environmental Management Report
ANC	Administrative Non Compliance – audit finding
C	Compliant - audit finding
CCC	Community Consultation Committee
DP&E	Department of Planning and Environment (formerly Department of Planning & Infrastructure)
DP&I	Department of Planning and Infrastructure (now Department of Planning & Environment)
DPI (Water)	Department of Primary Industries (Water) formerly NSW Office of Water
DP (Resources and Energy)	Department of Industry (Resources and Energy)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities
EMS	Environment Management Strategy
EPA	Environment Protection Authority
EPL	Environment Protection Licence
EPBC	Environment Protection and Biodiversity Conservation Act 1999
ERM	Environmental Resources Management Australia Pty Ltd
IEA	Independent Environmental Audit
MCoA	Ministers Conditions of Approval
mAHD	metres Above Height Datum
ML	Mining Lease
MCoA	Ministers Conditions of Approval
MOP	Mining Operations Plan
NC	Non-compliant - audit finding
NOW	New South Wales Office of Water
NSC	Narrabri Shire Council
NT	Not triggered – audit finding
NV	Not Verified – audit finding
O	Observation – audit finding
RMP	Rehabilitation Monitoring Program
SDS	Safety Data Sheet
SWL	Standing Water Level

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to perform an independent environmental audit of the Canyon Mine located 15km east of Boggabri, 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 (DP&E) Ministers' Conditions of Approval (MCoA) Development Consent number DA 8-1-2005 (Modification 3), which requires completion of an independent audit every three years from the date of the approval, unless the Director General directs otherwise. The audit must:

- a) be conducted by a suitably qualified, experienced, and independent person, or team, whose appointment has been endorsed by the Secretary;*
- b) be consistent with ISO 19011:2002 – Guidelines for Quality and/or Environmental Systems Auditing, or equivalent updated versions of these guidelines;*
- c) assess the environmental performance of the development, and its effects on the surrounding environment;*
- d) assess whether the development is complying with the relevant standards, performance measures, and statutory requirements;*
- e) review the adequacy of the Applicant's Environmental Management Strategy and Environmental Monitoring Program; and*
- f) if necessary, recommend measures or actions to improve the environmental performance of the development, and/or the environmental management and monitoring systems.*

*Within 3 months of commissioning this audit, the Applicant shall submit a copy of the audit report to the Secretary, with a response to any of the recommendations contained in the audit report.*

This is the fourth independent audit to be undertaken at the Canyon Mine site and covers the period September 2012 (the scheduled date of the last independent environmental review) to 23 March 2016 (date of the site visit completed as part of this audit).



## 1.1

### OVERVIEW OF OPERATIONS

The Whitehaven Coal Mine (now known as Canyon Coal Mine (herein referred to as Canyon Mine) lies within the mining leases (MLs) 1464 and 1471. Canyon Mine is wholly owned and managed by Whitehaven Coal.

During operations Canyon Mine produced a low ash, high energy coal that was generally blended with coals from other sources to create semi-soft coking blends for domestic and export markets. Run of mine coal was crushed at Canyon Mine and transported by truck to the Whitehaven Coal Handling and Preparation Plant for processing, and loaded on to trains for transport to the Port of Newcastle.

Mining ceased in 2009 with rehabilitation of the site being undertaken since mine closure. The majority of the coal handling and processing infrastructure has now been removed with the areas rehabilitated with the exception of the former explosives magazine compound and hardstand area which is still in use as a storage area. A maintenance facility with equipment storage area and laydown area was constructed under Narrabri Council approval DA 31/2012.

DA 8-1-2005 MOD 3 was approved on the 3rd September 2015, to extend the expiry of the Consent beyond 7th September 2015.

### 1.1.1

#### *Description of Site Processes*

##### *Whitehaven Maintenance Facility*

Maintenance plant and equipment is stored at the Maintenance Facility for use by Whitehaven Coal staff and contractors from nearby operations including Tarrawonga and Rocglen mines.

An office and workshop has been constructed to the southwest of the original maintenance facility and is leased by Hitachi.

##### *Waste Management*

Wastes produced at the site include domestic and hydrocarbon wastes which are removed from site as required by contractors.

Sewage is treated and discharged on site to an irrigation area under a Notice of Local Determination issued by Narrabri Shire Council.

### *Rehabilitation*

Remaining rehabilitation activities required to meet criteria for lease relinquishment include the demolition of the remaining workshop structure and explosives magazine and, rehabilitation of hardstand areas and the former gravel production area.

There is also additional rehabilitation work required to supplement native vegetation tube stock plantings on the batters of the final void.

### *Water Management*

Water management at Canyon Mine is undertaken in accordance with the approved Water Management Plan. Since rehabilitation of the final void and removal of all coal handling infrastructure, and surrender of the site Environment Protection Licence (EPL), site water management is limited to water monitoring and managing sediment basins in accordance with the Water Management Plan.

## **1.2 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;
- assess 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 the adequacy of any approved strategy, plan, or program required under the abovementioned consents/approvals; and
- recommend measures or actions to improve the environmental performance of the now closed and rehabilitated Canyon Mine, and/or any strategy/plan/program required under these consents/approvals.

## **1.3 AUDIT SCOPE**

The scope of works in order to complete the Audit includes the following:

- the audit to be carried out 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 Schedule 2 Condition 2 (as it relates to the current activities at the Canyon Mine) which included;
  - document review of compliance against the MCoA;
  - a site inspection to assess compliance against field based MCoA;
  - review of supporting plans developed as part of the Consent Conditions and assessment of their adequacy towards effective environmental performance;
  - draft report with results of compliance assessment; issued for comment to Whitehaven Coal; and
  - a final report issued for submission to the DP&E.

The audit covers the period September 2012 to 23 March 2016 and is limited to assessing the activities completed during the audit period.

#### 1.4 *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:

- DP&E, MCoA for DA 8-1-2005 issued 3 September 2015 (Modification 3);
- Mining Leases 1464 and 1471;
- Environment Protection Licence (EPL) 10094 (surrendered 11 September 2015);
- Water Access Licence 29458 (replaced 90BL249900 and 90BL252240. 90BL249901 cancelled in 2011 and 90BL252067 cancelled in 2009);
- implementation of Management Plans (rehabilitation phase) developed as Part of the MCoA including:
  - Closure Mining Operations Plan (issued 7 September 2015);
  - Environment Management Strategy (issued November 2015);
  - Air Quality Monitoring Program (issued November 2015);
  - Water Management Plan (issued November 2015);
  - Aboriginal and Cultural Heritage Management Plan (issued November 2015); and

- Rehabilitation Monitoring Program for Canyon Coal Mine (issued 20 October 2011).
- monitoring results and trends;
- comparison of monitoring results against regulatory limits and MCoA limits (where applicable);
- community complaints with review completed for any trends and identifying the source of an established trend;
- confirmation if any additional monitoring required for identified trends;
- regulatory actions including any letters, penalty notices and prosecutions; and
- review of previous audit report to verify close-out of actions.

## 1.5

### *LIMITATIONS OF THIS REPORT*

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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 1 February 2016 to 23 March 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 5 February 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 23 March 2016 at the site to confirm the audit objectives and scope for the site inspection. Attendees included:
  - Megan McLachlan (ERM Auditor);
  - Mark Branson (ERM Ecologist); and
  - Tony Dwyer (Whitehaven Coal Environment Manager).
- a site inspection was undertaken on 23 March 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 23 March 2016 to discuss initial findings and recommendations. Attendees included:
  - Megan McLachlan (ERM Auditor);
  - Mark Branson (ERM Ecologist); and
  - Tony Dwyer (Whitehaven Coal Environment Manager).
- preparation of draft audit report (this report);
- response and action plan developed by Whitehaven Coal (refer *Annex L*); and
- preparation of final audit report.

## 2.2

### *AGENCY AND COMMUNITY CONSULTATION*

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

- Department of Planning and Environment (DP&E) (formerly Department of Planning and Infrastructure);
- Environment Protection Authority(EPA);
- Narrabri Shire Council (NSC);
- NSW Department of Industry (DI) (Resource and Energy ); and
- NSW Department of Primary Industries (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. At the time of reporting responses had been received from DP&E, EPA and NSC..

No response had been obtained from DI (Resource and Energy) and DPI (Water) by the time that this report was completed.

The Community Consultation Committee (CCC) for Canyon Mine is now included with the Vickery Project, which last met in June 2015, with the next meeting scheduled for June 2016. Therefore, the CCC was not consulted prior to this audit. It is recommended that the final audit report is tabled at the next Vickery Project CCC.

### 2.2.1

#### *Summary of Consultation*

The Terms of Reference were submitted to the DP&E prior to the site inspection on 9 February 2016 to obtain feedback and draw attention to any key issues, within the agreed scope of the audit.

The DP& E indicated focus was required on the following key issues:

- surface dirty water management and discharges;
- clean water diversion management;
- use of existing infrastructure; and
- rehabilitation condition, performance and maintenance requirements.

Audits were not completed for the audits due in September 2012 and 2009. DP&E were contacted via telephone on 25 February 2016 to confirm the audit period would commence on September 2012 and not from the date of the last audit where a report could be provided i.e. 2006.

There were no other issues or aspects raised by other stakeholders that were consulted as part of the audit.

## 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 DP&E 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 not completed for period September 2009 or 2012. An audit was last completed for the audit period September 2003 to September 2006 with the report issued in March 2007.

A summary of the previous audit findings and their status is summarised below in *Table 3.1*.

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

Assessment Requirement	Finding	Response
<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.	<p>Comment on the success of the rehabilitation is not provided in the monitoring reports.</p> <p>It was also recommended that WCM demonstrate that the independent rehabilitation report (issued by Geoff Cunningham Natural Resource Consultants) weed control recommendations are met through documenting weed management records, including which weeds are identified on the property, control/eradication work undertaken, and whether the work is successful and addresses the GCNRC recommendations.</p>	<p>The AEMR reports on rehabilitation progress.</p> <p>Monthly site inspection reports note weed infestations that require control.</p>
The Applicant shall ensure that the noise generated by development does not exceed the noise impact assessment criteria presented in Table 7 at any residence on, or on more than 25 percent of, any privately owned and	Night time monitoring was completed on one of the two sampling rounds. Night time monitoring to continue in accordance with et MCoA.	No further action was recommended in the audit report.
Except as may be expressly provided by a DEC Licence, the Applicant shall ensure that the discharges from any discharge point comply with the limits in Table 11.	Total suspended solids (TSS) were elevated, however, sampling upstream in both cases, indicated a higher level of TSS coming onto the site than leaving the site.	No further action was recommended in the audit report.

Assessment Requirement	Finding	Response
The Applicant shall implement a range of erosion and sediment controls at the site, in general accordance with the requirements of the Department of Housing's Managing Urban Stormwater: Soils and Construction manual, to minimise erosion and the discharge of sediment from the site.	An audit of the erosion and sediment controls against the manual was not undertaken as part of this audit. It was recommended that regular documented assessment of works performed by Soil Services against relevant requirements.	An environment inspection is completed monthly with a checklist completed which includes a section of water management with checks for erosion, drainage structure integrity, sediment capacity in dams.
The Applicant shall: (a) monitor the amount of waste generated by the development; (b) investigate ways to minimise waste generated by the development; (c) implement reasonable and feasible measures to minimise, reuse and/or recycle waste generated by the development; and (d) report on waste management and minimisation in the AEMR, to the satisfaction of the Secretary.	Waste management is reported in the AEMR. A waste management plan is not in place to demonstrate that waste generated and disposed to landfill is minimised.	A waste management plan is not currently in place however waste is currently limited to domestic, sewage and hydrocarbons produced by the site tenant in the workshop area.  Waste management and minimisation is not currently reported in the AEMR.
Within 6 months of the consent, the Applicant shall review (and implement any approved changes) the Bushfire Management Plan for the site, to the satisfaction of GSC and NSC.	Evidence that the Bushfire Management Plan was reviewed by GSC and NSC was not available during the audit. Evidence was required that the plan was reviewed by GSC and NSC and that the plan meets their requirements.	A Bushfire Management Plan for the site was last updated 2000. Evidence of liaison/acceptance by GSC/NSC has not been provided.

## 3.2

### COMPLAINTS SUMMARY

No complaints were received during the audit period. The last recorded complaint was received in 2007. Last coal was produced from the Canyon Mine in July 2009.

### 3.3 ENVIRONMENTAL MONITORING PERFORMANCE

#### 3.3.1 Noise

The EPL was varied in November 2011 and noise monitoring was removed as a requirement, and is therefore no longer undertaken. The EPL has since been surrendered.

#### 3.3.2 Blasting

No blasting was completed during the audit period.

A letter was provided to Whitehaven Coal by DP&E on 21 January 2016 (ref DA-08-1-2005) confirming a Blast Monitoring Plan is no longer required.

#### 3.3.3 Air

Air quality monitoring was reduced in 2015 to four locations: *WD-1 Whitehaven Residence*, *WD-2 Merton*, *WD-12 Whitehaven Property* and *WD-13b Wilga*.

The previous monitoring program included additional locations at *D5 Wilga*, *D6 Bungalow*, *D7 Wilga*, *D8 Gundawarra*, *D10 Merton*, *D11 Merton*, and *D14 Bungalow*. The two Bungalow locations have not been accessed since March 2002.

A review of the monitoring results for the audit period indicates *WD-12* has exceeded the criteria of 4g/m<sup>2</sup>/month annual average in 2015 with a result of 30.9g/m<sup>2</sup>/month recorded in December 2015. The ash content for this gauge for the December 2015 monitoring event is 90% confirming the insoluble solids consists primarily of inorganic matter (mineral content such as dirt, sand etc). The dominant wind directions for this period are from the east, northeast and north which indicates the source of dust is potentially from the site. 51.8mm of rain was received over 12 rain days in December 2015 which is comparative with the annual average at BOM station, Gunnedah resource Centre (055024), for period 1948-2016 of 60.6mm rain received over 6.5 rain days).

Review of previous meteorological monitoring results with comparison to the results at *WD-12* should be completed and compared with a review of activities on the site for the corresponding.

*Surface Water*

There was no wet weather or other discharge from the site during the audit period. The water management plan does not include how flow volumes would be calculated in the event of a wet weather discharge.

A flow event was sampled at the ambient monitoring points in January 2013 however no discharge occurred from site. All results were within limits with exception of a slightly low pH level recorded at WW12 (downstream monitoring location) and TSS above limits at WW11 (upstream monitoring location).

Review of the on-site surface water sampling results for the upper and lower voids indicate voids have a steadily increasing Electrical Conductivity (lower void increasing from 496 $\mu$ S/cm to 2430 $\mu$ S/cm and upper void increasing from 315 $\mu$ S/cm to 846 $\mu$ S/cm) between 2012 and 2016. Rainfall in 2014 was below average and rainfall in 2015 was above average with a corresponding rise then fall in conductivity not observed in the void lakes. The rising trends may be indicative of some groundwater inflow into the voids which has been identified during monitoring at the closest groundwater monitoring bore to the voids (P3) with Electrical Conductivity of between 6,790 $\mu$ S/cm to 9,875 $\mu$ S/cm.

The pH for both voids is consistent and remains slightly alkaline and above the discharge criteria. The void water is contained on site.

*Groundwater*

Groundwater is monitored at nine locations on a quarterly basis with recorded standing water levels (SWLs) generally stable and comparable to initial SWLs. GW-8 and GW-9 monitoring locations showed variability in SWL likely caused by the local presence of operating windmills.

A review of water quality indicates total metals and major anions and cations are stable. GW11 indicates an increasing conductivity trend with only calcium concentration increasing slightly over the same period with all other monitored parameters consistent. Additional potential sources of this increase could include:

- leaching of calcium carbonate from fill material/local geological variations;
- phosphate from agricultural sources or sewage;
- addition of other organic compounds such as hydrocarbons.

An expanded suite of analytes for the next monitoring round in *GW11* should include other potential sources of salinity/conductivity such as phosphates, alkalinity, bicarbonate as alkalinity, carbonate, TRH, additional metals and metalloids such as boron.

*GW11* is located to the northeast of the site and east of the current contractor work area and historical Whitehaven Coal maintenance facility. The groundwater data does not include elevation (SWL at mAHD) therefore groundwater flow direction cannot be accurately determined. If the assumption that the groundwater is parallel to ground level is adopted then groundwater flow is to the north however, this needs to be confirmed by converting depth to groundwater to mAHD.

Rainfall impacts on conductivity are considered unlikely as it would be expected other groundwater bores would display a similar trend.

### 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
- *Annex B* - Mining Leases 1464 and 1471
- *Annex C* - EPL 10094
- *Annex D* - Water Access Licence 29458

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 DA 8-1-2005</i>				
2.11	The Applicant shall ensure that all plant and equipment used at the site, or to transport material off-site, are:  (a) maintained in a proper and efficient condition; and  (b) operated in a proper and efficient manner.	Groundwater pumps and associated infrastructure is not currently maintained.	NC	Consider completing maintenance on the groundwater pumps or decommission if no longer required.  Consider updating the Whitehaven Coal monthly environmental inspection checklists to reflect checks on the weather station which can be completed by the Environmental Advisor to ensure ongoing operation.
3.1	The Applicant shall ensure that dust emissions generated by the development do not cause additional exceedances of the air quality criteria listed in Tables 1, 2 and 3 at any residence on, or on more than 25 percent of, any privately-owned land.	WD12 has exceeded the criteria of 4g/m2/month annual average in 2015 with a result of 30.9g/m2/month recorded in December 2015. The ash content for this gauge for the December 2015 monitoring event is 90% confirming the insoluble solids consists primarily of inorganic matter (mineral content such as dirt, sand etc). The dominant wind directions for this period are from the east, northeast and north indicating dust is potentially from the site. 51.8mm of rain was received over 12 rain days in December 2015 which is comparative with the annual average at BOM station, Gunnedah resource Centre (055024), for period 1948-2016 of 60.6mm rain received over 6.5 rain days).	NC	Review of previous meteorological monitoring results with comparison to the results at WD-12 should be completed with a review of activities on the site for the corresponding period.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
3.3	The Applicant shall carry out the development in a way that prevents and/or minimises the air pollution generated by the development.	The majority of the site was sealed with roads the primary exposed surface. The gravel pit area requires further stabilisation (pending Vickery Project )	NC	Consider stabilising the gravel pit area until the Vickery Project commences and permanent soil stabilisation works are completed.
3.9	<p>The Applicant:</p> <p>(a) shall carry out the development at the site between 7 am to 10 pm Monday to Saturday, excluding public holidays;</p> <p>(b) may undertake overburden and interburden removal and emplacement operations below natural ground level, and the dust suppression activities associated with these operations, between 7am and midnight, Monday to Saturday and midnight and 2 am, Tuesday to Saturday;</p> <p>(c) may undertake highwall mining operations at any time, excluding public holidays; and</p> <p>(d) shall only transport coal or gravel on public roads between 7 am and 10pm Monday to Saturday, excluding public holidays.</p>	<p>No coal or gravel was removed from, or transported to the site during the audit period.</p> <p>Gravel will potentially be transported to the site once the Vickery Project commences.</p>	O	Ensure the transport management plan for the Vickery Project outlines the requirements of this consent condition for any material transported to the Canyon Mine prior to works commencing.
3.20	<p>The Applicant shall:</p> <p>(a) prepare a detailed site water balance for all the development site;</p> <p>(b) measure water use on site;</p> <p>(c) review the site water balance for the development annually; and</p> <p>(d) report the results of this review in the AEMR, to the satisfaction of the Secretary.</p>	Water is not currently used on site with exception of potable water in amenities at the Hitachi lease area. The water use for this site is not currently recorded or reported. In addition, water extracted from the two groundwater pump locations is not currently recorded.	NC	<p>Although the lease holder is the current user of water on site, the condition is still relevant and water use should be recorded and reported.</p> <p>In addition, the volume of water extracted from the groundwater wells should be recorded and reported in the AEMR (including nil extraction/water use).</p>

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
3.21	The Applicant shall implement a range of erosion and sediment controls at the site, in general accordance with the requirements of the Department of Housing's Managing Urban Stormwater: Soils and Construction manual, to minimise erosion and the discharge of sediment from the site.	During the site inspection it was noted most of the site is now stabilised with the exception of parts of the void batters and the gravel pit area. Both of these areas are awaiting the Vickery Project to commence.	NC	Consider either stabilising or installing additional controls to prevent erosion and sediment run from the void batters and gravel pit area until the Vickery Project commences and permanent stabilisation works are completed.
3.22	The Applicant shall monitor: (a) the volume and quality of water discharged from the site; and (b) report the results of this monitoring in the AEMR.	There was no wet weather or other discharge from the site during the audit period.  The water management plan does not include how flow volumes would be calculated in the event of a wet weather discharge.	O	Consider including the requirement to report volume discharged from site and the method for estimating /calculating the volume of any discharges from site into the Water Management Plan.
3.23	The Applicant shall regularly monitor: (a) groundwater levels and quality at bores and piezometers which are representative of the areas that are likely to be impacted within and around the development; (b) impacts of groundwater movement from the final void of the Canyon extension on the adjacent groundwater and surface water resources; and (c) post-mining water table levels and water quality.	A review of water quality indicates total metals and major anions and cations are stable. GW11 indicates an increasing conductivity trend with only calcium concentration increasing slightly over the same period with all other monitored parameters consistent. Additional potential sources of this increase could include: <ul style="list-style-type: none"> <li>leaching of calcium carbonate from fill material/local geological variations;</li> <li>phosphate from agricultural sources or sewage;</li> <li>addition of other organic compounds such as hydrocarbons.</li> </ul> GW11 is located to the northeast of the site and east of the current contractor work area and historical Whitehaven Coal maintenance facility.	NC	Consider determining groundwater flow directions by converting depth to groundwater to mAHD to confirm correct flow direction. Consider expanding testing of analytes next monitoring round in GW11 to include other potential sources of salinity/conductivity such as phosphates, alkalinity, bicarbonate as alkalinity, carbonate, TRH, additional metals/metalloids such as boron.



Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
		<p>The groundwater data does not include elevation (SWL at mAHD) therefore groundwater flow direction cannot be accurately determined. If the assumption that the groundwater is parallel to ground level is adopted then groundwater flow is to the north.</p> <p>Rainfall impacts on conductivity are considered unlikely as it would be expected other groundwater bores would be impacted.</p>		
3.24A	Prior to 30 November 2008, the Applicant shall review, and subsequently implement any revision of the mine's Site Water Management Plan required by condition 24, in consultation with DPI Water and EPA and to the satisfaction of the Secretary.	The Water Management Plan was revised in 2015 – no evidence available that this was completed in consultation with DPI (Water) or EPA and submitted to the DP&E.	NC O	<p>NC - Consider submitting the revised plan to DPI (Water), EPA and DP&amp;E requesting comment.</p> <p>O - Consider including evidence of any consultation and liaison into the Annex of the plan.</p>
3.25	<p>At least 6 months before the cessation of mining, the Applicant shall prepare and implement a final Void Management Plan for the site, in consultation with the DPI, and to the satisfaction of the Secretary. This plan must:</p> <p>(a) investigate options for the future use of the final void;</p> <p>(b) assess the potential interactions between the final void and the adjacent groundwater and surface water resources; and</p> <p>(c) describe what actions and measures would be implemented to:</p> <ul style="list-style-type: none"> <li>• minimise any potential adverse impacts with the final void; and</li> </ul>	Monthly inspections are completed by an Environment Advisor however the checklist currently used does not specifically include a formal check of the void area.	O	Consider revising the monthly inspection checklists to include checks on void condition such as batter stability.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
3.29	<ul style="list-style-type: none"> <li>manage and monitor the potential impacts of the final void over time.</li> </ul> <p>The Applicant shall:</p> <p>(a) review the performance of the offset strategy and Flora and Fauna Management Plan annually; and</p> <p>(b) report on this review in the AEMR; to the satisfaction of the Secretary.</p>	<p>The Flora and Fauna Management Plan have been replaced by the Rehabilitation Monitoring Program, and the approved Biodiversity Offset Management Plan.</p> <p>Annual rehabilitation monitoring of the Canyon Mine is detailed in <i>Appendix 1</i> of the AEMR. Performance of the Biodiversity Offset Management Plan is reported separately in an annual report.</p>	ANC	Consider including the Biodiversity Offset Annual Report as an Annex in the AEMR for the Canyon Mine to fulfil the requirement to review performance of the offset strategy.
3.30	<p>At least 6 months prior to the cessation of mining, unless the Secretary directs otherwise, the Applicant shall commission, and pay the full cost of, an Independent Audit of the offset strategy. This audit shall:</p> <p>(a) be conducted by a suitably qualified, experienced, and independent person whose appointment has been approved by the Secretary;</p> <p>(b) assess the performance of the offset strategy and Flora and Fauna Management Plan; and if necessary</p> <p>(c) recommend actions or measures to improve the performance of the offset strategy.</p>	An audit of the offset strategy has not been completed.	NC	Consider completing an audit of the offset strategy to fulfil this condition.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
3.33	<p>The Applicant shall ensure:</p> <p>(a) coal from the mine is only transported along Hoads Lane, Blue Vale Road, and the Kamilaroi Highway to the Whitehaven Siding coal handling and preparation plant, unless an alternate route is approved by the Secretary;</p> <p>(b) trucks travelling to and from the mine do not exceed 40 kilometres per hour when the school bus is operating on Hoads Lane;</p> <p>(c) appropriate warning signs are in place advising of the turning movements of heavy vehicles at the intersection of the mine access road and Hoads Lane, to the satisfaction of NSC;</p> <p>(d) an investigation of road safety and traffic management is undertaken for the Kamilaroi Highway and junctions with Blue Vale and Whitehaven Siding Access Roads, within 6 months of this consent, to the satisfaction of the Roads and Traffic Authority; and</p> <p>(d) spillage from coal haulage vehicles is minimised and that sediment-laden runoff from roads is effectively managed to prevent harm to the environment.</p>	<p>IEA Report issued 2007 indicates an investigation on road safety was prepared and with the RTA for approval. Evidence of review completion and acceptance is not available.</p> <p>Contractor inductions do not currently outline requirement for trucks to travel on travelling to and from the mine do not exceed 40 kilometres per hour when the school bus is operating on Hoads Lane. Trucks may travel to and from the site from the Hitachi operations area.</p>	NC	<p>Consider informing Hitachi of the condition requiring trucks travelling in Hoads Lane to travel at no more than 40km/h when the school bus is operating on Hoads Lane.</p> <p>As the site is no longer operational, no further actions are recommended for the acceptance of the Road Safety Plan by the RTA (now Roads and Maritime Services)</p>
3.36	<p>The Applicant shall:</p> <p>(a) keep records of the:</p> <ul style="list-style-type: none"> <li>• amount of gravel transported from the site each year;</li> <li>• amount of coal transported from the site each year;</li> <li>• destination of coal and gravel transported from the site each year; and</li> <li>• number of truck movements generated by the development; and</li> </ul> <p>(b) include these records in the AEMR.</p>	<p>Gravel was not transported on/off site during audit period.</p> <p>The Vickery Project may result in gravel being moved to the site.</p>	O	<p>Ensure the transport management plan for the Vickery Project outlines the requirements of this consent condition for any material transported to the Canyon Mine prior to works commencing.</p>

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
3.39	The Applicant shall: (a) monitor the greenhouse gas emissions generated by the development; (b) investigate ways to reduce greenhouse gas emissions generated by the development; and (c) report on greenhouse gas monitoring and abatement measures in the AEMR, to the satisfaction of the Secretary.	Greenhouse gas emissions are limited to fuel usage of equipment on site such as the generator for the communications building and the Hitachi work area.  The fuel usage /greenhouse gas emissions is not currently recorded or reported in the AEMRs.	ANC	Although emissions are limited to fuel usage primarily by the site tenant, consider including fuel usage (including contractor) in the AEMR for compliance with this condition.
3.40	The Applicant shall: (a) monitor the amount of waste generated by the development; (b) investigate ways to minimise waste generated by the development; (c) implement reasonable and feasible measures to minimise, reuse and/or recycle waste generated by the development; and (d) report on waste management and minimisation in the AEMR, to the satisfaction of the Secretary	Waste is not currently reported in the AEMRs.  Waste is limited to domestic, sewage and hydrocarbon wastes produced by the Hitachi contractor work area. As this waste is not generated by the development it does not require monitoring and reporting.  During the site inspection there were some wastes noted on the Canyon Mine site such as tyres next to the gravel borrow pit area and an area of waste tanks, drums and equipment near the northwest boundary.	NC	Consider including a description of waste remaining on the mine site and their disposal outcome into the AEMR. If no wastes are generated during the reporting year then consider including a description to that effect to satisfy this condition.
3.41	The Applicant shall: (a) ensure that the development 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 on-site during the development.	It is noted the Closure Mining Operations Plan indicates water sources will be the storage dams on site however these were noted to be effectively dry during the site inspection. The Plan also indicates fuel loads will be monitored and fuel load reduction (back burning, slashing or controlled grazing) completed if required. Monitoring of fuel loads is not currently included in the monthly environment inspection checklist.	O	Consider including checks for fuel loads and adequacy of fire breaks into monthly environment checklist. In addition, identify potential water sources that could be accessed in the event of a fire and update the MOP and/or the Bushfire Management Plan as deemed appropriate.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
3.42	Within 6 months of the consent, the Applicant shall review (and implement any approved changes) the Bushfire Management Plan for the site, to the satisfaction of GSC and NSC.	The audit completed in 2006 did not close this condition with evidence of liaison not provided. A Bushfire Management Plan from 2000 was available for review.	ANC	As the Bushfire Management Plan has not been updated since 2000, consider updating and liaising with GSC and NSC during the update.
4.1	If the results of the air quality and/or noise monitoring required in Schedule 3 identify that the air pollution and/or noise generated by the development is greater than any of the air quality and/or noise criteria in Schedule 3, then the Applicant shall notify the Secretary and the affected landowners and/or existing or future tenants (including tenants of mine-owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the development is complying with the air quality and/or noise criteria in Schedule 3.	The exceedance at D12 has not been reported to DP&E or the relevant landholder as it is considered that the exceedance is not mine related and therefore is to be reported in the AEMR according to the updated Air Quality Monitoring Program. This reporting protocol has changed from the previous Program.	NC	As the updated Air Quality Monitoring Program has not been submitted to the DP&E consider informing the DP&E and potentially impacted residents until the updated plan is accepted by DP&E.  Refer also to MCoA 3.1 finding.
5.2	Within 3 months of the completion of the Independent Environmental Audit (see condition 6 below), the Applicant shall review, and if necessary revise, the Environmental Management Strategy to the satisfaction of the Secretary.	Issue date of the EMS is 11/2015. Revision history indicates last revision prior to current version is 2005. Reviews should have been developed for audit completed in 2006. 2009 and 2012 audits not completed.	O	Consider including line items in the revision history table to record any reviews completed of the Environment Management Strategy.
5.6	By the end of September 2006, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development.	Audits for 2009 and 2012 were not completed as anecdotally the Site was advised that audits were not required as the Site was no longer actively extracting ROM coal. Evidence of this advice is unable to be provided and in lieu of this, it is considered by the DP&E to be unlikely this exemption would have been issued.	NC	No further actions are required.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
5.8	<p>The Applicant shall ensure that there is a Community Consultative Committee to oversee the environmental performance of the development. This committee shall:</p> <p>(a) be comprised of:</p> <ul style="list-style-type: none"> <li>• 2 representatives from the Applicant, including the person responsible for environmental management at the mine;</li> <li>• 1 representative each from GSC and NSC; and</li> </ul> <p>4 representatives from the local community, whose appointment has been approved by the Secretary in consultation with the GSC and NSC;</p> <p>(b) be chaired by the representative from either GSC or NSC, as agreed by the Councils;</p> <p>(c) meet at least four times a year, or as determined by the Secretary; and</p> <p>(d) review and provide advice on the environmental performance of the development, including any construction or environmental management plans, monitoring results, audit reports, or complaints.</p>	<p>DP&amp;E acknowledged in email that the CCC for Canyon Mine is to be dissolved with the terms of reference to be transferred to the Vickery CCC.</p> <p>It was requested that this be raised in the Vickery CCC with formal notification of the outcome of this communicated to the DP&amp;E so it can be acted upon accordingly.</p> <p>Minutes of the CCC have not been issued to DP&amp;E acknowledging formal transfer to Vickery CCC.</p>	ANC	Consider forwarding the minutes of the Vickery Project CCC to the DP&E as requested.
5.9	<p>The Applicant shall, at its own expense:</p> <p>(a) ensure that 2 of its representatives attend the committee's meetings;</p> <p>(b) provide the committee with regular information on the environmental performance and management of the development;</p> <p>(c) provide meeting facilities for the committee;</p>	<p>Minutes provided and available on the website for the Vickery site. Minutes for Canyon not on website. Evidence of minutes made available to GSC and NSC within 14 days not available.</p>	ANC	Consider uploading Canyon Mine CCC minutes to the website and send link to GSC and NSC. Ensure further CCC minutes are sent via email to provide evidence of submission within required timeframes.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
	<p>(d) arrange site inspections for the committee, if necessary;</p> <p>(e) take minutes of the committee's meetings;</p> <p>(f) make these minutes available at GSC and NSC within 14 days of the committee meeting, or as agreed to by the committee;</p> <p>(g) respond to any advice or recommendations the committee may have in relation to the environmental management or performance of the development; and</p> <p>(h) forward a copy of the minutes of each committee meeting, and any responses to the committee's recommendations to the Secretary within a month of the committee meeting.</p>			
5.10	<p>Within 1 month of the approval of any management plan/strategy or monitoring program required under this consent (or any subsequent revision of these management plans/strategies or monitoring programs), the completion of the independent audits required under this consent (see conditions 30 of Schedule 3 and Condition 6 of Schedule 5), or the completion of the AEMR (see condition 5 of schedule 5), the Applicant shall:</p> <p>(a) provide a copy of the approved document/s to NSC, GSC, relevant agencies and the CCC; and</p> <p>(b) ensure that a copy of the relevant documents is made publicly available at NSC and GSC offices, to the satisfaction of the Secretary.</p>	<p>AEMRs not include on Canyon Mine website.</p> <p>AEMRs sent to DRE. AEMR not sent to NSC, GSC, CCC or other agencies (EPA, DPI (Water)).</p>	NC	Consider loading AEMRs to Canyon Mine website and send link to NSC, GSC, EPA and DPI (Water). Also table AEMRs at the next CCC meeting for Vickery Project scheduled June 2016.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
5.11	During the life of the development, the Applicant shall;  (a) make the results of the monitoring required under this consent publicly available at NSC and GSC offices; and  (b) update these results on a regular basis, to the satisfaction of the Secretary.	Pollution monitoring data that is required to be collected by a licence condition must be published by the licensee in accordance with section 66(6) of the Protection of the Environment Operations Act (1997). This obligation does not apply to any monitoring conducted prior to 31 March 2012. The EPL monitoring requirements aligned with the MCoA. As the EPL has now been surrendered, this requirement is no longer valid. Usually this would ensure monitoring results are publically available.	ANC	Consider collating all monitoring results and sending to NSC and GSC or uploading to website and sending link to NSC and GSC to comply with this condition.
5.12	Within 3 months of:  (a) the submission of an AEMR under condition 5 above;  (b) the submission of an audit under condition 6 above; or  (c) any approved modification to the conditions of the consent (unless the conditions require otherwise), the Applicant shall review, and if necessary revise, the strategies, plans and programs required under this consent to the satisfaction of the Secretary. Where this review leads to revisions of any plan then within four weeks of the review the revised document must be submitted to the Secretary for approval.	Modifications of consent dates: 22 August 2007, 19 August 2008 and 3 September 2015  Last audit submitted 2006.  Revision records for Plans indicate initial drafting in 2005 or 2007 with updates in November 2015 reflecting 2015 Conditions of Consent modification. Evidence of reviews for all other events unable to be provided.	O	Consider including line items in the revision history table in all strategies and plans to record any reviews completed.



Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
<i>Mining Leases 1464 &amp; 1471</i>				
2.3	A Plan must be lodged with the Director-General:- (a) prior to the commencement of operations; (b) subsequently as appropriate prior to the expiry of any current Plan; and (c) in accordance with any direction issued by the Director-General.	Closure Mining Operations Plan covers period 7 September 2015 to 6 September 2022.  The previous MOP expired 30 June 2008 therefore the current MOP was submitted to DRE after expiry of previous MOP which is required by this Condition	ANC	No further actions required
3.2	The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:- (a) the accepted Mining Operations Plan; (b) development consent requirements and conditions; (c) Environment Protection Authority and Department of Land and Water Conservation licences and approvals; (d) any other statutory environmental requirements; (e) details of any variations to environmental approvals applicable to the lease area; and (f) where relevant, progress towards final rehabilitation objectives.	a) review of the AEMRs for the reporting period indicate performance against the latest MOP has not been included  b) performance against consent requirements and conditions not completed  c) performance against EPL and bore licences not completed  d) not completed  e) not completed  f) rehabilitation progress discussed but context around progress towards final rehabilitation objectives not reported.	NC	Consider including all requirements for reporting into the AEMRs.
24	The lease holder shall take all precautions against causing outbreak of fire on the subject area.	A Bushfire Management Plan has been developed but is out of date as the site staging has changed from operations to rehabilitation.	ANC	Consider updating the Bushfire Management Plan to reflect current stage of works (rehabilitation).

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
44	<p>The lease holder shall during each year of the term of the authority:</p> <p>(a) ensure that at least 16 workers are efficiently employed on the subject area; or</p> <p>(b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than Two Hundred &amp; Eighty Thousand Dollars (\$280,000).</p> <p>The Minister may, at any time after a period of two (2) years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, increase or decrease the amount of expenditure or labour required.</p>	As the site is no longer operational, no permanent staff are located on site. The expenditure for the Canyon Mine site was not available for review.	NV	Provision of expenditure from accounts is required to confirm if this condition is met. As the site is no longer operational, considered submitting an application to decrease or remove this requirement from the Mining Leases.
51	(a) The lease holder shall, upon request by the Director General, lodge with the Minister the sum of Ten Thousand Dollars (\$10,000) (ML1471) / Seventy Seven Thousand Five Hundred Dollars (\$77,500) (ML1464) and as security for the fulfilment of the obligations of the lease holder under this authority.	Evidence that this sum was provided is not available	NV	Consider obtaining evidence from the Director General if no records within Whitehaven Coal.
<i>EPL10094</i>				
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.	Unbundled waste oil stored in an old drum was noted outside the Whitehaven Coal historical maintenance shed during the site inspection.	NC	Consider the removal of the waste oil drum located outside the Whitehaven Coal historical maintenance shed or store within a bund.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
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>Monthly environmental checklists lists checks for the weather station but not currently completed.</p> <p>Pumps and associated infrastructure is not maintained.</p>	<p>NC</p> <p>Duplicated with MCoA 2.11</p>	<p>Consider completing maintenance on the groundwater pumps or decommission if no longer required.</p> <p>Consider updating the Whitehaven Coal monthly environmental inspection checklists to reflect checks on the weather station which can be completed by the Environment Advisor to ensure ongoing operation.</p>
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>	No plans currently outline record keeping requirements	ANC	Consider including record keeping requirements (which includes retention times) in the relevant monitoring plans such as the Air Quality and Water Management Plan.
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>(a) the date(s) on which the sample was taken;</p> <p>(b) the time(s) at which the sample was collected;</p> <p>(c) the point at which the sample was taken; and</p> <p>(d) the name of the person who collected the sample.</p>	Review of results indicates all requirements met with the exception of the name of the person collecting the sample.	ANC	Although monitoring under the EPL is no longer required, consider including the name of the person collecting the sample onto the excel databases (best practise).

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
<i>Water Access Licence 29458</i>				
MW0 716-00001	<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>Annual water allocation is 50ML</p> <p>Monthly site inspections include provision to record pump readings – these have not been recorded in the site inspection reports reviewed.</p> <p>AEMRs do not report on water extraction volumes.</p> <p>Extraction volumes are anecdotally not currently recorded.</p>	NV	Consider the recording of the pump readings in the monthly reports to record extraction volumes for the water year to ensure volumes are below the maximum allocation.
MW0 635-00001	<p>The licence holder must record the following in the logbook:</p> <p>(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.</p>	A logbook is not maintained for the pumps.	NC	Consider developing a logbook for the pumps to record extraction volumes.
MW0 633-00001	<p>The licence holder must record the following in the logbook:</p> <p>(i) each date and period of time during which water is taken under this licence;</p> <p>(ii) the volume of water taken on that date;</p> <p>(iii) the water supply work approval number of the water supply work used to take the water on that date;</p> <p>(iv) the purpose or purposes for which the water taken on that date.</p>	A logbook is not currently maintained for the pumps.	<p>NC</p> <p>Duplicated with</p> <p>MW0635-00001 and</p> <p>MW0632-00001</p>	Consider developing a logbook for the pumps which includes the required information.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
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.	A data logger is not installed in the wells. A logbook is not currently maintained for the pumps.	NC Duplicated with MW0635-00001 and MW0633-00001	Consider developing a logbook for the pumps.
MW0 637-00001	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.	The Water Management Plan does not currently outline record retention requirements.	O	Consider including record keeping requirement for the water access licence into the Water Management Plan
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.  Note: a notification does not authorise a breach, or continuing breach, of a 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.
MW0 717-00001	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:  (A) 25 % of the access licence share component for access licences with share components expressed as ML/year; or  (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.	As volumes are not currently recorded, assessment of compliance with this condition is unable to be assessed.	NV	To be completed once volumes are recorded

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* - Closure Mining Operations Plan
- *Annex F* -Environment Management Strategy
- *Annex G* - Air Quality Monitoring Program
- *Annex H* - Water Management Plan
- *Annex I* - Aboriginal and Cultural Heritage Management Plan
- *Annex J* - Rehabilitation Monitoring Program

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 3.3 Summary of Plan Implementation Review Findings**

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
<i>Closure Mining Operations Plan</i>				
3.2.1	In the event that any remaining infrastructure is decommissioned and removed prior to lease relinquishment air quality impacts will be managed by: <ul style="list-style-type: none"> <li>• Utilising water carts to suppress dust where required during any demolition or earthworks activities (such as ripping hardstand areas); and</li> <li>• Establishing cover crops as soon as practicable upon completion of surface preparation.</li> </ul>	The auditor was advised by the Environment Manager the condition is met however, mitigation strategies and actions to be taken in the case on non-compliances being recorded are not currently included in the plan.	O	Consider adding into the Air Quality Monitoring Program mitigants for managing dust and actions to be taken in the case of exceedances of the air quality parameters.
3.2.3	Erosion and sedimentation impacts are managed in accordance with the Erosion and Sediment Control Plan, included in the Water Management Plan.	Audit inspection indicates swales, drainage lines and retention basins are installed. During the site inspection it was noted most of the site is now stabilised with the exception of parts of the void batters and the gravel pit area. Both of these areas are awaiting the Vickery Project to commence.	NC Duplicated with MCoA 3.21	Consider either stabilising or installing additional controls to prevent erosion and sediment run from the void batters and gravel pit area until the Vickery Project commences and permanent stabilisation works are completed.
3.2.6	Weed management practices to be adopted during the MOP term include: <ul style="list-style-type: none"> <li>• Ongoing visual assessments and annual weed monitoring;</li> <li>• Application of herbicides where required to control weed infestations;</li> <li>• Recording and controlling any occurrences of Class 4 noxious weeds in accordance with the Narrabri Shire Council management plan;</li> <li>• Restriction of grazing and vehicular traffic to minimise spread of weeds; and</li> <li>• Liaison with the North West Local Land Services (LLS) and adjacent landowners.</li> </ul>	The rehabilitation monitoring reports reviewed all highlight the presence of both Prickly Pear and African Boxthorn.  Prickly Pear was noted during the site inspection which is a Class 4 weed. This was not noted in the monthly site inspection checklists recently completed.	NC	Consider the control of Prickly Pear and African Boxthorn (Class 4 weeds) on the site and record its removal.

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
3.2.6	<p>Controls in place to minimise the impact and potential for feral animal infestation include:</p> <ul style="list-style-type: none"> <li>• Ongoing visual observations of feral animal activity including inspections for all the nominated vertebrate pests will be conducted in conjunction with the biodiversity and post-mining rehabilitation monitoring program.</li> <li>• Liaison with adjoining landholders and the North West LLS, and participation with any local landholder and/or North West LLS vertebrate pest control programmes. Pest control actions may include 1080 poison baiting for European Rabbits, Feral Pigs and European Red Foxes, and the trapping of Feral Pigs.</li> </ul>	<p>Monthly checklists do not include checks for pest animals.</p> <p>European Hare and suspected Feral Pig were noted during site inspection. The Rehabilitation Monitoring Reports indicate the presence of pigs on site in the woodland areas.</p>	O	<p>Consider including checks for pest animals in the monthly environmental inspection checklist.</p> <p>Consider including further details of any pest eradication programs into the AEMRs.</p>
3.2.7	Long term soil stockpiles have been shaped and stabilised with grass and legume seed mixes and have erosion and sediment controls where appropriate. Existing soil stockpiles will continue to be monitored during routine inspections to identify erosion issues or presence of weeds. Routine maintenance including weed control, re-seeding with pasture species, and repairing erosion and sediment controls will be undertaken as required during the MOP term.	During the site inspection it was noted that some gravel stockpiles in the gravel pit area were not stabilised.	NC - duplicated MCoA 3.21	Consider either stabilising or installing additional controls to prevent erosion and sediment run from gravel pit area.
3.2.13	<p>Control measures to minimise the potential for further occurrences of uncontrolled bushfire during closure are:</p> <ul style="list-style-type: none"> <li>• Maintaining fire breaks;</li> <li>• Ongoing consultation with the RFS;</li> <li>• Maintaining access to site and to water sources (storage dams) for fire-fighting; and</li> <li>• Monitoring fuel loads and fuel load reduction (back burning, slashing or controlled grazing) if required.</li> </ul>	<p>Fire breaks in the form of roads are maintained throughout the site.</p> <p>Storage dams on site were noted to be effectively dry during the site inspection.</p> <p>Monitoring of fuel loads is not currently included in the monthly environment inspection checklist.</p>	O - duplicated with MCoA 3.41	Consider including checks for fuel loads and adequacy of fire breaks into monthly environment checklist.



Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
8.2	<p>Annual rehabilitation monitoring campaign records are documented in a rehabilitation monitoring report which is appended to the AEMR. Rehabilitation monitoring records are supported by a range of operational records to assist verify achievement of rehabilitation completion criteria including:</p> <ul style="list-style-type: none"> <li>• A register of contamination sites and records of the movement of contaminated materials to the bioremediation area or transport offsite to licenced waste facilities;</li> <li>• Records of production wastes including coarse rejects transported from the Whitehaven CHPP and emplaced at Canyon;</li> <li>• Topsoil resource records including the topsoil stockpile register; and</li> <li>• Environmental monitoring records including surface and groundwater monitoring.</li> </ul>	The report does not refer to the operational records stated in this commitment.	O	Consider including in the references section of the Rehabilitation Monitoring Reports the list of operational records as discussed in this commitment to indicate these records have been considered
10.3	<p>This plan may be revised due to:</p> <ul style="list-style-type: none"> <li>• Deficiencies being identified;</li> <li>• Changes to environmental requirements due to (for example) changed legislation or regulatory requirements;</li> <li>• Changes in the activities described in this MOP; and</li> <li>• Where risk assessment identifies the requirement to alter the MOP.</li> </ul> <p>Any major amendments to the MOP that affect its application will be undertaken in consultation with the appropriate regulatory authorities and stakeholders. Any amendments would be completed in accordance with the latest MOP guidelines.</p>	The Canyon Mine EPL 10094 was surrendered on the 11th September 2015. Date of MOP 7 September 2015 which refers to the EPL as current.	ANC	MOP to be updated to reflect EPL surrender.

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
<i>Environment Management Strategy</i>				
6.1	Dissemination of information to the local community and relevant agencies regarding the mining operation, its progress and environmental management performance, will be achieved by both formal and informal means including the following.  Community Consultative Committee (CCC)  The minutes of the CCC meetings are available on the Whitehaven website	Review of the Whitehaven website indicates minutes of CCC not included.	ANC	CCC minutes from Canyon Mine CCC to be added to website.  Link to Vickery Project for future CCCs to be included On Canyon Mine site
6.1	Whitehaven Coal 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.	Minutes of Canyon Mine indicate a site visit was included as part of the last meeting.  Evidence of any open days/community days or open door policy not provide during audit.	NV	Evidence to be provided to enable verification of this commitment
6.1	Copies of all management plans/strategies or monitoring programs, together with the results of independent audits undertaken in accordance with DA 8-1-2005 will be made publicly available on the Whitehaven website.	Latest Management Plans are included on website with exception of Bushfire Management Plan; Closure Mining Operations Plan (used to replace Void Management Plan and Mine Closure Strategy); Rehabilitation Monitoring Program (replaces Flora and Fauna Management Plan). 2006 IEA report not currently included on website.	NC	Consider including last IEA report, Bushfire Management Plan, Closure Mining Operations Plan, Rehabilitation Monitoring Program onto Whitehaven website
6.4	A review of the mine's compliance with all conditions of DA 8-1-2005, ML 1464 and ML 1471 will be undertaken during preparation of each Annual Review.	AEMRs do not currently include review of MCoA and ML conditions.	NC	AEMRs to include review of compliance against MCoA and ML conditions.

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
6.4	Additionally, an independent environmental audit will be undertaken once every three years and the report submitted to the Secretary and made available to the public on Whitehaven's website. The independent audit will be undertaken by an appropriately certified auditor in accordance with AS/NZS ISO 19011:2003 "Guidelines for Quality and/or Environmental Management Systems Auditing" or equivalent updated versions of these guidelines.	IEAs have not been completed since 2006 as it was considered by Whitehaven Coal that these were not required as the site was no longer operational.  Past IEA reports not available on website.	NC  Duplicated with MCoA 5.6	Consider including the IEA report from 2006 onto the Whitehaven Coal website
<i>Air Quality Monitoring Program</i>				
2.3	Sample collection and changeover is undertaken by trained Whitehaven Coal (Whitehaven Coal) contracted personnel, with analysis and reporting undertaken by a NATA accredited laboratory. The collection / changeover of sample bottles is to occur every 30 ± 2 days	Review of results confirms monitoring completed monthly with dates of installation and collection recorded. Samples are collected and analysed by ALS (NATA accredited lab).	O	Consider updating Air Quality Monitoring Program to reflect ALS collecting the sample (if Whitehaven Coal staff collecting sample then consider including procedure for correct collection methodology and maintenance checklist)
3	In the event of an exceedance of the criteria identified in Table 2, that is found to be mine related, Whitehaven Coal will:  <ul style="list-style-type: none"> <li>• Notify the Secretary (DP&amp;E);</li> <li>• Notify the affected landowner or tenant; and</li> <li>• Provide results to each party until the results show compliance with the criteria.</li> </ul> In the event of an exceedance found not to be mine-related, the expected cause of the exceedance will be documented and reported in the Annual Review.	D12 has exceeded the criteria of 4g/m2/month annual average in 2015 with a result of 30.9g/m2/month recorded in December 2015.  The AEMR presents monitoring results with brief discussion on possible reason for some monthly exceedances recorded at some monitoring locations (results appear to capture non-mining contamination and extraneous sources). The AEMR reporting period covers the financial year whilst the dust results are averaged over the calendar year.	O	Consider including in AEMR discussion regarding the background levels versus recorded site levels of dust. In the event of exceedances consider the development of windroses to assist with identifying possible dust sources. Consider also aligning the annual average for dust with the AEMR reporting period.

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
<i>Water Management Plan</i>				
6	The zero discharge Lower Void is the only remaining surface water body on site to have proposed ongoing quality monitoring. Nevertheless, the discharge water quality criteria presented in Table 1 will be targeted for the ongoing monitoring program (refer Section 5.3) with any sustained records outside of the values, determined to be associated with the mine, being notified to DP&E and DRE.	Table 1 lists pH range as between 6.5 to 8.5 however a review of the results indicates pH for both voids is consistent and remains slightly alkaline with maximum readings above discharge criteria. The pH of surface water and groundwater is slightly acidic to neutral.	NC	Although the water in the voids will remain on site, further investigation is required to determine the reason for higher pH than the groundwater and surface water pH.
<i>Rehabilitation Monitoring Program</i>				
5.4.1	LiDAR data will be captured across the entire target area and control areas. These data will be processed into a land surface digital elevation model (DEM) across the entire landscape and a canopy height model (CHM) and projected foliar cover (PFC) over the woodland areas.	LiDAR has not been completed to date.  The RMP review completed in 2014 recommended that ongoing capture and analysis of LiDAR should be considered by Whitehaven Coal for Canyon Mine	NC	Consider completing LiDAR assessment as detailed in the Rehabilitation Monitoring Plan
5.6	Five survey site locations will be selected from each woodland rehabilitation zone and five each from the two adjacent control areas using a targeted design (Figure 5-1). Survey sites were located to be: <ul style="list-style-type: none"> <li>At least 50 m from a rehabilitation boundary</li> <li>Each site a minimum of 150 m from another site.</li> </ul> Baseline surveys should be conducted in spring 2011 and repeated annually in spring during the monitoring period.  In addition five soil pits to a depth of approximately 1m will be established, three in the rehabilitation area and one in each of the control areas. Soil pits will be described using standard field measures with particular notice of horizon boundaries and ecological functionality (e.g. root establishment, evidence of soil fauna).	A review of the Monitoring Reports indicates soil pits for the woodland areas are recommended every three however these have not been completed for 2012 to 2015 monitoring periods. The review of the program completed in 2014 did not recommend the removal of this requirement.	NC	Consider completing soil sampling in the woodland areas as per outlined in the RMP

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
5.6.2	Terrestrial fauna monitoring will focus on rapid approaches to species identification and notes on habitat use. Where suitable, proxy measures for fauna (e.g. evidence of usage such as nests, scratching or scats) will also be assessed.	No detail provided regarding fauna monitoring methodology is outlined in the Monitoring Reports therefore assessment against this commitment cannot be completed.	NV	Consider including methodology of fauna assessments in monitoring reports.
5.7	ANOVA will be used to test for changes over time and to test for differences between control and rehabilitation sites. For analyses of native vegetation communities, the variables to be analysed will include species richness and % cover, with separate analyses for understorey, overstorey and total community variables. Analyses for changes in the faunal community will be made using species richness and count data.	ANOVA last reported in 2012 monitoring report for pasture zones, groundcover composition, woodlands. The review of the RMP in 2014 did not recommend discontinuing this analysis.	NC	Consider the inclusion of ANOVA test in the annual rehabilitation monitoring reports
5.9	The agricultural monitoring program has been designed to provide quantitative data on key pasture and soil attributes as they relate to land agricultural capability. Management response triggers are linked primarily to statistically significant decline in pasture or soil condition or other management issues noted by the field team during sampling.	Monitoring triggers for pastures is linked to remote sensing monitoring only with exception of 2013 report which includes response triggers linked to statistical changes, and 2014 for statistical changes in soil character.  2012 report does include list of triggers in Appendix A	NC	Consider the inclusion of management response triggers linked to pasture or soil condition in the annual reports.
6	Review of the entire program should be undertaken after the completion of the first round of sampling and analysis to identify particular issues and refine the monitoring program design.	No evidence of review of the program after the first round of sampling is available.	NV	Evidence of review of the program after the first round of sampling to be provided.
6	Regular program review should be conducted every 3 years to examine the trends in the data, investigation sampling effort in terms of redundancy or shortfall and to incorporate new monitoring technologies or techniques if appropriate.	Review completed by Ecological Australia on 28 August 2014, 3 years following the RMP issue in October 2011.	O	Consider updating the Rehabilitation Monitoring Program to reflect the review recommendations once stakeholder feedback has been requested and received (see below).

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action
6	The 3 year review should include a stakeholder workshop with key government staff to ensure continued acceptance of the methodology and results	No indication of stakeholder review is discussed in the 2014 review of the RMP.	NC	Consider issuing the letter outlining the review to key stakeholders to ensure acceptance of the proposed changes.

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*

Non conformances	Administrative Non - conformances	Observations	Not Verifiable
<i>Statutory Instruments</i>			
18 – low risk	10	9	4
2 – medium risk (3 duplicates)			
<i>Implementation of Plans</i>			
12 – low risk	2	6	3
(2 duplicates)		(1 duplicate)	
32	12	15	7

An action table addressing all findings of the audit has been developed by Whitehaven Coal and will be issued 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 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.	This audit	Review of management plans, implementation of plans and site inspection to confirm - refer tables of this audit	C	
<b>Terms of Approval</b>					
2.2	The Applicant shall carry out the development:  (a) generally in accordance with the EIS; and (b) in accordance with the conditions of this consent.	This audit	Review against MCoA which generally reflect the EIS commitments and undertakings for current stage of works.	C	
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.		Noted	Note	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
2.4	<p>The Applicant shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:</p> <p>(a) any reports, plans or correspondence that are submitted in accordance with this consent; and</p> <p>(b) the implementation of any actions or measures contained in these reports, plans or correspondence.</p>		Noted	Note	
<b>Surrender of Consent</b>					
2.5	Within 6 months of the date of this consent, the Applicant shall surrender all previous development consents for the Whitehaven mine to the satisfaction of the Secretary.		Noted	Note	
<b>Limits of Approval</b>					
2.6	The Applicant may carry out mining operations on the site until 7 September 2015.	<p>Interview - Environment Manager</p> <p>Site Inspection</p>	DA 8-1-2005 MOD 3 was approved on the 3rd September 2015, to extend the expiry of the Consent beyond 7th September 2015.	C	
2.7	The Applicant shall not extract more than	Interview -	No ROM coal was extracted	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	1.25 million tonnes of ROM coal a year from the Whitehaven mine.	Environment Manager	during the audit period		
2.8	The Applicant shall not transport more than 1.25 million tonnes of material (coal and gravel) a year from the Whitehaven mine by public road, without the written approval of the Secretary.	Interview Environment Manager	- No material was removed from the Site during the audit period.	NT	
<b>Structural Adequacy</b>					
2.9	<p>The Applicant shall ensure that all new buildings and structures, and any alterations and additions to existing buildings and structures are carried out in accordance with the relevant requirements of the BCA.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li><i>Under Part 4A of the EP&amp;A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.</i></li> <li><i>Part 8 of the EP&amp;A Regulation sets out the requirements for the certification of the project.</i></li> </ul>	<p>Letter from Narrabri Shire Council 6 October 2011 - construction certificate 83-2012</p> <p>Letter from Narrabri Shire Council 15 February 2012 - occupancy certificate OC. 303-2012</p>	Construction and occupation certificates issued for the stores and office building area located in the historical maintenance area of the mine. No other buildings constructed during the audit period.	C	
<b>Demolition</b>					

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
2.10	The Applicant shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.	Interview Environment Manager	- No buildings haven been demolished during the audit period. Maintenance shed and magazine storage area still to be demolished and removed which will need to be completed in accordance with AS2601-2001.	NT	
<b>Operation of Plant and Equipment</b>					
2.11	<p>The Applicant shall ensure that all plant and equipment used at the site, or to transport material off-site, are:</p> <p>(a) maintained in a proper and efficient condition; and</p> <p>(b) operated in a proper and efficient manner.</p>	<p>Interview Environment Manager</p> <p>Monthly inspection reports 2012-2015</p> <p>Quarterly maintenance reports – Novercom 2013 - 2015</p>	<p>- There is no permanent plant located on site with dozer brought onto site during regrading campaigns only. Earthmoving contractor equipment must pass appropriate mining design guidelines (MDG) (issued by DI (Resources &amp; Energy) for acceptance on site which assures equipment is appropriately maintained.</p> <p>Weather station is maintained by Novercom with inspection and</p>	NC	<p>Consider completing maintenance on the groundwater pumps or decommission if no longer required.</p> <p>Consider updating the Whitehaven Coal monthly environmental inspection checklists to reflect checks on the weather station which can be completed by the Environmental Advisor to ensure ongoing operation.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			<p>maintenance completed quarterly.</p> <p>Monthly checklist also lists checks for the weather station but not currently completed as Novercom completes the same checks.</p> <p>Monitoring equipment is maintained by ALS during monitoring events.</p> <p>Pumps and associated infrastructure is not maintained.</p>		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>SCHEDULE 3 - SPECIFIC ENVIRONMENTAL CONDITIONS</b>					
<b>AIR QUALITY</b>					
<b>Impact Assessment Criteria</b>					
3.1	The Applicant shall ensure that dust emissions generated by the development do not cause additional exceedances of the air quality criteria listed in Tables 1, 2 and 3 at any residence on, or on more than 25 percent of, any privately-owned land.	<p>Site Inspection</p> <p>Monitoring Records – Excel Spreadsheet covering audit period.</p> <p>Air Quality Monitoring Program 2005 and 2015</p>	<p>Monitoring reduced in 2015 to four locations: <i>WD-1 Whitehaven Residence, WD-2 Merton, WD-12 Whitehaven Property</i> and <i>WD-13b Wilga</i>.</p> <p>The previous monitoring program included additional locations at <i>D5 Wilga, D6 Bungalow, D7 Wilga, D8 Gundawarra, D10 Merton, D11 Merton</i> and <i>D14 Bungalow</i>. The two Bungalow locations have not had access since March 2002.</p> <p><i>D12</i> has exceeded the criteria of 4g/m<sup>2</sup>/month annual average in 2015 with a result of 30.9g/m<sup>2</sup>/month recorded in December 2015.</p>	NC	Review of previous meteorological monitoring results with comparison to the results at <i>WD-12</i> should be completed with a review of activities on the site for the corresponding period.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			The ash content for this gauge for the December 2015 monitoring event is 90% confirming the insoluble solids consists primarily of inorganic matter (mineral content such as dirt, sand etc). The dominant wind directions for this period are from the east, northeast and north which are potentially from the site. 51.8mm of rain was received over 12 rain days in December 2015 which is comparative with the annual average at BOM station, Gunnedah resource Centre (055024).		
<b>Land Acquisition Criteria</b>					
3.2	If the dust emissions generated by the development exceed the criteria in Tables 4, 5 and 6 at any residence on, or on more than 25 percent of, any privately-owned land, the Applicant shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 6-8 of schedule 4.	Interview Environment Manager	- No written requests for acquisition of land from landowners have been received during the reporting period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Operating Conditions</b>					
3.3	The Applicant shall carry out the development in a way that prevents and/or minimises the air pollution generated by the development.	Site Inspection	No visible dust or other air pollution noted during site inspection. The majority of the site was sealed with roads the primary exposed surface. The gravel pit area requires further stabilisation (pending Vickery Project )	NC	Consider stabilising the gravel pit area until the Vickery Project commences and permanent soil stabilisation works are completed.
3.4	<p>The Applicant shall:</p> <p>(a) ensure any visible air pollution generated by the development is assessed regularly, and that mining operations are relocated, modified, and/or stopped as required to minimise air quality impacts on privately-owned land;</p> <p>(b) ensure that trucks entering and leaving the site carrying loads are covered at all times; and</p> <p>(c) implement all practicable measures to minimise the off-site odour and fume emissions generated by any spontaneous combustion or blasting at the development, to the satisfaction of the Secretary.</p>	<p>Monitoring Records</p> <p>Site Inspection</p> <p>Interview Environment Manager</p>	<p>No mining activities completed during the audit period.</p> <p>Trucks entering and leaving the site limited to the Hitachi leased area located at the northern entrance.</p> <p>No odour or dust noted during the site inspection.</p>	C	



No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Monitoring</b>					
3.5	<p>Within 6 months of this consent, the Applicant shall prepare and implement a detailed Air Quality Monitoring Program in consultation with the EPA, and to the satisfaction of the Secretary. This program shall include an air quality monitoring protocol for evaluating compliance with the air quality impact assessment and land acquisition criteria in this consent.</p> <p>Note: Initially, this program should concentrate on monitoring the dust deposition impacts of the development. However, in time, it may be expanded to include other pollutants.</p>	<p>Air Quality Monitoring Program</p> <p>IEA Report 2007</p> <p>Letter from DP&amp;E dated 21 January 2016</p>	<p>Implementation of the Air Quality Monitoring Program is assessed in <i>Annex D</i>.</p> <p>Previous IEA report noted the original program was approved in letter dated 16 February 2006.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>NOISE</b>					
<b>Noise Impact Assessment Criteria</b>					
3.6	The Applicant shall ensure that the noise generated by the development does not exceed the noise impact assessment criteria presented in Table 7 at any residence on, or on more than 25 percent of, any privately-owned land.	Noise Monitoring Results  Site Inspection	Potential noise impacts during operations were managed in accordance with the Noise Monitoring Program. The EPL was varied in November 2011 and noise monitoring removed as a requirement of the EPL, and is therefore no longer undertaken. The EPL has since been surrendered.	NT	
3.7	Table 7: Noise Impact Assessment Criteria dB(A)  Notes:  • Noise from the development is to be measured at the most affected point or within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary.	Interview Environment Manager –	Noise monitoring not completed during audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> <li>To determine compliance with the LAeq(15 minute) noise limits in the above table, where it can be demonstrated that direct measurement of noise from the development is impractical, the EPA may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.</li> <li>Noise from the development is to be measured at 1 metre from the dwelling façade to determine compliance with the LA1 (1 minute) noise limits in the above table.</li> <li>The noise emission limits identified in the above table apply under meteorological conditions of: <ul style="list-style-type: none"> <li><input type="checkbox"/> wind speeds of up to 3 m/s at 10 metres above ground level; or</li> <li><input type="checkbox"/> temperature inversion conditions of up to 3 °C/100 m and wind speeds of up to 2 m/s at 10 metres above ground level.</li> </ul> </li> </ul>				

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Land Acquisition Criteria</b>					
3.8	If the noise generated by the development exceeds the criteria in Table 8 at any residence on, or on more than 25 percent of any privately-owned land, the Applicant shall acquire the land in accordance with the procedures in conditions 6-8 of schedule 4.	Noise Monitoring Results  Interview Environment Manager -	Noise monitoring not completed during audit period.	NT	
<b>Operating Hours</b>					
3.9	<p>The Applicant:</p> <p>(a) shall carry out the development at the site between 7 am to 10 pm Monday to Saturday, excluding public holidays;</p> <p>(b) may undertake overburden and interburden removal and emplacement operations below natural ground level, and the dust suppression activities associated with these operations, between 7am and midnight, Monday to Saturday and midnight and 2 am, Tuesday to Saturday;</p> <p>(c) may undertake highwall mining operations at any time, excluding public holidays; and</p>	<p>Interview Environment Manager -</p> <p>Site Inspection</p> <p>Weighbridge Records</p>	<p>Site activities included rehabilitation operations only during audit period.</p> <p>No coal or gravel was removed from, or transported to the site during the audit period.</p> <p>Gravel will be transported to the site once the Vickery Project commences.</p>	O	Ensure the transport management plan for the Vickery Project outlines the requirements of this consent condition for any material transported to the Canyon Mine prior to works commencing.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	(d) shall only transport coal or gravel on public roads between 7 am and 10pm Monday to Saturday, excluding public holidays.				
<b>Operating Conditions</b>					
3.10	The Applicant shall ensure that all reversing alarms fitted to vehicles on the site are of a mid-high frequency broadband type.	Site Inspection Interview Environment Manager	- No permanent plant on site for Whitehaven Coal. The requirement for mid-high frequency broadband type alarms fitted on machinery is not outlined in the management plans for the site or in any general policies.  Induction for the site is the general Whitehaven Coal induction which includes this requirement.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Monitoring</b>					
3.10	Within 6 months of this consent, the Applicant shall prepare a Noise Monitoring Program for the development in consultation with the EPA, and to the satisfaction of the Secretary. This program shall include a noise monitoring protocol for evaluating compliance with the noise impact assessment and land acquisition criteria in this consent	Letter from DP&E dated 21 January 2016	Letter received from DP&E confirming Noise Management Plan is no longer required.	NT	
<b>METEOROLOGICAL MONITORING</b>					
3.11	Within 6 months of this consent, the Applicant shall ensure that there is a suitable meteorological station operating in the vicinity of the development in accordance with the requirements in Approved Methods for Sampling of Air Pollutants in New South Wales, and to the satisfaction of the EPA and the Secretary.	Interview Environment Manager  Site Inspection  IEA Report 2007	- Previous IEA report indicates letter from DEC dated 5 September 2005 states that the DEC is satisfied with the meteorological station location.  Site inspection confirms station is sited in accordance with Approved Methods for Sampling of Air Pollutants in New South Wales.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>BLASTING AND VIBRATION</b>					
<b>Airblast Overpressure Limits</b>					
3.12	The Applicant shall ensure that the airblast overpressure level from blasting at the development does not exceed the criteria in Table 9 at any residence on privately-owned land.	Letter from DP&E dated 21 January 2016.  Interview Environment Manager -	Letter received from DP&E confirming Blast Monitoring is no longer required.  No blasting completed during audit period.	NT	
<b>Ground Vibration Impact Assessment Criteria</b>					
3.13	The Applicant shall ensure that the ground vibration level from blasting at the development does not exceed the criteria in Table 10 at any residence on privately-owned land	Interview Environment Manager -	No blasting completed during audit period.	NT	
<b>Blasting Hours</b>					
3.14	The Applicant shall only carry out blasting at the development between 9 am and 5 pm Monday to Saturday. No blasting is allowed on Sundays, public holidays, or any other time without the written approval of the EPA.	Interview Environment Manager -	No blasting completed during audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Blasting Frequency</b>					
3.15	The Applicant shall not carry out more than 1 blast a day at the site without the written approval of the EPA.	Interview Environment Manager -	No blasting completed during audit period.	NT	
<b>Monitoring</b>					
3.16	Within 6 months of this consent, the Applicant shall prepare and implement a detailed Blasting Monitoring Program for the development in consultation with the EPA, and to the satisfaction of the Secretary.	Letter from DP&E dated 21 January 2016	Letter received from DP&E confirming Blasting Monitoring Program is no longer required.  No blasting completed during audit period.	NT	
<b>Public Notice</b>					
3.17	During the life of the development, the Applicant shall:  (a) operate a blasting notification system agreed to by the Secretary, to provide the public with up-to-date information on blasting operations at the development; and  (b) notify the landowner/occupier of any privately-owned land within 4 km of the development about this system on an annual basis.	Interview Environment Manager -	No blasting completed during audit period.	NT	



No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Property Investigations</b>					
3.17	<p>If any landowner within a 2 km of the development, or any other landowner nominated by the Secretary, claims that his/her property, including infrastructure such as water supply or underground irrigation mains, has been damaged as a result of blasting at the development, the Applicant shall within 3 months of receiving this request:</p> <p>(a) commission a suitably qualified 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 investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant shall repair the damages to the satisfaction of the Secretary.</p> <p>If the Applicant or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.</p>	Interview Environment Manager	<p>- No blasting completed during audit period.</p> <p>No correspondence received from landholders indicating infrastructure such as water supply or underground irrigation mains has been damaged as a result of blasting from previous operations.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	If the matter cannot be resolved within 21 days, the Secretary shall refer the matter to an Independent Dispute Resolution Process (see Appendix 2).				
<b>SURFACE AND GROUNDWATER</b>					
<b>Discharge Limits</b>					
3.19	Except as may be expressly provided by an EPA Licence, the Applicant shall ensure that the discharges from any licensed discharge point comply with the limits in Table 11.	<p>Monitoring Results – Excel Sheet covering audit period</p> <p>AEMR 2012-2013</p> <p>AEMR 2013-2014</p> <p>AEMR 2014-2015</p>	<p>There were no wet weather discharge from the site during the audit period.</p> <p>A flow event was sampled at the ambient monitoring points in January 2013 however no discharge occurred from site. All results were within limits with exception of a slightly low pH level recorded at WW12 (downstream monitoring location) and TSS above limits at WW11 (upstream monitoring location).</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Site Water Balance</b>					
3.20	<p>The Applicant shall:</p> <p>(a) prepare a detailed site water balance for all the development site;</p> <p>(b) measure water use on site;</p> <p>(c) review the site water balance for the development annually; and</p> <p>(d) report the results of this review in the AEMR,</p> <p>to the satisfaction of the Secretary</p>	<p>AEMR 2012-2013</p> <p>AEMR 2013-2014</p> <p>AEMR 2014-2015</p> <p>Water Balance</p> <p>Water Use Records</p>	<p>Consideration of the site water balance in the AEMRs is limited to the final void water level (refer Section 5.1 and 5.2). Water is not discharged from the voids.</p> <p>Historic surface water records over a five year period are reviewed in the AEMR.</p> <p>Water is not currently used on site with exception of potable water in amenities at the Hitachi lease area. The water use for this site is not currently recorded or reported. In addition, water extracted from the two pump locations is not currently recorded.</p>	NC	<p>Although the lease holder is the current user of water on site, the condition is still relevant and water use should be recorded and reported.</p> <p>In addition, the volume of water extracted from the groundwater wells should be recorded and reported (including nil extraction/water use).</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Erosion and Sediment Control</b>					
3.21	The Applicant shall implement a range of erosion and sediment controls at the site, in general accordance with the requirements of the Department of Housing's Managing Urban Stormwater: Soils and Construction manual, to minimise erosion and the discharge of sediment from the site.	Site Inspection IEA Report 2007	<p>The previous audit report recommended that regular documented assessment of works performed by Soil Services against relevant requirements should be completed.</p> <p>An environment inspection is completed monthly with a checklist completed. The checklist includes a section on water management with checks for erosion, drainage structure integrity, sediment capacity in dams. No issues have been noted in the checklists for the last three months.</p> <p>During the site inspection it was noted most of the site is now stabilised with the exception of parts of the void batters and the gravel pit area. Both of these areas are awaiting the Vickery Project to commence.</p>	NC	Consider either stabilising or installing additional controls to prevent erosion and sediment run from the void batters and gravel pit area until the Vickery Project commences and permanent stabilisation works are completed.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Surface Water Monitoring</b>					
3.22	The Applicant shall monitor: (a) the volume and quality of water discharged from the site; and (b) report the results of this monitoring in the AEMR.	AEMR 2015 Monitoring Results	<p>The AEMR 2015 average and maximum conductivity values are above discharge criteria and ANZECC values for both Upper and Lower Voids however no discharges occur from these locations.</p> <p>There was no wet weather or other discharge from the site during the audit period.</p> <p>A flow event was sampled at the ambient monitoring points in January 2013 however no discharge occurred from site. All results were within limits with exception of a slightly low pH level recorded at WW12 (downstream monitoring location) and TSS above limits at WW11 (upstream monitoring location).</p> <p>The water management plan does not include how flow volumes would be calculated in the event of a wet weather discharge.</p>	O	Consider including the requirement to report volume discharged from site and the method for estimating /calculating the volume of any discharges from site into the Water Management Plan.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Groundwater Monitoring</b>					
3.23	<p>The Applicant shall regularly monitor:</p> <p>(a) groundwater levels and quality at bores and piezometers which are representative of the areas that are likely to be impacted within and around the development;</p> <p>(b) impacts of groundwater movement from the final void of the Canyon extension on the adjacent groundwater and surface water resources; and</p> <p>(c) post-mining water table levels and water quality.</p>	<p>AEMR 2015</p> <p>Excel Spreadsheet – Canyon Groundwater Data</p>	<p>Groundwater is monitored at nine locations quarterly with recorded standing water levels (SWLs) generally stable and comparable to initial SWLs. GW-8 and GW-9 monitoring locations showed variability in SWL due to presence of operating windmills.</p> <p>A review of water quality indicates total metals and major anions and cations are stable. GW11 indicates an increasing conductivity trend with only calcium concentration increasing slightly over the same period with all other monitored parameters consistent. Additional potential sources of this increase could include:</p> <ul style="list-style-type: none"> <li>• leaching of calcium carbonate from fill material/local geological variations;</li> <li>• phosphate from agricultural sources or sewage;</li> <li>• addition of other organic</li> </ul>	NC	<p>Consider determining groundwater flow directions by converting depth to groundwater to mAHD to confirm correct flow direction. Consider expanding testing of analytes next monitoring round in GW11 to include other potential sources of salinity/conductivity such as phosphates, alkalinity, bicarbonate as alkalinity, carbonate, TRH, expanded metals etc.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			<p>compounds such as hydrocarbons.</p> <p>GW11 is located to the northeast of the site and east of the current contractor work area and historical Whitehaven Coal maintenance facility. The groundwater data does not include elevation (SWL at mAHD) therefore groundwater flow direction cannot be accurately determined. If the assumption that the groundwater is parallel to ground level is adopted then groundwater flow is to the north.</p> <p>Rainfall impacts on conductivity are considered unlikely as it would be expected other groundwater bores would be impacted.</p>		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Water Management Plan</b>					
3.24	<p>Within 6 months of this consent, the Applicant shall prepare and implement a Water Management Plan for the mine, to the satisfaction of the Secretary. This plan must include:</p> <p>(a) the site water balance;</p> <p>(b) an Erosion and Sediment Control Plan;</p> <p>(c) a Groundwater Monitoring Program;</p> <p>(d) a Surface and Groundwater Response Plan to address any potential adverse impacts associated with the development; and</p> <p>(e) provision for a review of collected data and monitoring requirements 5 years after the cessation of mining, or as otherwise agreed by the Secretary.</p>	<p>Water Management Plan</p> <p>Result of review of data as five years since mining ceased</p> <p>Monitoring Records</p>	<p>a) Site water balance (Section 3);</p> <p>b) Erosion and sediment control (Section 4);</p> <p>c) Surface and groundwater monitoring program;</p> <p>d) Surface and groundwater response plan (Section 6)</p> <p>e) Review of post-mining collected data (Section 5)</p> <p>Refer to <i>Annex E</i> or implementation of Water Management Plan.</p> <p>AEMR reports on five years of collected data. As mining ceased in 2009 the 2015 AEMR fulfils (e).</p>	C	



No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
3.24 A	Prior to 30 November 2008, the Applicant shall review, and subsequently implement any revision of the mine's Site Water Management Plan required by condition 24, in consultation with DPI Water and EPA and to the satisfaction of the Secretary.	Water Management Plan 2015  IEA Report 2007	The previous audit report confirmed this condition was met at that time.  The Water Management Plan was revised in 2015 - no evidence available that this was completed in consultation with DPI (Water) or EPA and submitted to the DP&E.	NC  O	NC - Consider submitting the revised plan to DPI (Water), EPA and DP&E requesting comment.  O - Consider including evidence of any consultation and liaison into the annex of the plan.
<b>Final Void Management</b>					
3.25	At least 6 months before the cessation of mining, the Applicant shall prepare and implement a final Void Management Plan for the site, in consultation with the DPI, and to the satisfaction of the Secretary. This plan must:  (a) investigate options for the future use of the final void;  (b) assess the potential interactions between the final void and the adjacent groundwater and surface water resources; and	Letter from DP&E dated 21/01/2016  Site Inspection  Whitehaven Coal Monthly Inspection Sheets 2012-2015	Mining ceased in 2009 prior to start of audit period. Letter from DP& E received January 2016 indicates Final Void Management is detailed in the Closure Mining Operations Plan.  Section 4.2.4 indicates one final void in the south western limits of the open cut extraction area is retained in the final landform. The final void area has been designed and constructed to function as a permanent clean water storage dam.	O	Consider revising the monthly inspection checklists to include checks on void condition such as batter stability.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(c) describe what actions and measures would be implemented to:</p> <ul style="list-style-type: none"> <li>• minimise any potential adverse impacts with the final void; and</li> <li>• manage and monitor the potential impacts of the final void over time.</li> </ul>		<p>The high walls and low walls have been regraded with batters generally less than 14 degrees and stabilised with pasture species.</p> <p>The void batters above the permanent water level are proposed to be rehabilitated with native vegetation in the event that the Vickery Project will not be developed.</p> <p>Monthly inspections are completed by a Whitehaven Coal Environment Advisor however the checklist currently used does not specifically include a formal check of the void area.</p>		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>FAUNA &amp; FLORA</b>					
<b>Offset Strategy</b>					
3.26	The Applicant shall implement the offset strategy described in section 2.4.8 and depicted in Figure 2.4 of the SEE for the proposed Canyon extension, or a refined version of this offset strategy that has been approved by the Secretary, to the satisfaction of the Secretary.	Letter from Department of Planning and Infrastructure 14 February 2013	Letter received from DP&I that this condition would be met by the retirement of biobank credits and the establishment of a Biobank Trust Fund.	C	
3.26 A	Prior to 30 June 2008, the Applicant shall, in addition to the measures described in condition 26, identify and implement a vegetation offset equivalent to 30 hectares of Bimble Box/Pilliga Grey Box vegetation community, in consultation with the OEI and to the satisfaction of the Secretary.	Letter from Department of Planning and Infrastructure 14 February 2013	Letter received from DP&I that this condition would be met by the retirement of biobank credits and the establishment of a Biobank Trust Fund.	C	
3.27	Within 12 months of this consent, the Applicant shall implement suitable arrangements to provide long-term security for the offset, to the satisfaction of the Secretary.	Letter from Department of Planning and Infrastructure 14 February 2013	Letter received from DP&I that this condition would be met by the retirement of biobank credits and the establishment of a Biobank Trust Fund.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Flora and Fauna Management Plan</b>					
3.28	<p>Within 6 months of this consent, the Applicant shall prepare and implement a detailed Flora and Fauna Management Plan for the site, to the satisfaction of the Secretary. This plan must include:</p> <p>(a) a description of the offset strategy in broad terms, including its objectives and its relationship to the rehabilitation of the mine over time;</p> <p>(b) completion criteria for the offset strategy;</p> <p>(c) a description of what actions and measures will be implemented over the next 3 years;</p> <p>(d) a flora and fauna monitoring program that is based on sound statistical principles; and</p> <p>(e) a description of the procedures that would be implemented to:</p> <ul style="list-style-type: none"> <li>• salvage and reuse material from the site;</li> <li>• clear vegetation on site;</li> </ul>	<p>Letter from DP&amp;E dated 21 January 2016</p> <p>Biodiversity Offset Management Plan (BOMP) 2013</p>	<p>Letter from DP&amp; E indicating Flora and Fauna Management, which is limited to monitoring and minor maintenance works, is described in the approved Rehabilitation Monitoring Program, and the approved Biodiversity Offset Management Plan.</p> <p>a) BOMP Section 1.1</p> <p>b) BOMP Section 5 Table 12 lists performance criteria</p> <p>c) BOMP Section 3.2</p> <p>d) Rehabilitation Monitoring Program for Canyon Site. BOMP Section 5</p> <p>e) BOMP Section 3.3.2, 3.3.3, Section 3.2, 3.3.10 and 3.3.1</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> <li>• collect and propagate seed from the local area;</li> <li>• control weeds and feral pests (particularly fox control); and</li> <li>• control access to the offset area.</li> </ul>				
<b>Review and Reporting</b>					
3.29	<p>The Applicant shall:</p> <p>(a) review the performance of the offset strategy and Flora and Fauna Management Plan annually; and</p> <p>(b) report on this review in the AEMR; to the satisfaction of the Secretary.</p>	AEMR 2012-2015	<p>The AEMR includes rehabilitation progress on the Canyon site including numbers of plantings in each zone.</p> <p>The Flora and Fauna Management Plan have been replaced by the Rehabilitation Monitoring Program, and the approved Biodiversity Offset Management Plan.</p> <p>Annual rehabilitation monitoring of the Canyon Mine is detailed in Appendix 1 of the AEMR.</p> <p>Performance of the Biodiversity Offset Management Plan is reported separately in an annual report.</p>	ANC	Consider including the Biodiversity Offset Annual Report as an Annex in the AEMR for the Canyon Site to fulfil the requirement to review performance of the offset strategy.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Audit</b>					
3.30	At least 6 months prior to the cessation of mining, unless the Secretary directs otherwise, the Applicant shall commission, and pay the full cost of, an Independent Audit of the offset strategy. This audit shall:  (a) be conducted by a suitably qualified, experienced, and independent person whose appointment has been approved by the Secretary;  (b) assess the performance of the offset strategy and Flora and Fauna Management Plan; and if necessary  (c) recommend actions or measures to improve the performance of the offset strategy.	Interview Environment Manager	-  An audit of the offset strategy has not been completed.	NC	Consider completing an audit of the offset strategy to fulfil this condition.
3.31	Within 3 months of commissioning this audit, the Applicant shall submit a copy of the audit report to the Secretary, with a response to any of the recommendations contained in the audit report.	Interview Environment Manager	-  An audit of the offset strategy has not been completed therefore this condition is not triggered.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>CULTURAL HERITAGE</b>					
<b>Archaeology and Cultural Heritage Management Plan</b>					
3.32	Within 6 months of this consent, the Applicant shall review the approved Archaeology and Cultural Management Plan for the site in consultation with the Red Chief Local Aboriginal Land Council and OEH, and to the satisfaction of the Secretary.	IEA Report 2007	This condition was closed in the previous IEA audit completed in 2006	NT	
<b>TRAFFIC &amp; TRANSPORT</b>					
3.33	<p>The Applicant shall ensure:</p> <p>(a) coal from the mine is only transported along Hoads Lane, Blue Vale Road, and the Kamilaroi Highway to the Whitehaven Siding coal handling and preparation plant, unless an alternate route is approved by the Secretary;</p> <p>(b) trucks travelling to and from the mine do not exceed 40 kilometres per hour when the school bus is operating on Hoads Lane;</p>	<p>Interview Environment Manager</p> <p>Site Inspection</p> <p>IEA Report 2007</p>	<p>– No coal extracted during the audit period.</p> <p>Warning signs are in place</p> <p>IEA Report issued 2007 indicates an investigation on road safety was prepared and with the RTA for approval. Evidence of review completion and acceptance is not available.</p>	NC	<p>Consider informing Hitachi of the condition requiring trucks travelling in Hoads Lane to travel at no more than 40km/h when the school bus is operating on Hoads Lane.</p> <p>As the site is no longer operational, no further actions are recommended for the acceptance of the Road Safety Plan by the RTA (now Roads and Maritime Services)</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(c) appropriate warning signs are in place advising of the turning movements of heavy vehicles at the intersection of the mine access road and Hoads Lane, to the satisfaction of NSC;</p> <p>(d) an investigation of road safety and traffic management is undertaken for the Kamilaroi Highway and junctions with Blue Vale and Whitehaven Siding Access Roads, within 6 months of this consent, to the satisfaction of the Roads and Traffic Authority; and</p> <p>(d) spillage from coal haulage vehicles is minimised and that sediment-laden runoff from roads is effectively managed to prevent harm to the environment.</p>		Contractor inductions do not currently outline requirement for trucks to travel on travelling to and from the mine do not exceed 40 kilometres per hour when the school bus is operating on Hoads Lane. Trucks may travel to and from the site from the Hitachi operations area.		



No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Road Noise Management Plan</b>					
3.34	Within 6 months of this consent, the Applicant shall review (and implement any approved changes to) the Road Noise Management Plan for traffic associated with the development, in consultation with NSC and GSC, and to the satisfaction of the Secretary.	Letter from DP&E dated 21 January 2016.  IEA Report 2017	This condition was closed in the previous IEA audit completed in 2006  Letter from DP& E indicating Road Noise Management Plan is no longer required.	NT	
<b>Road Maintenance</b>					
3.35	Within 6 months of this consent, the Applicant shall review (and implement any approved changes to) the road maintenance agreements between the Applicant and NSC and GSC for roads within Narrabri and Gunnedah Shires respectively, that are used by traffic associated with the development, to the satisfaction of the respective Council. If agreement cannot be reached the matter shall be referred to the Secretary for resolution	IEA Report 2007	This condition was closed in the previous IEA audit completed in 2006	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Monitoring</b>					
3.36	<p>The Applicant shall:</p> <p>(a) keep records of the:</p> <ul style="list-style-type: none"> <li>• amount of gravel transported from the site each year;</li> <li>• amount of coal transported from the site each year;</li> <li>• destination of coal and gravel transported from the site each year; and</li> <li>• number of truck movements generated by the development; and</li> </ul> <p>(b) include these records in the AEMR.</p>	<p>AEMRs 2012 – 2015</p> <p>Interview – Environment Manager</p>	<p>No coal extracted during audit period</p> <p>Gravel was not transported on/off site during audit period.</p> <p>The Vickery Project may result in gravel being moved to the site.</p>	O	<p>Ensure the transport management plan for the Vickery Project outlines the requirements of this consent condition for any material transported to the Canyon Mine prior to works commencing.</p>
<b>VISUAL IMPACT</b>					
3.37	<p>The Applicant shall carry out the development in a way that prevents and/or minimises the visual impacts of the development, including the design and construction of infrastructure in a manner that minimises visual contrasts, to the satisfaction of the Secretary.</p>	Site Inspection	<p>During the site inspection, it was noted site infrastructure is not visible from public roads.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Lighting Emissions</b>					
3.38	<p>The Applicant shall:</p> <p>(a) take all practicable measures to mitigate off-site lighting impacts from the development; and</p> <p>(b) ensure that all external lighting associated with the development complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting,</p> <p>to the satisfaction of the Secretary.</p>	<p>Site Inspection</p> <p>Interview – Environment Manager</p>	<p>Lighting is limited to the Hitachi work area with spotlight style lights located on building eaves which is kept on at night for security. The Hitachi work area is not visible from public roads.</p>	C	
<b>GREENHOUSE GAS EMISSIONS</b>					
3.39	<p>The Applicant shall:</p> <p>(a) monitor the greenhouse gas emissions generated by the development;</p> <p>(b) investigate ways to reduce greenhouse gas emissions generated by the development; and</p>	<p>AEMRs 2013, 2014, 2015</p>	<p>Greenhouse gas emissions are limited to fuel usage of equipment on site such as the generator for the communications building and the Hitachi work area.</p> <p>The fuel usage is not currently recorded or reported in the AEMRs.</p>	ANC	<p>Although emissions are limited to fuel usage primarily by the site tenant, consider including fuel usage (including contractor) in the AEMR for compliance with this condition.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	(c) report on greenhouse gas monitoring and abatement measures in the AEMR, to the satisfaction of the Secretary.				
<b>WASTE MANAGEMENT</b>					
3.40	<p>The Applicant shall:</p> <p>(a) monitor the amount of waste generated by the development;</p> <p>(b) investigate ways to minimise waste generated by the development;</p> <p>(c) implement reasonable and feasible measures to minimise, reuse and/or recycle waste generated by the development; and</p> <p>(d) report on waste management and minimisation in the AEMR, to the satisfaction of the Secretary</p>	<p>AEMRs 2013, 2014, 2015</p> <p>Interview Environment Manager</p>	<p>Waste not currently reported in the AEMRs.</p> <p>– Waste is limited to domestic, sewage and hydrocarbon wastes produced by the Hitachi contractor work area. As this waste is not generated by the development it does not require monitoring and reporting.</p> <p>During the site inspection there were some wastes noted on the Canyon Mine site such as tyres next to the gravel borrow pit area and an area of waste tanks, drums and equipment near the northwest boundary.</p>	NC	<p>Consider including a description of waste remaining on the mine site and their disposal outcome into the AEMR. If no wastes are generated during the reporting year then consider including a description to that effect to satisfy this condition.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>BUSHFIRE MANAGEMENT</b>					
3.41	<p>The Applicant shall:</p> <p>(a) ensure that the development is suitably equipped to respond to any fires on-site; and</p> <p>(b) assist the Rural Fire Service and emergency services as much as possible if there is a fire on-site during the development.</p>	<p>Interview Environment Manager</p> <p>Site inspection</p> <p>Whitehaven Coal Monthly Inspection Records 2012-2015</p>	<p>- Fire breaks in the form of roads are maintained throughout the site.</p> <p>It is noted the Closure Mining Operations Plan indicates water sources will be the storage dams on site however these were noted to be effectively dry during the site inspection. The Plan also indicates fuel loads will be monitored and fuel load reduction (back burning, slashing or controlled grazing) completed if required. Monitoring of fuel loads is not currently included in the monthly environment inspection checklist.</p>	O	<p>Consider including checks for fuel loads and adequacy of fire breaks into monthly environment checklist.</p> <p>In addition, identify potential water sources that could be accessed in the event of a fire and update the MOP and/or the Bushfire Management Plan as deemed appropriate.</p>
3.42	<p>Within 6 months of the consent, the Applicant shall review (and implement any approved changes) the Bushfire Management Plan for the site, to the satisfaction of GSC and NSC.</p>	<p>Interview Environment Manager</p> <p>IEA Report 2007</p> <p>Bushfire Management Plan 2000</p>	<p>- The audit completed in 2006 did not close this condition with evidence of liaison not provided. A Bushfire Management Plan from 2000 was available for review.</p>	ANC	<p>As the Bushfire Management Plan has not been updated since 2000, consider updating and liaising with GSC and NSC during the update.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>MINE CLOSURE STRATEGY</b>					
3.43	At least 6 months prior to the cessation of mining, the Applicant shall prepare a Mine Closure Strategy for the development, in consultation with the DRE, GSC and NSC, and to the satisfaction of the Secretary.	Letter from DP&E dated 21 January 2016	Letter from DP& E indicating Mine Closure Strategy is detailed in the DRE approved Closure Mining Operations Plan.	C	
<b>REHABILITATION AND MINE CLOSURE</b>					
3.44	The Applicant shall rehabilitate the site to the satisfaction of DRE. This rehabilitation must be consistent with the approved Mine Closure Strategy required under Condition 43 above.	Letter from DP&E dated 21 January 2016  Site Inspection	Letter from DP& E indicating Mine Closure Strategy is detailed in the DRE approved Closure Mining Operations Plan.  Rehabilitation has progressed across the site to varying degrees, predominantly in accordance with the domains identified in the Mine Closure Strategy. The Vickery Coal Project is approved to utilise the Canyon site for waste rock emplacement, including backfilling the final void.	C	Develop a schedule for the final rehabilitation of disturbance areas not required for future use, in consultation with the DRE as stated in the MOP.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			<p>Large areas in the south of the site remain un-rehabilitated, or in a state of semi rehabilitation due to: 1) fire events, and 2) the company's plans to develop the Vickery Project.</p> <p>The 2015 Closure Mining Operations Plan (SLR 2015) states: <i>Once there is a determination on the development of the Vickery Coal Project Whitehaven Coal will develop a schedule for the final rehabilitation of disturbance areas not required for future use, in consultation with the DRE.</i></p>		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>SCHEDULE 4 - ADDITIONAL PROCEDURES FOR AIR QUALITY &amp; NOISE MANAGEMENT</b>					
<b>Notification of Landowners</b>					
4.1	If the results of the air quality and/or noise monitoring required in Schedule 3 identify that the air pollution and/or noise generated by the development is greater than any of the air quality and/or noise criteria in Schedule 3, then the Applicant shall notify the Secretary and the affected landowners and/or existing or future tenants (including tenants of mine-owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the development is complying with the air quality and/or noise criteria in Schedule 3.	Air quality and noise monitoring results  Air Quality Monitoring Program 2005 and 2015  Interview - Environment Manager	No extraction activities completed during audit period.  Gauges with 2015 annual averages over 4mg/m <sup>2</sup> /month include D12. D12 has exceeded the criteria of 4g/m <sup>2</sup> /month annual average in 2015 with a result of 30.9g/m <sup>2</sup> /month recorded in December 2015.  The exceedance at D12 has not been reported to DP&E or the relevant landholder as it is considered that the exceedance is not mine related and therefore is to be reported in the AEMR according to the updated Air Quality Monitoring Program. This reporting protocol has changed from the previous Program.  No noise monitoring completed during audit period.	NC	As the updated Air Quality Monitoring Program has not been submitted to the DP&E consider informing the DP&E and potentially impacted residents until the updated plan is accepted by DP&E.  Refer also to MCoA 3.1 finding.



No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>Independent Review</b>					
4.2	<p>If a landowner considers the development to be exceeding the air quality and/or noise criteria in schedule 3, then he/she may ask the Applicant in writing for an independent review of the air pollution and/or noise impacts of the development on his/her land.</p> <p>If the Secretary is satisfied that an independent review is warranted, the Applicant shall within 3 months of the Secretary advising that an independent review is warranted:</p> <p>(a) consult with the landowner to determine his/her concerns;</p> <p>(b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to conduct air quality and/or noise monitoring on the land, to determine whether the development is complying with the relevant air quality and/or noise criteria in schedule 3, and identify the source(s) and scale of any air quality and/or noise impact on the land, and the development's contribution to this impact;</p>	Interview Environment Manager	- No applications received during audit period requesting an independent review of air pollution and/or noise impacts of the development	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	(c) give the Secretary and landowner a copy of the independent review				
4.3	If the independent review determines that the development is complying with the relevant air quality and/or noise criteria in schedule 3, then the Applicant may discontinue the independent review with the approval of the Secretary.	Interview Environment Manager	- No applications received during audit period requesting an independent review of air pollution and/or noise impacts of the development	NT	
4.4	<p>If the independent review determines that the development is not complying with the relevant air quality and/or noise criteria in schedule 3, and that the development is primarily responsible for this non-compliance, then the Applicant shall:</p> <p>(a) take all practicable measures, in consultation with the landowner, to ensure that the development complies with the relevant air quality and/or noise criteria; and</p> <p>(b) conduct further air quality and/or noise monitoring to determine whether these measures ensure compliance; or</p>	Interview Environment Manager	- No applications received during audit period requesting an independent review of air pollution and/or noise impacts of the development	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(c) secure a written agreement with the landowner to allow exceedances of the air quality and/or noise criteria in schedule 3, to the satisfaction of the Secretary.</p> <p>If the additional monitoring referred to above subsequently determines that the development is complying with the relevant air quality and/or noise criteria in schedule 3, then the Applicant may discontinue the independent review with the approval of the Secretary.</p> <p>If the measures referred to in (a) do not achieve compliance with the air quality and/or noise land acquisition criteria in schedule 3, and the Applicant cannot secure a written agreement with the landowner to allow these exceedances within 3 months, then the Applicant shall, upon receiving a written request from the landowner, acquire the landowner's land in accordance with the procedures in conditions 6-8 below.</p>				

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
4.5	<p>If the landowner disputes the results of the independent review, either the Applicant or the landowner may refer the matter to the Secretary for resolution.</p> <p>If the matter cannot be resolved within 21 days, the Secretary shall refer the matter to an Independent Dispute Resolution Process</p>	Interview Environment Manager	- No applications received during audit period requesting an independent review of air pollution and/or noise impacts of the development	NT	
<b>Land Acquisition</b>					
4.6	<p>Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant shall make a binding written offer to the landowner based on:</p> <p>(a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the development the subject of the DA, having regard to the:</p> <ul style="list-style-type: none"> <li>existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and</li> </ul>	Interview Environment Manager	- No written requests received during audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> <li>• presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date;</li> </ul> <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> <li>• relocating within the Narrabri or Gunnedah local government areas, or to any other local government area determined by the Secretary;</li> <li>• obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is required; and</li> </ul> <p>(b) reasonable compensation for any disturbance caused by the land acquisition process.</p>				
4.7	The Applicant shall bear the costs of any valuation or survey assessment requested by the independent valuer, panel, or the Secretary and the costs of determination referred above.	Interview Environment Manager	- No written requests received during audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
4.8	If the Applicant and landowner agree that only part of the land shall be acquired, then the Applicant shall pay all reasonable costs associated with obtaining Council approval for any plan of subdivision, and registration of the plan at the Office of the Registrar-General.	Interview Environment Manager –	No written requests received during audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING</b>					
<b>ENVIRONMENTAL MANAGEMENT STRATEGY</b>					
5.1	<p>Within 6 months of this consent, the Applicant shall prepare and subsequently implement an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:</p> <p>(a) provide the strategic context for environmental management of the development;</p> <p>(b) identify the statutory requirements that apply to the development;</p> <p>(c) describe in general how the environmental performance of the development would be monitored and managed during the development;</p> <p>(d) 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 development;</li> </ul>	<p>Environment Management Strategy IEA Report 2007</p>	<p>Previous audit confirmed Environment Management Strategy was approved by the Department of Planning (letter dated 16 February 2006).</p> <p>Implementation of Strategic Management Plan included in Annex F.</p> <p>Sections of the Plan relevant to the condition requirements:</p> <p>a) Section 2 b) Section 3 c) Section 5 d) Section 6 e) Section 4</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> <li>• receive, handle, respond to, and record complaints;</li> <li>• resolve any disputes that may arise during the course of the development;</li> <li>• respond to any non-compliance;</li> <li>• manage cumulative impacts; and</li> <li>• respond to emergencies; and</li> </ul> (e) describe the role, responsibility, authority, and accountability of all the key personnel, involved in environmental management of the development.				
5.2	Within 3 months of the completion of the Independent Environmental Audit (see condition 6 below), the Applicant shall review, and if necessary revise, the Environmental Management Strategy to the satisfaction of the Secretary.	Previous IERs  Review records of EMS	Issue date of the EMS is 11/2015. Revision history indicates last revision prior to current version is 2005. Reviews should have been developed for audit completed in 2006. 2009 and 2012 audits not completed. No evidence of review is able to be provided for 2006 audit.	O	Consider including line items in the revision history table to record any reviews completed of the Environment Management Strategy.



No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>ENVIRONMENTAL MONITORING PROGRAM</b>					
5.3	Within 7 months of the date of this consent, the Applicant shall prepare an Environmental Monitoring Program for the development in consultation with relevant agencies, and to the satisfaction of the Secretary. This program must consolidate the various monitoring requirements in Schedule 3 of this consent into a single document.	Letter from DP&E dated 21 January 2016	Letter from DP&E indicating Secretary nominee confirms that monitoring programs relating to Noise Monitoring, Blast Monitoring, Road Noise Management and an overall Environmental Monitoring Program are no longer required.	NT	
5.4	Within 3 months of the completion of the Independent Environmental Audit (see Condition 6 below), the Applicant shall review, and if necessary revise, the Environmental Monitoring Program to the satisfaction of the Secretary	Letter from DP&E dated 21 January 2016  IEA Report 2007	Letter from DP&E indicating Secretary nominee confirms an overall Environmental Monitoring Program is no longer required.  The superseded Environmental Monitoring Program was issued in February 2007. The IEA final report was issued March 2007 after the September 2006 audit.  An audit was not completed in 2009 or 2012.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>ANNUAL REPORTING</b>					
5.5	<p>Each year, the Applicant shall prepare an AEMR to the satisfaction of the Secretary. This report must:</p> <p>(a) identify the standards and performance measures that apply to the development;</p> <p>(b) include a summary of the complaints received during the past year, and compare this to the complaints received in the previous 5 years;</p> <p>(c) include a summary of the monitoring results on the development during the past year,</p> <p>(d) include an analysis of these monitoring results against the relevant:</p> <ul style="list-style-type: none"> <li>• limits/criteria in this consent;</li> <li>• monitoring results from previous years; and</li> <li>• predictions in the EIS and SEEs prepared for the development;</li> </ul>	AEMR 2013, 2014, 2015	<p>AEMRs have been completed during the audit period.</p> <p>Sections that address the condition requirements:</p> <p>a) Section 3 (all)</p> <p>b) Section 3.6</p> <p>c) &amp; d) Section 3.1 to 3.4. Predictions from the EIS/SEE are not included in the AEMRs as the scenario of rehabilitation not assessed for impacts and no extraction was completed during the reporting years</p> <p>e) Trends are discussed in Section 3.1 to 3.4</p> <p>f) &amp; g) Non compliances discussed in Section 3.1 to 3.4 where relevant</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(e) identify any trends in the monitoring over the life of the development;</p> <p>(f) identify and discuss any non-compliance during the previous year; and</p> <p>(g) describe what actions were, or are being, taken to ensure compliance.</p>				
<b>INDEPENDENT ENVIRONMENTAL AUDIT</b>					
5.6	<p>By the end of September 2006, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:</p> <p>(a) be conducted by a suitably qualified, experienced, and independent person, or team, whose appointment has been endorsed by the Secretary;</p>	<p>Interview Environment Manager</p> <p>IEA Report 2007</p> <p>This audit</p>	<p>– IEA report issued March 2007 confirms audit was completed November 2006 with commissioning 25 September 2006.</p> <p>Audits for 2009 and 2012 were not completed as anecdotally the Site was advised that audits were not required as the Site was no longer actively extracting ROM coal. Evidence of this advice is unable to be provided and in lieu of this, it is considered by the DP&amp;E to be unlikely this exemption would have been issued.</p>	NC	No further actions are required.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(b) be consistent with ISO 19011:2002 – Guidelines for Quality and/or Environmental Systems Auditing, or equivalent updated versions of these guidelines;</p> <p>(c) assess the environmental performance of the development, and its effects on the surrounding environment;</p> <p>(d) assess whether the development is complying with the relevant standards, performance measures, and statutory requirements;</p> <p>(e) review the adequacy of the Applicant's Environmental Management Strategy and Environmental Monitoring Program; and</p> <p>(f) if necessary, recommend measures or actions to improve the environmental performance of the development, and/or the environmental management and monitoring systems.</p>				

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
5.7	Within 3 months of commissioning this audit, the Applicant shall submit a copy of the audit report to the Secretary, with a response to any of the recommendations contained in the audit report.	This audit	This audit to be issued with date of commissioning (approval of auditors granted by DP&E 25 January 2016 with commissioning commencing from this date. Therefore copy of the audit report due for submission before 25 April 2016).	C	
<b>COMMUNITY CONSULTATIVE COMMITTEE</b>					
5.8	<p>The Applicant shall ensure that there is a Community Consultative Committee to oversee the environmental performance of the development. This committee shall:</p> <p>(a) be comprised of:</p> <ul style="list-style-type: none"> <li>• 2 representatives from the Applicant, including the person responsible for environmental management at the mine;</li> <li>• 1 representative each from GSC and NSC; and</li> <li>• 4 representatives from the local community,</li> </ul>	<p>Minutes of Canyon CCC 30<sup>th</sup> October 2013</p> <p>Email from DP&amp;E 30 March 2015</p> <p>Minutes of 1st Meeting of the Vickery Project CCC 4<sup>th</sup> June 2015.</p>	<p>The minutes from the CCC for October 2013 indicate non-attendance by community members and NSC representative. Requirement for 2 representatives from Whitehaven and 1 representative each from GSC and NSC fulfilled. Only three members of the community were invited.</p>	ANC	Consider forwarding the minutes of the Vickery Project CCC to the DP&E as requested.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>whose appointment has been approved by the Secretary in consultation with the GSC and NSC;</p> <p>(b) be chaired by the representative from either GSC or NSC, as agreed by the Councils;</p> <p>(c) meet at least four times a year, or as determined by the Secretary; and</p> <p>(d) review and provide advice on the environmental performance of the development, including any construction or environmental management plans, monitoring results, audit reports, or complaints.</p>		<p>DP&amp;E acknowledged in email that the CCC for Canyon Mine is to be dissolved with the terms of reference to be transferred to the Vickery CCC. It was requested that this be raised in the Vickery CCC with formal notification of the outcome of this communicated to the DP&amp;E so it can be acted upon accordingly.</p> <p>The first CCC minutes for Vickery include Section 5.3 where dissolution of the Canyon CCC is done formally with agreement by the CCC that Canyon would be included in the Vickery scope.</p> <p>Minutes of the CCC have not been issued to DP&amp;E acknowledging formal transfer to Vickery CCC.</p>		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
5.9	<p>The Applicant shall, at its own expense:</p> <p>(a) ensure that 2 of its representatives attend the committee's meetings;</p> <p>(b) provide the committee with regular information on the environmental performance and management of the development;</p> <p>(c) provide meeting facilities for the committee;</p> <p>(d) arrange site inspections for the committee, if necessary;</p> <p>(e) take minutes of the committee's meetings;</p> <p>(f) make these minutes available at GSC and NSC within 14 days of the committee meeting, or as agreed to by the committee;</p> <p>(g) respond to any advice or recommendations the committee may have in relation to the environmental management or performance of the development; and</p>	<p>Minutes of Canyon CCC 25<sup>th</sup> October 2012</p> <p>Minutes of Canyon CCC 30<sup>th</sup> October 2013</p> <p>Minutes of Vickery Project CCC 4<sup>th</sup> June 2015.</p>	<p>a) Review of minutes indicate at least 2 members of Whitehaven coal attend the meetings</p> <p>b) Minutes provide project updates relevant to stage of works</p> <p>c) Meetings held at Canyon Mine and Rocglen training rooms</p> <p>d) CCC of October 2013 included tour of site to inspect rehabilitation</p> <p>e &amp; f) minutes provided and available on the website for the Vickery site. Minutes for Canyon not on website. Evidence of minutes made available to GSC and NSC within 14 days not available.</p> <p>g) Minutes include discussion on performance but as Vickery is still in development phase these discussions are currently limited</p>	ANC	<p>Consider uploading Canyon Mine CCC minutes to the website and send link to GSC and NSC.</p> <p>Ensure further CCC minutes are sent via email to provide evidence of submission within required timeframes.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	(h) forward a copy of the minutes of each committee meeting, and any responses to the committee's recommendations to the Secretary within a month of the committee meeting.		h) June minutes for Vickery - JT said he will receive draft minutes from Whitehaven and will issue to each member for review and comment. Minutes are required to be finalised within 28 days but in some circumstances this may not be possible.		
<b>ACCESS TO INFORMATION</b>					
5.10	<p>Within 1 month of the approval of any management plan/strategy or monitoring program required under this consent (or any subsequent revision of these management plans/strategies or monitoring programs), the completion of the independent audits required under this consent (see conditions 30 of Schedule 3 and Condition 6 of Schedule 5), or the completion of the AEMR (see condition 5 of schedule 5), the Applicant shall:</p> <p>(a) provide a copy of the approved document/s to NSC, GSC, relevant agencies and the CCC; and</p>	<p>Letter from DP&amp;E dated 21/01/2016</p> <p>Website  <a href="http://www.whitehavencoal.com.au/environment/canyon_mine_environmental_management.cfm">http://www.whitehavencoal.com.au/environment/canyon_mine_environmental_management.cfm</a></p> <p>Letter to DRE 12 March 2013 AEMR submission 2012 and Closure Plan Update</p>	<p>All current plans accessed on website accessed 18/03/2016.</p> <p>AEMRs not include on Canyon Mine website.</p> <p>Mining Operations Plan updates and AEMRs sent to DRE. AEMR not sent to NSC, GSC, CCC or other agencies (EPA, DPI (Water)).</p>	NC	Consider loading AEMRs to Canyon Mine website and send link to NSC, GSC, EPA and DPI (Water). Also table AEMRs at the next CCC meeting for Vickery Project scheduled June 2016.



No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	(b) ensure that a copy of the relevant documents is made publicly available at NSC and GSC offices,  to the satisfaction of the Secretary.	Letter to DRE 27 January 2015 re AEMR 2014 submission  Letter to DRE 6 February 2015 re MOP submission			
5.11	During the life of the development, the Applicant shall;  (a) make the results of the monitoring required under this consent publicly available at NSC and GSC offices; and  (b) update these results on a regular basis,  to the satisfaction of the Secretary.	Interview - Environment Manager  Website <a href="http://www.whitehavencoal.com.au/environment/canyon_mine_environmental_management.cfm">http://www.whitehavencoal.com.au/environment/canyon_mine_environmental_management.cfm</a>	Pollution monitoring data that is required to be collected by a licence condition must be published by the licensee in accordance with section 66(6) of the Protection of the Environment Operations Act (1997). This obligation does not apply to any monitoring conducted prior to 31 March 2012. The EPL monitoring requirements aligned with the MCoA. As the EPL has now been surrendered, this requirement is no longer valid. Usually this would ensure monitoring results are publically available.	ANC	Consider collating all monitoring results and sending to NSC and GSC or uploading to website and sending link to NSC and GSC to comply with this condition.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>REVISION OF STRATEGIES AND PLANS</b>					
5.12	<p>Within 3 months of:</p> <p>(a) the submission of an AEMR under condition 5 above;</p> <p>(b) the submission of an audit under condition 6 above; or</p> <p>(c) any approved modification to the conditions of the consent (unless the conditions require otherwise), the Applicant shall review, and if necessary revise, the strategies, plans and programs required under this consent to the satisfaction of the Secretary. Where this review leads to revisions of any plan then within four weeks of the review the revised document must be submitted to the Secretary for approval.</p>	<p>AEMRs 2013, 2014, 2015</p> <p>Plans (Biodiversity Offset Management Plan</p>	<p>AEMRs cover period 1 July to 30 June (financial year).</p> <p>Modifications of consent dates: 22 August 2007, 19 August 2008 and 3 September 2015</p> <p>Last audit submitted 2006.</p> <p>Revision records for Plans indicate initial drafting in 2005 or 2007 with updates in November 2015 reflecting 2015 Conditions of Consent modification. Evidence of reviews for all other events unable to be provided.</p>	O	Consider including line items in the revision history table of all strategies and plans to record any reviews completed.

Annex B

Audit Table –Mining Lease  
1464 & 1471

**Table B1 Compliance Assessment – Mining Leases**

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>ML1471</b>					
<b>Extraction of Coal</b>					
1	The lease holder shall extract as large a percentage of the coal in the subject area as is practicable consistent with the provisions of the Coal Mines Regulations Act 1982 and the Regulations thereunder and shall comply with any direction given or which may be given in this regard by the Minister.	Interview Environment Manager	- No mining or extraction has occurred during the audit period	NT	
<b>MINING, REHABILITATION, ENVIRONMENTAL MANAGEMENT PROCESS</b>					
<b>Mining Operations Plan</b>					
2.1	Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:-	This audit Mining Operations Plan	Refer to audit of Mining Operations Plan for implementation.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	(a) ongoing mining operations and environmental management; and  (b) ongoing monitoring of the project.				
2.2	The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement.	Letter to DRE dated 6 February 2015	Letter forwarding updated MOP to DRE provided which indicates plan has been prepared in accordance with current MOP guidelines (assessment of the MOP against the guidelines not completed as part of this Audit).	NV	
2.3	A Plan must be lodged with the Director-General:-  (a) prior to the commencement of operations;  (b) subsequently as appropriate prior to the expiry of any current Plan; and  (c) in accordance with any direction issued by the Director-General.	Letter to DRE dated 6 February 2015	Closure Mining Operations Plan covers period 7 September 2015 to 6 September 2022.  The previous MOP expired 30 June 2008 therefore the current MOP was submitted to DRE after expiry of previous MOP which is required by this Condition.	ANC	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
2.4	<p>The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:-</p> <p>(a) area(s) proposed to be disturbed under the Plan;</p> <p>(b) mining and rehabilitation method(s) to be used and their sequence;</p> <p>(c) areas to be used for disposal of tailings/waste;</p> <p>(d) existing and proposed surface infrastructure;</p> <p>(e) progressive rehabilitation schedules;</p> <p>(f) areas of particular environmental sensitivity;</p> <p>(g) water management systems (including erosion and sediment controls);</p> <p>(h) proposed resource recovery; and</p> <p>(i) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining land use/vegetation</p>	Mining Operations Plan 2015 to 2022	<p>Period of MOP is seven years.</p> <p>a) Appendix A includes maps indicating areas of disturbance</p> <p>b) Mining ceased at Canyon in July 2009 and no additional mining activities will be undertaken during the MOP term. Rehabilitation Planning is included in Section 6.</p> <p>c) No tailings to be produced. Section 2.4.5 Waste Management</p> <p>d) Section 2.4.3 and 2.4.4</p> <p>e) Sections 5, 6, 7, 8</p> <p>f) Sections 3.2.5 Flora and Fauna and Section 3.2.10 Aboriginal and Cultural Heritage</p> <p>g) Section 2.4.7</p> <p>h) Section 3.2.7 Soil Resources and Management</p> <p>i) Sections 5-8 Rehabilitation and Section 4 for Post Mining Land Use</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
2.5	The Plan when lodged will be reviewed by the Department of Mineral Resources.	Letter to DRE dated 6 February 2015 re lodgement of MOP	Letter forwarding updated MOP to DRE and requesting comment.	C	
2.6	The Director-General may within two (2) months of the lodgement of a Plan, require modification and re-lodgement.	Letter to DRE 18 May 2015 re updated MOP	Letter reviewed indicating DRE commented on MOP with response provided.	C	
2.7	If a requirement in accordance with clause (6) is not issued within two months of the lodgement of a Plan, lease holder may proceed with implementation of the Plan submitted subject to the lodgement of the required security deposit within the specified time.		Noted.	Note	
2.8	During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in clauses (5) - (7) above.	Letter to DRE dated 6 February 2015	Letter forwarding updated MOP to DRE during audit period completed as required.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>ANNUAL ENVIRONMENT MANAGEMENT REPORT</b>					
3.1	Within 12 months of the commencement of mining operations and thereafter annually or, at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General	<p>AEMR 2013, 2014, 2015</p> <p>Letter to DRE 27 January 2015 issuing 2014 AEMR</p> <p>Letter to DRE 7 November 2013 for issue of 2013 AEMR</p> <p>Letter to DRE 16 January 2012 for issue of 2012 AEMR report</p>	<p>AEMRs completed annually.</p> <p>Letter confirming 2012, 2013 and 2014 AEMR submitted to DRE/DI (Resources and Energy).</p>	C	
3.2	<p>The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:-</p> <p>(a) the accepted Mining Operations Plan;</p> <p>(b) development consent requirements and conditions;</p> <p>(c) Environment Protection Authority and</p>	AEMR 2013, 2014, 2015	<p>a) review of the AEMRs for the reporting period indicate performance against the latest MOP has not been included</p> <p>b) performance against consent requirements and conditions not completed</p> <p>c) performance against EPL and bore licences not completed</p> <p>d) not completed</p>	NC	Consider including all requirements for reporting into the AEMRs.



No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>Department of Land and Water Conservation licences and approvals;</p> <p>(d) any other statutory environmental requirements;</p> <p>(e) details of any variations to environmental approvals applicable to the lease area; and</p> <p>(f) where relevant, progress towards final rehabilitation objectives.</p>		<p>e) not completed</p> <p>f) rehabilitation progress discussed but context around progress towards final rehabilitation objectives not reported.</p>		
3.3	<p>After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.</p>	<p>Interview – Environment Mgr.</p> <p>AEMR 2013, 2014, 2015</p> <p>Letter to DRE 27 January 2015 issuing 2014 AEMR</p> <p>Letter to DRE 7 November 2013 for issue of 2013 AEMR</p> <p>Letter to DRE 16 January 2012 for issue of 2012 AEMR report</p>	<p>No correspondence received from the DRE during the audit period regarding the AEMR.</p>	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
3.4	The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies.	Interview Environment Manager	- No directions received to review the AEMR with other government agencies during the audit period.	NT	
<b>SHAFTS, DRIFTS AND ADITS</b>					
14	Operations shall be conducted in such a manner as not to cause any danger to persons or stock and the lease holder shall provide and maintain adequate protection to the satisfaction of the Minister around each shaft or excavation opened up or used by the lease holder.	Site Inspection  Interview Environment Manager	- The high walls and low walls of the final void have been regraded with batters generally less than 14 degrees and stabilised with pasture species.  Site is fenced to prevent stock entering site. Operations were restricted to open cut mining methods.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>DUMPS</b>					
15	The lease holder shall comply with any direction, given or which may be given by the Inspector regarding the dumping, depositing or removal of material extracted as well as the stabilisation and revegetation of any dumps of coal, minerals, mine residues, tailings or overburden situated on the subject area or the associated colliery holding.	Interview Environment Manager	- No movement of material during the reporting period. No directions received from the Inspector. Rehabilitation completed in accordance to Mining Operations Plan and Rehabilitation Monitoring Program.	C	
16	The lease holder shall comply with any direction given or which may be given by the Minister regarding the spraying of coal dumps on the subject area.	Interview Environment Manager  Site Inspection	- No coal dumps on site during audit period.	NT	
<b>DUST</b>					
17	The lease holder shall take such precautions as are necessary to abate any dust nuisance	Air Quality Monitoring Plan  Site Inspection	Refer to Air Quality Monitoring Program for implementation of mitigation measures.  No excessive dust emissions noted during the site inspection.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>MANAGEMENT AND REHABILITATION OF LANDS (GENERAL)</b>					
18	The lease holder shall not interfere in any way with any fences on or adjacent to the subject area unless with the prior written approval of the owner thereof or the Minister and subject to such conditions as the Minister may stipulate.	Site Inspection  Interview - Environment Manager  Minutes of Canyon CCC 30th October 2013  Minutes of 1st Meeting of the Vickery Project CCC 4th June 2015.	CCC minutes do not raise issue with fencing by community members.  Fences observed during site inspection appear intact.	C	
19	The lease holder shall observe any instruction given or which may be given by the Minister with a view to minimising or preventing public inconvenience or damage to public or private property	Interview - Environment Manager	No instructions received during audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
20	If required to do so by the Minister and within such time as may be stipulated by the Minister the lease holder shall carry out to the satisfaction of the Minister surveys of structures, buildings and pipelines on adjacent landholdings to determine the effect of operations on any such structures, buildings and pipelines.	Interview Environment Manager	- No requests for surveys to be completed by the Minister received during audit period.	NT	
21	If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of the Minister any lands within the subject area which may have been disturbed by the lease holder.	Interview Environment Manager	- No instructions received during audit period. Rehabilitation activities included in Mining Operations Plan.	NT	
22	Upon completion of operations on the surface of the subject area or upon the expiry or sooner determination of this authority or any renewal thereof, the lease holder shall remove from such surface such buildings, machinery, plant, equipment, constructions and works as may be directed by the Minister and such surface shall be rehabilitated and left in a clean, tidy and safe condition to the satisfaction of the Minister.	Site Inspection  Interview Environment Manager	- Remaining rehabilitation activities required to meet criteria for lease relinquishment include the demolition of the remaining workshop structure and explosives magazine and, rehabilitation of hardstand areas and the former gravel production area.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
23	If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of the Minister and within such time as may be allowed by the Minister any lands within the subject area which may have been disturbed by mining or prospecting operations whether such operations were or were not carried out by the lease holder.	Interview Environment Manager –	Rehabilitation activities included in Mining Operations Plan.	C	
24	The lease holder shall take all precautions against causing outbreak of fire on the subject area.	Minutes of 1st Meeting of the Vickery Project CCC 4th June 2015.  Site Inspection.  Bushfire Management Plan 2000	CCC a community representative raised concern about the limited number of volunteers in the local Rural Fire Service (RFS). He noted that the mines are restricted regarding firebreaks and that the Whitehaven Coal Environment Manager had done their best with firebreaks on the Canyon mine.  Fire breaks in the form of roads are maintained throughout the site.  A Bushfire Management Plan has been developed but is out of date as the site staging has changed from operations to rehabilitation.	ANC	Consider updating the Bushfire Management Plan to reflect current stage of works (rehabilitation).

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
25	The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment.	Water Management Plan  Site inspection	Refer to audit of the water management plan in Annex H for implementation of mitigation actions.	C	
<b>BLASTING</b>					
26	The lease holder shall monitor noise and vibration and institute controls, generally in accordance with the recommendations of Australian Standard AS-2187-1993 and ANZEC Guidelines.	Interview Environment Manager  AEMR 2013-2015	- No blasting has been completed during audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>TREES (PLANTING AND PROTECTION OF) FLORA AND FAUNA AND ARBOREAL SCREENS</b>					
27	If so directed by the Minister, the lease holder shall ensure that operations are carried out in such manner so as to minimise disturbance to flora and fauna within the subject area.	Rehabilitation Monitoring Program (includes Flora and Fauna Management)  Site Inspection	Refer to audit of Rehabilitation Monitoring Program for implementation of mitigating actions.	C	
29	The lease holder shall maintain an arboreal screen to the satisfaction of the Minister within such parts of the subject area as may be specified by the Minister and shall plant such trees or shrubs as may be required by the Minister to preserve the arboreal screen in a condition satisfactory to the Minister.	Site Inspection  Interview – Environment Manager	No areas specified by the Minister.  Audit inspection indicates the site has been re-contoured and rehabilitated to an extent such that exposed overburden and pit voids are not visible from public viewpoints.	C	
<b>SOIL EROSION</b>					
30	The lease holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the lease holder shall observe and perform any instructions given or which may be given by the Minister with a view to minimising or preventing soil erosion	Water Management Plan	Refer to audit of Water Management Plan for control of erosion.	C	



No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>ROADS</b>					
31	The lease holder shall pay to Narrabri Shire Council and Gunnedah Shire Council, Department of Land and Water Conservation or the Chief Executive, Roads and Traffic Authority the cost incurred by such Council or Department or Chief Executive of making good any damage caused by operations carried on by or under the authority of the lease holder to any road adjoining or traversing the surface or the excepted surface, as the case may be of the subject area.	Interview Environment Manager	- No correspondence received regarding costs incurred of repairing any damage caused by site operations during the audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
32	In the event of operations being conducted on the surface of any road, track or fire trail traversing the subject area or in the event of such operations causing damage to or interference with any such road, track or fire trail the lease holder, at his own expense, shall if directed to do so by the Minister provide to the satisfaction of the Minister an alternate road, track or fire trail in a position as required by the Minister and shall allow free and uninterrupted access along such alternate road, track or fire trail and, if required to do so by the Minister, the lease holder shall upon completion of operations rehabilitate the surface of the original road, track or fire trail to a condition satisfactory to the Minister.	Interview Environment Manager	- No operations completed at the site - activities restricted to rehabilitation.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>CATCHMENT AREAS</b>					
33	<p>(a) Operations shall be carried out in such a way as not to cause any pollution of the Namoi River Catchment Area.</p> <p>(b) If the lease holder is using or about to use any process which in the opinion of the Minister is likely to cause contamination of the waters of the said Catchment Area the lease holder shall refrain from using or cease using as the case may require such process within twenty four (24) hours of the receipt by the lease holder of a notice in writing under the hand of the Minister requiring the lease holder to do so.</p> <p>(c) The lease holder shall comply with any regulations now in force or hereafter to be in force for the protection from pollution of the said Catchment Area.</p>	<p>Incident Register</p> <p>Interview - Environment Manager</p> <p>Water Management Plan</p>	<p>No discharges of water off site occurred during the audit period.</p> <p>No Notices in Writing received from the Minister during the audit period.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>TRANSMISSION LINES, COMMUNICATION LINES AND PIPELINES</b>					
41	The lease holder shall as far as is practicable so conduct operations as not to interfere with or impair the stability or efficiency of any transmission line, communication line or pipeline traversing the surface or the excepted surface of the subject area and shall comply with any direction given or which may be given by the Minister in this regard.	Site Inspection  Interview - Environment Manager	No transmission line, communication line or pipeline traversing the surface through the Site.	C	
<b>ABORIGINAL PLACE OR RELIC</b>					
43	The lease holder shall not knowingly destroy, deface or damage any aboriginal place or relic within the subject area except in accordance with an authority issued under the National Parks and Wildlife Act, 1974, and shall take every precaution in drilling, excavating or disturbing the land against any such destruction, defacement or damage	Aboriginal and Cultural Heritage Management Plan	Refer to audit of Aboriginal and Cultural Heritage Management Plan in Annex I for assessment of implementation of mitigants.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>LABOUR/EXPENDITURE</b>					
44	<p>The lease holder shall during each year of the term of the authority:</p> <p>(a) ensure that at least 16 workers are efficiently employed on the subject area; or</p> <p>(b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than Two Hundred &amp; Eighty Thousand Dollars (\$280,000).</p> <p>The Minister may, at any time after a period of two (2) years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, increase or decrease the amount of expenditure or labour required.</p>	<p>Interview Environment Manager</p> <p>-</p>	<p>As the site is no longer operational, no permanent staff are located on site. The expenditure for the Canyon Mine site was not available for review.</p>	NV	<p>Provision of expenditure from accounts is required to confirm if this condition is met. As the site is no longer operational, considered submitting an application to decrease or remove this requirement from the Mining Leases.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>ADDITIONAL INFORMATION</b>					
45	<p>The lease holder shall if directed by the Minister and within such time as the Minister may stipulate furnish to the Minister:</p> <p>(a) information regarding the ownership of the land within the subject area;</p> <p>(b) information regarding the ownership of the coal within the subject area prior to 1<sup>st</sup> January, 1982;</p> <p>(c) an indemnity in a form approved by the Minister indemnifying the Crown and the Minister against any wrong payment effected as a result of incorrect information furnished by the lease holder;</p> <p>(d) information regarding the financial viability of the lease holder and operations within and associated with the subject area; and</p> <p>(e) information regarding shareholdings in the lease holder.</p>	Interview Environment Manager	- No correspondence received from Minister during audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>SERVICE OF NOTICES</b>					
46	<p>Within a period of three (3) months from the date of this authority or a period of three (3) months from the date of service of the notice of renewal, or within such further time as the Director General may allow the lease holder shall serve on each landholder within the subject area a notice in writing indicating that this authority has been granted or renewed and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area.</p> <p>If there are ten (10) or more landholders affected the lease holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted or renewed, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area</p>		Outside of audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>INSPECTORS</b>					
47	<p>(a) Where an Inspector under the Mining Act 1992 is of the opinion that any condition of this authority relating to operations within the subject area, or any provision of the Mining Act, 1992, relating to operations within the subject area, are not being complied with by the lease holder, the Inspector may serve on the lease holder a notice stating that and give particulars of the reason why, and may in such notice direct the lease holder:</p> <p>(i) to cease operations within the subject area in contravention of that condition or Act; and</p> <p>(ii) to carry out within the specified time works necessary to rectify or remedy the situation.</p> <p>(b) The lease holder shall comply with the directions contained in any notice served pursuant to sub paragraph (a) of this condition. The Director General may confirm, vary or revoke any such direction.</p>	Interview Environment Manager	- No inspectors visited site during period. No directions issued.	NT	



No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	(c) A notice referred to in his condition may be served on the Colliery Manager.				
<b>INDEMNITIES</b>					
48	The lease holder shall indemnify and keep indemnified the Crown from and against all actions suits and claims and demands of whatsoever nature and all costs charges and expense which may be brought against the lease holder or which the lease holder may incur 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 boundaries of the subject area or in connection with any of the operations notwithstanding that all other conditions of this authority 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 which the lease holder may be licensed or compelled to do hereunder.		Noted.	Note	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
49	The lease holder shall save harmless the Crown from payment of compensation and from and against all claims, actions, suits or demands whatsoever in the event of any damage resulting from mining operations under or near the subject area.		Noted.	Note	
<b>PROSPECTING</b>					
50	<p>(a) Where the lease holder desires to commence prospecting operations in the subject area the lease holder shall notify the Director General in writing and shall comply with such additional conditions as the Minister may impose including any condition requiring the lodgement of an additional bond or other form of security for rehabilitation of the area affected by such operations.</p> <p>(b) Where the lease holder notifies the Director General pursuant to sub paragraph (a) of this condition the lease holder shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.</p>	Interview Environment Manager -	No prospecting has been completed during the audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>SECURITY DEPOSIT</b>					
51	(a) The lease holder shall, upon request by the Director General, lodge with the Minister the sum of Ten Thousand Dollars (\$10,000) (ML1471) / Seventy Seven Thousand Five Hundred Dollars (\$77,500) (ML1464) and as security for the fulfilment of the obligations of the lease holder under this authority. In the event that the lease holder fails to fulfil any of the lease holder's obligations under this authority the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purposes of the clause a lease holder shall be deemed to have failed to fulfil the lease holder's obligations under this authority, if the lease holder fails to comply with any condition or provision of this authority, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision of this authority or of any provision of the Act or regulations made thereunder.	Interview Environment Manager	- Evidence that this sum was provided is not available.	NV	Consider obtaining evidence from the Director General if no records within Whitehaven Coal.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p><u>ML1471:</u></p> <p>(b) The lease holder must provide the security required by sub-clause (a) hereof in one of the following forms:-</p> <p>(i) cash, or</p> <p>(ii) a security certificate in such form and given by such surety as may from time to time be approved by the Minister.</p> <p>(c) The Minister may at any time after the commencement of this authority or any renewal thereof, vary the amount of security required in accordance with this condition</p> <p><u>ML1464:</u></p> <p>(b) The Minister may at any time after the commencement of this authority or any renewal thereof, vary the amount of security required in accordance with this condition;</p> <p>(c) Where the amount of security has been increased pursuant to Clause (b) hereof the lease holder shall, within two (2) months of being requested by the Minister, lodge a security for the amount of security required, in which case the Minister shall refund or release to the lease holder the security previously lodged.</p>				

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<b>ROYALTY AT ADDITIONAL RATE</b>					
54	The lease holder shall during the term of this authority pay to the Minister royalty at the additional rate as prescribed by the Regulations for coal recovered by open cut mining methods from the area.	Interview Environment Manager	- No extraction of coal has been completed on the site during the audit period.	NT	

Annex C

Audit Table –EPL10094

**Table C.1 Compliance with Environment Protection Licence (EPL) 10094 (surrendered 21 September 2015)**

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>Crushing, Grinding or Separating 0 - 30000 T processed</p> <p>Mining for Coal 0 - 500000 T produced</p>	<p>POEO Schedule 1</p> <p>Site Inspection</p> <p>Interview - Environment Manager</p> <p>Notice of Determination of a Local Activity Approval (C5)</p>	<p>No EPL activities completed during audit period.</p> <p>Schedule 1 of the POEO Act Activity 9 (Chemical Storage) - includes capacity to store petroleum products more than 2 000tonnes and 20 tonnes pressurised gases (assumed 1 L = 1 kg). Noted during site inspection 4000L diesel storage for generator, 3 IBCs for storage of hydraulic oil (capacity 1000L per IBC) which is below Schedule 1 activity.</p> <p>Schedule 1 also lists sewage treatment as requiring licensing if over 750kL/day. Site staffs approximately 5 FTE with drivers and contractors also using site. Sewage is treated and then discharged to irrigation area under Notice of Local Determination.</p> <p>No other scheduled activities noted.</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>CANYON COAL MINE</p> <p>HOADS LANE</p> <p>BOGGABRI</p> <p>NSW 2382</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>This 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) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.				
<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 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 for period	Review of results indicates the five points were monitored as required.	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.  Wet weather discharge location descriptions SD-1, SD-2, SD-3, WW-13, WW-14 Plan 4 of the 2002/2003 AEMR titled "Mining & Rehabilitation Whitehaven Mine" dated August 2003.	Monitoring Results for period	Review of results indicates all sample points were monitored as required.	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  Field Service Report Taylex issued 23/03/2016	Refer to implementation of the Water Management Plan.  Site inspection indicates site surface is generally stable. Minor quantities of dangerous goods stored in the Hitachi work area stored generally on bunds or self bunded (fuel tank). The sewage treatment system discharges treated water to an irrigation area which is located approximately 120m to the east of the sediment ponds which discharges off site. This system is maintained monthly by sub-contractor to Hitachi (Taylex) which includes check for pH, dissolved oxygen and chlorine residual to confirm system is operating as per design requirements.  Unbunded waste oil stored in an old drum was noted outside the Whitehaven Coal historical maintenance shed during the site inspection.	NC	Consider the removal of the waste oil drum located outside the Whitehaven Coal historical maintenance shed or store within a bund.

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>L2 Concentration Limits</b>					
L2.1	For each monitoring/discharge point or utilisation area specified in the table\ 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 2012-2013  AEMR 2013-2014  AEMR 2014-2015	There were no wet weather discharges from the site during the audit period.  A flow event was sampled at the ambient monitoring points in January 2013 however no discharge occurred from site. All results were within limits with exception of a slightly low pH level recorded at WW12 (downstream monitoring location) and TSS above limits at WW11 (upstream monitoring location).	C	
L2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	EPL  Monitoring results	There were no wet weather discharges from the site during the audit period. pH 100%tile of internal water monitoring (excluding voids which are contained) is within the range of 6.5 to 9.0.	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\s.	EPL	Noted.	Note	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
L2.4	Water and/or Land Concentration Limits  Refer Point 1, 2, 3, 16, 17 in EPL.	Monitoring Results – Excel Sheet covering audit period  AEMR 2012-2013  AEMR 2013-2014  AEMR 2014-2015	There were no wet weather discharges from the site during the audit period.  A flow event was sampled at the ambient monitoring points in January 2013 however no discharge occurred from site. All results were within limits with exception of a slightly low pH level recorded at WW12 (downstream monitoring location) and TSS above limits at WW11 (upstream monitoring location).	C	
<b>L3 Noise Limits</b>					
L3.1	Noise generated at the premises must not exceed the noise limits in the table below.	Site Inspection  Interview – Environment Manager	The EPL was varied in November 2011 and noise monitoring removed as a requirement of the EPL, and is therefore no longer undertaken. The EPL has since been surrendered.	NT	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
L3.2	<p>Determining Compliance</p> <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 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>Site Inspection</p> <p>Interview Environment Manager</p> <p>-</p>	<p>No monitoring completed during the audit period. No activities noted during the site inspection - no permanent staff or equipment on site.</p>	NT	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
	<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>				
L4.6	<p>A non-compliance with the noise limits condition in this licence will still occur where noise generated from the premises in excess of the appropriate limit is measured:</p> <ul style="list-style-type: none"> <li>at a location other than an area prescribed by the noise limits in this licence; and/or</li> <li>at a point other than the most affected point at a location.</li> </ul>	<p>Site Inspection</p> <p>Interview Environment Manager</p> <p>-</p>	<p>No monitoring completed during the audit period. No noisy activities noted during the site inspection.</p>	NT	
L4.7	<p>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.</p>	<p>Site Inspection</p> <p>Interview Environment Manager</p> <p>-</p>	<p>No monitoring completed during the audit period. No noisy activities noted during the site inspection.</p>	NT	

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>	<p>Site Inspection</p>	<p>No EPL activities completed during audit period.</p> <p>Wastes are confined to domestic, sewage and waste hydrocarbons generated in the Hitachi lease area. Wastes were noted to be stored appropriately. Minor quantities of dangerous goods were stored on self bundled pallets inside the stores shed.</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</p> <p>Quarterly maintenance reports - Novercom 2013 - 2015</p>	<p>There is no permanent plant located on site with dozer brought onto site during regrading campaigns only. Earthmoving contractor equipment must pass appropriate mining design guidelines (MDG) (issued by DI (Resources &amp; Energy) for acceptance on site which assures equipment is appropriately maintained.</p>	<p>NC</p> <p>Duplicated with MCoA 2.11</p>	<p>Consider completing maintenance on the groundwater pumps or decommission if no longer required.</p>

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
			<p>Weather station is maintained by Novercom (inspection completed quarterly). Monthly checklist also lists checks for the weather station but not currently completed.</p> <p>Monitoring equipment is maintained by ALS during monitoring events.</p> <p>Pumps and associated infrastructure is not maintained.</p>		Consider updating the Whitehaven Coal monthly environmental inspection checklists to reflect checks on the weather station which can be completed by the Environmental Advisor to ensure ongoing operation.
<b>O3 Dust</b>					
O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Site inspection	Site rehabilitated. No dust emissions noted during site walkover.	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	Monitoring records maintained in excel spreadsheets.	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 Monitoring Program</p> <p>Water Management Plan</p> <p>Closure MOP</p> <p>Environment Management Strategy</p>	No plans currently outline record keeping requirements.	ANC	Consider including record keeping requirements (which includes retention times) in the relevant monitoring plans such as the Air Quality and Water Management Plan.
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>(a) the date(s) on which the sample was taken;</p> <p>(b) the time(s) at which the sample was collected;</p> <p>(c) the point at which the sample was taken; and</p> <p>(d) the name of the person who collected the sample.</p>	<p>Monitoring results - Water Quality Monitoring Results excel database</p>	Review of results indicates all requirements met with the exception of the name of the person collecting the sample.	ANC	Although monitoring under the EPL is no longer required, consider including the name of the person collecting the sample onto the excel databases (best practise).

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 - Water Quality Monitoring Results excel database	Monitoring completed as required by this condition.	C	
M2.2	Water and/ or Land Monitoring Requirements  Please refer to Point 1, 2, 3, 16, 17 table on page 10 of EPL.	Monitoring results - Water Quality Monitoring Results excel database	Monitoring completed as required by this condition.	C	
<b>M3 Testing Methods - concentration limits</b>					
M3.1	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.	Monitoring results - Water Quality Monitoring Results excel database  Approved Methods for the Sampling and Analysis of Water Pollutants	Collection and analysis of the surface and groundwater samples are collected by ALS and analysis completed by ALS (NATA accredited laboratory).	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>M4 Recording of pollution complaints</b>					
M4.1	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.	Complaints data – refer website <a href="http://www.whitehavencoal.com.au/environment/canyon_mine_environmental_management.cfm">http://www.whitehavencoal.com.au/environment/canyon_mine_environmental_management.cfm</a>	No complaints received during audit period.	C	
M4.2	<p>The record must include details of the following:</p> <p>(a) the date and time of the complaint;</p> <p>(b) the method by which the complaint was made;</p> <p>(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;</p> <p>(d) the nature of the complaint;</p> <p>(e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and</p>	Complaints data – refer website <a href="http://www.whitehavencoal.com.au/environment/canyon_mine_environmental_management.cfm">http://www.whitehavencoal.com.au/environment/canyon_mine_environmental_management.cfm</a>	<p>No complaints received during audit period.</p> <p>Review of records retained prior to audit period indicates required details are recorded.</p>	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
	(f) if no action was taken by the licensee, the reasons why no action was taken.				
M4.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	<a href="http://www.whitehavencoal.com.au/environment/canyon_mine_environmental_management.cfm">http://www.whitehavencoal.com.au/environment/canyon_mine_environmental_management.cfm</a>	All complaints kept on website with records from 2006 to 2016 listed.	C	
M4.4	The record must be produced to any authorised officer of the EPA who asks to see them.	Interview Environment Manager –	No requests for data made during audit period. Results available on website.	C	
<b>M5 Telephone complaints line</b>					
M5.1	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.whitehavencoal.com.au/environment/canyon_mine_environmental_management.cfm">http://www.whitehavencoal.com.au/environment/canyon_mine_environmental_management.cfm</a>	Website lists phone number 02 6742 4337.  Tested number on 21/03/2016 at 12:00pm – goes directly to office and is manned during office hours.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
M5.2	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 – Environment Manager  CCC Minutes of Meeting for Canyon Coal 25 October 2012	Complaints line number is provided on website for Canyon 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	
M5.3	The preceding two conditions do not apply until the following:  (a) the date of the issue of this licence or  (b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.	EPL licence last version issued 31 January 2012 and surrendered on the 11th September 2015	EPL issued therefore above two conditions were relevant.	Note	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<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</p> <p>EPA EPL website (<a href="http://www.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=10094&amp;id=10094&amp;operation=licence&amp;searchrange=general&amp;range=Licence&amp;prp=no&amp;status=Surrendered">http://www.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=10094&amp;id=10094&amp;operation=licence&amp;searchrange=general&amp;range=Licence&amp;prp=no&amp;status=Surrendered</a>)</p>	<p>EPA website indicates all returns completed and with last return received 28 October 2015 after surrender of EPL on 11 September 2015.</p> <p>Last non-compliance reported for annual return lodged 31 May 2013 - total suspended solids concentration limit exceeded in July 2012, caused by a rainfall event. Canyon Mine site under closure &amp; rehabilitation. No activities at site contributing to elevated sediment load.</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</p> <p>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 – Environment Manager</p>	<p>Licence holder is Whitehaven Coal. Transfer of the EPL to new licensee not completed during the audit period. EPL now surrendered.</p>	NT	
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</p>	EPA EPL website	<p>Annual return was submitted 28 October 2015 after surrender of EPL on 11 September 2015.</p>	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
	- the date from which notice revoking the licence operates.				
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 Environment Manager  Annual Return May 2015 and October 2015	- Soft copies of annual returns are retained on share drive.	C	



Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
R1.7	<p>Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:</p> <p>(a) the licence holder; or</p> <p>(b) by a person approved in writing by the EPA to sign on behalf of the licence holder.</p>	Annual Return May 2015 and October 2015	The annual returns are signed by the company directors.	C	
R1.8	A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.	Interview Environment Manager –	Not applicable for audit period – licence not issued under Pollution Control Act 1970.	NT Open	
<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>	Incident Register  Interview Environment Manager –	No incidents have been reported for the audit period.	NT	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
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 Register  Interview Environment Manager -	No incidents have been reported for the audit period.	NT	
<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 Environment Manager -	No requests received during the audit period.	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 Environment Manager -	Noted.	NT	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
R3.3	<p>The request may require a report which includes any or all of the following information:</p> <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>	Interview Environment Manager -	Noted.	NT	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
R3.4	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.	Interview Environment Manager -	Noted.	NT	
<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.	Interview Environment Manager -	EPL has now been surrendered.	NT	
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	Interview Environment Manager -	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.	Whitehaven Website <a href="http://www.whitehavencoal.com.au/environment/rocglen_mine_environmental_management.cfm">http://www.whitehavencoal.com.au/environment/rocglen_mine_environmental_management.cfm</a>	EPL surrendered therefore no longer applicable. Review of Whitehaven website indicates EPLs are included on project web pages where applicable.	C	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
<b>8 SPECIAL CONDITIONS</b>					
<b>E1 Discontinuation of Mining</b>					
E1.1	Note: The EPA understands that the licensee has ceased coal mining and handling activities at the premises. It is the EPA's intention to include a Pollution Reduction Program requiring the licensee to conduct a site specific determination of best management practices to reduce particulate emissions from coal mining activities, if coal mining recommences.	Interview Environment Manager -	The EPL has now been surrendered.	NT	
E1.2	The licensee must notify the EPA's Manager, Armidale Region in writing prior to mining or handling any coal on the premises	Interview Environment Manager -	Noted.	Note	

Annex D

Audit Table – Water Access  
Licence 29458

**Table D.1 Compliance with Water Access Licence 29458**

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 monthly inspections 2012-2015</p> <p>AEMRs 2012-2015</p>	<p>Annual water allocation is 50ML</p> <p>Monthly site inspections include provision to record pump readings – these have not been recorded in the site inspection reports reviewed.</p> <p>AEMRs do not report on water extraction volumes.</p> <p>The auditor was advised by the Environment Manager that extraction volumes are not currently recorded.</p>	NV	Consider the recording of the pump readings in the monthly reports to record extraction volumes for the water year to ensure volumes are below the maximum allocation.

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 Environment Manager	- A logbook is not maintained for the pumps.	NC	Consider developing a logbook for the pumps to record extraction volumes.
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 Environment Manager	- Groundwater wells do not have data loggers installed.	NT	



Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
MW0633-00001	<p>The licence holder must record the following in the logbook:</p> <p>(i) each date and period of time during which water is taken under this licence;</p> <p>(ii) the volume of water taken on that date;</p> <p>(iii) the water supply work approval number of the water supply work used to take the water on that date;</p> <p>(iv) the purpose or purposes for which the water taken on that date.</p>	Interview – Environment Manager	A logbook is not currently maintained for the pumps.	<p>NC</p> <p>Duplicated with MW0635-00001 and MW0632-00001</p>	Consider developing a logbook for the pumps which includes the required information.
MW0636-00001	The licence holder must produce the logbook to the Minister for inspection, when requested.	Interview – Environment Manager	A request for the logbook has not been made 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 – Environment Manager	A data logger is not installed in the wells. A logbook is not currently maintained for the pumps.	<p>NC</p> <p>Duplicated with MW0635-00001 and MW0633-00001</p>	Consider developing a logbook for the pumps.

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
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.	Water Management Plan	The Water Management Plan does not currently outline record retention requirements.	O	Consider including record keeping requirement for the water access licence into the Water Management Plan
<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 Environment Manager	- 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</p>	<p>Interview Environment Manager</p> <p>Whitehaven Coal monthly site inspections 2012-2015</p>	- As volumes are not currently recorded, assessment of compliance with this condition is unable to be assessed.	NV	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
	licence share component for access licences with share components expressed as a number of unit shares.	AEMRs 2012-2015			
<b>Other Conditions</b>					
NIL					

Annex E

Audit Table – Closure Mining  
Operations Plan

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

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Air Quality</b>					
<p>Current controls to minimise the impact and risk of air pollution are:</p> <ul style="list-style-type: none"> <li>• Maintenance of groundcover at rehabilitation areas by (generally) restricting or excluding grazing;</li> <li>• Restriction of vehicular access to minimise exposed surfaces from traffic;</li> <li>• Ongoing monitoring of established groundcovers to ensure sufficient cover is maintained; and</li> <li>• Re-planting to cover crop where required.</li> </ul>	Section 3.2.1	<p>Site inspections</p> <p>Interview – Environment Manager</p> <p>Air Quality Monitoring Program</p> <p>Rehabilitation Monitoring Program</p>	<p>Refer to audit of Air Quality Monitoring Program</p> <p>Site inspection confirms stock is kept off the site.</p> <p>Vehicle access restricted to formed roads.</p> <p>Monitoring of rehabilitation include in the Rehabilitation Monitoring Program (RMP). RMP states perimeter fencing was maintained to exclude stock from native tree planting areas with temporary fencing around tree lots also erected until trees reached height of 4-5m</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>In the event that any remaining infrastructure is decommissioned and removed prior to lease relinquishment air quality impacts will be managed by:</p> <ul style="list-style-type: none"> <li>• Utilising water carts to suppress dust where required during any demolition or earthworks activities (such as ripping hardstand areas); and</li> <li>• Establishing cover crops as soon as practicable upon completion of surface preparation.</li> </ul>	Section 3.2.1	<p>Interview – Environment Manager</p> <p>Site inspection</p> <p>Air Quality Monitoring Program</p>	The auditor was advised by the Environment Manager that the condition is met however, mitigation strategies and actions to be taken in the case on non-compliances being recorded is not currently included in the plan.	O	Consider adding into the Air Quality Monitoring Program mitigants for managing dust and actions to be taken in the case of exceedances of the air quality parameter.
<b>Surface and Groundwater</b>					
Surface water and groundwater impacts at Canyon Mine are managed in accordance with the approved Water Management Plan. The Water Management Plan includes an Erosion and Sediment Control Plan	Section 3.2.2	Water Management Plan	Refer to Water Management Plan for final commitments to manage impacts to surface and groundwater	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Discharges from Canyon report to Driggle Draggle Creek. To minimise potential for dirty water discharges entering receiving waters, sediment dams are regularly inspected and maintained as required to retain the design capacity. Water quality monitoring is undertaken at each LDP during each overflow event (i.e. while discharging), and upstream and downstream of Canyon in Driggle Draggle Creek to verify compliance with EPL water quality discharge limits.</p> <p>Sediment basins will continue to be maintained until the rehabilitated catchment has met rehabilitation completion criteria, and water quality monitoring at the LDP satisfies the NSW EPA's requirements to remove the LDP for the catchment from the EPL. Once discharge from a given catchment is considered clean water, sediment dams will be dewatered, desilted, and (where required) embankments will be graded and seeded to convert the basins to clean water storage dams for post mining use</p>	Section 3.2.2	<p>EPA EPL Website</p> <p>Surface water monitoring results – Excel Database covering audit period</p>	<p>The Canyon Mine EPL 10094 was surrendered on the 11th September 2015.</p> <p>There were no wet weather discharges from the site during the audit period.</p> <p>A flow event was sampled at the ambient monitoring points in January 2013 however no discharge occurred from site.</p> <p>All results were within limits with exception of a slightly low pH level recorded at WW12 (downstream monitoring location) and TSS above limits at WW11 (upstream monitoring location).</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Water monitoring in the void has been undertaken since 2009 and does not indicate a rising trend in EC indicating that there is no significant groundwater inflow into the void lake. Quarterly groundwater monitoring incorporates Standing Water Level (SWL), field Electrical Conductivity (EC) and field pH.</p> <p>Six monthly monitoring includes SWL, field pH and EC as well as laboratory analysis of EC, pH, metals and trace elements. Monitoring shows the void water EC has been stable from 2012 through 2013, with a maximum of 864 <math>\mu\text{S}/\text{cm}</math> compared to typical pit water recordings of 3000 – 4000 <math>\mu\text{S}/\text{cm}</math>.</p> <p>Groundwater monitoring will be ceased through staged removal of relevant monitoring points on relinquishment of the area</p>	Section 3.2.2	<p>Interview – Environment Manager</p> <p>Surface water monitoring results – Excel Database covering audit period</p>	<p>Check of results indicate both the upper and lower voids have a steadily increasing TDS (lower void increasing from 496 <math>\mu\text{S}/\text{cm}</math> to 2430<math>\mu\text{S}/\text{cm}</math> and upper void increasing from 315<math>\mu\text{S}/\text{cm}</math> to 846<math>\mu\text{S}/\text{cm}</math>) between 2012 and 2016. Rainfall in 2014 was below average and rainfall in 2015 has been above average however, an attendant rise then fall in conductivity was not noted in the void lakes. The rising trends may be indicative of some groundwater inflow into the voids.</p> <p>pH for both voids is consistent and remains slightly alkaline and above discharge criteria. The void water is contained on site.</p>	C	



Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Erosion and Sedimentation</b>					
Erosion and sedimentation impacts are managed in accordance with the Erosion and Sediment Control Plan, included in the Water Management Plan.	Section 3.2.3	Water Management Plan Site Inspection	Refer to audit of Water Management Plan for implementation of Erosion and Sediment Control Plan.  Audit inspection indicates swales, drainage lines and retention basins are installed. During the site inspection it was noted most of the site is now stabilised with the exception of parts of the void batters and the gravel pit area. Both of these areas are awaiting the Vickery Project to commence.	NC Duplicated with MCoA 3.21	Consider either stabilising or installing additional controls to prevent erosion and sediment run from the void batters and gravel pit area until the Vickery Project commences and permanent stabilisation works are completed.
As outlined in Section 3.2.2 above, all runoff from rehabilitation areas is directed to sediment basins and storage dams prior to discharge from site, or into the void lake.	Section 3.2.2 Section 3.2.3	Site Inspection  Interview – Environment Manager  Water Management Plan	Site inspection confirms water runoff is collected in retention basins/sediment dams prior to discharge off site – there have been no recorded discharges of water off site during the audit period.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Flora and Fauna</b>					
<p>Controls to reduce the potential for impacts to threatened flora include:</p> <ul style="list-style-type: none"> <li>• Fencing populations of Winged Peppercress to exclude grazing fauna and stock;</li> <li>• Enhancement of woodland communities by replanting and linking with remnant vegetation;</li> <li>• Exclusion of vehicular traffic other than on designated access roads;</li> <li>• Weed and feral animal control; and</li> <li>• Ongoing monitoring to confirm improving biomass across the rehabilitation zone to levels consistent with those in established control plots.</li> </ul>	Section 3.2.5	<p>Site Inspection</p> <p>Closure Mining Operations Plan</p> <p>Whitehaven Coal Monthly Environmental Site Inspections</p>	<p>The audit visually confirmed the presence and adequacy of :</p> <ul style="list-style-type: none"> <li>• fencing of populations of Winged Peppercress to exclude grazing fauna and stock;</li> <li>•enhancement of woodland communities by replanting and linking with remnant vegetation (rehabilitation is ongoing);</li> <li>• access roads noted on site – no physical restriction observed;</li> <li>• weed and feral animal control is undertaken on the site according to the Closure MOP – monthly site inspections include check for weeds; and</li> <li>• Rehabilitation Monitoring Plans document the annual monitoring results for biomass and other rehabilitation indicators on the site and at control plots.</li> </ul>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Management of fauna is undertaken in accordance with the sites Flora and Fauna Management Plan.	Section 3.2.5	Rehabilitation Monitoring Program (includes Flora and Fauna Management)	Refer to audit of Rehabilitation Monitoring Program (includes Flora and Fauna Management)	C	
<p>Management controls to reduce impact on threatened fauna include:</p> <ul style="list-style-type: none"> <li>• No additional clearing as part of rehabilitation process;</li> <li>• Replanting of the majority of the site to native vegetation to provide linkages with existing remnant vegetation and to enhance habitat value;</li> <li>• Ongoing control of weeds and feral animals;</li> <li>• Placement of felled/hollow timber back across the rehabilitation for habitat purposes; and</li> <li>• Ongoing monitoring to establish levels of fauna habitation across the rehabilitated area to confirm improving biodiversity and consistency with control plots.</li> </ul>	Section 3.2.5	<p>Interview – Environment Manager</p> <p>Site Inspection</p> <p>Monitoring and inspection records</p>	<p>No evidence of additional clearing at the site was identified during the site audit.</p> <p>Rehabilitation has been undertaken across the majority of the site; however a large part of the southern portion of the site remains un-rehabilitated due to fire events, and because the company has plans to develop the approved Vickery Project (SLR 2015).</p> <p>Felled and hollow timber was observed to have been placed within rehabilitation areas. This is also documented within annual Rehabilitation Monitoring Reports.</p> <p>Ongoing fauna monitoring is documented within the annual Rehabilitation Monitoring Reports.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Weed Management</b>					
<p>Weed management practices to be adopted during the MOP term include:</p> <ul style="list-style-type: none"> <li>• Ongoing visual assessments and annual weed monitoring;</li> <li>• Application of herbicides where required to control weed infestations;</li> <li>• Recording and controlling any occurrences of Class 4 noxious weeds in accordance with the Narrabri Shire Council management plan;</li> <li>• Restriction of grazing and vehicular traffic to minimise spread of weeds; and</li> <li>• Liaison with the North West Local Land Services (LLS) and adjacent landowners.</li> </ul>	Section 3.2.6	<p>Interview – Environment Manager</p> <p>Site Inspection</p> <p>Whitehaven Coal Monthly Environmental Site Inspection Checklists</p> <p>AEMRs 2012-2015</p> <p>Rehabilitation Monitoring Report 2013, 2014, 2015</p>	<p>Annual weed monitoring is not specifically reported in the Monitoring Reports but the presence of weeds is discussed. The rehabilitation monitoring reports reviewed all highlight the presence of both Prickly Pear and African Boxthorn.</p> <p>Site inspection indicates stock is kept off site and car access is limited to firebreaks and established tracks.</p> <p>The AEMRs report briefly on any outbreaks of weeds.</p> <p>Prickly Pear was noted during the site inspection which is a Class 4 weed. This was not noted in the monthly site inspection checklists recently completed.</p>	NC	Consider the control of Prickly Pear and African Boxthorn (Class 4 weeds) on the site and record its removal.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Controls in place to minimise the impact and potential for feral animal infestation include:</p> <ul style="list-style-type: none"> <li>• Ongoing visual observations of feral animal activity including inspections for all the nominated vertebrate pests will be conducted in conjunction with the biodiversity and post-mining rehabilitation monitoring program.</li> <li>• Liaison with adjoining landholders and the North West LLS, and participation with any local landholder and/or North West LLS vertebrate pest control programmes. Pest control actions may include 1080 poison baiting for European Rabbits, Feral Pigs and European Red Foxes, and the trapping of Feral Pigs.</li> </ul>	Section 3.2.6	<p>Interview – Environment Manager</p> <p>Site Inspection</p> <p>Minutes of Vickery Mine Project CCC 4th June 2015</p> <p>Whitehaven Coal Monthly Environmental Site Inspection Checklists</p> <p>Rehabilitation Monitoring Report 2013, 2014, 2015</p>	<p>Minutes of Vickery Mine Project CCC community member raised the issue of dogs on Whitehaven owned land and that he had contacted Whitehaven about it. Whitehaven responded that Whitehaven had written to existing property licensees advising that hunting dogs are required to be controlled and caged.</p> <p>Monthly checklists do not include checks for pest animals.</p> <p>European Hare and suspected Feral Pig were noted during site inspection. The Rehabilitation Monitoring Reports indicate the presence of pigs on site in the woodland areas.</p>	O	<p>Consider including checks for pest animals in the monthly environmental inspection checklist.</p> <p>Consider including further details of any pest eradication programs into the AEMRs.</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Soil Resources and Management</b>					
Long term soil stockpiles have been shaped and stabilised with grass and legume seed mixes and have erosion and sediment controls where appropriate. Existing soil stockpiles will continue to be monitored during routine inspections to identify erosion issues or presence of weeds. Routine maintenance including weed control, re-seeding with pasture species, and repairing erosion and sediment controls will be undertaken as required during the MOP term.	Section 3.2.7	Site Inspection  Whitehaven Coal Monthly Environmental Site Inspection Checklists	Monthly checklists include check of stockpiles for erosion, poor vegetation development.  During the site inspection it was noted that some gravel stockpiles in the gravel pit area were not stabilised.	NC – duplicated MCoA 3.21	Consider either stabilising or installing additional controls to prevent erosion and sediment run from gravel pit area.
Noise emission limits at sensitive receivers (surrounding residences) documented in the EPL (Condition L3.1) continue to apply. Anticipated sources of noise in the MOP term are associated with vehicular movements at the Maintenance Facility, demolition and removal of materials associated with the remaining workshop structure and ablution facilities, and minor earthworks associated with re-grading the explosives magazine bund, de-compacting hardstands and access roads, and rehabilitation maintenance.  In order to minimise the potential for any noise limit exceedances, all rehabilitation activities in the MOP term will be undertaken in daytime hours only.	Section 3.2.8	EPA EPL website  Site Inspection  Interview – Environment Manager	No monitoring completed during the audit period. No noisy activities noted during the site inspection.  EPL has now been surrendered	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Visual and Lighting</b>					
<p>The progressive rehabilitation to date has been designed to produce a final landform that is consistent with the surrounding topography. The site remains obscured from view from the Blue Vale Road to the east with the battered slopes on the northern and western sides obscuring views of the mine from Hoad Lane and adjoining rural properties.</p> <p>Additional controls to minimise visual impact includes:</p> <ul style="list-style-type: none"> <li>• Seedling plantings to screen the site from adjacent areas;</li> <li>• Plantings undertaken around the final void to provide a natural screen to the void; and</li> <li>• Fencing works using rural type fencing styles consistent with fencing in the general locality.</li> </ul>	Section 3.2.9	Site Inspection	<p>During the site inspection, it was noted site infrastructure is not visible from public roads.</p> <p>Plantings have been completed around the void where visible from outside the property. Fencing noted during the inspection was consistent with other fencing in the area.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Aboriginal and Cultural Heritage</b>					
<p>Archaeological investigations undertaken at Canyon since 1999 have identified four Aboriginal heritage sites in addition to a previously known site recorded in the AHIMS database. Three of these are fenced and assigned no go status. "Whitehaven 4" was located within the extraction area. Artefacts at this site were salvaged by representatives of the Red Chief LALC in accordance with a Section 90 Permit (No 2051) prior to disturbance.</p> <p>Aboriginal cultural heritage is managed in accordance with the approved Archaeology and Cultural Heritage Management Plan.</p>	Section 3.2.10	Aboriginal and Cultural Heritage Management Plan  Site Inspection	<p>The site inspection confirmed fencing is on place around the site located on the Whitehaven Mine site. Two locations outside the Canyon Mine lease area were not fenced but are located on private land.</p> <p>Refer to <i>Annex I</i> for audit against implementation of the Aboriginal and Cultural Heritage Management Plan.</p>	C	



Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Bushfire</b>					
<p>Control measures to minimise the potential for further occurrences of uncontrolled bushfire during closure are:</p> <ul style="list-style-type: none"> <li>• Maintaining fire breaks;</li> <li>• Ongoing consultation with the RFS;</li> <li>• Maintaining access to site and to water sources (storage dams) for fire-fighting; and</li> <li>• Monitoring fuel loads and fuel load reduction (back burning, slashing or controlled grazing) if required.</li> </ul>	Section 3.2.13	<p>Site Inspection</p> <p>Whitehaven Coal Monthly Environmental Site Inspections</p>	<p>Fire breaks in the form of roads are maintained throughout the site.</p> <p>Storage dams on site were noted to be effectively dry during the site inspection.</p> <p>Monitoring of fuel loads is not currently included in the monthly environment inspection checklist.</p>	O - duplicated with MCoA 3.41	<p>Consider including checks for fuel loads and adequacy of fire breaks into monthly environment checklist.</p> <p>In addition, identify potential water sources that could be accessed in the event of a fire and update the MOP and/or the Bushfire Management Plan as deemed appropriate.</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Drought</b>					
<p>Control features to reduce impact of drought may include:</p> <ul style="list-style-type: none"> <li>• Supplementary watering of seedlings to improve establishment;</li> <li>• Seeding and planting in appropriate conditions;</li> <li>• Restriction of grazing across rehabilitated areas;</li> <li>• Infill planting in areas affected by drought; and</li> <li>• Deep ripping (&gt;30cm) for new plantings to enhance infiltration capacity for storage of moisture in the profile.</li> </ul>	Section 3.2.14	<p>Site Inspection</p> <p>Interview – Environment Manager</p> <p>Rehabilitation Monitoring Reports 2013, 2014, 2015</p>	<p>Audit inspection confirmed site is fenced to prevent stock grazing on site.</p> <p>The Rehabilitation Monitoring Reports report that in 2014 conditions were below average however it was reported all rehabilitation zones, excluding Burnt_2013, presented no substantial areas of significant change and only scattered areas of groundcover increase.</p> <p>Planting is timed to coincide with rainfall as much as practicable.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Biodiversity Enhancement</b>					
In accordance with the rehabilitation strategy proposed in the 2005 SEE, the post mining landform will include at least 132 ha rehabilitated with native vegetation to contribute to regional biodiversity connectivity.	Section 4.2.2	Biodiversity Management Strategy  Rehabilitation Monitoring Program	Native vegetation rehabilitation areas will link with biodiversity enrichment zones that were initially proposed as biodiversity offsets in remnant native vegetation areas within ML 1471, and have since been voluntarily retained since the establishment of the off-site Whitehaven offset site, known as the Whitehaven Biobank Site, which incorporates Canyon Mine offsets.  Rehabilitation Monitoring Program states the total rehabilitated area (post mining operations) is approximately 200 ha, including 52 ha of pasture and grasses and 148 ha of native vegetation	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Pasture</b>					
The post mining landform will include at least 41.4 ha of land rehabilitated with native pasture. Pasture rehabilitation areas will be created with a mix of land capability classes that reflect the pre-mining environment and restore the potential for productive grazing areas with characteristics similar to pasture areas in the general locality.	Section 4.2.3	Site Inspection  Rehabilitation Monitoring Program	Rehabilitation Monitoring Program states the total rehabilitated area (post mining operations) is approximately 200 ha, including 52 ha of pasture and grasses and 148 ha of native vegetation	C	
<b>Final Void</b>					
<p>In accordance with DA 8-1-2005 MOD 2, one final void in the south western limits of the open cut extraction area has been retained in the final landform. The final void area has been designed and constructed to function as a permanent clean water storage dam. The high walls and low walls have been regraded with batters generally less than 14 degrees and stabilised with pasture species.</p> <p>The void batters above the permanent water level are proposed to be rehabilitated with native vegetation in the event that the Vickery Coal Project will not be developed</p>	Section 4.2.4	Site Inspection	Site inspection confirms one void on site in the south. Batters were mostly revegetated with pasture grasses with some tree regrowth occurring naturally.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Rehabilitation Monitoring</b>					
<p>Annual rehabilitation monitoring campaigns at Canyon Mine is undertaken in accordance with the Rehabilitation Monitoring Program for Canyon Mine.</p> <p>Rehabilitation monitoring reports are prepared annually and include:</p> <ul style="list-style-type: none"> <li>• Remote-sensing based landscape assessment (multi-spectral imagery);</li> <li>• Monitoring of grazing areas (using a combination of pasture attributes);</li> <li>• Native vegetation surveys;</li> <li>• Terrestrial fauna and habitat surveys; and</li> <li>• Analysis of results including statistical analysis (where appropriate).</li> </ul>	Section 8.1	<p>Rehabilitation Monitoring Reports 2012 - 2015</p> <p>AEMR 2013 -2015</p>	<p>Refer to audit of Rehabilitation Monitoring Program.</p> <p>Monitoring reports provided by the company include the monitoring items stated.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Rehabilitation Monitoring Records</b>					
<p>Annual rehabilitation monitoring campaign records are documented in a rehabilitation monitoring report which is appended to the AEMR. Rehabilitation monitoring records are supported by a range of operational records to assist verify achievement of rehabilitation completion criteria including:</p> <ul style="list-style-type: none"> <li>• A register of contamination sites and records of the movement of contaminated materials to the bioremediation area or transport offsite to licenced waste facilities;</li> <li>• Records of production wastes including coarse rejects transported from the Whitehaven CHPP and emplaced at Canyon;</li> <li>• Topsoil resource records including the topsoil stockpile register; and</li> <li>• Environmental monitoring records including surface and groundwater monitoring.</li> </ul>	Section 8.2	<p>AEMR 2013 - 2015 Rehabilitation Monitoring Reports</p> <p>Surface and groundwater monitoring excel spreadsheet</p>	<p>Rehabilitation monitoring records are documented in the rehabilitation monitoring report appended to the AEMR.</p> <p>The report does not refer to the operational records stated in this commitment. All known contaminated soils (associated with the previously decommissioned fuel storage area and workshops) have previously been remediated at an on-site bioremediation area, which was subsequently removed. No further instances of significant land contamination were reported during the audit period. No mining activities were undertaken during the audit period. Surface and groundwater monitoring is discussed in the AEMR main body of the report which also includes a summary of rehabilitation activities completed during the reporting period.</p>	O	Consider including in the references section of the Rehabilitation Monitoring Reports the list of operational records as discussed in this commitment to indicate these records have been considered.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Periodic Review Protocol</b>					
<p>This plan may be revised due to:</p> <ul style="list-style-type: none"> <li>• Deficiencies being identified;</li> <li>• Changes to environmental requirements due to (for example) changed legislation or regulatory requirements;</li> <li>• Changes in the activities described in this MOP; and</li> <li>• Where risk assessment identifies the requirement to alter the MOP.</li> </ul> <p>Any major amendments to the MOP that affect its application will be undertaken in consultation with the appropriate regulatory authorities and stakeholders. Any amendments would be completed in accordance with the latest MOP guidelines</p>	Section 10.3	EPA EPL Website	The Canyon Mine EPL 10094 was surrendered on the 11th September 2015. Date of MOP 7 September 2015 which refers to the EPL as current.	ANC	ANC - MOP to be updated to reflect EPL surrender.

## 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>ENVIRONMENTAL PERFORMANCE - MANAGEMENT AND MONITORING</b>					
Continued environmental management and monitoring of the site will be undertaken in accordance with the following plans: <ul style="list-style-type: none"> <li>• Archaeology and Cultural Heritage Management Plan</li> <li>• Air Quality Monitoring Program</li> <li>• Biodiversity Offset Management Plan</li> <li>• Closure Mining Operations Plan</li> <li>• Rehabilitation Monitoring Program</li> <li>• Water Management Plan</li> </ul>	Section 5	Closure Mining Operations Plan (issued 7 September 2015)  Air Quality Monitoring Program  Water Management Plan  Aboriginal and Cultural Heritage Management Plan  Rehabilitation Monitoring Program (includes Flora and Fauna Management).	Refer <i>Annexures G to J</i> for audit of plan implementation.  The offset strategy and the Flora and Fauna Management Plan are required to be audited separately as per MCoA Schedule 3 Condition 30. The Flora and Fauna Management Plan have since been replaced by the Rehabilitation Monitoring Plan and Biodiversity Management Plan. The Biobank Agreement has been registered to meet the biodiversity offset requirements for several Whitehaven Coal projects in the Gunnedah area and includes the number of credits that will be retired to meet the offset requirements for the Canyon, Rocglen and Tarrawonga mines as well as the Rocglen Mine Extension Project.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>INFORMATION DISSEMINATION, COMPLAINTS MANAGEMENT AND DISPUTE RESOLUTION</b>					
<b>Information Dissemination</b>					
<p>Dissemination of information to the local community and relevant agencies regarding the mining operation, its progress and environmental management performance, will be achieved by both formal and informal means including the following.</p> <p>Community Consultative Committee (CCC)</p> <p>The minutes of the CCC meetings are available on the Whitehaven website</p>	Section 6.1	Website – Rocglen CCC and Vickery Project Newsletters	Review of the Whitehaven Coal website indicates minutes of CCC not included.	ANC	<p>CCC minutes from Canyon Mine CCC to be added to website.</p> <p>Link to Vickery Project for future CCCs to be included On Canyon Mine site</p>
<p>Whitehaven Coal 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.</p>	Section 6.1	<p>Interview – Environment Manager</p> <p>Minutes of Canyon CCC 30th October 2013</p>	<p>Minutes of Canyon Mine indicate a site visit was included as part of the last meeting.</p> <p>Evidence of any open days/community days or open door policy not provide during audit.</p>	NV	<p>Evidence to be provided to enable verification of this commitment</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Copies of all management plans/strategies or monitoring programs, together with the results of independent audits undertaken in accordance with DA 8-1-2005 will be made publicly available on the Whitehaven website	Section 6.1	Website - Canyon Mine	Latest Management Plans are included on website with exception of Bushfire Management Plan; Closure Mining Operations Plan (used to replace Void Management Plan and Mine Closure Strategy); Rehabilitation Monitoring Program (replaces Flora and Fauna Management Plan). 2006 IEA report not currently included on website.	NC	Consider including last IEA report, Bushfire Management Plan, Closure Mining Operations Plan, Rehabilitation Monitoring Program onto Whitehaven website
<b>Complaint Management Procedure</b>					
<p>The following complaints management protocol will be followed:</p> <ul style="list-style-type: none"> <li>• A publicly advertised telephone complaints line is in place to receive complaints during operating hours and record complaints at other times.</li> <li>• Each complaint received will be recorded on a Complaints Register</li> </ul>	Section 6.2	Website - Canyon Mine	<p>Last complaint received 2007. All complaints recorded on Whitehaven website.</p> <p>Telephone complaints number supplied on website.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<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 6.4	Interview - Environment Manager	No reported non compliances during the audit period.	NT	
A review of the mine's compliance with all conditions of DA 8-1-2005, ML 1464 and ML 1471 will be undertaken during preparation of each Annual Review.	Section 6.4	AEMR 2013 - 2015	AEMRs do not currently include review of MCoA and ML conditions.	NC	AEMRs to include review of compliance against MCoA and ML conditions.
Additionally, an independent environmental audit will be undertaken once every three years and the report submitted to the Secretary and made available to the public on Whitehaven's website. The independent audit will be undertaken by an appropriately certified auditor in accordance with AS/NZS ISO 19011:2003 "Guidelines for Quality and/or Environmental Management Systems Auditing" or equivalent updated versions of these guidelines.	Section 6.4	IER 2006  This audit	IEAs have not been completed since 2006 as it was considered by Whitehaven that these were not required as the site was no longer operational.  Past IEA reports not available on website.	NC  Duplicated with MCoA 5.6	Consider including the IEA report from 2006 onto the Whitehaven website

Annex G

Audit Table – Air Quality  
Monitoring Program

**Table G.1 Compliance Assessment –Implementation of the Air Quality Monitoring Program**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>INTRODUCTION</b>					
This Air Quality Monitoring Program has been prepared in accordance with Schedule 3 Condition 5 of DA 8-1-2005, as modified; in consultation with the Environment Protection Authority (EPA) (Armidale); and where relevant in alignment with the previously approved operational Air Quality Monitoring Program	Section 1		Noted	Note	
<b>DEPOSITED DUST MONITORING</b>					
<b>Applicable Standards</b>					
<ul style="list-style-type: none"> <li>• AS/NZS 3580.10.1:2003 “Methods for Sampling and Analysis of Ambient Air – Determination of particulate matter – Deposited Dust – Gravimetric Method”.</li> <li>• AS/NZS 3580.1.1:2007 “Guide to Siting Air Monitoring Equipment”.</li> </ul> <p>Siting and sampling of each site is undertaken in accordance with the identified standards</p>	Section 2.1	Site Inspection	<p>Site inspection confirms sites for the deposited dust gauges have been selected:</p> <ul style="list-style-type: none"> <li>• to avoid restricted airflows;</li> <li>• such that the funnel has a minimum clear sky angle of 120°;</li> <li>• to avoid localised sources of pollution, e.g. unsealed roads;</li> </ul>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations										
			<ul style="list-style-type: none"><li>to avoid interference by stock;</li><li>in recognition of the closed status of the operation i.e. a select number of locations in proximity to the site have been selected; and</li><li>to ensure locations capture four general directions from site i.e. north, east, south and west.</li></ul>												
Monitoring Locations															
Table 1 - Deposited Dust Monitoring Locations <table><tr><td>Site (refer Figure 1)</td><td>Description</td></tr><tr><td>WD-1</td><td>Whitehaven Residence</td></tr><tr><td>WD-2</td><td>Merton</td></tr><tr><td>WD-12</td><td>Whitehaven Property</td></tr><tr><td>WD-13b</td><td>Wilga</td></tr></table>	Site (refer Figure 1)	Description	WD-1	Whitehaven Residence	WD-2	Merton	WD-12	Whitehaven Property	WD-13b	Wilga	Section 2.2	Site Inspection  Monitoring Results	Review of monitoring results confirms that locations are monitored monthly.	C	
Site (refer Figure 1)	Description														
WD-1	Whitehaven Residence														
WD-2	Merton														
WD-12	Whitehaven Property														
WD-13b	Wilga														

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Deposited Dust Sample Collection/Changeover Process</b>					
Sample collection and changeover is undertaken by trained Whitehaven Coal (Whitehaven Coal) contracted personnel, with analysis and reporting undertaken by a NATA accredited laboratory. The collection / changeover of sample bottles is to occur every 30 ± 2 days	Section 2.3	Monitoring Results  Interview – Environment Manager	Review of results confirms monitoring completed monthly with dates of installation and collection recorded. Samples are collected and analysed by ALS (NATA accredited lab).	O	Consider updating Air Quality Monitoring Program to reflect ALS collecting the sample (if Whitehaven Coal staff collecting sample then consider including procedure for correct collection methodology and maintenance checklist)
<b>DATA MANAGEMENT AND COMPLIANCE EVALUATION PROTOCOL</b>					
The monitoring results will be examined for compliance with the relevant criteria identified within Schedule 3 Table 2 of DA 8-1-2005 as identified in Table 2 and prior (historical) results.	Section 3	Monitoring Results	Results over parameters are highlighted in the monitoring results spreadsheet.	C	



Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>In the event of an exceedance of the criteria identified in Table 2, that is found to be mine related, Whitehaven Coal will:</p> <ul style="list-style-type: none"> <li>• Notify the Secretary (DP&amp;E);</li> <li>• Notify the affected landowner or tenant; and</li> <li>• Provide results to each party until the results show compliance with the criteria.</li> </ul> <p>In the event of an exceedance found not to be mine-related, the expected cause of the exceedance will be documented and reported in the Annual Review.</p>	Section 3	<p>Monitoring Results</p> <p>Interview – Environment Manager</p> <p>AEM 2013-2015</p>	<p>D12 has exceeded the criteria of 4g/m2/month annual average in 2015 with a result of 30.9g/m2/month recorded in December 2015.</p> <p>The AEMR presents monitoring results with brief discussion on possible reason for some monthly exceedances recorded at some monitoring locations (results appear to capture non-mining contamination and extraneous sources). The AEMR reporting period covers the financial year whilst the dust results are averaged over the calendar year.</p>	O	<p>Consider including in AEMR discussion regarding the background levels versus recorded site levels of dust. In the event of exceedances consider the development of windroses to assist with identifying possible dust sources. Consider also aligning the annual average for dust with the AEMR reporting period.</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>AIR QUALITY COMPLAINT MANAGEMENT PROCEDURE</b>					
<p>The following complaints management protocol will be followed:</p> <ul style="list-style-type: none"> <li>• A publicly advertised telephone complaints line is in place to receive complaints.</li> <li>• Each complaint received will be recorded on a Complaints Register</li> </ul>	Section 4	<p>Website – complaints data</p> <p>AEMR 2013-2015</p>	No complaints have been recorded during the audit period	C	
<b>DOCUMENT REVIEW AND REPORTING</b>					
The Annual Review will include discussion on air quality monitoring results as required by Schedule 5 Condition 5 (c) to (g).	Section 5	AEMRs 2013-2015	AEMRs discuss previous 12 months as well as comparison to previous five years. Limit/criteria are included on the graphs. AEMR 2015 notes an increase in annual averages for 2014 and 2015, where results appear to capture non-mining contamination and extraneous sources. Results remained below criteria in AEMR reports.	C	

## Annex H

# Audit Table – Water Management Plan

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

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations																								
EXISTING WATER MANAGEMENT SYSTEM																													
<p>The surface water discharge criteria from any licensed discharge point of the site, as specified in Schedule 3, Condition 19 of DA 8-1-2005, as modified, are presented in Table 1.</p> <p>Table 1 - Surface Water Discharge Criteria</p> <table><tr><th>Pollutant</th><th>Units of Measure</th><th>50 percentile concentration limit</th><th>90 percentile concentration limit</th><th>100 percentile concentration limit</th></tr><tr><td>Oil and Grease</td><td>mg/L</td><td></td><td></td><td>10</td></tr><tr><td>pH</td><td></td><td></td><td></td><td>6.5≤pH≤8.5</td></tr><tr><td>Total suspended solids</td><td>mg/L</td><td>20</td><td>35</td><td>50</td></tr></table>	Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	100 percentile concentration limit	Oil and Grease	mg/L			10	pH				6.5≤pH≤8.5	Total suspended solids	mg/L	20	35	50	Section 2	Monitoring Results	<p>The Canyon Mine EPL 10094 was surrendered on the 11th September 2015 and as such no licence discharge points currently exist making the criteria no longer applicable.</p> <p>No water discharges from the site have been recorded during the audit period.</p>	C					
Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	100 percentile concentration limit																									
Oil and Grease	mg/L			10																									
pH				6.5≤pH≤8.5																									
Total suspended solids	mg/L	20	35	50																									
Monitoring Program																													
<p>Table 7 presents the proposed surface and groundwater monitoring program based on the post-mining data review.</p> <p>Table 7 - Surface and Groundwater Monitoring Program</p> <table><tr><th>Monitoring Location</th><th>Frequency</th><th>Parameter(s)</th></tr><tr><td colspan="3">Surface Water</td></tr><tr><td>Lower Void</td><td>6 monthly</td><td>Water Level, pH, Conductivity, TSS, Grease and Oil,</td></tr><tr><td colspan="3">Groundwater</td></tr><tr><td>GW-11, P3</td><td>6 monthly</td><td>SWL, pH, Conductivity, Cl, Na, Grease and Oil</td></tr><tr><td>GW-7, GW-8, GW-9</td><td>6 monthly</td><td>SWL</td></tr><tr><td colspan="3">Erosion and Sediment Control</td></tr><tr><td>Mine Site</td><td>Monthly</td><td>Stability of water management structures</td></tr></table>	Monitoring Location	Frequency	Parameter(s)	Surface Water			Lower Void	6 monthly	Water Level, pH, Conductivity, TSS, Grease and Oil,	Groundwater			GW-11, P3	6 monthly	SWL, pH, Conductivity, Cl, Na, Grease and Oil	GW-7, GW-8, GW-9	6 monthly	SWL	Erosion and Sediment Control			Mine Site	Monthly	Stability of water management structures	Section 5.3	<p>Monitoring Results – surface and groundwater</p> <p>Interview – Environment Manager</p> <p>Whitehaven Coal Monthly Environmental Site Inspection reports 2012-2015</p>	<p>Water is tested quarterly during audit period for additional analytes listed in Water Management Plan.</p> <p>Last testing completed for groundwater bores 18 February 2016. Lower void last tested 9 February 2016.</p> <p>The monthly environmental checklists include various checks for water management aspects.</p>	C	
Monitoring Location	Frequency	Parameter(s)																											
Surface Water																													
Lower Void	6 monthly	Water Level, pH, Conductivity, TSS, Grease and Oil,																											
Groundwater																													
GW-11, P3	6 monthly	SWL, pH, Conductivity, Cl, Na, Grease and Oil																											
GW-7, GW-8, GW-9	6 monthly	SWL																											
Erosion and Sediment Control																													
Mine Site	Monthly	Stability of water management structures																											

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>SURFACE AND GROUNDWATER RESPONSE PLAN</b>					
The zero discharge Lower Void is the only remaining surface water body on site to have proposed ongoing quality monitoring. Nevertheless, the discharge water quality criteria presented in Table 1 will be targeted for the ongoing monitoring program (refer Section 5.3) with any sustained records outside of the values, determined to be associated with the mine, being notified to DP&E and DRE.	Section 6	Monitoring Results	Table 1 lists pH range as between 6.5 to 8.5 however a review of the results indicates pH for both voids is consistent and remains slightly alkaline with maximum readings above discharge criteria. The pH of surface water and groundwater is slightly acidic to neutral.	NC	Although the water in the voids will remain on site, further investigation is required to determine the reason for higher pH than the groundwater and surface water monitored pH.
<b>DOCUMENT REVIEW AND REPORTING</b>					
The Annual Review will include discussion on water quality results as required by Schedule 5 Condition 5 of DA 8-1-2005.	Section 7	AEMRs 2013-2015	Monitoring of discharges and void water quality included in reports with trends noted. The EC continued to increase during the reporting period (average result 1670µs/cm), which the AEMR for 2015 states is expected with the ongoing dry weather and decreased volume of water in the void.	C	

Annex I

Audit Table – Aboriginal and  
Cultural Heritage  
Management Plan

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

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>MANAGEMENT PROGRAM</b>					
Prior to any person undertaking work on the site, he/she is required to undergo a generic induction which incorporates environmental aspects including archaeological and cultural heritage obligations, with the form and detail of the overall induction determined by the nature of the work to be undertaken.	Section 3	General Induction Slide pack	General induction outlines heritage obligations including stop work requirement if item found, requirement for local Aboriginal groups to assess an area prior to disturbance, fencing of areas of cultural significance etc.	C	
<p>In the event of the discovery of a potential site or artefact, the following procedure will be followed.</p> <ul style="list-style-type: none"> <li>• Work will cease in the area of the discovery.</li> <li>• If the area of discovery is in deposited material then work will also cease in the area where the material has come from.</li> <li>• 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>• The supervisor will notify the Environmental Department.</li> </ul>	Section 3	Interview-Environment Manager	No additional discoveries of artefacts have occurred during the audit review period	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
In the event that damage occurs to any Aboriginal site or place, the activities causing the damage will cease immediately and procedures identified above followed. Subject to the nature of the damage, appropriate professional advice in addition to that provided by Whitehaven Coal's consultant archaeologist may be sought.	Section 3	Interview-Environment Manager	No damage has occurred to any Aboriginal site or place during the audit period.	NT	
<b>DOCUMENT REVIEW AND REPORTING</b>					
<p>In the event that an Aboriginal artefact or site is identified, a site register card will be completed and forwarded to OEH for entry onto the AHIMS database.</p> <p>The measures implemented to preserve and protect Aboriginal Cultural heritage at the site will be reported in the Annual Review (AR).</p>	Section 3	Interview-Environment Manager	No additional discoveries of artefacts have occurred during the audit review period	NT	



Annex J

## Audit Table – Rehabilitation Monitoring Program

**Table J.1**      **Compliance Assessment –Implementation of the \*\* Rehabilitation Monitoring Program**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>CLOSURE DOMAINS</b>					
Five primary closure domains were created for the final landscape (Table 3-4; Figure 3-2). Closure domains were chosen to reflect the prior land use and/or rehabilitation type.	Section 3.4	Mining Operations Plan Site Inspection	<p>The closure domains match the MOP Plan 3 Mining and Rehabilitation. Table 4-1 cross reference plans inputting into the RMP including the MOP.</p> <p>Each of the closure domains were inspected on site and found to be predominantly consistent with the mapping, with the exception of the land in the southern portion of the site which is yet to be fully rehabilitated.</p>	C	
<b>MONITORING APPROACH</b>					
<b>Remote Sensing</b>					
The multi-spectral imagery should be captured annually in spring/summer (Sept-Dec) as anniversary capture helps to minimize sun angle and seasonal ground cover changes between captures. The imagery should then be processed into the appropriate vegetation index and assessed visually and statistically.	Section 5.4	Annual Rehabilitation Monitoring Reports 2012 - 2015	<p>The Rehabilitation Monitoring Reports discusses multi spectral resolution imagery which is completed in Spring.</p> <p>Reports include discussion on results of remote sensing monitoring.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>LiDAR Processing and Analysis</b>					
LiDAR data will be captured across the entire target area and control areas. These data will be processed into a land surface digital elevation model (DEM) across the entire landscape and a canopy height model (CHM) and projected foliar cover (PFC) over the woodland areas.	Section 5.4.1	Annual Rehabilitation Monitoring Reports 2012 – 2015  Review of Rehabilitation Monitoring Program	LiDAR has not been completed to date.  The RMP review completed in 2014 recommended that ongoing capture and analysis of LiDAR should be considered by Whitehaven Coal for Canyon Mine	NC	Consider completing LiDAR assessment as detailed in the Rehabilitation Monitoring Plan
Subsequent LiDAR captures will be processed in to the same products (DEM, CHM and PFC) and each dataset will be subtracted from those produced from earlier captures creating a series of change images (DEM change, CHM change and PFC change). Overall DEM change will be assessed to document landscape stability. Woodland products will be stratified into rehabilitation zones and compared statistically with each other.	Section 5.4.1	Annual Rehabilitation Monitoring Reports 2012 - 2015	LiDAR has not been completed to date	NT	
In addition areas of significant change in LiDAR metrics will be highlighted and a targeted reconnaissance survey directed to investigate the source of the change and implement any planning, management action or change in management procedures required	Section 5.4.1	Annual Rehabilitation Monitoring Reports 2012 - 2015	LiDAR has not been completed to date	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Multi-spectral image processing and analysis</b>					
The high-resolution multi-spectral imagery (World View, Geoeye, Quickbird or similar) will be processed into a normalised difference vegetation index (NDVI).	Section 5.4.2	Annual Rehabilitation Monitoring Reports 2012 - 2015	This has been completed and discussed in monitoring reports.	C	
Subsequent multi-spectral image captures will be processed into an NDVI and each dataset will be subtracted from those produced from earlier captures creating a series of change images. Both the newly created NDVI images and the change models will be stratified into the rehabilitation zones and analysed using ANOVA.	Section 5.4.2	Annual Rehabilitation Monitoring Reports 2012 - 2015	This has been completed and discussed in monitoring reports.	C	
In addition areas of significant change in NDVI will be highlighted and a targeted reconnaissance survey directed to investigate the source of the change and implement any planning, management action or change in management procedures required.	Section 5.4.2	Annual Rehabilitation Monitoring Reports 2012 - 2015 Site Inspection	This has been completed and discussed in monitoring reports. EG In 2015 report (Section 4.1.2); NDVI analysis identified an area of substantial concentrated groundcover increase in Wood 10c. This area requires ground-truthing to determine the nature of the increase (i.e. weed outbreak or other).  Site inspection indicates Rhodes grass coverage in area.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>EM38 and 31 survey</b>					
The EM38/31 data will be captured over the pasture areas only and processed into a soil conductivity map. The data will be assessed to delineate regions of like conductivity and to direct targeted field assessment of soil characteristics.	Section 5.4.3	Annual Rehabilitation Monitoring Reports 2012 - 2015  Letter from Ecological 28 August 2014 - Review of Rehabilitation Monitoring Program for Canyon Mine	A baseline EM38/31 survey was conducted in April 2012. No further surveys have been completed.  The RMP originally specified that EM surveys are conducted every 3-5 years however review of the program completed in 2014 removed this requirement and replaced with regular inspections and remote sensing.	C	
Subsequent EM38/31 will be processed into conductivity maps and each dataset will be subtracted from those produced from earlier captures creating a series of change images. Areas of significant change in soil conductivity will be investigated using field assessment.	Section 5.4.3	Annual Rehabilitation Monitoring Reports 2012 - 2015	No further surveys to be completed.	NT	
In addition areas of significant change in EM38 or EM31 will be highlighted and a targeted reconnaissance survey directed to investigate the source of the change and implement any planning, management action or change in management procedures required.	Section 5.4.3	Annual Rehabilitation Monitoring Reports 2012 - 2015	No further surveys to be completed.	NT	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Directed field assessment</b>					
<p>Directed field assessment will arise from the specific atypical changes observed in the remote sensing (Section 5.4). Abnormal change will be assessed against the background change found across the site. Generally, atypical change (either loss or gain in value) will be signified by a change in the remote sensing derived metric that is greater than two times the standard deviation away from the mean change.</p> <p>The directed field assessment methodology will require a site specific rapid assessment based on the impacting factor, on-ground effect, management plan and action</p>	Section 5.4.4	Annual Rehabilitation Monitoring Reports 2012 - 2015	<p>Changes between the year reported and previous year Normalised Differential Vegetation Index (NDVI) of multi-spectral imagery were assessed.</p> <p>NVDI analysis trigger of <math>&gt; +/-2</math> std dev from average in areas greater than 0.1 ha is discussed in the reports.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>PASTURE AREA SURVEYS</b>					
<p>Eight survey site locations will be selected from the pasture rehabilitation zone and eight each from the two adjacent control areas using a targeted design (Figure 5-1). Survey sites were located to be:</p> <ul style="list-style-type: none"> <li>At least 50 m from a rehabilitation boundary</li> <li>Each site a minimum of 100 m from another site.</li> </ul> <p>At each site a 1 m by 1 m quadrat will be placed and assessed for pasture biomass (cover % estimate and biomass) and compositions including weeds. Following pasture survey a soil sample to 150 mm will be taken from the centre of each quadrat location. The soil sample will be bagged, stored appropriately for laboratory analysis of pH, EC, N, P and organic matter. Incidental observations of weed species will be made when moving between quadrats. Significant weed outbreaks will be noted recorded with a GPS and reported to WCM</p>	Section 5.5	<p>Annual Rehabilitation Monitoring Reports 2012 – 2015</p> <p>Letter from Ecological 28 August 2014 - Review of Rehabilitation Monitoring Program for Canyon Mine</p>	<p>Pasture surveys were removed in the 2014 review of the Rehabilitation Monitoring Program and replaced by remote sensing and on ground inspections. Soil surveys continue to be completed every three years with the last survey completed in the 2014 monitoring report.</p> <p>The 2014 monitoring round included a 150 mm soil core from eight locations within each monitoring zone: the rehabilitated pasture zone, control pasture 1, control pasture 2 and control pasture 2. Each sample was analysed for: EC, pH, TKN, exchangeable phosphorus and organic carbon.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Four soil pits to a depth of approximately 1 m will be established, two in the rehabilitation area and one in each of the control areas. Soil pits will be described using standard field measures with particular notice of horizon boundaries and ecological functionality (e.g. root establishment, evidence of soil fauna).	Section 5.5	Annual Rehabilitation Monitoring Reports 2012 – 2015	The RMP in 2011 recommended five soils pits be established for analysis of horizon boundaries and ecological function, three in the rehabilitation zone and one in each control zone. As one of 2011 soil pits was located in an area likely to be disturbed by future operations, only two soil pits were established in the rehabilitation zone and subsequently monitored, including for the 2014 survey.	C	
<u>Monitoring Program:</u> Pasture biomass cuts – annually early spring Pasture composition– annually early spring Weed survey– annually early spring Soil character (top 15 cm) – baseline then every three years Soil Pit– baseline then every three years	Section 5.5	Annual Rehabilitation Monitoring Reports 2012 – 2015  Letter from Ecological 28 August 2014 - Review of Rehabilitation Monitoring Program for Canyon Mine	Soil sampling and soil pit testing last completed in 2014.  Pasture biomass and composition were removed in the 2014 review of the Rehabilitation Monitoring Program and replaced by remote sensing and on ground inspections.  The presence of weeds are discussed in the Rehabilitation Monitoring Reports	C	



Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>WOODLAND SURVEY</b>					
<p>Five survey site locations will be selected from each woodland rehabilitation zone and five each from the two adjacent control areas using a targeted design (Figure 5-1). Survey sites were located to be:</p> <ul style="list-style-type: none"> <li>At least 50 m from a rehabilitation boundary</li> <li>Each site a minimum of 150 m from another site.</li> </ul> <p>Baseline surveys should be conducted in spring 2011 and repeated annually in spring during the monitoring period.</p> <p>In addition five soil pits to a depth of approximately 1 m will be established, three in the rehabilitation area and one in each of the control areas. Soil pits will be described using standard field measures with particular notice of horizon boundaries and ecological functionality (e.g. root establishment, evidence of soil fauna).</p>	Section 5.6	<p>Annual Rehabilitation Monitoring Report 2012 – 2015</p> <p>Letter from Ecological 28 August 2014 - Review of Rehabilitation Monitoring Program for Canyon Mine</p>	<p>Review of monitoring data for 2015 indicates six rehabilitated woodland areas were surveyed (one additional area incorporating the bushfire impacted area) and two control areas.</p> <p>A review of the Monitoring Reports indicates soil pits for the woodland areas are recommended every three however these have not been completed for 2012 to 2015 monitoring periods. The review of the program completed in 2014 did not recommend the removal of this requirement.</p>	NC	Consider completing soil sampling in the woodland areas as per outlined in the RMP

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Vegetation</b>					
<p>The vegetation monitoring will focus on the woodland rehabilitation zones and adjacent control areas. Surveys will focus on the condition and function of the woodland vegetation.</p> <p>Key parameters will be collected for the upper, mid and ground strata at both impact sites and control sites to permit comparison</p>	Section 5.6.1	Annual Rehabilitation Monitoring Reports 2012 - 2015	Requirement completed.	C	
<p>The base plot is to be 100 m x 20 m. It incorporates a 20 m x 20 m nested subplot, a 100 m centre transect, a photo point, and an alignment point.</p>	Section 5.6.1	Annual Rehabilitation Monitoring Reports 2012 - 2015	No indication of plot size or methods is detailed in the monitoring reports reviewed. The methodology section of the monitoring reports indicates monitoring is done in accordance with the methods prescribed in the RMP (ELA 2011) (Table 3-1). Any minor alterations from the original methods are detailed in the monitoring reports	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Terrestrial fauna and habitat monitoring</b>					
<p>Terrestrial fauna and habitat monitoring surveys will focus on woodland zones.</p> <p>The terrestrial fauna surveys will target:</p> <ul style="list-style-type: none"> <li>• Woodland birds as they are relatively mobile and quick to use available habitat</li> <li>• Koalas (<i>Phascolarctos cinereus</i>),</li> <li>• Turquoise Parrots (<i>Neophema pulchella</i>) and</li> <li>• grey crowned babblers as they are listed under either the TSC Act and/or EPBC Act or are locally important</li> <li>• Mammals using non-invasive hair tubes</li> </ul> <p>Reptiles, as specific habitat was established to attract these species.</p>	Section 5.6.2	<p>Annual Rehabilitation Monitoring Reports 2012 – 2015</p> <p>Letter from Ecological 28 August 2014 - Review of Rehabilitation Monitoring Program for Canyon Mine</p>	<p>Monitoring reports include discussion of targeted species surveys.</p> <p>The review of the program completed in 2014 recommended removal of the requirement to complete annual hair tube monitoring to determine mammal presence as it has yielded limited results to date.</p>	C	
<p>Terrestrial fauna monitoring will focus on rapid approaches to species identification and notes on habitat use. Where suitable, proxy measures for fauna (e.g. evidence of usage such as nests, scratching or scats) will also be assessed.</p>	Section 5.6.2	<p>Annual Rehabilitation Monitoring Reports 2012 - 2015</p>	<p>No detail provided regarding fauna monitoring methodology is outlined in the Monitoring Reports therefore assessment against this commitment cannot be completed.</p>	NV	<p>Consider including methodology of fauna assessments in monitoring reports.</p>

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Frequency of monitoring for each parameter includes:</p> <p>Turquoise Parrot – annual in autumn</p> <p>Grey-crowned Babblers – annual in spring</p> <p>Woodland birds – biannual in spring and winter</p> <p>Koalas – annual in spring</p> <p>Hair tubes – annual in spring</p> <p>Reptile habitat – annual in spring</p>	Section 5.6.2	Annual Rehabilitation Monitoring Reports 2012 - 2015	Woodland birds in spring and winter at reference and rehab sites. Hair tubes completed and recommended for removal. Monitoring undertaken for fauna at winter, spring and autumn (in survey date section of reports).	C	
<b>STATISTICAL METHODS</b>					
ANOVA will be used to test for changes over time and to test for differences between control and rehabilitation sites. For analyses of native vegetation communities, the variables to be analysed will include species richness and % cover, with separate analyses for understorey, overstorey and total community variables. Analyses for changes in the faunal community will be made using species richness and count data.	Section 5.7	Annual Rehabilitation Monitoring Reports 2012 - 2015	ANOVA last reported in 2012 monitoring report for pasture zones, groundcover composition, woodlands. The review of the RMP in 2014 did not recommend discontinuing this analysis.	NC	Consider the inclusion of ANOVA test in the annual rehabilitation monitoring reports

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Multivariate data such as vegetation, woodland bird, reptile, and mammal community assemblages will be analysed using MDS. MDS plots will be used to assess changes in each community relative to the reference sites. Differences through time will be assessed using analyses of similarities (ANOSIM). In the early stages of rehabilitation, MDS plots are expected to show significant differences between rehabilitation communities of fauna and flora and their reference communities. However as time progresses the communities should increase in similarity.	Section 5.7	Annual Rehabilitation Monitoring Reports 2012 - 2015	MDS plots and bray-curtis similarities completed.	C	
<b>MONITORING TRIGGERS AND ACTIONS</b>					
<p>A two-tiered system of triggers for management is proposed in response to changes identified via remote sensing (Figure 5-3).</p> <p>The first tier of response is triggered by changes detected in the remote sensing time series analysis which instigates further investigation including targeted rapid on-ground assessments.</p> <p>The second tier of response is triggered if changes are confirmed or discovered on-ground (Table 5-11). These triggers instigate the development of site specific management responses and remedial actions.</p>	Section 5.8	Annual Rehabilitation Monitoring Reports 2012 - 2015	Monitoring triggers are discussed and management actions recommended where required.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>FIELD SURVEY MONITORING TRIGGERS</b>					
The agricultural monitoring program has been designed to provide quantitative data on key pasture and soil attributes as they relate to land agricultural capability. Management response triggers are linked primarily to statistically significant decline in pasture or soil condition or other management issues noted by the field team during sampling.	Section 5.9	Annual Rehabilitation Monitoring Reports 2012 - 2015	Monitoring triggers for pastures is linked to remote sensing monitoring only with exception of 2013 report which includes response triggers linked to statistical changes, and 2014 for statistical changes in soil character. 2012 report does include list of triggers in <i>Appendix A</i> .	NC	Consider the inclusion of management response triggers linked to pasture or soil condition in the annual reports.
The woodland area monitoring program has been designed to provide quantitative data on woodland habitat condition, fauna species and soil attributes. Management response triggers are linked primarily to statistically significant decline (cover or composition) in vegetation in any strata or other management issues noted by the field team during sampling.	Section 5.9	Annual Rehabilitation Monitoring Reports 2012 - 2015	Monitoring triggers for woodland zones are reported in the annual rehabilitation monitoring reports.	C	
<b>REPORTING AND REVIEW</b>					
Reporting of all survey results and comparative analysis should take place annually in summer following the spring survey and subsequent analysis.	Section 6	Annual Rehabilitation Monitoring Reports 2012 - 2015	The reports reviewed are prepared after the spring surveys.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Review of the entire program should be undertaken after the completion of the first round of sampling and analysis to identify particular issues and refine the monitoring program design.	Section 6		No evidence of review of the program after the first round of sampling is available.	NV	
Regular program review should be conducted every 3 years to examine the trends in the data, investigation sampling effort in terms of redundancy or shortfall and to incorporate new monitoring technologies or techniques if appropriate.	Section 6	Letter from Ecological 28 August 2014 - Review of Rehabilitation Monitoring Program for Canyon Mine	Review completed by Ecological Australia on 28 August 2014, 3 years following the RMP issue in October 2011.	O	Consider updating the Rehabilitation Monitoring Program to reflect the review recommendations once stakeholder feedback has been requested and received (see below).
The 3 year review should include a stakeholder workshop with key government staff to ensure continued acceptance of the methodology and results	Section 6	Letter from Ecological 28 August 2014 - Review of Rehabilitation Monitoring Program for Canyon Mine	No indication of stakeholder review is discussed in the 2014 review of the RMP.	NC	Consider issuing the letter outlining the review to key stakeholders to ensure acceptance of the proposed changes.

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