



## Canyon Mine IEA



Conditions of Approval Independent  
Environmental Audit

30 May 2019

Project No: 0490611

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## Signature Page

30 May 2019

# Canyon Mine IEA

## Conditions of Approval Independent Environmental Audit

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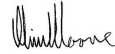
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# Independent Audit Certification Form

Independent Audit Certification Form	
Development Name	Canyon Mine
Development Consent No.	DA 8-1-2005 (Modification 3 – 3 September 2015)
Description of Development	Canyon Coal Mine was a conventional open-cut operation that is now in the rehabilitation phase, with mining concluded in 2009
Development Address	Hoad Lane, Boggabri NSW 2382
Operator	Whitehaven Coal Pty Ltd (WHCPL)
Operator Address	Level 28, 259 George Street, Sydney NSW 2000
Independent Audit	
Title of Audit	Canyon Mine Conditions of Approval Independent Environmental Audit
<p>I certify that I have undertaken the independent audit and prepared the contents of the attached independent audit report and to the best of my knowledge:</p> <ul style="list-style-type: none"> <li>• The audit has been undertaken in accordance with relevant approval condition(s) and in accordance with the auditing standard AS/NZS ISO 19011:2014 and Post Approval Guidelines – Independent Audits</li> <li>• The findings of the audit are reported truthfully, accurately and completely;</li> <li>• I have exercised due diligence and professional judgement in conducting the audit;</li> <li>• I have acted professionally, in an unbiased manner and did not allow undue influence to limit or over-ride objectivity in conducting the audit;</li> <li>• I am not related to any owner or operator of the development as an employer, business partner, employee, sharing a common employer, having a contractual arrangement outside the audit, spouse, partner, sibling, parent, or child;</li> <li>• I do not have any pecuniary interest in the audited development, including where there is a reasonable likelihood or expectation of financial gain or loss to me or to a person to whom I am closely related (i.e. immediate family);</li> <li>• Neither I nor my employer have provided consultancy services for the audited development that were subject to this audit except as otherwise declared to the lead regulator prior to the audit; and</li> <li>• I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the development, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.</li> </ul> <p>Note.</p> <p>a) The Independent Audit is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</p> <p>b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement – maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents – maximum penalty 2 years imprisonment or \$22,000, or both).</p>	
Signature	
Name of Lead / Principal Auditor	Oliver Moore
Address	Level 15, 309 Kent Street, Sydney NSW 2000
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Auditor Certification (if relevant)	N/A
Date	27/05/2019

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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 period assessed in this IEA is 24 March 2016 through 21 February 2019 (the date of the site visit completed as part of the audit).

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;
- Water Access Licence 29458; and
- Implementation of Management Plans developed as part of the Ministers Conditions of Approval.

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.

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 E1 below.

**Table E1 Summary of Audit Findings**

Review	Non-compliances	Administrative non-compliance	Observations (C)	Observations (NC)
<b>Statutory Instruments</b>	5	4	8	6
<b>Implementation of Plans</b>	5	-	1	-

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

## 1. INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to perform an Independent Environmental Audit (IEA) of the Canyon Mine. The mine is located 15 km east of Boggabri, New South Wales (NSW), on behalf of Whitehaven Coal (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. The audit period assessed in this IEA is 24 March 2016 through 21 February 2019 (the date of the site visit completed as part of the audit). The audit must:

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

The Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report. It is noted that a request for extension was submitted by ERM to the DP&E, with the submission date being extended to 12 April 2019 (see Appendix A for correspondence).

### 1.2 Overview of Operations and Approvals

The development application for Canyon Coal Mine was made in 2000 and a development to extend the mining operations was made in 2005, supported by an Environmental Impact Statement (EIS). The Minister for Infrastructure and Planning and Natural Resources granted Development Consent DA 8-1-2005 to Whitehaven Coal on 30 June 2005. DA 8-1-2005 MOD 3 was approved on the 3rd September 2015, to extend the expiry date of the consent.

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

The site has a Water Access Licence (WAL 29458) and allocation to take groundwater from the underlying aquifer.

The site Environmental Protection Licence (EPL) was surrendered on 11 September 2015.

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 and laydown area was constructed under Narrabri Council approval DA 31/2012.

The Vickery Coal Project is an adjacent Whitehaven Coal project that has been approved to utilise the Canyon site for waste rock emplacement, including backfilling the final void. The Vickery project is awaiting approval of an extension that would allow a larger area than previously proposed to be mined and a larger extraction rate per annum (from 4.5 million tonnes per annum [Mtpa] to 7.2Mtpa) prior to commencing any activities, and subsequent backfilling of the Canyon Mine void. The potential backfilling of the Canyon void is noted where relevant throughout the report as it is an operational consideration in determining what rehabilitation and maintenance activities are planned. Nevertheless, the audit must assess against the current approval requirements in isolation to any pending approvals.

### **1.2.1 Description of primary processes undertaken during the audit period**

As mining ceased in 2009, minimal activities occur on-site, predominately limited to the following:

- Rehabilitation;
- Water Management;
- Whitehaven Maintenance Facility; and
- Waste Management.

The activities listed are described further in the following sections

#### **1.2.1.1 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 under a licenced agreement.

#### **1.2.1.2 Waste Management**

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

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

#### **1.2.1.3 Rehabilitation**

Remaining rehabilitation activities required to meet criteria for lease relinquishment include the demolition of the remaining workshop structure and explosives magazine fencing and pad site 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. Backfilling of the void is proposed with waste rock from the Vickery project that is currently pending approval for increased extraction and mining area.

#### **1.2.1.4 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 surface water monitoring of the voids and at surface water monitoring locations during wet weather and managing sediment basins in accordance with the Water Management Plan. Groundwater monitoring is also undertaken on a six monthly basis.

Water is currently being taken from the Canyon void for use in operations at the Rocglen due to Rocglen not having sufficient volumes of water available on-site.



### 1.3 Audit Objectives

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 the Whitehaven Coal Environmental Management Strategy and Environmental Monitoring Program required under the abovementioned consents/approvals; and
- identify opportunities for improved environmental management and recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals.

### 1.4 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 24 March 2016 to 21 February 2019 and is limited to assessing the activities completed during the audit period.

### 1.5 Audit Criteria

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

- DP&E, MCoA for DA 8-1-2005 issued 3 September 2015 (Modification 3);
- Mining Leases 1464 and 1471;
- 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 (Sch. 3 Cond. 44) and several other conditions encompassed);
  - Environment Management Strategy (Sch. 5 Cond. 1);
  - Air Quality Monitoring Program (Sch. 3 Cond. 5);
  - Bushfire Management Plan (Sch. 3 Cond 42);

- Water Management Plan (Sch. 3 Cond. 24);
- Aboriginal and Cultural Heritage Management Plan (Sch. 3 Cond 32); and
- Rehabilitation Monitoring Program for Canyon Coal Mine (Sch.3 Cond 28 and 29);
- 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 of any additional monitoring required for identified trends;
- regulatory actions including any letters, penalty notices and prosecutions; and
- review of previous audit report to verify closeout of actions.

## 1.6 Limitations of this report

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

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

- a) client/third party information which was not verified by ERM except to the extent required by the scope of services, and ERM do not accept responsibility for omissions or inaccuracies in the client/third party information; and
- b) information taken at or under the particular times and conditions specified, and ERM do not accept responsibility for any subsequent changes.

This report has been prepared solely for use by, and is confidential to, the client and ERM accepts no responsibility for its use by other persons. This report is subject to copyright protection and the copyright owner reserves its rights. This report does not constitute legal or financial advice.

## 2. AUDIT METHODOLOGY

### 2.1 Methodology and Process

The audit comprised a site inspection, interviews with key personnel and review of records and other related documentation during the dates 20 to 21 February 2019.

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 in January 2019 to confirm details of 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 20 February 2019 at site to confirm the audit objectives and scope for the site inspection. Attendees included:
  - Oliver Moore (ERM Lead Auditor);
  - Tim Haydon (ERM Support Auditor and Water Specialist);
  - Emily Clements (Graduate Environmental Officer);
  - Andrew Raal (Environmental Officer);
  - Matt Sparkes (Operations Manager); and
  - Tony Dwyer (Group Manager – Approvals and Environment).

### 2.2 Agency and Community Consultation

ERM consulted with the agencies and stakeholders as required including Department of Planning and Environment (DP&E), Office of Environment and Heritage, Department of Primary Industries (DPI), CCC, New South Wales Environment Protection Authority (NSW EPA), the Compliance Team at DP&E and Narrabri Council. Emails were issued on 4 February 2019 and responses are outlined in *Table 2.1*.

**Table 2.1 Agency and Stakeholder Consultation Summary**

Agency/Stakeholder	Method	Consultation summary	Response	Location Addressed in Report
Department of Industry – Crown Lands and Water	Email on 4 February 2019	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	No response	Not Applicable (N/A)
Department of Planning and Environment (DP&E)	Email on 4 February 2019.	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	<p>DP&amp;E suggested the following Areas of Interest for Canyon Mine:</p> <ul style="list-style-type: none"> <li>■ Biodiversity Management</li> <li>■ Rehabilitation</li> <li>■ All management plans</li> <li>■ Environmental monitoring</li> </ul>	<p><b>Biodiversity Management</b></p> <ol style="list-style-type: none"> <li>a. Condition of Approval 3.27 in Appendix A details the offset security.</li> <li>b. The Biodiversity Offset Management Plan (BOMP) meets the requirements of the Flora and Fauna Management Plan. Assessment of the implementation of the BOMP was undertaken. Audit findings against these requirements are outlined in Condition of Approval 3.28 and 3.29 in Appendix A.</li> </ol> <p><b>Rehabilitation</b></p> <ol style="list-style-type: none"> <li>a. DPE identified an area of interest as ‘Actual rehabilitation compared to EIS predictions’. Rehabilitation completion criteria is outlined Section 6 of the MOP, including completion status. Numerous flora and fauna surveys are undertaken to assess success/completion against rehabilitation criteria. Rehabilitation has not met all completion requirements as they include long term outcomes and monitoring is on-going.</li> <li>b. Adequacy of rehabilitation monitoring is discussed against Rehabilitation Monitoring Program in Table 3.2, with suggestions to rectify observed non compliances.</li> <li>c. No discharges occurred during the audit period.</li> </ol> <p><b>Management Plans</b></p> <ol style="list-style-type: none"> <li>a. Section 3.5 – Management Plan adequacy provides detail on review and adequacy of management plans. Table 3.2 provides a review of management plans during the audit period.</li> </ol>

Agency/Stakeholder	Method	Consultation summary	Response	Location Addressed in Report
				<p>b. The DP&amp;E have provided correspondence stating the monitoring plans are redundant, and later that the plans must still be prepared, reflective of the activity taking place on site. Consultation with agencies and stakeholders in review of the management plans is outlined within the management plans and considered sufficient given that the mine is in rehabilitation phase and many activities that require monitoring, such as noise and blast monitoring, are no longer undertaken. Aboriginal Heritage Management Plan included relevant stakeholders.</p> <p><b>Environmental Monitoring</b></p> <p>a. Monitoring equipment was compliant with Approved methods for sampling of air pollutants in New South Wales (see Appendix A - Conditions of Approval – CoA 3.11).</p> <p>b. Adequacy of the environmental monitoring programme is addressed in Section 3.4 – Environmental Monitoring performance.</p>
Office of Environment and Heritage	Email on 4 February 2019.	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	No response.	N/A
Department of Primary Industries (DPI)	Email on 4 February 2019.	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	No response.	N/A
University of Technology Sydney	Email on the 4 February 2019	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	No response	N/A
New South Wales Environment Protection Authority (NSW EPA)	Email on 4 February 2019.	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	No response.	N/A

Agency/Stakeholder	Method	Consultation summary	Response	Location Addressed in Report
Mineral Resources (MineRes)	Email on 4 February 2019.	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	No response.	N/A
Compliance Team – DP&E	February 2019.	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	Captured in response from DP&E above.	As per response to DP&E
Narrabri Council	February 2019.	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	No response.	N/A

In each case, an email was sent to representatives of each agency requesting feedback on those issues considered most relevant by their Department at the time of the audit. The consultation outlining the terms of reference was provided prior to the site inspection to obtain feedback and draw attention to any key issues, within the agreed scope of the audit. The Departmental correspondence is provided in *Appendix B*.

Responses received required the audit to focus on compliance against CoA as well as biodiversity management, rehabilitation, management plans and environmental monitoring. These areas are captured in the audit findings.

## 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). 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).
- **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.

### 3. AUDIT FINDINGS

#### 3.1 Previous audit follow up

The last audit was conducted by ERM for the period September 2012 to 23 March 2016. A summary of the 2016 audit findings and their status is summarised below in *Table 3.1 and Table 3.2*.



Table 3.1 Summary of 2016 Audit Findings

Item No	Assessment Requirement	Comment	2016 Audit Classification	Response/Action	2019 Status
<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.	Addressed and deemed <b>Compliant</b> during this audit.
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.	Addressed and deemed <b>Compliant</b> during this audit
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.	<b>Remains Non-compliant.</b> The Gravel Pit is recommended to be stabilised
3.9	The Applicant:  (a) shall carry out the development at the site between 7 am to 10 pm Monday to Saturday, excluding public holidays;  (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;  (c) may undertake highwall mining operations at any time, excluding public holidays; and  (d) shall only transport coal or gravel on public roads between 7 am and 10pm Monday to Saturday, excluding public holidays.	No coal or gravel was removed from, or transported to the site during the audit period.  Gravel will potentially be transported to the site once the Vickery Project commences.	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.	Non-operational site. Deemed <b>Compliant</b> during this audit

Item No	Assessment Requirement	Comment	2016 Audit Classification	Response/Action	2019 Status
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>	<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. Water balance was undertaken in 2018 but not previous years.</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 in the AEMR (including nil extraction/water use).</p>	<p><b>Considered an ANC.</b> Water balance to be reviewed annually or condition altered to reflect current state of the site.</p>
3.21	<p>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.</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	<p>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.</p>	<p><b>Remains Non-compliant.</b> Erosion and sediment controls to be implemented, though the auditor notes that the pending approval of the Vickery Extension Project is a factor in the decision making process likely stalling the rectification works.</p>
3.22	<p>The Applicant shall monitor:</p> <p>(a) the volume and quality of water discharged from the site; and</p> <p>(b) report the results of this monitoring in the AEMR.</p>	<p>There was no wet weather or other discharge from the site during the audit period.</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	<p>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.</p>	<p><b>Not Triggered</b></p>
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>A review of water quality indicates total metals and major anions and cations are stable. <i>GW11</i> 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 compounds such as hydrocarbons.</li> </ul> <p><i>GW11</i> is located to the northeast of the site and east of the current contractor work area and historical Whitehaven Coal maintenance facility.</p> <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>	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 <i>GW11</i> to include other potential sources of salinity/conductivity such as phosphates, alkalinity, bicarbonate as alkalinity, carbonate, TRH, additional metals/metalloids such as boron.</p>	<p><b>Observation (compliant).</b> To determine the impacts to groundwater quality, groundwater movement and standing water levels associated with the backfilling of the void with overburden upon the implementation of the Vickery Project, subject to approval. The auditor has not verified if the EIS for the Vickery project confirmed that the pit void was influenced by groundwater.</p>

Item No	Assessment Requirement	Comment	2016 Audit Classification	Response/Action	2019 Status
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	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 Annexure of the plan.	Deemed <b>Compliant</b> during this audit
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  (c) describe what actions and measures would be implemented to:  ■ minimise any potential adverse impacts with the final void; and ■ manage and monitor the potential impacts of the final void over time.	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.	Deemed an <b>Observation (compliant)</b> . Revision of the Final Void Management Plan may be required to incorporate the activities to occur with the Vickery project, subject to approval.
3.29	The Applicant shall:  (a) review the performance of the offset strategy and Flora and Fauna Management Plan annually; and  (b) report on this review in the AEMR; to the satisfaction of the Secretary.	The Flora and Fauna Management Plan have been replaced by the Rehabilitation Monitoring Program, and the approved Biodiversity Offset Management Plan.  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.	ANC	Consider including the Biodiversity Offset Annual Report as an Annexure in the AEMR for the Canyon Mine to fulfil the requirement to review performance of the offset strategy.	Deemed <b>Compliant</b> during this audit
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.	An audit of the offset strategy has not been completed.	NC	Considering mining ceased in 2009, this is considered outside of the scope date of the audit. Further, it is noted that the OEH undertakes annual audit of the site and in 2013 Canyon offset liability was transferred to Whitehaven – Regional offset area that is managed through the Bio banking agreement, there no-longer any requirement to do any initial audit of the offset strategy.	<b>Not Triggered</b>

Item No	Assessment Requirement	Comment	2016 Audit Classification	Response/Action	2019 Status
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>	Not Triggered
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>	Remains an observation (compliant) with similar recommendation as last audit along with tracking movements if gravel removed from site.
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>(c) report on greenhouse gas monitoring and abatement measures in the AEMR, to the satisfaction of the Secretary.</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 /greenhouse gas emissions is not currently recorded or reported in the AEMRs.</p>	ANC	<p>Canyon is included in Whitehaven Coal's annual National Greenhouse and Energy Reporting.</p>	Deemed Compliant during this audit
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>Waste is 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>	Deemed Compliant during this audit

Item No	Assessment Requirement	Comment	2016 Audit Classification	Response/Action	2019 Status
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.	Deemed Compliant during this audit
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.	Deemed Compliant during this audit
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.	Deemed Compliant during this audit
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.	Deemed Compliant during this audit
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.	Deemed an Administrative Non-Compliance during this audit. No further action required as this is considered a legacy ANC.
5.8	The Applicant shall ensure that there is a Community Consultative Committee to oversee the environmental performance of the development. This committee shall:  (a) be comprised of:  ■ 2 representatives from the Applicant, including the person responsible for environmental management at the mine; ■ 1 representative each from GSC and NSC; and ■ 4 representatives from the local community, whose appointment has been approved by the Secretary in consultation with the GSC and NSC;	DP&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&E so it can be acted upon accordingly.	ANC	Consider forwarding the minutes of the Vickery Project CCC to the DP&E as requested.	Deemed an Observation (Compliant) during this audit. Recommend update of Canyon Environmental Monitoring is presented at all Vickery CCC Meetings.

Item No	Assessment Requirement	Comment	2016 Audit Classification	Response/Action	2019 Status
5.9	<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>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>(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>	<p>Minutes of the CCC have not been issued to DP&amp;E acknowledging formal transfer to Vickery CCC.</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.	Not Triggered
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.	Considered an ANC. WHC to ensure future ARs and updates to plans, strategies and monitoring programs are sent to the relevant agencies.

Item No	Assessment Requirement	Comment	2016 Audit Classification	Response/Action	2019 Status
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.	Considered Observation (Compliant) for this audit. Confirm agreement with councils for placement of data on websites.
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.	Deemed compliant during this audit
<b>Mining Leases 1464 &amp; 1471</b>					
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	Deemed an Administrative Non-Compliance with no further actions required as this is a legacy ANC
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.	Deemed compliant during this audit.

Item No	Assessment Requirement	Comment	2016 Audit Classification	Response/Action	2019 Status
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).	Deemed compliant during this audit
44	The lease holder shall during each year of the term of the authority:  (a) ensure that at least 16 workers are efficiently employed on the subject area; or  (b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than Two Hundred & Eighty Thousand Dollars (\$280,000).  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.	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.	Not Triggered
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.	Deemed an observation (non-compliant). Evidence from Director General would clearly demonstrate compliance.
<b>Water Access Licence 29458</b>					
MW0716-00001	The maximum volume of water that may be taken under this licence in any water year must not exceed a volume equal to:  (a) the sum of water allocations accrued to the water allocation account for this licence from available water determinations in that year; plus  (b) the water allocations carried over from the water year prior to that water year; plus  (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  (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.	Annual water allocation is 50ML  Monthly site inspections include provision to record pump readings – these have not been recorded in the site inspection reports reviewed.  AEMRs do not report on water extraction volumes.  Extraction volumes are anecdotally not currently recorded.	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.	Deemed as an observation (non-compliant) during this audit. To confirm that current take from the void (that has groundwater inflow) is in accordance with water sharing plan (and potentially the current water access licence)
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.	A logbook is not maintained for the pumps.	NC	Consider developing a logbook for the pumps to record extraction volumes.	Deemed as an observation (non-compliant) during this audit.  As above.  Furthermore, to address this condition, formula could be inserted into tracking spreadsheet allowing for remaining volume to be calculated following the insertion of daily pumping rates



Item No	Assessment Requirement	Comment	2016 Audit Classification	Response/Action	2019 Status
MW0633-00001	The licence holder must record the following in the logbook: (i) each date and period of time during which water is taken under this licence; (ii) the volume of water taken on that date; (iii) the water supply work approval number of the water supply work used to take the water on that date; (iv) the purpose or purposes for which the water taken on that date.	A logbook is not currently maintained for the pumps.	NC Duplicated with MW0635-00001 and MW0632-00001	Consider developing a logbook for the pumps which includes the required information.	Deemed as an observation (compliant) during this audit. Ensure that all requirements to be present in the logbook are included.
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.	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.	Deemed as an observation (compliant) during this audit. Ensure that the log book has all requirements to meet the conditions of this WAL.
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.	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	Deemed as NV during this audit. Bore has likely been decommissioned for more than 5 years but no confirmation documents proving this could be found. Hence five years of records unavailable.
MW0831-00001	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.	Deemed as an observation (non-compliant) during this audit.
MW0717-00001	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	Deemed as an observation (non-compliant) during this audit. Current take from this void (and by proxy the aquifer), that is not from the existing bore, should be discussed with DPI-Water and confirm that utilisation of water within the ground water influenced void is authorised. It may be authorised under the existing water licence as water take is occurring from the aquifer associated with the WAL but not specifically from the existing bore - clarity should be sought.

**Table 3.2 Summary of Plan Implementation Review Findings**

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action	Status
<i>Closure Mining Operations Plan</i>					
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.	Deemed <b>non-compliant</b> during this audit. Implement controls to prevent erosion and sedimentation, and finalise stabilisation within the redundant gravel pit. Implement erosion controls and repair the scoured batters within the mine void in accordance with Landcom (2004) and DECC (2008) until the Vickery Project commences, (currently subject to approval).
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.	Deemed compliant during this audit.
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.	Deemed <b>non-compliant</b> during this audit. Implement controls to prevent erosion and sedimentation, and finalise stabilisation within the redundant gravel pit.
10.3	This plan may be revised due to: <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> 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.	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.	Obs (Compliant)	The Annual Review/AEMR has been used to reflect minor updates of the MOP. For example the 2016 AEMR (approved) included a statement that the EPL was surrendered, and an update to the MOP will be as part of the next scheduled date.	<b>Observation (Compliant)</b> Update MOP to reflect surrender of licence and update of certain management plans.

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action	Status
<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	Deemed <b>compliant</b> during this audit
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	Deemed <b>compliant</b> during this audit
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.	Deemed <b>compliant</b> during this audit
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	Deemed <b>compliant</b> during this audit
<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.	Deemed <b>compliant</b> during this audit (to confirm that SLR report has been provided to the DRE and DPE)
<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	Deemed <b>non-compliant</b> during this audit. LiDAR has not been completed to date.

Section	Assessment Requirement	Comment	Audit Classification	Recommended Action	Status
5.6	<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 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).</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	Deemed as <b>non-compliant</b> during this audit. Whitehaven to provide explanation as to why Woodland zone one has two survey sites. Perhaps consider merging with adjacent area to avoid compliance issues.
5.7	<p>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.</p>	<p>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.</p>	NC	Consider the inclusion of ANOVA test in the annual rehabilitation monitoring reports	Deemed as <b>compliant</b> during this audit.
5.9	<p>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.</p>	<p>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.</p> <p>2012 report does include list of triggers in Appendix A</p>	NC	Consider the inclusion of management response triggers linked to pasture or soil condition in the annual reports.	Deemed as <b>compliant</b> during this audit.
6	<p>The 3 year review should include a stakeholder workshop with key government staff to ensure continued acceptance of the methodology and results</p>	<p>No indication of stakeholder review is discussed in the 2014 review of the RMP.</p>	NC	Consider issuing the letter outlining the review to key stakeholders to ensure acceptance of the proposed changes.	Deemed as <b>non-compliant</b> during this audit. Undertake three-year review and workshop with key stakeholders.

## 3.2 Complaints summary

Complaints registers for the auditing period were available online. No complaints were received during the auditing period. Considering last coal was produced from the Canyon Mine in 2009 this would be anticipated.

## 3.3 Incident Summary

Interview with the environmental officer, review of discharge spreadsheet and understanding of activities that have taken place on-site during the audit period identified that no incidents have occurred during the audit period.

## 3.4 Environmental monitoring performance

### 3.4.1 Noise

A letter was received from DP&E on the 21 January 2016 confirming that a Noise Management Plan is no longer required and the EPL was surrendered on 11 September 2015. However, a subsequent letter from the DP&E in August 2016 outlined that monitoring for certain environmental elements, including noise, still needed to be considered, though the level of monitoring could be altered to reflect the state of mine. Hence, a revised Noise Monitoring Plan was prepared in May 2018 and is available online. The plan states that no noise monitoring is currently undertaken as no mine activities are occurring. Applicable criteria is provided should activities recommence, along with a complaints management procedure.

### 3.4.2 Air Quality

Air quality monitoring locations were reduced in 2015 to four depositional dust gauges locations:

- WD-1 Whitehaven Residence;
- WD-2 Merton;
- WD-12 Whitehaven Property; and
- WD-13b Wilga.

This reduction was undertaken as it was considered sufficient to monitor dust given that no mining activity was being undertaken on the site. The revision was outlined in the Air Quality Monitoring Plan that was approved by the DP&E in July 2018.

Annual Average for WD12 Whitehaven Property and WD13b Wilga exceeded criteria (4g/m<sup>2</sup>/month) for 2018 but was determined not to be mine related. The annual average for 2016 and 2017 demonstrated no exceedance.

### 3.4.3 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. However, a subsequent letter from the DP&E in August 2016 outlined that monitoring for certain environmental elements, including blasting, still needed to be considered, though the level of monitoring could be altered to reflect the state of mine. Hence, a revised Blast Monitoring Plan was prepared in May 2018 and is available online. The plan states that no blast monitoring is currently undertaken as no blasting is occurring. Applicable criteria is provided should blasting recommence, along with a complaints management procedure.

### 3.4.4 Water Management

#### 3.4.4.1 Surface Water

The site has a Water Management Plan that is available online. The WMP meets all relevant conditions of consent and was revised in 2015 to incorporate Natural Resources Access Regulator (NRAR) and DP&E comments, inclusive of the SLR 14 February 2014 report to discuss evaporative loss. Approval for the revised WMP from the DP&E is outstanding.

There was no wet weather or other discharge from the site during the audit period. There was no wet weather surface water monitoring during the reporting period.

The pH for both voids is consistent and remains slightly alkaline and above the discharge criteria. The void water is contained on site. The electrical conductivity at the voids was noted to be increasing during the previous audit and this trend continued during this audit, as observable in monitoring results in the AEMRs. During the audit period Whitehaven Coal investigated the issue and identified that water percolating through waste rock and then entering the void through the groundwater network is the most likely cause of the observed water chemistry.

Water was being taken from the Canyon void for use in operations at the Rocglen site during the site audit. Rocglen had no operationally viable volumes of water available on-site. Current take from this void (and by proxy the aquifer), that is not from the existing bore, should be discussed with NRAR and confirm that utilisation of water within the ground water influenced void is authorised. Discussion with NRAR may determine that the take is authorised under the existing water licence, as water take is occurring from the aquifer associated with the WAL but not specifically from the existing bore, but this should be confirmed with the regulator.

#### 3.4.4.2 Groundwater

Groundwater monitoring points and review of the monitoring results is provided in the WMP (2015). This management plan is available online.

The groundwater levels are stable where not impacted by draw from farm operated bores or similar infrastructure. The previous audit identified that 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. It was recommended to consider determining groundwater flow directions by converting depth to groundwater to mAHD to confirm correct flow direction. GW11 also had increasing conductivity trend with increasing calcium concentrations. It was recommended to 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.

SLR (2017) report addressed the issues raised during the previous audit and identified that the final pit acts as a sink, creating a closed groundwater system. The most likely explanation for the trends observed at GW11 is reactions of rainwater with calcite present in waste rock. Any potential impacts to the regional groundwater system is limited due to the void being a groundwater sink.

### 3.5 Management Plan Adequacy

The Management Plans for the site were reviewed and the adequacy in meeting the relevant approval requirements was assessed. This predominately took the form of reviewing the non-conformances found during the previous audit period to determine if rectification had confirmed either by updating the document, addressing the non-compliance in undertaking an activity on-site that was confirmed by site inspection. This was deemed sufficient, as either no change to the plan had occurred since the previous reporting period, the change was negligible to warrant full review and no mining activities have undertaken at the site since 2009. All plans were deemed sufficient based on the current activities being undertaken on-site. The findings of the Management Plan review are outlined in Table 3.2 and *Appendix A*.

### 3.6 Mining Leases

Canyon Coal Mine lies within the mining leases (MLs) 1464 and 1471. Canyon Coal Mine is wholly owned and managed by Whitehaven Coal.

Three non-conformances, one administrative non-conformance and one observation (non-compliance) were noted. The three non-compliances relate to the same issue of stabilisation of the gravel pit and erosion control in the pit void. The administrative non-compliance is related to submission of the MOP after an expiry date, so no further action is required and the observation is related to final documentation being received from the Director General for clear demonstration of the security deposit. The Mining Lease conditions and the summary of audit findings is provided in *Appendix A*.

### 3.7 Water Access Licence

The water access licence (WAL 29458) for the decommissioned bore on-site was reviewed as part of this audit. The key details of the licence, such as allocation and aquifer management zone are provided in Table 3.3. The predominant issues that were noted against the WAL were related to the logbook and confirmation that the current method of take from the pit void (determined in 2019 to be influenced by groundwater) is authorised.

The current method of take from the groundwater influenced pit void may be authorised under the existing WAL, as water is being taken from the aquifer associated with the WAL, but not specifically from the existing licenced bore. Discussion with the NRAR is recommended to clarify the situation, particularly given the agency's focus on having aquifer take (including loss from evaporation in this pit void) being accounted for.

**Table 3.3 Water Access Licence Details**

Category (Subcategory)	WAL	Management Zone	Share Component (units or ML)	Works Approval	Status
Aquifer	29458	Gunnedah - Oxley Basin Mdb (Other) Management Zone	50	90WA822498	Current

### 3.8 Compliance with regulatory instruments

A compliance check of the MCoA, MLs and WAL conditions as well as management plan review has been completed and is provided in Appendix A. Non-compliances and observations for each component are summarised in *Table 3.4*.

As discussed in *Section 2.3*, 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-compliance have been colour coded blue.

**Table 3.4 Summary of 2019 Audit Findings**

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
<i>Minister's Conditions of Approval DA 8-1-2005</i>				
Sch3. C3	The Applicant shall carry out the development in a way that prevents and/or minimises the air pollution generated by the development.	No visible dust or other air pollution noted during site inspection. The majority of the site was revegetated with roads being the primary exposed surface. The gravel pit area requires further stabilisation as do the batters into the void which have areas of erosion and tunnelling. Auditor notes that batter slope erosion releases sediment laden water into the void, and this runoff remains in the void on-site and would not be released. Auditor also notes that controls and revegetation/rectification works are currently being delayed due to pending Vickery Project approval.	NC	The gravel pit area is no longer used and is not stabilised, hence it may generate dust. As the site is not currently used and is a source of windborne dust, stabilisation should be prioritised.
Sch3. C19	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.	No discharges occurred during the audit period.  Sampling was undertaken in 2016 though no discharge occurred.  WW7 and WW9 had oil and grease readings in August 25 2016. Note to undertake further investigation as to why elevated readings were observed was included, but investigation findings could not be found	O (compliant)	Determine the source of the elevated oil and grease concentrations at WW7 and WW9 and rectify as necessary.



Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
Sch3. C20	<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>	<p>Discussion of water balance in the AEMRs is limited to identifying that no discharges during the reporting period and no take had occurred from the site bore.</p> <p>The environmental officer identified that there is a flow meter on pump that is extracting water from the mining void.</p> <p>No annual review of site water balance has been undertaken in previous years but water balance was undertaken in 2018.</p>	ANC	Review water balance annually to ensure compliance with this condition or request alteration to condition.
Sch3. C21	<p>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.</p>	<p>Rectification works required in the void are required to be in accordance with Landcom (2004) and DECC (2008) - Noting that the void is acting as a sediment control until the Vickery approval commences.</p> <p>Erosion and sediment control works are required at the gravel pit to stabilise the areas.</p>	NC	<p>Implement controls to prevent erosion and sedimentation, and finalise stabilisation within the redundant gravel pit. Implement erosion controls and repair the scoured batters within the mine void in accordance with Landcom (2004) and DECC (2008) until the Vickery Project commences, (currently subject to approval).</p>

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
Sch3 C23	<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>There are five groundwater monitoring bores. Three are solely for gauging standing water level and the other two are for metals. These are monitored on a six-monthly basis. Management Plan revision in 2016 reduced sampling requirements to field parameters, sodium, chloride, grease and oil.</p> <p>The previous audit identified that 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. Recommendation was to consider determining groundwater flow directions by converting depth to groundwater to mAHD to confirm correct flow direction. GW11 also had increasing conductivity trend with increasing calcium concentrations. 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> <p>SLR (2017) report addressed the issues raised during the previous audit and identified that the final pit acts as a sink, creating a closed groundwater system. The most likely explanation for the trends observed at GW11 is reactions of rainwater with calcite present in waste rock. Any potential impacts to the regional groundwater system is limited due to the void being a groundwater sink.</p>	O (Compliant)	<p>To determine the impacts to groundwater quality, groundwater movement and standing water levels associated with the backfilling of the void with overburden upon the implementation of the Vickery Project, subject to approval. The auditor has not verified if the EIS for the Vickery project confirmed that the pit void was influenced by groundwater.</p> <p>Determine if the 6 monthly sampling and current analytes remains appropriate for the proposed backfilling to occur with the commencement of the Vickery Project, subject to approval.</p>

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
Sch3. C25	<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> <li>■ manage and monitor the potential impacts of the final void over time.</li> </ul>	<p>Mining ceased in 2009 prior to start of audit period. Letter from DP&amp; E received January 2016 indicates Final Void Management is detailed in the Closure Mining Operations Plan.</p> <p>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.</p> <p>The high walls and low walls have been regraded with batters generally less than 14 degrees and stabilised with pasture species.</p> <p>Monthly inspections are completed by a Whitehaven Coal Environment Officer, which are noted to comment on void stability, particularly regarding erosion and sediment control.</p> <p>With the commencement of the Vickery project, the management of the final void will be altered. Revision of the Final Void Management Plan may be required to incorporate the activities to occur with the Vickery project.</p>	O (Compliant)	Revision of the Final Void Management Plan may be required to incorporate the activities to occur with the Vickery project, subject to approval.
Sch3. C36	<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>No coal extracted during audit period</p> <p>The maintenance team identified no gravel is currently used from the stockpiles on-site</p>	O (Compliant)	Gravel stockpiles are not currently used by WHC, however if utilised the material transfer should be tracked if transported from site. Include volume, destination and number of truck movements and include in the AEMR. Previous audit also identified that the Transportation Management Plan for the Vickery Project outlines the requirements of this consent condition for removing material from site should it occur.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
Sch3. C44	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.	<p>Letter from DP&amp; E indicating Mine Closure Strategy is detailed in the DRE approved Closure Mining Operations Plan.</p> <p>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.</p> <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:</p> <p>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.</p>	O (Compliant)	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.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
Sch5. C6	<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>(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>	<p>IEA Report issued April 2016 confirms audit was completed covering the audit period September 2012 to March 2016.</p> <p>This audit satisfies the requirement for three yearly IEA.</p> <p>Note an IEA was not completed in 2009 and 2012, 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>	ANC	No further action required as this is considered a legacy ANC.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
Sch5 C8	<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>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>The Vickery CCC was held twice in 2018 and once in 2016.</p> <p>A summary of Canyon Environmental Monitoring was presented at the August 2018 CCC and summarised in the minutes.</p>	O (Compliant)	Recommend update of Canyon Environmental Monitoring is presented at all Vickery CCC Meetings.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
Sch5 C10	<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>All current plan and Annual Reviews are made available on the WHC website.</p> <p>Annual Review 2017 sent to the relevant agencies within a month - no evidence of Annual Review 2016 being issued.</p> <p>Plan, Monitoring Program updates sent to DP&amp;E but not sent to NSC, GSC, CCC or other agencies (EPA, DPI (Water)).</p>	ANC	<p>Considered an ANC. WHC to ensure future ARs and updates to plans, strategies and monitoring programs are sent to the relevant agencies..</p>
<i>Mining Leases 1464 &amp; 1471</i>				
2.3	<p>A Plan must be lodged with the Director-General:-</p> <p>(a) prior to the commencement of operations;</p> <p>(b) subsequently as appropriate prior to the expiry of any current Plan; and</p> <p>(c) in accordance with any direction issued by the Director-General.</p>	<p>Closure Mining Operations Plan covers period 7 September 2015 to 6 September 2022.</p> <p>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.</p>	ANC	<p>No further actions required as this is a legacy ANC.</p>

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
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.	<p>No movement of coal or overburden material during the reporting period.</p> <p>Letter from DRG in 2017 required:</p> <ul style="list-style-type: none"> <li>- removal of tyres and concrete material from the gravel pit area</li> <li>- Monitor and conduct remedial maintenance of erosion to void batters.</li> </ul> <p>Site inspection confirmed that the concrete and tyres have been removed and waste documentation was available for review.</p> <p>Monthly inspections confirm that remedial activities were undertaken to address erosion in 2017 however site inspection confirmed that erosion of void batters is a recurring issue and requires ongoing maintenance.</p>	NC	Although WHC responded to DRG's request to maintain identified erosion of void batters, ongoing maintenance is required for this recurring erosion impact.
17	The lease holder shall take such precautions as are necessary to abate any dust nuisance	No visible dust or other air pollution noted during site inspection. The majority of the site was revegetated with roads being the primary exposed surface. The gravel pit area requires further stabilisation as do the batters into the void which have areas of erosion and tunnelling. Auditor notes that batter slope erosion releases sediment laden water into the void, and this runoff remains in the void on-site and would not be released. Auditor also notes that controls and revegetation/rectification works are currently being delayed due to pending Vickery Project approval.	NC	The gravel pit area is no longer used and is not stabilised, hence it may generate dust. As the site is not currently used and is a source of windborne dust, stabilisation should be prioritised



Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
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> <p>(c) A notice referred to in his condition may be served on the Colliery Manager.</p>	<p>Letter from DRG in 2017 required:</p> <ul style="list-style-type: none"> <li>- removal of tyres and concrete material from the gravel pit area</li> <li>- Monitor and conduct remedial maintenance of erosion to void batters.</li> </ul> <p>Site inspection confirmed that the concrete and tyres have been removed, waste documentation was not available for review.</p> <p>Monthly inspections confirm that remedial activities were undertaken to address erosion in 2017 however site inspection confirmed that erosion of void batters is a recurring issue and requires ongoing maintenance.</p>	NC (Duplicate of ML 15)	<p>Although WHC responded to DRG's request to maintain identified erosion of void batters, ongoing maintenance is required for this recurring erosion impact.</p> <p>Maintain waste documentation for removal of waste from site.</p>

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
51	<p>(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.</p> <p>ML1471:</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>Emails from Stuart Smith (Whitehaven Treasury and Revenue Accountant) demonstrate anecdotally that the bonds are in place, along with departmental correspondence and draft deeds but no confirmation email or correspondence identified.</p>	<p>O (non-compliant)</p>	<p>Obtain evidence from the Director General for clear demonstration of security deposit</p>

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
	<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>ML1464:</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>			

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
<i>Water Access Licence 29458</i>				
MW07 16- 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>Environmental officer indicated bore has not been pumped in the past three years. inspection of the bore identified that it was not in use at time of inspection.</p> <p>Water however was being taken from the void. The void has been determined by SLR (2019) to include groundwater inflow (between 0.001 to 0.015ML/day equating to 0.4ML and 5.4ML of evaporation per annum).</p> <p>Canyon water transfer spreadsheet identifies that 25.536 ML have been sourced from the void since water take commenced after January 7 2019 to 18 February 2019.</p> <p>Water is being taken from void for use at Rocglen. Since receiving advice from Ashurst that this activity can commence in compliance with current approval requirements, SLR have determined that the void is subject to groundwater inflow and the water present is not solely accumulated surface runoff. Regulators requested that groundwater inflow be determined to ensure that evaporative loss from this void is licenced. The intent of the regulators is to understand loss and take from the aquifer and appropriately licenced.</p>	O (non-compliant)	Current take from this void (and by proxy the aquifer), that is not from the existing bore, should be discussed with DPI-Water and confirm that utilisation of water within the ground water influenced void is authorised. It may be authorised under the existing water licence as water take is occurring from the aquifer associated with the WAL but not specifically from the existing bore - clarity should be sought.
MW06 31- 00001	Water must not be taken under this access licence otherwise than in compliance with the conditions of the nominated water supply work approval.	as above	O (non-compliant)	To confirm that current take from the void (that has groundwater inflow) is in accordance with water sharing plan (and potentially the current water access licence)

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
MW06 35- 00001	The licence holder must record the following in the logbook:  (vii) the volume of water taken in any water year from 1 July 2011, by comparison to the maximum volume of water permitted to be taken in that water year.	Logbook was provided but no pumping from the bore has occurred to be recorded.  Pumping from the Canyon void to trucks for use at Rocglen was occurring during the inspection. Environmental officer indicated that the pump extracting the water is metered and records maintained (in flow meter spreadsheet) though this doesn't include comparison to maximum allowable take volume. The water in the void includes groundwater seepage from the same aquifer that the bore is located. To confirm with regulators that the take is in accordance with water sharing plan (and potentially the current WAL and these conditions)"	O (non-compliant)	As above.  Furthermore, to address this condition, formula could be inserted into tracking spreadsheet allowing for remaining volume to be calculated following the insertion of daily pumping rates"
MW06 33- 00001	The licence holder must record the following in the logbook:  (i) each date and period of time during which water is taken under this licence; (ii) the volume of water taken on that date; (iii) the water supply work approval number of the water supply work used to take the water on that date; (iv) the purpose or purposes for which the water taken on that date.	The logbook associated with the bore has no entries as the bore has not been used. At the time of the audit a pump was being used to remove water from the pit void. The pit void has inflow from the aquifer that is also associated with the bore. The pumping volume from the void was being collected on a spreadsheet. The pump flow meter spreadsheet is not maintained by the site Environmental officer but by the Operations Manager and only includes water volume taken per week, rather than the specific logbook requirements of the condition.	O (compliant)	Ensure that all requirements to be present in the logbook are included.
MW06 32- 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 logbook has been developed but no entries are present, as the bore has not been used during the audit period.	O (compliant)	Ensure that the logbook has all requirements to meet the conditions of this WAL.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
MW08 31- 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>	Groundwater influenced water is currently being pumped from the pit void for use at Rocglen. To confirm that current pumping from groundwater-influenced void is not considered a breach of the conditions of water sharing plan or this WAL.	O (non-compliant)	To confirm that current activity is not considered a breach of the conditions of water sharing plan or this WAL. Discussion and authorisation from NRAR with regard to the activity is required now that groundwater infiltration into the void is confirmed.
MW07 17- 00001	<p>The maximum water allocation that may be carried over in the water allocation account for this access licence from one water year to the next is either:</p> <p>(A) 25 % of the access licence share component for access licences with share components expressed as ML/year; or</p> <p>(B) 0.25 ML per unit share of access licence share component for access licences with share components expressed as a number of unit shares.</p>	The void is subject to both groundwater inflow and surface water inflow. Water take is currently occurring via pumping directly from the void rather than the bore. The pump meter identifies the quantity of take from the void, it is to be confirmed how this take fits with the water sharing plan and the current WAL.	O (non-compliant)	Current take from this void (and by proxy the aquifer), that is not from the existing bore, should be discussed with DPI-Water and confirm that utilisation of water within the ground water influenced void is authorised. It may be authorised under the existing water licence as water take is occurring from the aquifer associated with the WAL but not specifically from the existing bore - clarity should be sought.

## 4. CONCLUSION

An audit of MCoA, Mining Leases and Water Access Licence 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, compliance was generally achieved with the audit documents that were reviewed. The number of non-compliances with the statutory conditions and implementation of the management plans is summarised in *Table 4.1* below.

**Table 4.1 Summary of Audit Findings**

Review	Non-compliances	Administrative non-compliance	Observations (C)	Observations (NC)
<b>Statutory Instruments</b>	5	4	8	6
<b>Implementation of Plans</b>	5	-	1	-

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

**APPENDIX A    CONDITIONS OF APPROVAL, MINING LEASE, WATER  
ACCESS LICENCE AND MANAGEMENT PLAN  
COMPLIANCE TABLES**



No	Assessment Requirement	Reference/ Evidence	Comments (2016)	Compliance Status (2016)	Recommendations (2016)	Reference/ Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<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		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		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		Noted	Note	Noted	
2.4	The Applicant shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: (a) any reports, plans or correspondence that are submitted in accordance with this consent; and (b) the implementation of any actions or measures contained in these reports, plans or correspondence.		Noted	Note		Noted	Note	Noted	
<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		Noted	Note	Noted	
<b>Limits of Approval</b>									
2.6	The Applicant may carry out mining operations on the site until 7 September 2015.	Interview - Environment Manager  Site Inspection	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		Closure Mining Operations Plan	The Closure Mining Operations Plan covers the period from 7 September 2015 through to 6 September 2022.  DA 8-1-2005 MOD 3 was approved on the 3rd September 2015, to extend the expiry of the Consent beyond 7th September 2015.  No mining operations have occurred during the audit period.	C	
2.7	The Applicant shall not extract more than 1.25 million tonnes of ROM coal a year from the Whitehaven mine.	Interview - Environment Manager	No ROM coal was extracted during the audit period	NT		Interview - Graduate Environmental Officer	No ROM coal was extracted during the audit period	NT	
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		Interview - Graduate Environmental Officer	No material was removed from the Site during the audit period.	NT	
<b>Structural Adequacy</b>									
2.9	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.  Notes: <ul style="list-style-type: none"><li>Under Part 4A of the EP&amp;A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.</li><li>Part 8 of the EP&amp;A Regulation sets out the requirements for the certification of the project.</li></ul>	Letter from Narrabri Shire Council 6 October 2011 - construction certificate 83-2012  Letter from Narrabri Shire Council 15 February 2012 - occupancy certificate OC. 303-2012	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		Letter from Narrabri Shire Council 6 October 2011 - construction certificate 83-2012  Letter from Narrabri Shire Council 15 February 2012 - occupancy certificate OC. 303-2012	Construction and occupation certificates issued for the stores and office building area located in the historical maintenance area of the mine prior to the current audit period. No other buildings constructed during the audit period.	NT	
<b>Demolition</b>									
2.1	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 have 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		Interview - Graduate Environmental Officer	No buildings have 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	

Operation of Plant and Equipment								
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 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>	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>	<p>Monthly Inspection Reports 2016-2019</p>	<p>There is no permanent mobile 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>Pumps and associated infrastructure is maintained by the maintenance crew - that is currently in use to extract collected water from the pit void</p> <p>Weather station is maintained by Novercom with inspection and maintenance completed quarterly.</p> <p>Monitoring equipment is maintained by ALS during monitoring events.</p>	C
SCHEDULE 3 - SPECIFIC ENVIRONMENTAL CONDITIONS								
AIR QUALITY								
Impact Assessment Criteria								
3.1	<p>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>	<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: WD-1 Whitehaven Residence, WD-2 Merton, WD-12 Whitehaven Property and WD-13b Wilga.</p> <p>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 had access since March 2002.</p> <p>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.</p> <p>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).</p>	NC	<p>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.</p>	<p>Site Inspection</p> <p>Whitehaven - Canyon Deposited dust Spreadsheet</p>	<p>Monitoring occurs at four locations: WD-1 Whitehaven Residence, WD-2 Merton, WD-12 Whitehaven Property and WD-13b Wilga. WD-2 was observed during the site inspection.</p> <p>Annual Average for WD12 and WD13B for 2018 exceeded criteria but was determined to not be mine related. Annual average for 2016 and 2017 demonstrated no exceedance.</p>	C
Land Acquisition Criteria								
3.2	<p>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.</p>	<p>Interview - Environment Manager</p>	<p>No written requests for acquisition of land from landowners have been received during the reporting period.</p>	NT		<p>Interview with Graduate Environmental Officer</p>	<p>No written requests for acquisition of land from landowners have been received during the reporting period, and Whitehaven own the majority of the surrounding land.</p>	NT

Operating Conditions									
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.	Site Inspection	No visible dust or other air pollution noted during site inspection. The majority of the site was revegetated with roads being the primary exposed surface. The gravel pit area requires further stabilisation as do the batters into the void which have areas of erosion and tunnelling. Auditor notes that batter slope erosion releases sediment laden water into the void, and this runoff remains in the void on-site and would not be released. Auditor also notes that controls and revegetation/rectification works are currently being delayed due to pending Vickery Project approval.	NC	The gravel pit area is no longer used and is not stabilised, hence it may generate dust. As the site is not currently used and is a source of windborne dust, stabilisation should be prioritised.
3.4	The Applicant shall: (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; (b) ensure that trucks entering and leaving the site carrying loads are covered at all times; and (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.	Monitoring Records Site Inspection Interview - Environment Manager	No mining activities completed during the audit period. Trucks entering and leaving the site limited to the Hitachi leased area located at the northern entrance. No odour or dust noted during the site inspection.	C		Interview with Graduate Environmental Officer Site inspection Monthly inspection	No blasting or other mining activities have occurred during the audit period The Hitachi compound is gravelled so truck movements within would generate limited dust. No odour or dust noted during the site inspection	C	
Monitoring									
3.5	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.  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.	Air Quality Monitoring Program  IEA Report 2007 Letter from DP&E dated 21 January 2016	Implementation of the Air Quality Monitoring Program is assessed in <i>Annex D</i> .  Previous IEA report noted the original program was approved in letter dated 16 February 2006.	C		Approval of Canyon AQMP EMS July 2018 Canyon Coal Mine - Redundant Monitoring Programs 010816	Minor modifications were undertaken to the AQMP to address DPE comments including as land ownership that is displayed on figures in AQMP. DPE letter in July 2018 demonstrates approval of the revised AQMP. DPE letter from August 2016 identified the remaining requirements for monitoring following a clarification request from Whitehaven. The letter stated that the following still need to be monitored, though the level of monitoring could be altered to reflect the state of the mine in care and maintenance: Air quality ,Noise, Blasting, Meteorological conditions, surface water final void, greenhouse gas emissions waste, flora and fauna, groundwater transport.  The AQMP concentrates on dust deposition gauges at four points on the compass points on all sides of the mine	C	

NOISE									
Noise Impact Assessment Criteria									
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		Site Inspection  Lease agreement	No noise monitoring is undertaken on the site as no longer requirement of management plan or EPL (as it was surrendered on 11 September 2015)	NT	
3.7	<p>Table 7: Noise Impact Assessment Criteria dB(A)</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>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.</li> <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>wind speeds of up to 3 m/s at 10 metres above ground level; or</li> <li>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>	Interview - Environment Manager	Noise monitoring not completed during audit period.	NT		Interview - Graduate Environmental Officer	Noise monitoring not completed during audit period as no mining operations were undertaken.	NT	
Land Acquisition Criteria									
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		Interview - Graduate Environmental Officer	Noise monitoring not completed during audit period.	NT	

Operating Hours									
3.9	The Applicant: (a) shall carry out the development at the site between 7 am to 10 pm Monday to Saturday, excluding public holidays; (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; (c) may undertake highwall mining operations at any time, excluding public holidays; and (d) shall only transport coal or gravel on public roads between 7 am and 10pm Monday to Saturday, excluding public holidays.	Interview - Environment Manager Site Inspection Weighbridge Records	Site activities included rehabilitation operations only during audit period. No coal or gravel was removed from, or transported to the site during the audit period.  Gravel will be transported to the site once the Vickery Project commences.	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.	Interview with Graduate Environmental Officer Site Inspection	The site was non-operational during the audit period.	C	
Operating Conditions									
3.1	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		Site Inspection  Interview Graduate Environmental Officer	No permanent mobile 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. Whitehaven vehicles that would access the site are of mining specification, to meet the requirements of the mine sites of which they originated, so would meet this requirement.	C	
Monitoring									
3.1	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		Letter from DP&E dated 21 January 2016	Letter received from DP&E confirming Noise Management Plan is no longer required.	NT	
METEOROLOGICAL MONITORING									
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		Site Inspection	Site inspection confirmed a met. station is present on-site. Previous audit identified that siting was in accordance Approved Methods for Sampling of Air Pollutants in NSW.	C	
BLASTING AND VIBRATION									
Air blast Overpressure Limits									
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		Interview Graduate Environmental Officer Letter from DP&E dated 1 August 2016 Redundant Monitoring Programs	No blasting completed during audit period.  Letter from DP&E dated 1 August 2016 regarding Redundant Monitoring Programs states that the level of blast monitoring is required to be prepared to reflect the extent of current activity on site.  The Site has submitted a Blast Monitoring Plan indicating no blasting is planned at the site in line with the Closure MOP, the plan is awaiting approval.	C	

Ground Vibration Impact Assessment Criteria									
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		Interview Graduate Environmental Officer	No blasting completed during audit period.	NT	
Blasting Hours									
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		Interview Graduate Environmental Officer	No blasting completed during audit period.	NT	
Blasting Frequency									
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		Interview Graduate Environmental Officer	No blasting completed during audit period.	NT	
Monitoring									
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.	NT		Interview Graduate Environmental Officer Letter from DP&E dated 1 August 2016 Redundant Monitoring Programs	No blasting completed during audit period.  Letter from DP&E dated 1 August 2016 regarding Redundant Monitoring Programs states that the level of blast monitoring is required to be prepared to reflect the extent of current activity on site.  The Site has submitted a Blast Monitoring Plan indicating no blasting is planned at the site in line with the Closure MOP, the plan is awaiting approval.	NT	
Public Notice									
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		Interview Graduate Environmental Officer	No blasting completed during audit period.	NT	
Property Investigations									
3.17	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:  (a) commission a suitably qualified person whose appointment has been approved by the Secretary to investigate the claim; and  (b) give the landowner a copy of the property investigation report.  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.  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.  If the matter cannot be resolved within 21 days, the Secretary shall refer the matter to an Independent Dispute Resolution Process (see Appendix 2).	Interview - Environment Manager	No blasting completed during audit period.  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.	C		Interview Graduate Environmental Officer	No blasting completed during audit period.  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.	C	

SURFACE AND GROUNDWATER									
Discharge Limits									
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.	Monitoring Results - Excel Sheet covering audit period  AEMR 2012-2013  AEMR 2013-2014  AEMR 2014-2015	There were no wet weather discharge 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		Canyon wet weather discharge spreadsheet - Monitoring Results - Excel Sheet covering audit period	No discharges occurred during the audit period.  Sampling was undertaken in 2016 though no discharge occurred.  WW7 and WW9 had oil and grease readings in August 25 2016. Note to undertake further investigation as to why elevated readings were observed was included, but investigation findings could not be found	O (compliant)	Determine the source of the elevated oil and grease concentrations at WW7 and WW9 and rectify as necessary.
Site Water Balance									
3.20	The Applicant shall:  (a) prepare a detailed site water balance for all the development site;  (b) measure water use on site;  (c) review the site water balance for the development annually; and  (d) report the results of this review in the AEMR, to the satisfaction of the Secretary	AEMR 2012-2013  AEMR 2013-2014  AEMR 2014-2015  Water Balance  Water Use Records	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.  Historic surface water records over a five year period are reviewed in the AEMR.  Water is not currently used on site with exception of potable water 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.	NC	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.  In addition, the volume of water extracted from the groundwater wells should be recorded and reported (including nil extraction/water use).	Interview - Graduate Environmental Officer  Review of: AEMR 2015-2016 AEMR 2016-2017	Discussion of water balance in the AEMRs is limited to identifying that no discharges during the reporting period and no take had occurred from the site bore.  The environmental officer identified that there is a flow meter on pump that is extracting water from the mining void.  No annual review of site water balance has been undertaken.	ANC	Review water balance annually to ensure compliance with this condition or request alteration to condition.
Erosion and Sediment Control									
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	The previous audit report recommended that regular documented assessment of works performed by Soil Services against relevant requirements should be completed.  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.  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.	Site Inspection	Rectification works required in the void are required to be in accordance with Landcom (2004) and DECC (2008) - Noting that the void is acting as a sediment control until the Vickery approval commences.  Erosion and sediment control works are required at the gravel pit to stabilise the areas.	NC	Implement controls to prevent erosion and sedimentation, and finalise stabilisation within the redundant gravel pit. Implement erosion controls and repair the scoured batters within the mine void in accordance with Landcom (2004) and DECC (2008) until the Vickery Project commences, (currently subject to approval).
Surface Water Monitoring									
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	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.  There was no wet weather or other discharge 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).  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.	Canyon wet weather discharge spreadsheet - Monitoring Results - Excel Sheet covering audit period	No discharges during audit period	NT	

Groundwater Monitoring									
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. <i>GW-8</i> and <i>GW-9</i> 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. <i>GW11</i> 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 compounds such as hydrocarbons.</li> </ul> <p><i>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.</i></p> <p>Rainfall impacts on conductivity are considered unlikely as it would be expected other groundwater bores would be impacted.</p>	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 <i>GW11</i> to include other potential sources of salinity/conductivity such as phosphates, alkalinity, bicarbonate as alkalinity, carbonate, TRH, expanded metals etc.</p>	<p>Canyon Groundwater data spreadsheet</p> <p>Figure 2 - Surface and Groundwater Monitoring Locations of the water management plan</p> <p>630.12139-R01-v1.1_FINAL2017 - SLR October 2017 <i>GW11</i> Water quality assessment</p> <p>SLR 14 February 2019 - Canyon Final Void Assessment of EC.</p>	<p>There are five groundwater monitoring bores. Three are solely for gauging standing water level and the other two are for metals. These are monitored on a six-monthly basis. Management Plan revision in 2016 reduced sampling requirements to field parameters, sodium, chloride, grease and oil.</p> <p>The previous audit identified that <i>GW11</i> 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. Recommendation was to consider determining groundwater flow directions by converting depth to groundwater to mAHD to confirm correct flow direction. <i>GW11</i> also had increasing conductivity trend with increasing calcium concentrations. Consider expanding testing of analytes next monitoring round in <i>GW11</i> to include other potential sources of salinity/conductivity such as phosphates, alkalinity, bicarbonate as alkalinity, carbonate, TRH, expanded metals etc.</p> <p>SLR (2017) report addressed the issues raised during the previous audit and identified that the final pit acts as a sink, creating a closed groundwater system. The most likely explanation for the trends observed at <i>GW11</i> is reactions of rainwater with calcite present in waste rock. Any potential impacts to the regional groundwater system is limited due to the void being a groundwater sink.</p>	O (Compliant)	<p>To determine the impacts to groundwater quality, groundwater movement and standing water levels associated with the backfilling of the void with overburden upon the implementation of the Vickery Project, subject to approval. The auditor has not verified if the EIS for the Vickery project confirmed that the pit void was influenced by groundwater.</p> <p>Determine if the 6 monthly sampling and current analytes remains appropriate for the proposed backfilling to occur with the commencement of the Vickery Project, subject to approval.</p>
Water Management Plan									
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	<p>Interview with Graduate Environmental Officer</p> <p>Water Management Plan</p> <p>Natural Resource Access Regulator (NRAR) letter NRAR_response_CanyonCoalMine_updatedWMP 24 July 2018</p> <p>SLR report 14 February - 630.12595-R01-2.1_CCM_GW - Evap.Loss2018</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>AEMR reports on five years of collected data. As mining ceased in 2009 the 2015 AEMR fulfils (e).</p> <p>"The Water Management Plan has been updated to incorporate NRAR and DPE comments, inclusive of the SLR 14 February 14 report to discuss evaporative loss</p>	C		



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.	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.	Natural Resource Access Regulator (NRAR) letter NRAR_response_CanyonCoalMine_updatedWMP 24 July 2018  SLR report 14 February - 630.12595-R01-2.1_CCM_GW - Evap.Loss2018	The previous audit identified that the condition was met at the time.  The Water Management Plan has been updated to incorporate NRAR and DPE comments following review and includes content of the SLR 14 February 14 report to discuss evaporative loss  To be submitted upon completion of revisions	C	
<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  (c) describe what actions and measures would be implemented to:  • minimise any potential adverse impacts with the final void; and • manage and monitor the potential impacts of the final void over time.	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.  The high walls and low walls have been regraded with batters generally less than 14 degrees and stabilised with pasture species.  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.  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.	O	Consider revising the monthly inspection checklists to include checks on void condition such as batter stability.	Letter from DP&E dated 21/01/2016  Site Inspection  Whitehaven Coal Monthly Inspection Sheets 2016-2019	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.  The high walls and low walls have been regraded with batters generally less than 14 degrees and stabilised with pasture species. Monthly inspections are completed by a Whitehaven Coal Environment Officer which are noted to comment on void stability, particularly regarding erosion and sediment control.  With the commencement of the Vickery project the management of the final void will be altered. Revision of the Final Void Management Plan may be required to incorporate the activities to occur with the Vickery project.	O (Compliant)	Revision of the Final Void Management Plan may be required to incorporate the activities to occur with the Vickery project, subject to approval.
<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		Biodiversity Offset Management Plan  Letter from Department of Planning and Infrastructure 14 February 2013	Biodiversity Offset Management Plan prepared for WHC 23 August 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	

3.26A	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 OEH 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		Letter from Department of Planning and Infrastructure 14 February 2013	<p>Letter received from DP&amp;I that this condition would be met by the retirement of biobank credits and the establishment of a Biobank Trust Fund.</p> <p>The Biodiversity Offset Management Plan identifies that the Biodiversity Offset Area (BOA) consists of two adjoining properties known as 'Yarrari' and 'Belah' which are located on the western fall of the Kelvin Range, approximately 20 kilometres (km) north -north east of Gunnedah and have an area of 1,523.9 hectares (ha). The BOA is 1,495.3 ha in area and is protected on title by the registration of a Biobank Agreement under Part 7A Division 2 of the NSW Threatened Species Conservation Act (TSC) 1995 on 28 June 2012.</p>	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		Letter from Department of Planning and Infrastructure 14 February 2013	<p>Letter received from DP&amp;I that this condition would be met by the retirement of biobank credits and the establishment of a Biobank Trust Fund.</p> <p>The Biodiversity Offset Management Plan identifies that the Biodiversity Offset Area (BOA) consists of two adjoining properties known as 'Yarrari' and 'Belah' which are located on the western fall of the Kelvin Range, approximately 20 kilometres (km) north -north east of Gunnedah and have an area of 1,523.9 hectares (ha). The BOA is 1,495.3 ha in area and is protected on title by the registration of a Biobank Agreement under Part 7A Division 2 of the NSW Threatened Species Conservation Act (TSC) 1995 on 28 June 2012.</p>	C	
<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> <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>	<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		<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	

Review and Reporting								
3.29	The Applicant shall: (a) review the performance of the offset strategy and Flora and Fauna Management Plan annually; and (b) report on this review in the AEMR; to the satisfaction of the Secretary.	AEMR 2012-2015	The AEMR includes rehabilitation progress on the Canyon site including numbers of plantings in each zone. The Flora and Fauna Management Plan have been replaced by the Rehabilitation Monitoring Program, and the approved Biodiversity Offset Management Plan. Annual rehabilitation monitoring of the Canyon Mine is detailed in Appendix 1 of the AEMR. Performance of the Biodiversity Offset Management Plan is reported separately in an annual report.	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.	AEMR 2016 and 2017	Biobank annual report was included in both of the AEMRs reviewed.	C
Audit								
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.	Interview Graduate Environment Officer	Considering mining ceased in 2009, this is considered outside of the scope date of the audit. Further, it is noted that the OEHL undertakes annual audit of the site and in 2013 Canyon offset liability was transferred to Whitehaven - Regional offset area that is managed through the Bio banking agreement, there no-longer any requirement to do any initial audit of the offset strategy.	NT
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		Interview - Environment Manager	An audit of the offset strategy has not been completed therefore this condition is not triggered.	NT
CULTURAL HERITAGE								
Archaeology and Cultural Heritage Management Plan								
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 OEHL, and to the satisfaction of the Secretary.	IEA Report 2007	This condition was closed in the previous IEA audit completed in 2006	NT		IEA Report 2007	This condition was closed in the previous IEA audit completed in 2006	NT
TRAFFIC & TRANSPORT								
3.33	The Applicant shall ensure: (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; (b) trucks travelling to and from the mine do not exceed 40 kilometres per hour when the school bus is operating on Hoads Lane; (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; (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 (e) spillage from coal haulage vehicles is minimised and that sediment-laden runoff from roads is effectively managed to prevent harm to the environment.	Interview - Environment Manager Site Inspection IEA Report 2007	No coal extracted during the audit period.  Warning signs are in place  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.  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.	NC	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.  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)	Interview - Environment Manager Site Inspection IEA Report 2007  BIS - Traffic Management Risk Assessment - Interaction with Road users	No coal extracted during the report period  BIS document identified discussion of mine trucks not exceeding 40km/he in the vicinity of school buses	NT
Road Noise Management Plan								
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		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

Road Maintenance									
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		IEA Report 2007	This condition was closed in the previous IEA audit completed in 2006	NT	
Monitoring									
3.36	The Applicant shall: (a) keep records of the: • amount of gravel transported from the site each year; • amount of coal transported from the site each year; • destination of coal and gravel transported from the site each year; and • number of truck movements generated by the development; and (b) include these records in the AEMR.	AEMRs 2012 - 2015 Interview - Environment Manager	No coal extracted during audit period Gravel was not transported on/off site during audit period. The Vickery Project may result in gravel being moved to the site.	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.	Interview Environment Officer	No coal extracted during audit period  The maintenance team identified no gravel is currently used from the stockpiles on-site	O (Compliant)	Gravel stockpiles are not currently used by WHC, however if utilised the material transfer should be tracked if transported from site. Include volume, destination and number of truck movements and include in the AEMR. Previous audit also identified that the Transportation Management Plan for the Vickery Project outlines the requirements of this consent condition for removing material from site should it occur.
VISUAL IMPACT									
3.37	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.	Site Inspection	During the site inspection, it was noted site infrastructure is not visible from public roads.	C		Site Inspection	During the site inspection, it was noted site infrastructure is not visible from public roads.	C	
Lighting Emissions									
3.38	The Applicant shall: (a) take all practicable measures to mitigate off-site lighting impacts from the development; and (b) ensure that all external lighting associated with the development complies with Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting, to the satisfaction of the Secretary.	Site Inspection Interview - Environment Manager	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.	C		Site Inspection	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.	C	
GREENHOUSE GAS EMISSIONS									
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.	AEMRs 2013, 2014, 2015	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 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.	Annual Review 2016 and 2017 and draft data for 2018	Canyon is included in Whitehaven Coal's annual National Greenhouse and Energy Reporting.	C	

WASTE MANAGEMENT									
3.4	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	AEMRs 2013, 2014, 2015  Interview - Environment Manager	Waste 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.	Annual Review 2016 and 2017 and draft data for 2018	No waste was produced by Whitehaven Coal Mining (WHC) at the Canyon mine site during the reporting period. The small compound currently leased to Hitachi is managed by the tenants, who maintain responsibility of their own waste treatment and removal.	C	
BUSHFIRE MANAGEMENT									
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.	Interview - Environment Manager  Site inspection  Whitehaven Coal Monthly Inspection Records 2012-2015	Fire breaks in the form of roads are maintained throughout the site.  It is noted the Closure Mining Operations Plan indicates water sources will be the storage dams on site however these were noted to be ineffective during the site inspection. The Plan also indicates	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 include the MOP and / or the Bushfire	WHC_PLN_CAN_Bushfire Management Plan 2016  Site Inspection  Monthly Environment Inspection Checklist 2016-2019	Fire breaks in the form of roads are maintained throughout the site.  Refer Bushfire Management Plan below	C	
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.	Interview - Environment Manager          IEA Report 2007 Bushfire Management Plan 2000	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.	WHC_PLN_CAN_Bushfire Management Plan 2016	WHC Bushfire Management Plan for Canyon was developed in August 2016 following recommendations from the previous IEA.  Bushfire controls for the site include: •Monthly inspections, including assessment of fuel load; •Implementation of the site's Closure Mining Operations Plan, including maintenance of fire breaks; •Maintenance of earthmoving equipment and provision of fire extinguishers and/or fire suppression systems, as appropriate; •Vehicle movements confined to defined roads and tracks, where possible; •Enforcement of Whitehaven's Smoke Free policy; •Access to road registered water carts at nearby Whitehaven sites; •Water storages on nearby Whitehaven sites; • Whitehaven emergency management response including trained Mine Rescue	C	
MINE CLOSURE STRATEGY									
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		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	
REHABILITATION AND MINE CLOSURE									
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.  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. 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>	C		Letter from DP&E dated 21 January 2016  Site Inspection	Letter from DP& E indicating Mine Closure Strategy is detailed in the DRE approved  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.  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. The 2015 Closure Mining Operations Plan (SLR 2015) states:  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.	O (compliant)	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.

SCHEDULE 4 - ADDITIONAL PROCEDURES FOR AIR QUALITY & NOISE MANAGEMENT								
<b>Notification of Landowners</b>								
4.1	<p>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.</p>	<p>Air quality and noise monitoring results</p> <p>Air Quality Monitoring Program 2005 and 2015</p> <p>Interview - Environment Manager</p>	<p>No extraction activities completed during audit period.</p> <p>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.</p> <p>The exceedance at D12 has not been reported to DP&amp;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.</p> <p>No noise monitoring completed during audit period.</p>	NC	<p>As the updated Air Quality Monitoring Program has not been submitted to the DP&amp;E consider informing the DP&amp;E and potentially impacted residents until the updated plan is accepted by DP&amp;E.</p> <p>Refer also to MCoA 3.1 finding.</p>	<p>Interview with the Environment Officer.</p> <p>Whitehaven - Canyon deposited dust spreadsheet</p>	<p>No extraction activities occurred during the audit period.</p> <p>No mine related exceedances of dust.</p> <p>No noise monitoring undertaken during audit period</p>	C
<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> <p>(c) give the Secretary and landowner a copy of the independent review</p>	<p>Interview - Environment Manager</p>	<p>No applications received during audit period requesting an independent review of air pollution and/or noise impacts of the development</p>	NT		<p>Interview with the Environment Officer.</p>	<p>No applications received during audit period requesting an independent review of air pollution and/or noise impacts due to the development.</p>	NT
4.3	<p>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.</p>	<p>Interview - Environment Manager</p>	<p>No applications received during audit period requesting an independent review of air pollution and/or noise impacts of the development</p>	NT		<p>Interview with the Environmental Officer</p>	<p>No applications received during audit period requesting an independent review of air pollution and/or noise impacts due to the development</p>	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> <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>	<p>Interview - Environment Manager</p>	<p>No applications received during audit period requesting an independent review of air pollution and/or noise impacts of the development</p>	NT		<p>Interview with the Environmental Officer</p>	<p>No applications received during audit period requesting an independent review of air pollution and/or noise impacts due to the development</p>	NT
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>	<p>Interview - Environment Manager</p>	<p>No applications received during audit period requesting an independent review of air pollution and/or noise impacts of the development</p>	NT		<p>Interview with Environmental Officer</p>	<p>No applications received during audit period requesting an independent review of air pollution and/or noise impacts due to the development.</p>	NT

Land Acquisition								
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> <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> <li>reasonable compensation for any disturbance caused by the land acquisition process.</li> </ul>	Interview - Environment Manager	No written requests received during audit period.	NT		Interview Environmental Officer	No written requests received during audit period. Whitehaven own majority of land in vicinity due to presence of Vickery lease and Tarrawonga mine.	NT
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		Interview Environmental Officer	No written requests received during audit period. Whitehaven own majority of land in vicinity due to presence of Vickery lease and Tarrawonga mine	NT
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		Interview Environmental Officer	No written requests received during audit period. Whitehaven own majority of land in vicinity due to presence of Vickery lease and Tarrawonga mine	NT
SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING								
ENVIRONMENTAL MANAGEMENT STRATEGY								
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> <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> <p>(e) describe the role, responsibility, authority, and accountability of all the key personnel, involved in environmental management of the development.</p>	<p>Environment Management Strategy</p> <p>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</p> <p>b) Section 3</p> <p>c) Section 5</p> <p>d) Section 6</p> <p>e) Section 4</p>	C		<p>WHC_PLN_CAN_Environment Management Strategy (May 2018)</p> <p>Letter from DP&amp;E approving the EMS and AQMP [INSERT DATE]</p>	<p>The Environmental Management Strategy was originally approved by Department of Planning (letter dated 16 February 2006). The EMS was most recently updated May 2018 following submission of the 2017 Annual Review.</p> <p>Letter from DP&amp;E approving the EMS and AQMP sighted.</p>	C

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.	WHC_PLN_CAN_Environment Management Strategy (May 2018)	The EMS updated May 2018 includes a table tracking revision dates following ARs and Modifications	C	
<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		Correspondence with DP&E, May 2018	As per Schedule 5, Condition 12 of DA 8-1-2005 WHC submitted (May 2018) the following Management Plans and Monitoring Programs to DP&E: • Archaeology and Cultural Heritage Management Plan (note: administrative changes only); •Blasting Monitoring Program; •Road Noise Management Plan; •Noise Monitoring Program; and •Water Management Plan. Further, the updated Water Management Plan was provided to DPI Water for comment in accordance with DA 8-1-2005	C	
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		Correspondence with DP&E, May 2018	The monitoring programs were most recently submitted to DP&E May 2018.	NT	
<b>ANNUAL REPORTING</b>									
5.5	Each year, the Applicant shall prepare an AEMR to the satisfaction of the Secretary. This report must:  (a) identify the standards and performance measures that apply to the development;  (b) include a summary of the complaints received during the past year, and compare this to the complaints received in the previous 5 years; (c) include a summary of the monitoring results on the development during the past year,  (d) include an analysis of these monitoring results against the relevant:  • limits/criteria in this consent; • monitoring results from previous years; and  • predictions in the EIS and SEEs prepared for the development; (e) identify any trends in the monitoring over the life of the development; (f) identify and discuss any non-compliance during the previous year; and (g) describe what actions were, or are being, taken to ensure compliance.	AEMR 2013, 2014, 2015	AEMRs have been completed during the audit period.  Sections that address the condition requirements:  a) Section 3 (all) b) Section 3.6 c) & 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 e) Trends are discussed in Section 3.1 to 3.4 f) & g) Non compliances discussed in Section 3.1 to 3.4 where relevant	C		AEMR 2016 and 2017	AEMRs outlined community complaints in Section 8. Non-compliances are discussed in Section 1 of the AEMR. Performance criteria and the relevant approval documents are outlined in Section 6 and Section 3 respectively. Appendices provide monitoring results for surface and groundwater, Section 6 and 7 describes all monitoring undertaken in the past 12 months along with analysis.	C	



INDEPENDENT ENVIRONMENTAL AUDIT									
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>(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>	<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.	<p>IEA Report 2016</p> <p>This Audit Report</p>	<p>IEA Report issued April 2016 confirms audit was completed covering the audit period September 2012 to March 2016.</p> <p>This audit satisfies the requirement for three yearly IEA.</p> <p>Note an IEA was not completed in 2009 and 2012, 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>	ANC	No further action required as this is considered a legacy ANC.
5.7	<p>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.</p>	This audit	<p>This audit to be issued with date of commissioning (approval of auditors granted by DP&amp;E 25 January 2016 with commissioning commencing from this date. Therefore copy of the audit report due for submission before 25 April 2016).</p>	C		This audit	<p>Date of commissioning this audit confirmed following DP&amp;E approval of audit team dated 21 December 2018. Therefore a copy of the audit report due for submission 21 March 2019.</p>	C	

COMMUNITY CONSULTATIVE COMMITTEE									
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>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>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 4th 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> <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>	ANC	<p>Consider forwarding the minutes of the Vickery Project CCC to the DP&amp;E as requested.</p>	<p>Email from DP&amp;E 30 March 2015</p> <p>Minutes of 1st Meeting of the Vickery Project CCC 4th June 2015</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>The Vickery CCC was held twice in 2018 and once in 2016.</p> <p>A summary of Canyon Environmental Monitoring was presented at the August 2018 CCC and summarised in the minutes.</p>	O (compliant)	<p>Recommend update of Canyon Environmental Monitoring is presented at all Vickery CCC Meetings.</p>
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>(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>	<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 Roglen 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> <p>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.</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>	<p>Email from DP&amp;E 30 March 2015</p>	<p>Dissolution of the Canyon CCC has been approved by DP&amp;E.</p>	NT	

ACCESS TO INFORMATION									
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>Letter from DP&amp;E dated 21/01/2016</p> <p><a href="http://www.whitehavencoal.com.au/environment/canyon_mine_environmental_management.cfm">Website</a> <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>Letter to DRE 27 January 2015 re AEMR 2014 submission Letter to DRE 6 February 2015 re MOP submission</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	<p>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.</p>	<p>WHC Website</p> <p>Email to NSC, GSC dated 4 July 2018</p>	<p>All current plan and Annual Reviews are made available on the WHC website.</p> <p>Annual Review 2017 sent to the relevant agencies within a month - no evidence of Annual Review 2016 being issued.</p> <p>Plan, Monitoring Program updates sent to DP&amp;E but not sent to NSC, GSC, CCC or other agencies (EPA, DPI (Water)).</p>	NC	<p>Ensure future ARs and updates to plans, strategies and monitoring programs are sent to the relevant agencies.</p>
5.11	<p>During the life of the development, the Applicant shall:</p> <p>(a) make the results of the monitoring required under this consent publicly available at NSC and GSC offices; and</p> <p>(b) update these results on a regular basis, to the satisfaction of the Secretary.</p>	<p>Interview - Environment Manager</p> <p><a href="http://www.whitehavencoal.com.au/environment/canyon_mine_environmental_management.cfm">Website</a> <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>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.</p>	ANC	<p>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.</p>	<p>Interview Graduate Environment Office</p>	<p>Results of monitoring are available in the Annual Reviews on the WHC website. The auditor understands the AR was made available to NSC and GSC in hard copy for the 2017 AR.</p> <p>WHC is not able to demonstrate the 2016 AR / monitoring required under this consent publicly available at NSC and GSC offices.</p>	Obs (Compliant)	<p>Confirm agreement with councils for placement of data on websites.</p>
REVISION OF STRATEGIES AND PLANS									
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 Plans (Biodiversity Offset Management Plan</p>	<p>AEMRs cover period 1 July to 30 June (financial year). Modifications of consent dates: 22 August 2007, 19 August 2008 and 3 September 2015 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	<p>Consider including line items in the revision history table of all strategies and plans to record any reviews completed.</p>	<p>Correspondence with DP&amp;E May 2018</p>	<p>As per Schedule 5, Condition 12 of DA 8-1-2005 WHC submitted (May 2018) the following Management Plans and Monitoring Programs to DP&amp;E:</p> <ul style="list-style-type: none"> <li>• Archaeology and Cultural Heritage Management Plan (note: administrative changes only);</li> <li>•Blasting Monitoring Program;</li> <li>•Road Noise Management Plan;</li> <li>•Noise Monitoring Program; and</li> <li>•Water Management Plan.</li> </ul> <p>Further, the updated Water Management Plan was provided to DPI Water for comment in accordance with DA 8-1-2005.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments (2016)	Compliance Status (2016)	Recommendations (2016)	Reference/ Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
ML1471									
Extraction of Coal									
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		Interview Graduate Environment Officer	No mining or extraction has occurred during the audit period	NT	
MINING, REHABILITATION, ENVIRONMENTAL MANAGEMENT PROCESS									
Mining Operations Plan									
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:-  (a) ongoing mining operations and environmental management; and  (b) ongoing monitoring of the project.	This audit  Mining Operations Plan	Refer to audit of Mining Operations Plan for implementation.	C		Closure Mining Operations Plan	Closure Mining Operations Plan covers the period 7 September 2015 through to 6 September 2022.  DA 8-1-2005 MOD 3 was approved on the 3rd September 2015, to extend the expiry of the Consent beyond 7th September 2015.  No mining operations have occurred during the audit period.	C	
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		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		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 further actions required as this is considered a legacy ANC

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		<p>Closure Mining Operations Plan 2015 to 2022</p> <p>IEA 2016</p>	<p>As detailed in the previous IEA completed in 2016, the period of the Closure MOP is seven years and has been developed in compliance with this condition.</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	
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		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		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		Note	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		Letter to DRE dated 6 February 2015	Letter forwarding updated MOP to DRE during audit period completed as required.	C	

ANNUAL ENVIRONMENT MANAGEMENT REPORT									
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	AEMR 2013, 2014, 2015 Letter to DRE 27 January 2015 issuing 2014 AEMR Letter to DRE 7 November 2013 for issue of 2013 AEMR Letter to DRE 16 January 2012 for issue of 2012 AEMR report	AEMRs completed annually.  Letter confirming 2012, 2013 and 2014 AEMR submitted to DRE/DI (Resources and Energy).	C		WHC Website  Letter from DP&E dated 2 July 2018 Letter from DP&E dated 28 June 2017	All current plan and Annual Reviews are made available on the WHC website.  Correspondence with DP&E confirms submission of Annual Review 2015-16, Annual Review 2016 and Annual Review 2017.	C	
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.	AEMR 2013, 2014, 2015	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.	AEMR 2016, 2017	(a) review of performance against the MOP is provided in 6.3.6 of 2016 report and 7.3.7 of 2017 report..  (b) non-compliances listed in Section 1 of the report  (c) EPL surrendered in last audit period  (d) all relevant (WAL and mining licences and CoA) outlined in compliance table.  (e) no variations applicable  f) review provided in Section 6.3.1 in 2016 and Section 7.3.1 in 2017 report	C	
3.3	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.	Interview - Environment Mgr.  AEMR 2013, 2014, 2015 Letter to DRE 27 January 2015 issuing 2014 AEMR Letter to DRE 7 November 2013 for issue of 2013 AEMR Letter to DRE 16 January 2012 for issue of 2012 AEMR report	No correspondence received from the DRE during the audit period regarding the AEMR.	NT		Letter from DP&E dated 2 July 2018 Letter from DP&E dated 28 June 2017 Letter from DP&E dated 04 October 2016	No correspondence received from DP&E during the audit period regarding the ARs.	NT	
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		Interview Graduate Environment Officer	No directions received to review the AEMR with other government agencies during the audit period.	NT	
SHAFTS, DRIFTS AND ADITS									
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		Interview Graduate Environment Officer  Interview Graduate Environment Officer	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	

DUMPS									
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		Letter from DRG 11 July 2017	No movement of coal or overburden material during the reporting period.  Letter from DRG in 2017 required: - removal of tyres and concrete material from the gravel pit area - Monitor and conduct remedial maintenance of erosion to void batters.  Site inspection confirmed that the concrete and tyres have been removed and waste documentation was available for review.  Monthly inspections confirm that remedial activities were undertaken to address erosion in 2017 however site inspection confirmed that erosion of void batters is a recurring issue and requires ongoing maintenance.	NC	Although WHC responded to DRG's request to maintain identified erosion of void batters, ongoing maintenance is required for this recurring erosion impact.
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		Interview Graduate Environment Officer  Site Inspection	No coal dumps on site during audit period.	NT	
DUST									
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		Site Inspection	No visible dust or other air pollution noted during site inspection. The majority of the site was revegetated with roads being the primary exposed surface. The gravel pit area requires further stabilisation as do the batters into the void which have areas of erosion and tunnelling. Auditor notes that batter slope erosion releases sediment laden water into the void, and this runoff remains in the void on-site and would not be released. Auditor also notes that controls and revegetation/rectification works are currently being delayed due to pending Vickery Project approval.	NC	The gravel pit area is no longer used and is not stabilised, hence it may generate dust. As the site is not currently used and is a source of windborne dust, stabilisation should be prioritised
MANAGEMENT AND REHABILITATION OF LANDS (GENERAL)									
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		Site Inspection	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		Interview Graduate Environment Officer	No instructions received during audit period.	NT	
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		Interview Graduate Environment Officer	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		Interview Graduate Environment Officer	No instructions received during audit period. Rehabilitation activities included in Closure 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		Site Inspection	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	
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		Closure Mining Operations Plan 2015 to 2022	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	
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).	WHC_PLN_CAN_Bushfire Management Plan 2016 Site Inspection Monthly Environment Inspection Checklist 2016-2019	Fire breaks in the form of roads are maintained throughout the site.  Refer Bushfire Management Plan below	C	
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		Site Inspection Water Management Plan OUT17 25346 ML1464, ML1471 - Canyon Coal Mine - AEMR - 1 July 2016 to 31 December 2016 AEMR Acceptance Letter	Letter from the DPE in July 2017 accepted the AEMR but noted that areas of erosion were present on the void batters during a site inspection on the 6 June 2017. Monitoring, and maintenance as necessary, was required to be undertaken.  Means for prevention is provided in approved and updated management plans - implementation of these plans is assessed against relevant conditions and as stated in audit of WMP	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		Annual Reviews 2016 - 2018	No blasting has been completed during audit period.	NT	
<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		Site Inspection	Site inspection identified that the Peppercress is protected by fencing with shade cloth.  The rehabilitation monitoring reports and AEMRs outline flora and fauna monitoring	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		Site Inspection	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		Site Inspection  Water Management Plan  OUT17 25346 ML1464, ML1471 - Canyon Coal Mine - AEMR - 1 July 2016 to 31 December 2016 AEMR Acceptance Letter	No mining operations have occurred during the audit period.  Letter from DRG in 2017 required: - removal of tyres and concrete material from the gravel pit area - Monitor and conduct remedial maintenance of erosion to void batters.  Monthly inspections confirm that remedial activities were undertaken to address erosion in 2017 however site inspection confirmed that erosion of void batters is a recurring issue and requires ongoing maintenance.  Erosion noted in pit void batters during site inspection - note that void forms sediment control as runoff captured within site.	C	
<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		Water Management Plan	No correspondence received regarding costs incurred of repairing any damage caused by site operations during the audit period. Any requests would be covered by the road maintenance agreement.	NT	
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 operations completed at the site - activities restricted to rehabilitation.	NT	

CATCHMENT AREAS									
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		<p>Canyon Wet Weather Discharge Spreadsheet</p> <p>Interview Graduate Environment Officer</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	
TRANSMISSION LINES, COMMUNICATION LINES AND PIPELINES									
41	<p>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.</p>	<p>Site Inspection</p> <p>Interview - Environment Manager</p>	<p>No transmission line, communication line or pipeline traversing the surface through the Site.</p>	C		<p>Site Inspection</p>	<p>No transmission line, communication line or pipeline traversing the surface through the Site.</p>	C	
ABORIGINAL PLACE OR RELIC									
43	<p>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</p>	<p>Aboriginal and Cultural Heritage Management Plan</p>	<p>Refer to audit of Aboriginal and Cultural Heritage Management Plan in Annex I for assessment of implementation of mitigates.</p>	C		<p>Interview Graduate Environment Officer</p> <p>Site Inspection</p>	<p>No earth movement, ground disturbance or vegetation clearance during the audit period. Archaeological Sites observed to be clearly marked during site inspection.</p>	C	

LABOUR/EXPENDITURE								
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>	Interview - Environment Manager	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.	Letter DRG regarding Proposed Variation of Labour and Expenditure Clause (16 July 2018)	Letter DRG regarding Proposed Variation of Labour and Expenditure Clause, received 16 July 2018 proposes the removal of this clause.	NT
ADDITIONAL INFORMATION								
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		Interview Graduate Environment Officer	No correspondence received from Minister during audit period.	NT

SERVICE OF NOTICES									
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		Note	Outside of audit period.	NT	
INSPECTORS									
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> <p>(c) A notice referred to in his condition may be served on the Colliery Manager.</p>	Interview - Environment Manager	No inspectors visited site during period. No directions issued.	NT		Letter from DRG 11 July 2017	<p>Letter from DRG in 2017 required:            - removal of tyres and concrete material from the gravel pit area            - Monitor and conduct remedial maintenance of erosion to void batters.</p> <p>Site inspection confirmed that the concrete and tyres have been removed, waste documentation was not available for review.</p> <p>Monthly inspections confirm that remedial activities were undertaken to address erosion in 2017 however site inspection confirmed that erosion of void batters is a recurring issue and requires ongoing maintenance.</p>	NC (Duplicate of ML 15)	<p>Although WHC responded to DRG's request to maintain identified erosion of void batters, ongoing maintenance is required for this recurring erosion impact.</p> <p>Maintain waste documentation for removal of waste from site.</p>

INDEMNITIES									
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		Note	Noted	Note	
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		Note	Noted	Note	
PROSPECTING									
50	(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.  (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.	Interview - Environment Manager	No prospecting has been completed during the audit period.	NT		Interview Graduate Environment Officer	No prospecting has been completed during the audit period.	NT	

SECURITY DEPOSIT									
51	<p>(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.</p> <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>	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.		Emails from Stuart Smith (Whitehaven Treasury and Revenue Accountant) demonstrate anecdotally that the bonds are in place, along with departmental correspondence and draft deeds but no confirmation email or correspondence identified.	O (non-compliance)	Obtain evidence from the Director General for clear demonstration of security deposit
ROYALTY AT ADDITIONAL RATE									
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		Interview Graduate Environment Officer	No extraction of coal has been completed on the site during the audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments (2016)	Compliance Status (2016)	Recommendations (2016)	Reference/ Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Take of water</b>									
MW07 16- 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 monthly site 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	<p>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.</p>	<p>Canyon Groundwater investigation-Evaporative Pit Loss Assessment (SLR 2019)</p> <p>27072018094721-001 - Proposed water transport from Canyon Coal Mine final void for use at Tarrawonga and Rocglen Coal Mines (Ashurst, 2018)</p> <p>NRAR_response_CanyonCoalMine_updatedWMP (Natural Resource Access Regulator [NRAR] letter requesting understanding of groundwater inflow and evaporative loss quantified so that licencing can occur.</p> <p>Canyon transfer flow meter spreadsheet (meter recordings from pump taking water from the void)</p>	<p>Environmental officer indicated bore has not been pumped in the past three years. inspection of the bore identified that it was not in use at time of inspection.</p> <p>Water however was being taken from the void. The void has been determined by SLR (2019) to include groundwater inflow (between 0.001 to 0.015ML/day equating to 0.4ML and 5.4ML of evaporation per annum).</p> <p>Canyon water transfer spreadsheet identifies that 25.536 ML have been sourced from the void since water take commenced after January 7 2019 to 18 February 2019.</p> <p>Water is being taken from void for use at Rocglen. Since receiving advice from Ashurst that this activity can commence in compliance with current approval requirements, SLR have determined that the void is subject to groundwater inflow and the water present is not solely accumulated surface runoff. Regulators requested that groundwater inflow be determined to ensure that evaporative loss from this void is licenced. The intent of the regulators is to understand loss and take from the aquifer and appropriately licenced.</p>	O (non-compliant)	<p>Current take from this void (and by proxy the aquifer), that is not from the existing bore, should be discussed with DPI-Water and confirm that utilisation of water within the ground water influenced void is authorised. It may be authorised under the existing water licence as water take is occurring from the aquifer associated with the WAL but not specifically from the existing bore - clarity should be sought.</p>
MW06 31- 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		as above	as above	O (non-compliant)	To confirm that current take from the void (that has groundwater inflow) is in accordance with water sharing plan (and potentially the current water access licence)
<b>Monitoring and recording</b>									
MW06 35- 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>	Interview – Environment Manager	A logbook is not maintained for the pumps.	NC	Consider developing a logbook for the pumps to record extraction volumes.	<p>Interview with Environmental Officer</p> <p>water use logbook (no entries)</p> <p>Canyon transfer flow meter spreadsheet (meter recordings from pump taking water from the void)</p>	<p>Logbook was provided but no pumping from the bore has occurred to be recorded.</p> <p>Pumping from the Canyon void to trucks for use at Rocglen was occurring during the inspection. Environmental officer indicated that the pump extracting the water is metered and records maintained (in flow meter spreadsheet) though this doesn't include comparison to maximum allowable take volume. The water in the void includes groundwater seepage from the same aquifer that the bore is located. To confirm with regulators that the take is in accordance with water sharing plan (and potentially the current WAL and these conditions)</p>	O (non-compliant)	<p>As above.</p> <p>Furthermore, to address this condition, formula could be inserted into tracking spreadsheet allowing for remaining volume to be calculated following the insertion of daily pumping rates</p>
MW06 39- 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		Interview – Environment Manager	Groundwater wells do not have data loggers installed.	NT	

MW06 33- 00001	The licence holder must record the following in the logbook:  (i) each date and period of time during which water is taken under this licence;  (ii) the volume of water taken on that date;  (iii) the water supply work approval number of the water supply work used to take the water on that date;  (iv) the purpose or purposes for which the water taken on that date.	Interview – Environment Manager	A logbook is not currently maintained for the pumps.	NC  Duplicated with MW0635-00001 and MW0632-00001	Consider developing a logbook for the pumps which includes the required information.	Interview with Environmental Officer water use logbook (no entries)  Canyon transfer flow meter spreadsheet (meter recordings from pump taking water from the void)	The logbook associated with the bore has no entries as the bore has not been used. At the time of the audit a pump was being used to remove water from the pit void. The pit void has inflow from the aquifer that is also associated with the bore. The pumping volume from the void was being collected on a spreadsheet. The pump flow meter spreadsheet is not maintained by the site Environmental officer but by the Operations Manager and only includes water volume taken per week, rather than the specific logbook requirements of the condition.	O (compliant)  Duplicated with MW0635-00001 and MW0632-00001	Ensure that all requirements to be present in the logbook are included.
MW06 36- 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		Interview with Graduate Environmental Officer.	A request for the logbook has not been made during the audit period	NT	
MW06 32- 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.	NC  Duplicated with MW0635-00001 and MW0633-00001	Consider developing a logbook for the pumps.	Interview with Environmental Officer water use logbook (no entries)	A logbook has been developed but no entries are present as the bore has not been used during the audit period.	O (compliant)	Ensure that the log book has all requirements to meet the conditions of this WAL.
MW06 37- 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	Interview with Graduate Environmental Officer.	No logbook encompassing five year period. The bore ceased to be used sometime ago but records confirming date of cessation could not be found.	NV	
<b>Reporting</b>									
MW08 31- 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.	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.	Canyon Groundwater investigation-Evaporative Pit Loss Assessment (SLR 2019)  27072018094721-001 - Proposed water transport from Canyon Coal Mine final void for use at Tarrawonga and Roeglen Coal Mines (Ashurst, 2018)  Canyon transfer flow meter spreadsheet (meter recordings from pump taking water from the void) NRAR_response_CanyonCoalMine_updatedWMP (Natural Resource Access Regulator [NRAR] letter requesting understanding of groundwater inflow and evaporative loss quantified so that licencing can occur.	Groundwater influenced water is currently being pumped from the pit void for use at Roeglen. To confirm that current pumping from groundwater influenced void is not considered a breach of the conditions of water sharing plan or this WAL.	O (non-compliant)	To confirm that current activity is not considered a breach of the conditions of water sharing plan or this WAL. Discussion and authorisation from NRAR with regard to the activity is required now that groundwater infiltration into the void is confirmed.
<b>Additional Conditions</b>									
MW07 17- 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.	Interview – Environment Manager  Whitehaven Coal monthly site inspections 2012-2015  AEMRs 2012-2015	As volumes are not currently recorded, assessment of compliance with this condition is unable to be assessed.	NV		As above	The void is subject to both groundwater inflow and surface water inflow. Water take is currently occurring via pumping directly from the void rather than the bore. The pump meter identifies the quantity of take from the void, it is to be confirmed how this take fits with the water sharing plan and the current WAL.	O (non-compliant)	Current take from this void (and by proxy the aquifer), that is not from the existing bore, should be discussed with DPI-Water and confirm that utilisation of water within the ground water influenced void is authorised. It may be authorised under the existing water licence as water take is occurring from the aquifer associated with the WAL but not specifically from the existing bore - clarity should be sought.
<b>Other Conditions</b>									
NIL									



## **APPENDIX B DEPARTMENTAL CORRESPONDENCE**

## Oliver Moore

---

**From:** Oliver Moore  
**Sent:** Monday, 4 February 2019 5:48 PM  
**To:** Tim.Baker@dpi.nsw.gov.au  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon  
**Subject:** Rocglen and Canyon IEA  
**Attachments:** ERM Audit Terms of Reference (February 2019) - Rocglen Coal Mine.pdf; ERM Audit Terms of Reference (February 2019) - Canyon Coal Mine.pdf

Hi,

ERM is currently completing an independent environmental audit on the Conditions of Approval issued to Whitehaven for both Rocglen and Canyon coal mines.

The attached Terms of Reference outlines the audit process, and also introduces the team of suitably qualified, experienced and independent experts who will be undertaking the audit. The site inspection will be completed over the period 18 – 21 February 2019.

One of the requirements of the audit is that it is to be undertaken in consultation with relevant agencies. To that end, this email invites you to raise any questions or concerns regarding this project from an environmental management perspective. Please send through to myself copying in my colleague Tim.

Kind regards

Olly

**Oliver Moore**

Principal Environmental Consultant

**Environmental Resources Management**

Level 15 | 309 Kent Street | Sydney NSW 2000

**E:** [oliver.moore@erm.com](mailto:oliver.moore@erm.com) | **W:** [www.erm.com](http://www.erm.com)

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## Tim Haydon

---

**From:** Oliver Moore  
**Sent:** Monday, 4 February 2019 5:50 PM  
**To:** Roberta.Ryan@uts.edu.au  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon  
**Subject:** Canyon IEA  
**Attachments:** ERM Audit Terms of Reference (February 2019) - Canyon Coal Mine.pdf

Hi,

ERM is currently completing an independent environmental audit on the Conditions of Approval issued to Whitehaven for both Canyon coal mine.

The attached Terms of Reference outlines the audit process, and also introduces the team of suitably qualified, experienced and independent experts who will be undertaking the audit. The site inspection will be completed over the period 18 – 21 February 2019.

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Kind regards

Olly

**Oliver Moore**

Principal Environmental Consultant

**Environmental Resources Management**

Level 15 | 309 Kent Street | Sydney NSW 2000

**E:** [oliver.moore@erm.com](mailto:oliver.moore@erm.com) | **W:** [www.erm.com](http://www.erm.com)

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## Tim Haydon

---

**From:** Oliver Moore  
**Sent:** Monday, 11 February 2019 12:52 PM  
**To:** 'Heidi Watters'  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon; Steve O'Donoghue; Leah Cook  
**Subject:** RE: Rocglen and Canyon IEA

Heidi,

Many thanks for taking time out to prepare these areas of focus. We will consider during the audit process.

Kind regards

Olly

Oliver Moore  
Principal Environmental Consultant  
T +61 2 8584 8886 | M +61 419 222 370

---

**From:** Heidi Watters <Heidi.Watters@Planning.nsw.gov.au>  
**Sent:** Monday, February 11, 2019 11:32 AM  
**To:** Oliver Moore <Oliver.Moore@erm.com>  
**Cc:** Tony Dwyer <tdwyer@whitehavencoal.com.au>; Emily Clements <EClements@whitehavencoal.com.au>; Michael Gaggin <Michael.Gaggin@erm.com>; Tim Haydon <Tim.Haydon@erm.com>; Steve O'Donoghue <Stephen.ODonoghue@planning.nsw.gov.au>; Leah Cook <Leah.Cook@planning.nsw.gov.au>  
**Subject:** RE: Rocglen and Canyon IEA

Hi Olly

Thank you for your email regarding agency consultation for the upcoming Rocglen and Canyon IEAs. The Department provides the following in response:

**Areas of interest for the Rocglen IEA:**

1. Water management
  - a. Water balance for the audit period, including a comparison to the actual to the predictions in the EIS (as modified)
2. Biodiversity management
  - a. Status of offset security arrangements and any changes during the audit period
  - b. Assessment of the implementation of offset management plan
3. Rehabilitation
  - a. Actual rehabilitation compared to EIS (as modified) predictions, including final void catchment area, proposed landform and proposed land use
  - b. Adequacy of rehabilitation monitoring
4. All management plans
  - a. Review of management plans during the audit period
  - b. Consultation with agencies and stakeholders in review of management plans
5. Environmental monitoring
  - a. Siting of monitoring equipment compliant with the *Approved Methods for Sampling of Air Pollutants in New South Wales*

**Areas of interest for the Canyon IEA:**

1. Biodiversity management
  - a. Status of offset security arrangements and any changes during the audit period
  - b. Assessment of the implementation of Flora and Fauna management plan
2. Rehabilitation
  - a. Actual rehabilitation compared to EIS predictions
  - b. Adequacy of rehabilitation monitoring
  - c. Water discharge quality from rehabilitated catchments via sediment dams to receiving waters
3. All management plans
  - a. Review of management plans during the audit period
  - b. Consultation with agencies and stakeholders in review of management plans
4. Environmental monitoring
  - a. Siting of monitoring equipment compliant with the *Approved Methods for Sampling of Air Pollutants in New South Wales*
  - b. Adequacy of environmental monitoring programme

Please call or email if you have any further questions.

Regards

**Heidi Watters**

Senior Compliance Officer  
Planning Services  
Suite 14, Level 1, 1 Civic Ave | Singleton NSW 2330  
T 02 6575 3401 M 0472 820 374



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**From:** Oliver Moore <[Oliver.Moore@erm.com](mailto:Oliver.Moore@erm.com)>

**Sent:** Monday, 4 February 2019 5:44 PM

**To:** DPE PSVC Compliance Mailbox <[compliance@planning.nsw.gov.au](mailto:compliance@planning.nsw.gov.au)>; Heidi Watters <[Heidi.Watters@Planning.nsw.gov.au](mailto:Heidi.Watters@Planning.nsw.gov.au)>; Steve O'Donoghue <[Stephen.ODonoghue@planning.nsw.gov.au](mailto:Stephen.ODonoghue@planning.nsw.gov.au)>

**Cc:** Tony Dwyer <[tdwyer@whitehavencoal.com.au](mailto:tdwyer@whitehavencoal.com.au)>; Emily Clements <[EClements@whitehavencoal.com.au](mailto:EClements@whitehavencoal.com.au)>; Michael Gaggin <[Michael.Gaggin@erm.com](mailto:Michael.Gaggin@erm.com)>; Tim Haydon <[Tim.Haydon@erm.com](mailto:Tim.Haydon@erm.com)>

**Subject:** Rocglen and Canyon IEA

Hi,

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The attached Terms of Reference outlines the audit process, and also introduces the team of suitably qualified, experienced and independent experts who will be undertaking the audit. The site inspection will be completed over the period 18 – 21 February 2019.

One of the requirements of the audit is that it is to be undertaken in consultation with relevant agencies. To that end, this email invites you to raise any questions or concerns regarding this project from an environmental management perspective. Please send through to myself copying in my colleague Tim.

Kind regards

Ollly

**Oliver Moore**

Principal Environmental Consultant

**Environmental Resources Management**

Level 15 | 309 Kent Street | Sydney NSW 2000

**E:** [oliver.moore@erm.com](mailto:oliver.moore@erm.com) | **W:** [www.erm.com](http://www.erm.com)

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## Tim Haydon

---

**From:** Oliver Moore  
**Sent:** Monday, 4 February 2019 5:47 PM  
**To:** Renee.Shepherd@environment.nsw.gov.au  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon  
**Subject:** Rocglen and Canyon IEA  
**Attachments:** ERM Audit Terms of Reference (February 2019) - Rocglen Coal Mine.pdf; ERM Audit Terms of Reference (February 2019) - Canyon Coal Mine.pdf

Hi,

ERM is currently completing an independent environmental audit on the Conditions of Approval issued to Whitehaven for both Rocglen and Canyon coal mines.

The attached Terms of Reference outlines the audit process, and also introduces the team of suitably qualified, experienced and independent experts who will be undertaking the audit. The site inspection will be completed over the period 18 – 21 February 2019.

One of the requirements of the audit is that it is to be undertaken in consultation with relevant agencies. To that end, this email invites you to raise any questions or concerns regarding this project from an environmental management perspective. Please send through to myself copying in my colleague Tim.

Kind regards

Olly

**Oliver Moore**

Principal Environmental Consultant

**Environmental Resources Management**

Level 15 | 309 Kent Street | Sydney NSW 2000

**E:** [oliver.moore@erm.com](mailto:oliver.moore@erm.com) | **W:** [www.erm.com](http://www.erm.com)

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## Tim Haydon

---

**From:** Oliver Moore  
**Sent:** Monday, 4 February 2019 5:46 PM  
**To:** Armidale@epa.nsw.gov.au; Simon.Lund@epa.nsw.gov.au  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon  
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## Tim Haydon

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**From:** Oliver Moore  
**Sent:** Monday, 4 February 2019 5:45 PM  
**To:** Minres.environment@industry.nsw.gov.au; Jeremy.arnott@planning.nsw.gov.au  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon  
**Subject:** Rocglen and Canyon IEA  
**Attachments:** ERM Audit Terms of Reference (February 2019) - Rocglen Coal Mine.pdf; ERM Audit Terms of Reference (February 2019) - Canyon Coal Mine.pdf

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## Tim Haydon

---

**From:** Oliver Moore  
**Sent:** Monday, 4 February 2019 5:44 PM  
**To:** compliance@planning.nsw.gov.au; Heidi.Watters@Planning.nsw.gov.au; Stephen.ODonoghue@planning.nsw.gov.au  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon  
**Subject:** Rocglen and Canyon IEA  
**Attachments:** ERM Audit Terms of Reference (February 2019) - Rocglen Coal Mine.pdf; ERM Audit Terms of Reference (February 2019) - Canyon Coal Mine.pdf

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## Tim Haydon

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**From:** Oliver Moore  
**Sent:** Monday, 4 February 2019 5:50 PM  
**To:** council@infogunnedah.com.au; council@narrabri.nsw.gov.au  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon  
**Subject:** Rocglen and Canyon IEA  
**Attachments:** ERM Audit Terms of Reference (February 2019) - Rocglen Coal Mine.pdf; ERM Audit Terms of Reference (February 2019) - Canyon Coal Mine.pdf

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## Tim Haydon

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**From:** Oliver Moore  
**Sent:** Friday, 15 March 2019 3:27 PM  
**To:** 'Heidi Watters'  
**Cc:** Michael Gaggin; Tony Dwyer  
**Subject:** RE: Rocglen and Canyon Coal Mine Independent Environmental Audit 2019  
**Attachments:** 20181221113323036.pdf; 20181221113855379.pdf

Heidi,

Due to unforeseen circumstances we would like to request an extension for the delivery of the Rocglen and Canyon IEA reports as below. Conscious there is deadline set by the Department of three months from commissioning (Canyon) and 6 weeks from the audit (Rocglen), I wanted to raise this at the earliest possible time.

- Canyon, current deadline 21 March, request extension to 12 April
- Rocglen, current deadline 5 April request extension to 26 April

I have discussed this request with Whitehaven and I'm happy to talk this through with you if required.

Kind regards

Olly

Oliver Moore  
Principal Environmental Consultant  
T +61 2 8584 8886 | M +61 419 222 370

---

**From:** Heidi Watters <Heidi.Watters@Planning.nsw.gov.au>  
**Sent:** Friday, December 21, 2018 11:52 AM  
**To:** Emily Clements <EClements@whitehavencoal.com.au>  
**Cc:** Oliver Moore <Oliver.Moore@erm.com>; Michael Gaggin <Michael.Gaggin@erm.com>; Tony Dwyer <tdwyer@whitehavencoal.com.au>  
**Subject:** RE: Rocglen Coal Mine Independent Environmental Audit 2019

Hi Emily

Please see attached letter endorsing the proposed audit team for the upcoming IEA for the Rocglen Coal Mine.

Please call or email if you have any further questions.

Regards

**Heidi Watters**  
Senior Compliance Officer  
Planning Services  
Suite 14, Level 1, 1 Civic Ave | Singleton NSW 2330  
T 02 6575 3401 M 0472 820 374





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**From:** Emily Clements <[EClements@whitehavencoal.com.au](mailto:EClements@whitehavencoal.com.au)>  
**Sent:** Tuesday, 18 December 2018 4:11 PM  
**To:** Heidi Watters <[Heidi.Watters@Planning.nsw.gov.au](mailto:Heidi.Watters@Planning.nsw.gov.au)>  
**Cc:** Oliver Moore <[Oliver.Moore@erm.com](mailto:Oliver.Moore@erm.com)>; Michael Gaggin <[Michael.Gaggin@erm.com](mailto:Michael.Gaggin@erm.com)>; Tony Dwyer <[tdwyer@whitehavencoal.com.au](mailto:tdwyer@whitehavencoal.com.au)>  
**Subject:** Rocglen Coal Mine Independent Environmental Audit 2019

Hi Heidi,

Please find attached a proposal from ERM to undertake the Rocglen Coal Mine (RCM) Independent Environmental Audit (IEA) as required by Schedule 5, Condition 8 of PA10\_0015.

May you please review and provide endorsement for ERM to undertake the IEA in accordance with the relevant approval conditions?

If you have any queries please do not hesitate to contact myself or Tony Dwyer (02 6741 9316). Thank you in advance.

Kind Regards,

**Emily Clements**

Graduate Environmental Officer

**Whitehaven Coal Limited**

2382 Wean Road, Gunnedah NSW 2380 Australia

**Tel:** 02 6740 7009 **Mobile:** 0428 114 814

**Email:** [eclements@whitehavencoal.com.au](mailto:eclements@whitehavencoal.com.au) [www.whitehavencoal.com.au](http://www.whitehavencoal.com.au)



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**ERM Newcastle**

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