

Independent Environmental Audit

Wilpinjong Coal Mine



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Wilpinjong Coal Mine

Client: Wilpinjong Coal Pty Limited

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Quality Information

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Reviewed by James McIntyre

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Executive Summary

AECOM Australia Pty Limited (AECOM) has been commissioned by Wilpinjong Coal Pty Limited (WCPL) to conduct the Independent Environmental Audit for the Wilpinjong Coal Mine (WCM) in accordance with the *Development Approval DA-05-0021* (as modified).

This Audit was undertaken generally in accordance with *AS/NZS ISO 19011:2003 – Guidelines for quality and/or environmental management systems auditing*.

This Audit covers the period between January 2012 and December 2014, and includes:

- Comments on WCPL's compliance against the conditions of DA-05-0021 (as modified), its EPL 12425, and other environmental approvals and management plans (Section 4.0);
- An assessment of WCPL's environmental management and performance as well as the adequacy of the management strategy and monitoring programme (Section 5.0); and
- A list of recommendations flowing from the findings of this audit (Section 6.0).

This audit was led by lead auditor Ian Richardson with assistance from Jessica Miller and required specialists Amanda Kerr, Graham Hawkes, Dee Murdoch and Gary Mace in the fields of surface water, groundwater, rehabilitation and spontaneous combustion respectively.

The audit consisted of a detailed desktop review of documentation, interviews with key WCPL staff and included a three day site visit of WCM. Additional desktop reviews were conducted prior to and following the site inspections. A peer review of the IEA was conducted by James McIntyre.

In summary over 1,154 conditions and commitments in the documents listed above were audited, with a total of 39 non-compliances. These non-compliances have been outlined in Section 4.0 with recommendations for improvement outlined in Table 18.

As a result of Modification 5 to DA-05-0021, several monitoring programs and management plans have been removed and replaced with new management plan requirements during the audit period (submitted for approval to in 2014). It is noted that whilst the 2014 plans have not been reviewed in detail as part of the IEA, they appear to be more comprehensive and better reflect current operations and procedures being implemented on site. Many of the non-compliances noted in the IEA will be alleviated following the implementation of the updated plans.

During the IEA interviews and site inspections the lead auditor noted that all WCPL staff demonstrated a good working knowledge of the site. In particular there was an observed commitment from the mine's general manager and environment team towards improved environmental performance.

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1.0 Introduction

1.1 Background

AECOM Australia Pty Ltd (AECOM) was commissioned by Wilpinjong Coal Pty Limited (WCPL) to undertake an Independent Environmental Audit (IEA) for the Wilpinjong Coal Mine (WCM) in accordance with Condition 9, Schedule 5 of the *Development Approval DA-05-0021* - (as modified). WCM is operated by WCPL a wholly owned subsidiary of Peabody Pacific Pty Ltd (Peabody Energy).

The Audit was undertaken consistent with the relevant planning approval conditions for the WCM and focused on verification of the site's compliance against key licences, approvals and supporting documents. This Audit covers the period January 2012 to December 2014 (the auditing period).

1.2 Site Description

The WCM is an open-cut coal mine located approximately 40km north-east of Mudgee, close to the village of Wollar, and within the bounds of the Mid-Western Regional Local Government Area (LGA), in central NSW.

This area is characterised by narrow flood plains which link to tributaries of the Goulburn River. The surrounding area consists of varying topography, including escarpments of the Great Dividing Range. Both the Ulan and Moolarben Coal Mines are situated in the locality of the Mine. Other nearby land uses include agriculture, which is mostly grazing, and rural residential areas concentrated around the villages of Wollar, Ulan, Cumbo, Slate Gully and Araluen.

Exploration Licence (EL) 6169 was granted to WCPL in December 2003. The *Wilpinjong Coal Project Environmental Impact Statement* (the EIS) was later prepared, and Project Approval for the mine was subsequently granted by the Minister for Planning under Part 3A of the Environmental Planning and Assessment Act 1979 on 1 February 2006. The Mine received its Mining Lease 1573 on 8 February 2006. Construction of the WCM began in February 2006 and mining commenced in September that year.

Operations at the Mine include open cut mining, a coal handling and preparation plant (CHPP), associated raw and product coal handling facilities, and a train load-out facility. The mining operations rely on bulk push dozers and hydraulic excavators to mine coal and waste rock in a strip mining configuration. Steady state mining consists of a combination of truck and excavator mining and dozer bulk pushing of blasted overburden into the previous strip void, followed by the removal of coal and interburden. Mining strips are typically 70 m wide and are generally orientated east-west or north-south. Coal and interburden is mined in a similar manner to the overburden material and dozers are used to rip and push the coal/interburden, followed by truck loading using excavators. Some interburden blasting is required, depending on the materials to be excavated.

The WCM is approved to produce up to 16 million tonnes per annum (Mtpa) of run of mine (ROM) coal. ROM coal is either washed at the CHPP, or is by passed to product stockpiles, before it is loaded onto trains. Rail infrastructure is then used to transport coal either to the Bayswater/Liddell rail unloader or to the Port of Newcastle.

Since the original Project Approval (05-0021) in February 2006, the approval has been modified on five occasions to date:

- On 30 November 2007 (MOD 1) to allow an increase in blasting frequency and to vary the Mine Access Route to the Mine, from Wollar Road to Ulan-Wollar Road;
- On 8 September 2010 (MOD 3) to allow an increase in annual ROM extraction from 13Mtpa to 15 Mtpa, and to make associated modifications to fixed and mobile plant;
- On 28 August 2012 (MOD 4) to allow an increase of the maximum coal production from 12 to 12.5 Mtpa, to allow an increase in the number of laden coal trains leaving the Mine, and to allow the installation and operation of reverse Osmosis (RO) plant on-site to treat excess Mine water prior to approved discharge in accordance with Environmental Protection Licence (EPL) 12425;
- On 07 February 2014 (MOD 5) to allow an extension to the existing open cut pits by approximately 70 hectares, an increase to the rates of annual waste rock production, minor coal handling preparation plant (CHPP) upgrades, upgrades to the existing reverse-osmosis plant, amendment of the waste emplacement strategy and the operation of a light vehicle servicing workshop at an existing farm shed; and

- On 21 November 2014 (MOD 6) to allow an increase in the upper rate of ROM coal production from 15 Mtpa to 16 Mtpa, an increase in the upper annual rate of waste rock production and mine sequencing revisions associated with updated geological modelling/mine planning.

1.3 Scope of Work

This IEA and subsequent report has been prepared pursuant to Condition 9, Schedule 5 of DA-05-0021 (as modified). Table 1, lists the requirements of this condition and indicates where each has been addressed in this IEA report.

Table 1 Auditing Conditions and where each is addressed in this report

Condition	Commitment	Where Addressed in this Report
9	By the end of December 2011, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission at its own cost an Independent Environmental Audit of the project. This audit must:	This Report
9(a)	Be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General.	Section 1.0 and Appendix B
9(b)	Include consultation with the relevant agencies.	Section 1.0 and Appendix B
9(c)	Assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals).	Section 4.0
9(d)	Review the adequacy of strategies, plans or programs required under the abovementioned approvals.	Section 5.0
9(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.	Section 6.0
9(f)	Be completed within 2 months of the approval of the audit team.	N/A
Note:	This audit team must be led by a suitably qualified auditor and include experts in surface water, groundwater any other fields specified by the Director-General.	Section 1.0 and Appendix A

The most recent IEA of the Mine was undertaken by AECOM in December 2011 (*Wilpinjong Coal Mine Independent Environmental Audit Report*, 2012). This IEA therefore covers the period January 2012 – December 2014.

1.4 Audit Approach

This IEA was undertaken generally in accordance with *AS/NZS ISO 19011:2003 – Guidelines for quality and/or environmental management systems auditing* by the following AECOM staff:

- Ian Richardson (Environment Director and Area Manager) – Lead Auditor;
- Jessica Miller (Professional Environmental Planner) – Auditor;
- Amanda Kerr (Principal Environmental Engineer) – Surface Water Specialist;
- Graham Hawkes (Principal Hydrogeologist) – Groundwater Specialist;
- Gary Mace (Environment Health and Safety Team Leader) – Spontaneous Combustion Specialist;
- Dee Murdoch (Associate Director - Environment) – Rehabilitation Specialist; and
- James McIntyre (Associate Director – Environment) – Peer Review/Quality Control.

Audit Team Curricula Vitae is provided in Appendix A, and the letter of approval of the Audit Team from the DP&E is provided in Appendix B.

This IEA consisted of a detailed desktop review of documentation, interviews with key WCPL staff and a site visit of the Mine on 15th, 16th and 17th of December 2014. Attendees at interviews included:

- Kieren Bennetts – (Environment and Community Manager);
- Blair Jackson (General Manager);
- Peter Grosvenor (Mine Manager);
- Clark Potter (Senior Environmental Advisor);
- Nick Collings (Tech Services Manager); and
- Karin Fogarty (Environmental Advisor).

Agendas for the site meetings and itinerary for the site inspection components of the IEA (both inclusive of attendees) are shown in Appendix C.

A general site inspection, including an inspection of the workshop, active mining areas and rehabilitation areas was undertaken on 15, 16 and 17th of December 2014. Weather on the Monday was warm and dry with a maximum temperature of approximately 33°C. Weather on Tuesday was warm with heavy rainfall continuing into the night with increasing sunshine present on the Wednesday and a maximum temperature of approximately 33°C.

Good climatic conditions from the previous season revealed lots of grass cover in the region, with no dry pasture areas observed.

1.4.1 Limitations of the Audit

The AECOM audit team received complete cooperation from all staff during the IEA. However, the following issues arose during the IEA, which limited to some extent, its findings:

- It should be noted that an audit provides a snapshot of compliance, not a definitive measure of an organisations compliance with their requirements;
- Opinions presented in this report apply to the site's conditions and features as they existed at the time of AECOM's site visit in December 2014 and those reasonably foreseeable. They necessarily cannot apply to conditions and features which AECOM is unaware of and has not had the opportunity to evaluate;
- The conclusions presented in this report are professional opinions based solely on AECOM's visual observations of the site and the immediate vicinity, and upon AECOM's interpretations of the documentation reviewed, interviews and conversations with personnel knowledgeable about the site and other available information, as referenced in this report. These conclusions are intended exclusively for the purpose stated herein, at the site listed, and for the project indicated; and
- This report does not, and does not purport to, give legal advice on the actual or potential environmental liabilities of any individual or organisation, or to draw conclusions as to whether any particular circumstances constitute a breach of relevant legislation.

1.5 Report Structure

This report is structured generally in accordance with Condition 9, Schedule 5 of *DA-05-0021* (as modified) as follows:

Section 1.0 provides an introduction, background, description and layout of the Mine, describes the requirements for the IEA and provides a guide to the structure of the report;

Section 2.0 lists the planning approvals in place at the Mine, provides a description of each and confirms those which have been the subject of this IEA;

Section 3.0 and **Section 4.0** provide a discussion of non-compliances against the project approvals and other licences and management plans;

Section 5.0 provides a review the adequacy of strategies, plans or programs required under the abovementioned approvals at the Mine; and

Section 6.0 provides recommendations for measures or actions to improve the environmental performance of the Mine.

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2.0 Documents Reviewed

Condition 9, Schedule 5 of DA-05-0021-2006 (as modified) requires the IEA to:

(c) “assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals).”

Condition 2, Schedule 2 of DA-05-0021 (as modified) lists the documents that the Mine has to carry out its operations in accordance with. Table 2 lists this condition and indicates where each requirement has been addressed in this report. Due to time constraints on the audit team, not all commitments in the environmental approvals and management plans were able to be audited. Where this is the case, it has been highlighted and a recommendation made that these commitments be prioritised for investigation in future IEAs.

Table 2 Documents used to assess compliance and where each is addressed in this report

Document	Where addressed in this report
Conditions of this approval	Section 4.1
Statement of commitments	Section 4.1
Environmental Impact Assessment titled <i>Wilpinjong Coal Project EIS</i> , volumes 1-5 (Resource Strategies Pty Ltd, May 2005), as amended by the environmental assessments for each of the five modifications to DA-05-0021.	EIA (2005) is assessed in Section 4.2 EA, (2010) is assessed in Section 4.3 Due to time constraints on the audit team the EAs for modifications 1,4,5 and 6 were unable to be audited.
Mining Lease (ML) 1573	Section 4.4
Environmental Protection Licence (EPL) 12425	Section 4.5
<i>Wilpinjong Coal Mine Mining Operations Plan (ML 1573) 2014 –2018</i> (WCPL, November, 2014)	Section 4.6
<i>Wilpinjong Coal Project Environmental Management Strategy</i> (WCPL, February 2006)	Section 4.7
<i>Wilpinjong Coal Project Erosion and Sediment Control Plan</i> (WCPL, February 2006)	Section 4.8
<i>Wilpinjong Coal Project Rehabilitation and Landscape Management Plan</i> (WCPL, July 2006)	Section 0
<i>Wilpinjong Coal Mine Blast Management Plan</i> (WCPL, September 2011)	Section 4.10
<i>Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan</i> (Peabody, February 2008)	Section 4.11
<i>Wilpinjong Coal Project Spontaneous Combustion Management Plan</i> (WCPL, May 2006)	Section 4.12
<i>Wilpinjong Coal Mine Noise Management Plan</i> (WCPL, September 2011)	Section 4.13
<i>Wilpinjong Coal Mine Air Quality and Greenhouse Gas Management Plan</i> (WCPL, September 2011)	Section 4.14
<i>Wilpinjong Coal Project Site Water Balance</i> (WCPL, July 2006)	Section 4.15
<i>Wilpinjong Coal Project Site Water Management Plan</i> (WCPL, July 2011)	Section 4.15

Document	Where addressed in this report
<i>Wilpinjong Coal Project Surface and Groundwater Response Plan (WCPL, July 2006)</i>	Section 4.15
<i>Wilpinjong Coal Project Surface Water Management and Monitoring Plan (WCPL, March 2006)</i>	Section 4.16
<i>Wilpinjong Coal Project Groundwater Monitoring Programme (WCPL, March 2006)</i>	Section 4.17

2.1.1 Approvals, Leases and Licences

Table 3 lists the approvals, licences and permits currently held for WCC and provides an indication of the status of each.

Table 3 Summary of the Mines Approvals, Licences and Permits as held during this auditing period

Authority	Relevant Authority	Approval/Licence No.	Expiry
Department of Planning and Environment (DP&E)	Project Approval	<i>Development Approval DA-05-002</i>	21 years from commencement of project - 8 Feb 2027
		Modification MOD1	
		Modification MOD3	
		Modification MOD4	
		Modification MOD5	
		Modification MOD6	
Environmental Protection Authority (EPA)	Environmental Protection Licence	Environmental Protection Licence EPL 12425	Anniversary date 8 February. Review date 29 July 2015.
	Radiation Management Licence	5061384	2 Jan 2015
NSW Department of Resources and Energy (DRE) –NSW Department of Trade and Investment, Regional Infrastructure and Services (DTRIS)	Exploration Licence	EL 6169	November 2017
	Exploration Licence	EL 7091	Renewal Submitted February 2014
	Mining Lease	ML 1573	8 February 2027
	Mining Operations Plan	MOP Amendment B	29 April 2019
	Tailings Emplacement – Section 100 approvals	TD1 East and TD1 West (approv. No. 07/1226)	February 2006 (facility decommissioned)
		TD2 North and TD2 South (approv. No. 08/9006)	December 2011 (facility decommissioned)
		TD2 SS (approv. No. 08/9006)	December 2013 (facility decommissioned)
		TD6 (approv. No. 08/9006)	31 January 2016
	Tailings Emplacement – Section 101 approvals	Decommission TD1 East (approv. No. 09/2396)	29 April 2009 (facility decommissioned)
		Decommission TD1 West (approv. No. 09/2396)	28 October 2011 (facility decommissioned)
NSW Office of Water (NoW) – Licences under the <i>Water Act</i> 1912	Bore Licence – Pit 1 Licence	20BL173517	2 July 2015
	Bore Licence – Pit 2	20BL173516	2 July 2015

Authority	Relevant Authority	Approval/Licence No.	Expiry
(Porous Rock Aquifer)	Licence		
	Bore Licence – Pit 3 Licence	20BL173514	2 July 2015
	Bore Licence – Pit 3 Licence	20BL173515	2 July 2015
	Bore Licence – Pit 5 Licence	20BL173513	2 July 2015
	Bore Licence – Dewatering	20BL170147	30 March 2016
	Bore Licence – Dewatering	20BL170148	30 March 2016
	Bore Licence – Dewatering	20BL170149	30 March 2016
	Bore Licence – Dewatering	20BL170150	30 March 2016
	Bore Licence – Dewatering	20BL170151	30 March 2016
	Bore Licence – Dewatering	20BL170152	30 March 2016
	Bore Licence – Dewatering	20BL170153	30 March 2016
	Water Supply Bore (GWs10)	20BL170063	18 December 2016
	Water Supply Bore (GWs11)	20BL170062	18 December 2011 ¹
	Water Supply Bore (GWs12)	20BL170061	18 December 2011 ¹
	Water Supply Bore (GWs14)	20BL170059	18 December 2016
	Water Supply Bore (GWs15)	20BL170058	18 December 2011 ¹
NSW Office of Water (NoW) – Licences under the <i>Water Management Act 2000</i> (Alluvial Aquifer)	Alluvial Aquifer Licence	WAL21499	Current
WorkCover NSW	Notification for the Keeping of Dangerous Goods	Notification No. 35/037774	6 August 2014
	Explosives Licence	<i>NSW Explosives Act 2003</i> Part 3 Licence	24 March 2018

¹WCPL is in consultation with NOW regarding the renewal of these licences.

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3.0 Environmental Compliance Summary

Condition 9(c) of schedule 5 of the *Development Consent DA-05-0021* (as modified) requires the IEA to 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) that apply to the Wilpinjong Coal Pty Ltd (WCPL).

Assessments of compliance with the documents listed in the Terms of Consent in Condition 2(a)-(c), Schedule 2 of *Development Consent DA-05-0021-2006* (as modified) were assessed through the document's Statement of Commitments (SoC) and other commitments made within the documents.

In the assessments of compliance, the status of each condition is described as:

- Complies;
- Not Compliant;
- Not Triggered (used where conditions have not yet been activated, due to activities not being commenced or requests not being made for example); or
- Not Able to be Verified (used where compliance with conditions/commitments could not be supported with documentation, or where conditions/commitments were unable to be audited due to time constraints).

A summary of the non-compliances that were found against conditions and commitments in the environmental approval and management documents is outlined in Table 4. Where conditions and commitments were not able to be verified these are also noted in Table 4 however no recommendation is made.

In summary over 1,154 conditions and commitments in the documents listed above were audited, with a total of 39 non-compliances.

Table 4 Summary of Non-Compliances found and recommendations made

Document	Reference	Number of Conditions Not Compliant or Not able to be Verified	Recommendations Made
DA 05-0021 (as modified)	Section 4.1	4	Yes - Table 18
Wilpinjong Coal Project EIS (2005)	Section 4.2	4	No
Wilpinjong Coal Mine Mining rate modification EA (2010)	Section 4.3	0	No
ML 1573	Section 4.4	1	No
EPL 12425	Section 4.5	7	No
Wilpinjong Coal Mine Mining Operations Plan (2014)	Section 4.6	2	Yes - Table 18
Wilpinjong Coal Project Environmental Management Strategy (February 2006)	Section 4.7	4	No
<i>Wilpinjong Coal Project Erosion and Sediment Control Plan</i> (WCPL, February 2006)	Section 4.8	1	Yes - Table 18
<i>Wilpinjong Coal Project Rehabilitation and Landscape Management Plan</i> (WCPL, July 2006)	Section 0	1	Yes - Table 18
<i>Wilpinjong Coal Mine Blast Management Plan</i> (WCPL, September 2011)	Section 4.10	2	Yes - Table 18
<i>Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan</i> (Peabody, February 2008)	Section 4.11	1	Yes - Table 18

Document	Reference	Number of Conditions Not Compliant or Not able to be Verified	Recommendations Made
<i>Wilpinjong Coal Project Spontaneous Combustion Management Plan (WCPL, May 2006)</i>	Section 4.12	0	No
<i>Wilpinjong Coal Mine Noise Management Plan (WCPL, September 2011)</i>	Section 4.13	1	Yes - Table 18
<i>Wilpinjong Coal Mine Air Quality and Greenhouse Gas Management Plan (WCPL, September 2011)</i>	Section 4.14	0	Yes - Table 18
<i>Wilpinjong Coal Project Site Water Balance (WCPL, July 2006)</i>	Section 4.15	2	Yes - Table 18
<i>Wilpinjong Coal Project Site Water Management Plan (WCPL, July 2006)</i>	Section 4.15	1	Yes - Table 18
<i>Wilpinjong Coal Project Surface and Groundwater Response Plan (WCPL, July 2006)</i>	Section 4.15	2	Yes - Table 18
<i>Wilpinjong Coal Project Surface Water Management and Monitoring Plan (WCPL, March 2006)</i>	Section 4.16	0	Yes - Table 18
<i>Wilpinjong Coal Project Groundwater Monitoring Programme (WCPL, March 2006)</i>	Section 4.17	7	Yes - Table 18

3.1 Environmental Approvals not able to be audited

The amendments made to PA 05-0021 were audited, up to and including the amendments made by Modification 6. Due to time constraints, the contents of each individual Environmental Assessment supporting these past requests for modification were not audited as it was considered that auditing the text of each individual Environmental Assessment would cause unnecessary duplication. Moreover, as already indicated, the binding commitments made subsequent to each modification in the text of PA 05-0021 were in fact audited. The auditors therefore consider that the substantive provisions of each relevant modification were sufficiently audited against.

In order to address the modified conditions of PA 05-0021 (as modified) following approval of Modification 5 (MOD 5) in 2014, several monitoring programs and management plans were removed and replaced with new management plan requirements. The new management plans were submitted for approval by the Director-General (DG) in 2014. The updated Management Plans had not been approved by the DG at the time of the IEA and therefore assessment of these plans was not undertaken.

4.0 Detailed Environmental Performance and Compliance Summary

4.1 Development Consent

Table 5 shows the conditions that were found to be non-compliant or not able to be verified for *Development Consent DA-05-0021-2006* (as modified). A detailed assessment of compliance for each condition, including the commitments that were not able to be verified, is outlined in Appendix D.

Recommendations for improved compliance can be found in Table 18.

Table 5 Non-Compliances identified against DA 05-0021 (as modified) including Statement of commitments

Schedule	Condition	Commitment	Audit Finding																							
2	10	The Proponent may carry out a maximum of: (a) 2 blasts a day; and (b) 5 blasts per week, averaged over a calendar year, at the project site. This condition does not apply to blasts that generate ground vibration of 0.5mm/s or less at any residence on privately-owned land, blast misfires or blasts required to ensure the safety of the mine or its workers. Note: For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete are of the mine.	3 blasts with a MIC of over 400 kg occurred within a week during 2012 annual return reporting period. Annual Return (2012) reports that an oversight in how the blast checklist was completed occurred. As a result of this occurrence the blast checklist has been changed to prevent a reoccurrence. The EPA reports that appropriate action was taken by WCPL.																							
2	17	Except for the land referred to in Table 1, the Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not cause exceedances of the criteria listed in Tables 5, 6 and 7 at any residence on privately-owned land. Table 5: Long term impact assessment criteria for particulate matter <table><tr><th>Pollutant</th><th>Averaging period</th><th>*Criterion</th></tr><tr><td>Total suspended particulate (TSP) matter</td><td>Annual</td><td>^a 90 µg/m³</td></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>Annual</td><td>^a 30 µg/m³</td></tr></table> Table 6: Short term impact assessment criterion for particulate matter <table><tr><th>Pollutant</th><th>Averaging period</th><th>*Criterion</th></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>24 hour</td><td>^a 50 µg/m³</td></tr></table> Table 7: Long term impact assessment criteria for deposited dust <table><tr><th>Pollutant</th><th>Averaging period</th><th>Maximum increase in deposited dust level</th><th>Maximum total deposited dust level</th></tr><tr><td>^a Deposited dust</td><td>Annual</td><td>^b 2 g/m²/month</td><td>^c 4 g/m²/month</td></tr></table> Notes to Tables 5-7: a - Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources); b - Incremental impact (i.e. incremental increase in concentrations due to the development on its own); c - Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling	Pollutant	Averaging period	*Criterion	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Pollutant	Averaging period	*Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	^a Deposited dust	Annual	^b 2 g/m ² /month	^c 4 g/m ² /month	Exceedances of PM10 criteria (of 50µg/m³) occurred in the 2013 calendar reporting period (AEMR, 2013). These occurred on the 19/10/2013 with a 24hr concentration of 55.6µg/m³ and the 29/04/2013, 30/04/2013, 26/09/2013, 18/10/2013 and 19/10/2013 with a 24 hr concentration of 53.3µg/m³, 50.2µg/m³, 68.9µg/m³, 50.37µg/m³ and 53.5µg/m³ respectively. Influencing factors on these exceedances were noted, these included dust generated from the unsealed Araluen Rd and prolonged dry conditions and bushfire activity in the area. Exceedances of PM10 criteria also occurred in the 2012 calendar reporting period (AEMR, 2012). This occurred on the 25/10/2012 due to PM10 levels recorded above internal action limits. In all exceedance cases WCPL implemented internal actions in order to reduce dust emissions from site. These included increasing water carts, rotating activities occurring in the pit, stopping work on spon com at stockpiles and ceasing work of all
Pollutant	Averaging period	*Criterion																								
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³																								
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^a Deposited dust	Annual	^b 2 g/m ² /month	^c 4 g/m ² /month																							

Schedule	Condition	Commitment	Audit Finding
		<i>and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and d - Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Director-General.</i>	operations and mining equipment until the exceedance had been investigated.
2	28	The Proponent shall prepare and implement a Site Water Management Plan for the project, to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with EPA and NOW by suitably qualified expert/s whose appointment/s have been approved by the Director-General; and (b) include: - a Cumbo Creek Relocation Plan; - a Site Water Balance; - an Erosion and Sediment Control Plan; - a Surface Water Management and Monitoring Plan; - a Ground Water Monitoring Program; and - a Surface and Ground Water Response Plan. <i>Note: The Department accepts that the initial Site Water Management Plan may not include the detailed plans for the proposed relocation of Cumbo Creek. However, if this occurs, the Proponent will be required to seek approval from the Director-General for an alternative timetable for completion and approval of the Cumbo Creek Relocation Plan.</i>	The Site Water Management Plan: Wilpinjong Coal Project (Wilpinjong Coal Pty Limited, July 2006) fulfils these requirements. Was approved by D-G on 6 March 2006. Was subsequently revised. The CCRP was developed in 2013 and is not included in the 2006 SWMP. The CCRP continued to be under development at the time of the audit.
2	35	Within 6 months of the Independent Environmental Audit (see condition 7 in schedule 5), the Proponent shall update the Site Water Management Plan to the satisfaction of the Director-General.	The audit team viewed the WCPL Controlled Documents Register however could not verify that the updates had been conducted to the Site Water Management Plan (SWMP). The SWMP does not contain revision or version history to verify updates of the plan. This has been addressed in the yet to be approved management plans (submitted to DP&E for approval).

4.2 Environmental Impact Assessment (2005)

Table 6 lists the conditions in the *Environmental Impact Assessment titled Wilpinjong Coal Project EIS* (Resource Strategies Pty Ltd, May 2005) that were found to be not compliant. A detailed assessment of compliance for each condition is outlined in Appendix E.

Recommendations for improved compliance can be found in Table 18.

Table 6 Non-Compliances identified against the EIS 2005

Reference	Commitment	Audit Finding
2.11.1	Waste hydrocarbons would be collected, stored and removed by licensed waste transporters on a periodic basis. Workshop hydrocarbon spills and leaks, and truck washdown areas would be contained by purpose built oil/water separator systems which would be inspected and maintained on a regular basis.	Minor oil/fuel spills evident at the MIA and heavy vehicle refuelling area. Minor fuel and oil spills were observed to collect on hardstand and be directed to drains which discharge to ground surface and not the oil/water separator.
4.7.2	Flora management strategies, including those listed below would be detailed in the Flora and Fauna Management Plan (FFMP) to be prepared for the Project prior to construction. Section 5.1.2.7 contains further detail regarding the contents of the FFMP.	No Flora and Fauna Management Plan was in place at the time of the audit. MOD 5 to DA 05-0021 (as modified) requires a Biodiversity Management Plan (WCPL, 2014) to be developed which was submitted to the DG in 2014 for approval. The Biodiversity Management Plan will contain Flora and Fauna management measures and monitoring requirements however was not approved at the time of the audit.
4.8.2	Fauna management strategies, including those listed below would be detailed in the FFMP to be prepared for the Project prior to construction.	
5.1.2.7	A Flora and Fauna Management Plan (FFMP) would be prepared to facilitate integration of flora and fauna management measures with Project construction and operation.	

4.3 Environmental Assessment (2010)

An assessment of compliance with *Wilpinjong Coal Mine Mining Rate modification Environmental Assessment (2010)* is outlined in Appendix F. All commitments for the Environmental Assessment (2010) were found to be compliant. No additional recommendations have been made.

4.4 Mining Lease

Table 7 lists the conditions found to be not compliant against Mining Lease (ML) 1573. An assessment of compliance with 1573 is outlined in Appendix G.

Recommendations for improved compliance can be found in Table 18.

Table 7 Non-Compliances identified against the ML 1573

Reference	Commitment	Audit Finding
16	Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard	A number of exceedances of PM10 criteria listed in the Project Approval (05-0021) were noted during the audit period. Two additional incidents occurred during the audit period including; a fume incident in relation to a blasting event and a surface water runoff incident which caused rainwater flow to breach the sedimentation fence at two points. Auditors noted that both incidents were reported to DP&E and involved no offsite impacts. Corrective actions were put in place following incidents and no action was taken by authorities (Official caution provided by EPA (signed by audit team)).

4.5 Environmental Protection Licence

Table 8 lists the conditions of EPL 12425 found to be non-compliant. A detailed assessment of compliance with EPL 12425 is outlined in Appendix H.

Recommendations for improved compliance can be found in Table 18.

Table 8 Non-Compliances identified against the EPL 12425

Reference	Commitment	Audit Finding																														
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	At approximately 18:00 on December 16 2013, high rainfall occurred over the Pit 3 area and the subsequent rainwater flow breached the sedimentation fence at two points. Following the event WCPL engaged Dr Martin Denny to assess Cumbo Creek and to determine if the event had any impact on the Creek. Dr. Denny assessed Cumbo Creek on 20 December 2013. The assessment concluded that the rain storm event resulted in the movement of a small amount of sediment into Cumbo Creek, however no significant impact to the riparian habitat or aquatic ecosystem occurred. A report to the EPA was provided on 24 December 2013. Remedial works included improve drainage design at the site.																														
L2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	pH readings were recorded outside of EPL limits in both the 2012 and 2013 reporting periods (Annual Return, 2012 and 2013). High pH readings in 2012 were due to lag time to close the divert valve. New probes were installed in 2013 after the divert valve (returns off-spec water to site). The divert valve was also redesigned in 2013 to close quicker.																														
L2.4	Water and/or Land Concentration Limits POINT 24 <table><tr><th>Pollutant</th><th>Units of Measure</th><th>50 percentile concentration limit</th><th>90 percentile concentration limit</th><th>3QGM concentration limit</th><th>100 percentile concentration limit</th></tr><tr><td>Conductivity</td><td>microsiemens per centimetre</td><td></td><td></td><td></td><td>500</td></tr><tr><td>Oil and Grease</td><td>milligrams per litre</td><td></td><td></td><td></td><td>10</td></tr><tr><td>pH</td><td>pH</td><td></td><td></td><td></td><td>6.5-8.5</td></tr><tr><td>Total suspended solids</td><td>milligrams per litre</td><td></td><td></td><td></td><td>50</td></tr></table> <i>Note : All water discharged from the premises must have a flow regime which is variable and consistent with the ephemeral nature of the flows in Wilpinjong and Cumbo Creeks.</i>	Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3QGM concentration limit	100 percentile concentration limit	Conductivity	microsiemens per centimetre				500	Oil and Grease	milligrams per litre				10	pH	pH				6.5-8.5	Total suspended solids	milligrams per litre				50	2013: Conductivity and pH readings were recorded outside limits. As reported to the EPA in the 2013 Annual Return - New probes were installed after the divert valve (returns off-spec water to site). The divert valve was also re-designed to close quicker. Licence amended to relocate discharge point. 2012: The Electrical Cond., Oil & Grease & pH exceeded licence limits. As reported to EPA in the 2012 Annual Return - EC setting on RO plant not lowered to reflect new limit. O&G likely to be laboratory error; high pH readings due to lag time to close the divert valve. Unlikely any adverse effects. EPA reports appropriate action was taken by WCPL in both cases.
Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3QGM concentration limit	100 percentile concentration limit																											
Conductivity	microsiemens per centimetre				500																											
Oil and Grease	milligrams per litre				10																											
pH	pH				6.5-8.5																											
Total suspended solids	milligrams per litre				50																											

Reference	Commitment	Audit Finding																																
L6.6	Blasting at the premises is limited to the following: a) a maximum of 2 blasts per day; and b) a maximum of 5 blasts per week, on average over a calendar year.	3 blasts with a MIC of over 400 kg occurred within a week during 2012 annual return reporting period. Annual Return reports that an oversight in how the blast checklist was completed occurred. No action could be taken. As a result of this occurrence the blast checklist has been changed to prevent a reoccurrence. EPA reports that appropriate action was taken by WCPL.																																
M2.2	Air Monitoring Requirements POINT 3,4,6,9,26 <table><thead><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr></thead><tbody><tr><td>Particulates - Deposited Matter</td><td>grams per square metre per month</td><td>Monthly</td><td>AM-19</td></tr></tbody></table> POINT 12,10,11 <table><thead><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr></thead><tbody><tr><td>Particulates - Deposited Matter</td><td>milligrams per cubic metre</td><td>Special Frequency 1</td><td>AM-19</td></tr></tbody></table> POINT 13,20,27 <table><thead><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr></thead><tbody><tr><td>PM10</td><td>micrograms per cubic metre</td><td>Every 6 days</td><td>AM-18</td></tr></tbody></table> POINT 25,28 <table><thead><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr></thead><tbody><tr><td>PM10</td><td>milligrams per cubic metre</td><td>Continuous</td><td>AM-22</td></tr></tbody></table>	Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Monthly	AM-19	Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	milligrams per cubic metre	Special Frequency 1	AM-19	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Every 6 days	AM-18	Pollutant	Units of measure	Frequency	Sampling Method	PM10	milligrams per cubic metre	Continuous	AM-22	2013: Not all dust samples collected and analysed as required by condition M2.2, as reported to the EPA in the 2013 Annual Return - Issues included broken funnel for 1 dust deposition gauge and several faults detected with 3 high volume air samplers. No adverse effects from non-compliance. Equipment repaired/replaced. The EPA notes that appropriate action was taken by WCPL. 2012: Dust samples were not collected due to new equipment/calibration issues associated with installation of DDG 15, HV5, TEOM 3 & TEOM 4 as required by the licence variation. There were no adverse effects from the non-compliance as reported to the EPA in the 2012 Annual return. The EPA notes this as an administrative non-compliance.
Pollutant	Units of measure	Frequency	Sampling Method																															
Particulates - Deposited Matter	grams per square metre per month	Monthly	AM-19																															
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Pollutant	Units of measure	Frequency	Sampling Method																															
Conductivity	micrograms per cubic metre	Continuous during discharge	Continuously																															
Oil and Grease	milligrams per litre	Weekly during any discharge	Grab sample																															
pH	pH	Continuous during discharge	Continuously																															
Total suspended solids	milligrams per litre	Weekly during any discharge	Grab sample																															
M4.2	For each monitoring point specified in the table below the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency specified opposite in the other columns.	2013: Continuous weather monitoring on site did not occur for up to 6% of the reporting period. As reported to the EPA in the 2013 Annual Return - Power outages & modem failure resulted in missing records. No action taken as there were no adverse effects from this non-compliance. 2012: Continuous monitoring for temperature lapse did not occur for 5% of																																

Reference	Commitment	Audit Finding																																			
	Point 21 <table><tr><th>Parameter</th><th>Unit of Measure</th><th>Frequency</th><th>Averaging Period</th><th>Sampling Method</th></tr><tr><td>Air temperature</td><td>Degress celcius</td><td>Continuous</td><td>1 hour</td><td>AM-4</td></tr><tr><td>Wind direction</td><td>Degrees</td><td>Continuous</td><td>15 minute</td><td>AM-2 & AM-4</td></tr><tr><td>Wind speed</td><td>m/s</td><td>Continuous</td><td>15 minute</td><td>AM-2 & AM-4</td></tr><tr><td>Temperature lapse rate</td><td>Degrees</td><td>Continuous</td><td>15 minute</td><td>Part E2 & E4 of the New Industrial Noise Policy</td></tr><tr><td>Rainfall</td><td>mm</td><td>Continuous</td><td>24 hour</td><td>AM-4</td></tr><tr><td>Relative humidity</td><td>%</td><td>Continuous</td><td>1 hour</td><td>AM-4</td></tr></table>	Parameter	Unit of Measure	Frequency	Averaging Period	Sampling Method	Air temperature	Degress celcius	Continuous	1 hour	AM-4	Wind direction	Degrees	Continuous	15 minute	AM-2 & AM-4	Wind speed	m/s	Continuous	15 minute	AM-2 & AM-4	Temperature lapse rate	Degrees	Continuous	15 minute	Part E2 & E4 of the New Industrial Noise Policy	Rainfall	mm	Continuous	24 hour	AM-4	Relative humidity	%	Continuous	1 hour	AM-4	the Reporting Period. As reported in the 2012 Annual Return to the EPA - Cause was power outages & modem failure resulted in missing records. No action was taken as there were no adverse effects. EPA reports that appropriate action was taken by WCPL.
Parameter	Unit of Measure	Frequency	Averaging Period	Sampling Method																																	
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Rainfall	mm	Continuous	24 hour	AM-4																																	
Relative humidity	%	Continuous	1 hour	AM-4																																	

4.6 Mining Operations Plan (2014)

Table 9 lists the commitments in the MOP that were found to be not compliant or not able to be verified. An assessment of compliance with the *Wilpinjong Coal Mine Mining Operations Plan (ML 1573)* (WCPL, 2014) (MOP) is outlined in Appendix I.

Recommendations for improved compliance can be found in Table 18.

Table 9 Non-Compliance identified against MOP (2008 and 2014)

Reference	Commitment	Audit Finding						
MOP (2014-2018) Section 2.4.9	To manage the expected waste rock material, an Elevated Waste Rock Emplacement will be constructed in Pit 2. This elevated emplacement would be constructed in two short campaigns in 2014 to approximately 450 m AHD, before being reshaped and lowered to approximately 430 m AHD at the end of the mine life as a component of finalising site landforms.	The works were not completed during 2014. These are planned to commence in 2015.						
MOP (2014-2018) Section 3.3.5	Table 15 outlines the soil resource strategies undertaken by the Mine. <table border="1"> <caption>Table 15 Soil Resource Management Strategies</caption> <thead> <tr> <th>Prior to Soil Stripping</th><th>During Soil Stripping and Stockpiling</th><th>Stockpiled Soil Awaiting use in Rehabilitation Works</th></tr> </thead> <tbody> <tr> <td> - Quantification of soil resources. - Characterisation of the suitability of soil resources for rehabilitation works. - Topsoil will be stripped prior to any land disturbance. - Recommended stripping depths as provided by the soil survey in the WCPL EIS: - Red Podzolic (150mm) - Yellow Podzolic (200mm) - Brown Earth (250mm) - Alluvial (300mm) - Topsoil will be placed directly onto reshaped areas where possible. Note: Subject to quantification of soils </td><td> - Minimisation of vegetation clearance. - Mulching of vegetation prior to topsoil stripping, where possible, to provide additional organic matter. - Selective stockpiling of soil according to soil type and salinity. - Stockpiling of soils in a manner that does not compromise the long-term viability of the soil resource. - Maximum height for stockpiles will be 5 m. </td><td> - Implementation of measures to ensure long-term viability of soil resources and manage soil salinity, including: - Soil stockpiles to be located outside of active mining areas; - Stockpiles to be constructed with a rough surface to reduce erosion hazard, improve drainage and promote vegetation; - Stockpiles which are to be inactive for extended periods to be fertilised and seeded to maintain soil structure, organic matter, and microbial activity; - Silt fencing to be installed around soil stockpiles to control potential loss of soil where necessary; and - Soil stockpiles to be deep ripped to re-establish aerobic conditions prior to re-application for rehabilitation. </td></tr> </tbody> </table>	Prior to Soil Stripping	During Soil Stripping and Stockpiling	Stockpiled Soil Awaiting use in Rehabilitation Works	- Quantification of soil resources. - Characterisation of the suitability of soil resources for rehabilitation works. - Topsoil will be stripped prior to any land disturbance. - Recommended stripping depths as provided by the soil survey in the WCPL EIS: - Red Podzolic (150mm) - Yellow Podzolic (200mm) - Brown Earth (250mm) - Alluvial (300mm) - Topsoil will be placed directly onto reshaped areas where possible. Note: Subject to quantification of soils	- Minimisation of vegetation clearance. - Mulching of vegetation prior to topsoil stripping, where possible, to provide additional organic matter. - Selective stockpiling of soil according to soil type and salinity. - Stockpiling of soils in a manner that does not compromise the long-term viability of the soil resource. - Maximum height for stockpiles will be 5 m.	- Implementation of measures to ensure long-term viability of soil resources and manage soil salinity, including: - Soil stockpiles to be located outside of active mining areas; - Stockpiles to be constructed with a rough surface to reduce erosion hazard, improve drainage and promote vegetation; - Stockpiles which are to be inactive for extended periods to be fertilised and seeded to maintain soil structure, organic matter, and microbial activity; - Silt fencing to be installed around soil stockpiles to control potential loss of soil where necessary; and - Soil stockpiles to be deep ripped to re-establish aerobic conditions prior to re-application for rehabilitation.	There is no current assessment of soil in context of salinity. Also no silt fencing placed around stockpiles.
Prior to Soil Stripping	During Soil Stripping and Stockpiling	Stockpiled Soil Awaiting use in Rehabilitation Works						
- Quantification of soil resources. - Characterisation of the suitability of soil resources for rehabilitation works. - Topsoil will be stripped prior to any land disturbance. - Recommended stripping depths as provided by the soil survey in the WCPL EIS: - Red Podzolic (150mm) - Yellow Podzolic (200mm) - Brown Earth (250mm) - Alluvial (300mm) - Topsoil will be placed directly onto reshaped areas where possible. Note: Subject to quantification of soils	- Minimisation of vegetation clearance. - Mulching of vegetation prior to topsoil stripping, where possible, to provide additional organic matter. - Selective stockpiling of soil according to soil type and salinity. - Stockpiling of soils in a manner that does not compromise the long-term viability of the soil resource. - Maximum height for stockpiles will be 5 m.	- Implementation of measures to ensure long-term viability of soil resources and manage soil salinity, including: - Soil stockpiles to be located outside of active mining areas; - Stockpiles to be constructed with a rough surface to reduce erosion hazard, improve drainage and promote vegetation; - Stockpiles which are to be inactive for extended periods to be fertilised and seeded to maintain soil structure, organic matter, and microbial activity; - Silt fencing to be installed around soil stockpiles to control potential loss of soil where necessary; and - Soil stockpiles to be deep ripped to re-establish aerobic conditions prior to re-application for rehabilitation.						

4.7 Environmental Management Strategy (2006)

Table 10 lists the commitments of the *Wilpinjong Coal Project Environmental Management Strategy* (WCPL, February 2006) (EMS) found to be non-compliant. A detailed assessment of compliance for each commitment is outlined in Appendix I.

Recommendations for improved compliance can be found in Table 18.

Table 10 Non-Compliance identified against EMS (2006)

Reference	Commitment	Audit Finding
1.2	As a minimum, revision of the Strategy shall be undertaken within 3 months of the completion of the Independent Environmental Audit (Condition 2, Schedule 5 of Application 05-0021). Revision of the Strategy shall be undertaken by the Environmental Coordinator and approved by the WCPL General Manager and the WCP Operations Manager.	The audit team viewed the WCPL Controlled Documents Register however could not verify that the updates had been conducted to the Environmental Management Strategy (EMS). The current approved EMS does not contain revision or version history to verify updates of the plan. WCPL have developed an updated plan which contains document control history. This plan was submitted to DP&E during the audit period and is awaiting approval.
1.2	The control of documentation associated with the Strategy is to be undertaken in accordance with the EMS.	
13.1	Periodic review and revision of the EMS is to be undertaken by senior management. The EMS review will include: - review of audit findings; - results of monitoring programs; - achievement of objectives and targets; - relevance of the Policy, objectives and targets to current and future conditions; and - information and concerns of stakeholders.	
13.1	Reviews will be undertaken annually and may be incorporated into the WCP Operations Management System Review Process. The General Manager and Operations Manager should both participate in this review.	

4.8 Erosion and Sediment Control Plan (WCPL, 2006)

Table 11 lists the commitments of the *Wilpinjong Coal Project Erosion and Sediment Control Plan* (WCPL, February 2006) (EMS) found to be non-compliant. A detailed assessment of compliance for each commitment is outlined in Appendix I.

Recommendations for improved compliance can be found in Table 18.

Table 11 Non-Compliance identified against ESCP (2006)

Reference	Commitment	Audit Finding
7	The ESCP will be reviewed, and if necessary, updated by the Environmental Manager: - on an annual basis; - where there is an incident on site relating to failure of erosion and sediment control; - in response to an Independent Environmental Audit; - when there are changes to Project Approval or licence conditions relating to aspects of this ESCP; or - in response to a relevant change in technology or legislation.	Approved ESCP at the time of the audit is from 2006 and does not contain revision history to verify revisions have taken place. Note that an updated plan was submitted to DP&E during the audit period and addresses this requirement however evidence that annual reviews had taken place was not available.

4.9 Rehabilitation and Landscape Management Plan (WCPL, 2006)

Table 12 lists the commitments of the *Wilpinjong Coal Project Rehabilitation and Landscape Management Plan* (WCPL, February 2006) (RLMP) found to be non-compliant. A detailed assessment of compliance for each commitment is outlined in Appendix I.

Recommendations for improved compliance can be found in Table 18.

Table 12 Non-Compliance identified against RLMP (2006)

Reference	Commitment	Audit Finding
7.2	Details of the rehabilitation management measures undertaken within the ECAs will be reported in the Annual Review (Section 12).	AEMR March 2013 does not discuss bushfire management.

4.10 Blast Management Plan (WCPL, 2011)

Table 13 lists the commitments of the *Wilpinjong Coal Project Blast Management Plan* (WCPL, 2011) (BMP) found to be non-compliant. A detailed assessment of compliance for each commitment is outlined in Appendix I.

Recommendations for improved compliance can be found in Table 18.

Table 13 Non-Compliance identified against BMP (2011)

Reference	Commitment	Audit Finding
8.4.2	The notice must specify: - the proposed days, dates and times for the blast; - the proximity to any ARTC infrastructure; - the type of blasting (for example pre-strip or highwall); - the number of bank cubic metres; - the extent of area from which the blast will be visible; and - the area to which the effects of blasting are likely to be observed by the train drivers and passengers including but not limited to flyrock, vibration and airblast.	The blast notification forms do not contain the information required in this condition. Not all of this information is provided to ARTC in the form.
10	As described in Section 2, this BMP will be reviewed within three months of the submission of an Annual Review, and revised where appropriate.	No evidence to support that review of the BMP took place. Updated plan was submitted to the DP&E for approval during the audit period however no evidence was provided to verify that annual reviews had taken place.

4.11 Aboriginal and Cultural Heritage Management Plan (WCPL, 2008)

Table 14 lists the commitments of the *Wilpinjong Coal Project Aboriginal and Cultural Heritage Management Plan* (WCPL, 2008) (ACHMP) found to be non-compliant. A detailed assessment of compliance for each commitment is outlined in Appendix I.

Recommendations for improved compliance can be found in Table 18.

Table 14 Non-Compliance identified against ACHMP (2008)

Reference	Commitment	Audit Finding
6	The ACHMP will be reviewed, and if necessary updated, by the Environmental Manager: - on an annual basis; - in consultation with the CHLSC;	AEMR reports that the ACHMP was reviewed however the plan itself contains no revision or version history for the auditors to verify review was conducted. Updated plan

Reference	Commitment	Audit Finding
	- where there is an incident on site relating to Aboriginal cultural heritage management; - as an outcome of any Independent Environmental Audit; - when there are changes to Project Approval or licence conditions relating to aspects of this ACHMP; or - in response to a relevant change in technology or legislation.	was submitted to the DP&E for approval during the audit period however no evidence was provided to verify that annual reviews had taken place.

4.12 Spontaneous Combustion Management Plan (WCPL, 2006)

All conditions and commitments under the *Wilpinjong Coal Project Spontaneous Combustion Management Plan* (WCPL, 2006) (SCMP) were found to be compliant. A detailed assessment of compliance for each commitment is outlined in Appendix I.

Recommendations for further improvement can be found in Table 18.

4.13 Noise Management Plan (WCPL, 2011)

Table 15 lists the commitments of the *Wilpinjong Coal Project Noise Management Plan* (WCPL, 2011) (NMP) found to be non-compliant. A detailed assessment of compliance for each commitment is outlined in Appendix I.

Recommendations for further improvement can be found in Table 18.

Table 15 Non-Compliance identified against NMP (2011)

Reference	Commitment	Audit Finding
8.3	WCPL will prepare an Annual Review by the end of December 2011, and annually thereafter. This NMP will be reviewed, and if necessary updated, by the Peabody Environment and Community Manager within 3 months of submission of an annual review, an incident report, an audit or any modification to the conditions of the Project Approval.	The Noise Management Plan was reviewed and updated in 2014 and is currently awaiting approval by the DG. AEMR reports that NMP is updated in compliance with this condition however no revision table is evident in the NMP verifying that annual reviews had taken place.

4.14 Air Quality and Greenhouse Gas Management Plan (WCPL, 2011)

All conditions and commitments under the *Wilpinjong Coal Project Air Quality and Greenhouse Gas Management Plan* (WCPL, 2011) (AQGGMP) were found to be compliant. A detailed assessment of compliance for each commitment is outlined in Appendix I.

Recommendations for further improvement can be found in Table 18.

4.15 Site Water Management Plan (WCPL, 2011), Site Water Balance (WCPL, 2006) and Surface and Groundwater Response Plan (WCPL, 2006)

Table 16 lists the commitments of the *Wilpinjong Coal Site Water Management Plan* (WCPL, 2011) (*Site Water MP*), the *Wilpinjong Coal Site Water Balance* (WCPL, 2006) (*SWB*) and the *Wilpinjong Coal Surface and Groundwater Response Plan* (WCPL, 2006) (*SGWRP*) found to be non-compliant. A detailed assessment of compliance for each commitment is outlined in Appendix I.

Recommendations for further improvement can be found in Table 18.

Table 16 Non-Compliance identified against Site Water MP (2011), SWB (2006) and the SGWRP (2006)

Reference	Commitment	Audit Finding
Site Water MP – Section 2	As provided for in Condition 29, Schedule 3 of the Project Approval, the Cumbo Creek Relocation Plan (CCRP) has not been included in this Site Water MP. The CCRP will be developed and subsequently included in the Site Water MP within 24 months of the commencement of Project Approval.	The Cumbo Creek relocation project has not commenced yet but the CCRP is required 24 months after approval and has not yet been developed.
SWB – Section 4.1	Upslope diversions have been constructed around the southern perimeter of the Project disturbance areas (Attachment 1). These and future upslope diversions will be designed to not incur excessive erosion at the design flows. Stabilisation of the upslope diversion works will be achieved by design of appropriate channel cross-sections and gradients and the use of channel lining with grass or rockfill as required.	Upslope diversions were no longer in place (had been previously observed during earlier audit) as the extent of mining has progressed such that diversions can no longer practicably be achieved given the extent of disturbance and local topography. Where diversions can no longer be achieved - runoff from upslope catchments is being captured within the mine water system.
SGWRP – Section 3.4	The calibrated, pre-mine stream flow model of Wilpinjong Creek at GS1 will be adjusted to allow prediction of maximum mine-induced impact on stream flows, by simulating removal of an average 0.66 ML/day of baseflow and reducing the modelled total flow in proportion to the estimated maximum surface catchment excised by the Project. Modelled flows will be updated on a monthly basis, using recorded Project rainfall and evaporation data, to give a model prediction of daily stream flow in Wilpinjong Creek, downstream of the Project, with maximum mine-induced impact. Model predictions will be compared against stream flow recorded at GS1. Comparisons will be made using the previous 12 months of recorded and model-generated flow data. A 12-month period will be used to allow for the effects of seasonality and the highly variable nature of stream flow response to rainfall.	Model has not been updated on a monthly basis. Last update of the AWBM model appears to have been conducted for MOD5 by Gilbert& Associates (2013). As the local streams are ephemeral, value of assessing the data monthly is likely to be limited. It is noted that the site gauging network has been expanded, with an additional upstream gauge on Cumbo Creek proposed. Work on assessing the baseline data and hydrological parameters has been prepared and is presented in the draft SWMMP with a simple flow investigation trigger and TARP developed to "target streamflow losses between u/s and d/s ... that are outside the range of the EIS".
SGWRP – Section 3.5	Review of recorded stream flow information will be periodically undertaken by an experienced hydrologist. Reviews would also occur as part of the surface water investigation protocol (Section 5) if either of the above triggers are reached. Reviews would include the following:	Model has not been updated on a monthly basis. Last update of the AWBM model appears to have been conducted for MOD5 by Gilbert& Associates (2013). As the local streams are ephemeral, value of assessing the data monthly is likely to be limited. It is noted that the site gauging network has been expanded, with an additional upstream gauge on Cumbo Creek proposed. Work on assessing the baseline data and hydrological parameters has been prepared and is presented in the draft SWMMP with a simple flow investigation trigger and TARP developed to "target streamflow losses between u/s and d/s ... that are outside the range of the EIS".

4.16 Surface Water Management Plan (WCPL, 2006)

All commitments of the *Wilpinjong Coal Project Surface Water Management Plan* (WCPL, 2006) (SWMP) were found to be compliant or not able to be verified. A detailed assessment of compliance for each commitment is outlined in Appendix I.

4.17 Groundwater Management Plan (WCPL, 2006)

Table 17 lists the commitments of the *Wilpinjong Coal Project Groundwater Management Plan* (WCPL, 2006) (GWMP) found to be non-compliant. A detailed assessment of compliance for each commitment is outlined in Appendix I.

Recommendations for further improvement can be found in Table 18.

Table 17 Non-Compliance identified against GWMP (2006)

Reference	Commitment	Audit Finding																											
4	The following groundwater monitoring programme has been developed in accordance with Condition 34(d), Schedule 3 of the Project Approval. The GWMP will involve the monitoring of water levels and water quality from the Project water supply bores, dewatering bores, and groundwater seepage and surface water runoff which collect in pit sumps during mining operations. The GWMP will also involve the monitoring of groundwater levels in alluvium associated with Wilpinjong, Wollar and Cumbo Creeks, and selected/relevant Landcare bores on WCPL-owned land. Table 1 provides a summary of the Project groundwater monitoring programme. Table 1 Project Groundwater Monitoring Programme <table border="1"> <thead> <tr> <th>Monitoring Locations¹</th><th>Frequency</th><th>Parameters</th></tr> </thead> <tbody> <tr> <td>Open Cut Operations – Main pit sump(s)</td><td>Monthly</td><td>Water Level, Field pH and EC Volume of Water Transferred</td></tr> <tr> <td>Open Cut Operations – Dewatering bores</td><td>Monthly</td><td>Water Level, Field pH and EC Volume of Water Extracted</td></tr> <tr> <td>Water Supply Bores – GWs1 to GWs19</td><td>Monthly</td><td>Water Level, Field pH and EC Volume of Water Extracted</td></tr> <tr> <td>Wilpinjong Creek – GWA1 to GWA4 and GWA7 (Alluvium) and GWC1 and GWC2 (Coal Measures)</td><td>Monthly Every six months</td><td>Water Level, Field pH and EC Na, K, Mg, Ca, Cl, HCO₃, SO₄, Total Fe</td></tr> <tr> <td>Cumbo Creek – GWA5 and GWA6 (Alluvium) and GWC3 (Coal Measures)</td><td>Monthly Every six months</td><td>Water Level, Field pH and EC Na, K, Mg, Ca, Cl, HCO₃, SO₄, Total Fe</td></tr> <tr> <td>Wollar Creek – GWC4 (Coal Measures)</td><td>Quarterly Every six months</td><td>Water Level, Field pH and EC Na, K, Mg, Ca, Cl, HCO₃, SO₄, Total Fe</td></tr> <tr> <td>Wollar Village – GWA8 (Alluvium) and GWC5 (Coal Measures)</td><td>Quarterly Every six months</td><td>Water Level, Field pH and EC Na, K, Mg, Ca, Cl, HCO₃, SO₄, Total Fe</td></tr> <tr> <td>Landholder bores, wells and waterholes</td><td>In consultation with individual landholders</td><td>Water Level, Field pH and EC Na, K, Mg, Ca, Cl, HCO₃, SO₄, Total Fe</td></tr> </tbody> </table> ¹ Monitoring locations are shown on Figure 4.	Monitoring Locations ¹	Frequency	Parameters	Open Cut Operations – Main pit sump(s)	Monthly	Water Level, Field pH and EC Volume of Water Transferred	Open Cut Operations – Dewatering bores	Monthly	Water Level, Field pH and EC Volume of Water Extracted	Water Supply Bores – GWs1 to GWs19	Monthly	Water Level, Field pH and EC Volume of Water Extracted	Wilpinjong Creek – GWA1 to GWA4 and GWA7 (Alluvium) and GWC1 and GWC2 (Coal Measures)	Monthly Every six months	Water Level, Field pH and EC Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe	Cumbo Creek – GWA5 and GWA6 (Alluvium) and GWC3 (Coal Measures)	Monthly Every six months	Water Level, Field pH and EC Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe	Wollar Creek – GWC4 (Coal Measures)	Quarterly Every six months	Water Level, Field pH and EC Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe	Wollar Village – GWA8 (Alluvium) and GWC5 (Coal Measures)	Quarterly Every six months	Water Level, Field pH and EC Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe	Landholder bores, wells and waterholes	In consultation with individual landholders	Water Level, Field pH and EC Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe	The groundwater monitoring program requires monthly, quarterly and six monthly monitoring. The results have been reviewed from the 2012 and 2013 AEMRs with results from 2014 reviewed on site by the audit team. These monitoring wells are as follows: - Project water supply bores (GW1 - GW19); - Wilpinjong Creek (GWA1 - GWA4, GWA7); - Cumbo Creek (GWA5 - GWA6); - Wollar Creek (GWC4); - Wollar Village (GWA8); and - selected landholder bores, wells and waterholes. (bores on property no 27 BC McDermott) A number of exceedances for EC were recorded in the alluvial bores in the AEMR as follows: - GWA1 2013; - GWA5 2013; - GWA6 2013; - GWA7 2012 and 2013; - GWC4 2012; and - GWC5 2012,2013. A number of exceedances for pH were recorded in the monitoring wells in the AEMR that triggered investigations as follows: - 2012 GWA5 (May-Aug) (Oct Feb)); - 2012 GWC11 (AugDec); - 2013 GWA5 (Apr, May, Jun); and - 2013 GWS10 (Aug-Dec).
Monitoring Locations ¹	Frequency	Parameters																											
Open Cut Operations – Main pit sump(s)	Monthly	Water Level, Field pH and EC Volume of Water Transferred																											
Open Cut Operations – Dewatering bores	Monthly	Water Level, Field pH and EC Volume of Water Extracted																											
Water Supply Bores – GWs1 to GWs19	Monthly	Water Level, Field pH and EC Volume of Water Extracted																											
Wilpinjong Creek – GWA1 to GWA4 and GWA7 (Alluvium) and GWC1 and GWC2 (Coal Measures)	Monthly Every six months	Water Level, Field pH and EC Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe																											
Cumbo Creek – GWA5 and GWA6 (Alluvium) and GWC3 (Coal Measures)	Monthly Every six months	Water Level, Field pH and EC Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe																											
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Wollar Village – GWA8 (Alluvium) and GWC5 (Coal Measures)	Quarterly Every six months	Water Level, Field pH and EC Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe																											
Landholder bores, wells and waterholes	In consultation with individual landholders	Water Level, Field pH and EC Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe																											
4.1	Groundwater seepage and surface water runoff will collect in pit sumps. Water level, field pH and field EC of the collected water will be monitored on a monthly basis. The volumes of water transferred from the pit sumps will also be recorded.	pH and EC is monitored in pit sumps. Audit interview confirmed that this monitoring of pH and EC is not conducted for the sumps due to the fact that it is not practicable to undertake this monitoring safely.																											
4.3.1	Five alluvium bores will be monitored along Wilpinjong Creek (GWA1 to GWA4 and GWA7).	These parameters were measured and recorded as required. For the majority of the																											

Reference	Commitment	Audit Finding
	Water level, field pH and field EC will be monitored on a monthly basis. Laboratory analyses for Sodium (Na), Potassium (K), Magnesium (Mg), Calcium (Ca), Chloride (Cl), Carbonate (HCO ₃), Sulphate (SO ₄) and Total Iron (Fe) will also be undertaken every six months.	audit period EC results in GWA7 exceeded trigger levels. Failure to investigate the reason/s for exceedance at this location is considered to be a non-compliance.
7	In the event of an apparently anomalous groundwater result, a retest will be conducted where possible.	Anomalous results were recorded during the audit period but there has been no evidence of re-testing.
7	The investigation will involve the consideration of the monitoring results in conjunction with site activities being undertaken at the time, baseline groundwater monitoring results, groundwater results in nearby locations, the prevailing and preceding meteorological conditions and changes to the landuse/activities being undertaken in the contributing hydrogeological regime.	Throughout the monitoring program there were analytical results and field parameters (pH and EC) that exceeded compliance values.
7	Additional monitoring may be implemented to measure the effectiveness of contingency measures, where necessary.	
7	In the event that the relevant impact assessment criteria continue to be exceeded, further investigations may be undertaken (i.e. a circular process of continual improvement or adjustment of the relevant triggers, if warranted). Conversely, if the relevant trigger is not exceeded following the implementation of contingency measures, DoP and other relevant authorities will be consulted regarding the need for the implementation of on-going measures.	

5.0 Assessment of Environmental Performance

Schedule 5, Condition 9 (d) of *Development Consent DA-05-0021-2006* (as modified) requires the IEA to *review the adequacy of strategies, plans or programs required under the above mentioned approvals*.

The adequacy of the Environmental Management Strategy and the Environmental Monitoring Program has been assessed in reference to their acceptance and approval by the relevant government authority, the consent conditions to which they relate, and their performance during the audit period.

An assessment of the environmental performance of the project, as required by Schedule 5, Condition 9 (refer to Table 1) has been conducted. It also briefly outlines the procedures and management measures in place at WCM to monitor and mitigate these impacts.

5.1 Environmental Management Strategy

The *Wilpinjong Coal Project Environmental Management Strategy* (WCPL, February 2006) (EMS) was developed to meet the requirements of Schedule 5 Condition 1 of the DA-05-0021-2006 (as modified).

The Strategy has been developed to minimise environmental impacts from the WCM by providing the strategic context for environmental management across the site. The components of the ECPL EMS are:

- Environmental Management Plans and Annexures;
- Site document management system, including; work procedures, training records, monitoring results, inspections and audits and reports; and
- Environmental Management Sub Plans – required by the sites Project Approval (05-0021 (as modified)).

As a requirement of this IEA an assessment of WCPL's compliance against the conditions and commitments in the EMS was conducted. This included an assessment of any management plan or procedure listed under the EMS. Refer to Table 10 for a summary of non-compliances identified and Appendix I for a detailed description of each condition and commitments compliance.

4 non compliances were noted against the EMS. All non-compliances were in relation to conditions requiring the EMS to be regularly reviewed and updated. No technical non compliances were noted against the EMS. The audit identified that WCPL's environment team has a thorough understanding of the sites EMS and its requirements and the auditors noted that environmental management on site is reflective of the EMS's commitments and objectives.

5.2 Ecology and Rehabilitation

The *Wilpinjong Coal Project Rehabilitation and Landscape Management Plan* (WCPL, July 2006) was developed to meet the various requirements within Schedule 3 Condition 39 of the DA-05-0021-2006 (as modified).

The WCPL Landscape Management Plan's implementation is analysed each year in the AEMR. The Landscape Management Plan describes the rehabilitation objectives and management measures for the WCM, and it comprises the following sub-management plans:

- *Wilpinjong Coal Mine Rehabilitation Management Plan* (WCPL, September 2011);
- *Final Void Management Plan* (yet to be prepared); and
- *Mine Closure Plan* (yet to be prepared).

The condition under which this IEA is to be conducted does not require the Final Void Management Plan or the Mine Closure Plan to be assessed; as such these plans are excluded from the audit scope.

5.2.1 Rehabilitation

Rehabilitation at WCM is carried out according to the *Wilpinjong Coal Project Rehabilitation and Landscape Management Plan* (RLMP) (WCPL, 2006). The primary objective of this RLMP is to describe the rehabilitation objectives and management measures for the Project. Incorporated within the RLMP is the Rehabilitation Management Plan (RMP) (WCPL 2011) which has been prepared in accordance with Condition 40 of Schedule 3 of the Project Approval.

Only one (1) non-compliance was noted against the RLMP in relation to the RLMPs requirements for bushfire management to be reported in the annual reviews. Refer Appendix I for a complete assessment of compliance.

This IEA utilised the expertise of a rehabilitation specialist as part of AECOM's audit team. After conducting a detailed review of the RLMP and Mining Operations Plans (2008 and 2014) in conjunction with an audit site inspection and interviews with key WCPL staff the specialist has provided a summary of their findings in relation to the adequacy of the RLMP and its implementation on site at WCM. Below is a summary of the specialist's findings:

- Rehabilitation on site is still in its early stages although noticeable progressed since 2011, where rehabilitation was at inception;
- The Environment team at WCM have a thorough understanding of the sites rehabilitation objectives and the method proposed and in place to achieve these objectives;
- Erosion was well controlled in the rehabilitation areas during the audit site inspection;
- Trials were initiated during the audit period of various surface treatments, in particular the use of soil ameliorants including organic growing media and gypsum on site;
- Weed management in relation to the management of topsoil and areas of pasture, both regenerating and rehabilitating, could be improved on site with the implementation of weed control measures designed to target noxious weed species, i.e. St John's Wort. Refer Table 18 for recommendations; and
- Overall rehabilitation that has been completed to date is of a high standard.

5.3 Air Quality

In accordance with Schedule 3, Condition 21 of DA 05-0021 (as modified) air quality at WCM is managed under the *Wilpinjong Coal Mine Air Quality and Greenhouse Gas Management Plan* (WCPL, September 2011).

The Air Quality and Greenhouse Gas Management Plan was originally approved by DP&E on 10 February 2006. The current version of the current version of the Air Quality Plan was approved by DP&E on 15 September 2011. Table 1 of the Plan indicates where the content of the Plan addresses the specified requirements of Schedule 3 Condition 21. The Air Quality Plan sets out:

- Air quality criteria and performance indicators;
- Baseline data;
- The details of an air quality monitoring program;
- Air quality monitoring protocols;
- Greenhouse gas management;
- Odour requirements;
- Management measures; and
- Independent review and land acquisition process.

The implementation of the Air Quality Plan is analysed each year in the AEMR.

Air quality control procedures used at WCM, as reported in the AEMRs and confirmed in the audit interviews and site inspection, include:

- Active haul roads and traffic areas are watered with water carts;
- Water spray is used on product stockpiles and the ROM bin, and recently stripped areas and topsoil areas are watered; and
- Areas disturbed by active mining were minimised as far as practicable.

The WCPL air quality monitoring program involves the monitoring of deposited dust, PM₁₀, total suspended particulates (TSP) and meteorological conditions. The monitoring network currently consists of seven dust deposition gauges, three high volume samplers and two Tapered Element Oscillating Microbalances (TEOM). TSP is measured using one high volume sampler.

Four exceedances of PM10 criteria specified in PA 05-0021 (as modified) were identified during the audit period. A number of influencing factors were noted to be taking place when these exceedances occurred. These included:

- Dust generation caused by unsealed Araluen Rd;
- Prolonged dry weather conditions in the region; and
- Excessive bushfire activity occurring in the region.

In all exceedance cases WCM implemented internal actions in order to reduce dust emissions from site. These include increasing water carts, rotating activities occurring in the pit, stopping work on spontaneous combustion at stockpiles and if required, ceasing work of all operations and mining equipment until the exceedance has been investigated. Refer to Appendix I for a detailed description of each condition and commitments compliance.

Weather conditions during the three day site inspection varied from hot, dry and windy to humid with heavy rainfall. The lead auditor made a number of observations in relation to the air quality mitigation measures observed during the site inspection. These included:

- Significant dust generation was observed in relation to a haul truck dumping overburden material during a site inspection. The WCM site mine manager escort observed the occurrence and communicated this to the OCE who directed a water cart to assist with dust suppression;
- Various dust mitigation measures were observed, these included:
 - Automatically activated dust suppression on hoppers and bins in the coal stockpile area; and
 - The use of a fogger for dust control in the Keylah dump area.

5.4 Noise

Noise is managed in accordance with the *Wilpinjong Coal Mine Noise Management Plan* (WCPL, September 2011). The plan addresses the requirements of Schedule 3 Condition 7 of DA-05-0021-2006 (as modified). The Noise Management Plan was originally approved by DP&E on 6 February 2006. The current version of the Noise Management Plan was approved by DP&E on 15 September 2011.

The NMP details the procedures to manage noise emissions from the operations and determine noise compliance with the noise criteria established in DA-05-0021-2006 (as modified). The Noise Management Plan:

- Provides details of the monitoring programme to be used to monitor noise emissions from the Mine;
- Manages noise and interpret noise data and information within the framework of the *NSW Industrial Noise Policy* (INP) (NSW Environment Protection Authority [EPA], 2000);
- Provides a noise monitoring protocol for evaluating compliance with the relevant noise impact assessment and land acquisition criteria;
- Describes noise management investigations undertaken by WCM that have led to the revised strategies in this NMP; and
- Describes noise management strategies used to manage Mine noise.

This IEA noted no technical non compliances in relation to noise at WCM during the audit period however a number of complaints were received during the 2012 and 2013 AEMR reporting periods (AEMR, 2012 and 2013). All complaints received were managed under the WCPL Complaints Management Procedure. In all cases WCM responded to the complainant appropriately and where required site operations were modified to address the complaint and additional monitoring was carried out by WCPL in order to verify real-time noise levels at the location of the complaint. Refer to Appendix I for a detailed description of each condition and commitments compliance.

Noise control measures used at WCM, as reported in the AEMRs and confirmed in the audit interviews and site inspection include:

- Fixed plant and mobile equipment were maintained to remain below the specified maximum operating equivalent continuous noise level (L_{Aeq}) sound power levels;
- Timely response to any community issues of concern;

- Discussions with relevant landowners to assess concerns;
- Refinement of on-site noise management measures and mine operating procedures; and
- Consideration of acoustical mitigation at receivers (e.g. double glazing of windows).

5.5 Blasting and Vibration

Schedule 3 Condition 15 of DA-05-0021-2006 (as modified) requires the preparation and implementation of a Blast Management Plan. The *Wilpinjong Coal Mine Blast Management Plan* (WCPL, September 2011) (BMP) was originally approved by DP&E on 2 May 2006. The current version of the Blast Management Plan was approved by DP&E on 15 September 2011. Table 1 of the BMP outlines where the content of the BMP addresses the specific requirements of Schedule 3 Condition 15. The BMP sets out:

- Blast criteria and performance indicators;
- Baseline data;
- The blast monitoring program for WCM; and
- Blast management measures.

The implementation of the BMP is analysed each year in the AEMR.

Mitigation measures to minimise the impact of blasting operations are detailed in the Blast management Plan. A blasting hotline continued to operate during the auditing period. All blasting at WCM is undertaken according to *AS 2187.2-2006 Explosives – Storage, Transport and Use – Use of Explosives*.

During the audit site inspection the audit team prepared to observe a blast take place in order to assess blasting procedures at WCM. The WCPL Meteorological Assessment Protocol at the time of the pre blast checklist being conducted indicated that weather was unfavourable for blasting operations and as a result the blasting coordinator modified the blast design resulting in the planned blast being postponed.

This IEA did not note any exceedances of blasting criteria limits during the audit period. Auditors observed the most recent blasting data since the previous AEMR was prepared, and there have been no exceedances or environmental incidents in relation to blasting in this time. The audit team also viewed blasting results for 2014 during the audit site inspection. No exceedances were identified in 2014 in relation to blasting criteria specified in Table 4 (Schedule 3, condition 6 DA 05-0021 (as modified)). Refer to Appendix I for a detailed description of each condition and commitments compliance.

During the audit period a number of complaints were received in relation to blasting and vibration. Overpressure and vibration levels recorded during the time of these complaints were below blasting criteria limits specified in WCPLs DA 05-0021 and EPL. WCM conducted an investigation into all complaints received in accordance with the WCPL Complaints Management Procedure. Where overpressure and vibration levels are below criteria limits WCPL staff have phoned the complainant and in some cases have visited the complainant and monitored a blast event, in compliance with the BMP.

One incident was recorded during the audit period in relation to a blasting event, note that although this incident was reported to the appropriate authorities the event was reported as a form of best practice management and did not trigger compulsory reporting requirements. The event was caused by an unplanned reaction of Dyno Nobel Titan 2070G emulsion product which caused a fume event to occur at WCM on Wednesday 30 July 2014. In response to this incident WCM implemented the WCPL Pollution Incident Response Management Plan. All appropriate responses were taken during and after the incident occurring including development of a detailed blast investigation report which was provided to the EPA. WCPL outlined a post blast analysis of the event and included an action list for future blasts in order to ensure fume events similar to the occurrence on 30 July 2014 do not happen again.

A number of control strategies are implemented at WCM which aim to reduce blast related risks associated with operations at WCM during the audit period. As detailed in the AEMR (2012 and 2013), BMP and verified by the audit team doing site inspections and audit interviews these control measures are:

- Training all relevant personnel on environmental obligations and safe handling of explosives;
- Inspections and preparation of proposed blast areas to ensure all soft, loose or blast damaged material is removed prior to drilling;

- Designing blasts to ensure that ground vibration and airblast overpressure limits are met, and there is no damage to life or property from flyrock, including consideration of wind speed, direction and other meteorological factors prior to blasting to minimise impacts on neighbours;
- Notification of blasting times to private residents within 2 km of the Mine on request and maintenance of a free-call Blasting Hotline;
- Use of adequate stemming, a delay detonation system, and careful drilling and hole loading to ensure that the required blast design is implemented;
- Assessment of wind speed and direction immediately prior to each blast to minimise the potential for dust emissions from blasting to adversely impact on neighbouring private residences;
- Monitoring of blasts at the closest private residences to determine whether airblast and ground vibration limits are met;
- Completion of the Blast Controller Checklist (as amended from time to time);
- Review of monitoring results and modification of the blast design, if necessary;
- Documentation of the date and time of the blast, location of blast holes and quantity of explosive used in each blast; and
- Periodic review of blast management practices to evaluate performance and identify responsive action, if required.

5.6 Water Management

Schedule 3 Condition 28 of DA-05-0021-2006 (as modified) requires the preparation and implementation of a Site Water Management Plan (SWMP). The *Wilpinjong Coal Project Site Water Management Plan* (WCPL, July 2006) (SWMP) incorporates surface and groundwater considerations. The SWMP addresses the requirements of DA-05-0021-2006 (as modified) with regard to content. The SWMP describes the management measures used to minimise potential project related impacts on water resources.

The implementation of the SWMP is analysed each year in the AEMR. The SWMP comprises the following sub-management plans, which were all considered as part of this IEA:

- *Wilpinjong Coal Project Site Water Balance* (WCPL, July 2006);
- *Wilpinjong Coal Project Erosion and Sediment Control Plan* (WCPL, February 2006) (ESCP);
- *Wilpinjong Coal Project Surface Water Management and Monitoring Plan* (WCPL, March 2006);
- *Wilpinjong Coal Project Groundwater Monitoring Program* (WCPL, March 2006);
- *Wilpinjong Coal Project Surface and Groundwater Response Plan* (WCPL, July 2006), 2010); and
- *Wilpinjong Coal Project Cumbo Creek Relocation Plan* (WCPL, July 2006).

Since the acceptance of WCPL's SWMP, many of these sub-plans referred to above have undergone review and revision in consultation with the relevant government departments. Refer Section 4.0 for further details on WCPL's compliance with these individual programs.

This IEA noted eleven (11) non compliances in relation to Surface and Groundwater. Refer to Table 16 and Table 17.

5.6.1 Surface Water

Surface water management procedures used at WCM, as reported in the AEMRs and confirmed during the audit interviews, include:

- Areas disturbed by active mining are minimised;
- Runoff from catchment areas is isolated and diverted around the disturbance areas through the construction of water diversion bunds;
- Runoff from construction and operation areas is diverted to sediment retention storages across the mine area; and
- The implementation of erosion and sediment control measures.

This IEA utilised the expertise of a surface water specialist as part of AECOM's audit team. Following a detailed review of the surface water management procedures at WCM in conjunction with an audit site inspection and interviews with key WCM staff the audit findings in relation to the adequacy of surface water management on site at WCM has been summarised below.

In relation to haul road construction across Cumbo Creek and flood bund the specialist noted that evidence of erosion and sediment controls were noted on site and in general were well located and maintained. Some batters still required further establishment of vegetative cover. The recent trial of bitumen emulsion / seeding on flood bund batters appears to be working well, and use of sediment fences combined with a grass buffer appeared effective.

Upstream and downstream of the haul road embankment, small coffer dams had been installed during construction. It appears that the purpose of these had been to hold back low flows to allow for the construction works to take place. Typically these should be removed and the site reinstated once the construction works are finished and stabilised. The upstream dam has recently been breached and small amount of sediment therefore transported in a downstream direction (however this is likely to have been small in volume and may have been contained by the downstream coffer dam).

In relation to stream flow monitoring the specialist noted that modelling and monitoring of stream flow impacts is not consistent with the (current) approved management plans (2006). However, is noted that the stream gauging program has been expanded and that an alternative methodology was developed as part of Modification 5 (WCPL 2013).

The draft Water Management plans were prepared and submitted for approval during the audit period. It is noted that whilst the 2014 plans have not been reviewed in detail as part of the IEA, they appear to be more comprehensive and better reflect current operations and procedures being implemented on site.

5.6.2 Groundwater

WCPL has prepared and implemented a *Groundwater Monitoring Programme* (GWMP) (WCPL, 2006b) for the site to satisfy planning approval conditions. The *Surface and Groundwater Response Plan* (SGWRP) developed as part of the SWMP also includes groundwater monitoring triggers.

Groundwater quality is monitored on and surrounding the mine site in accordance with the WCPL *Site Water Monitoring Program* (SWMP). Groundwater management and mitigation measures were undertaken in accordance with the *Groundwater Monitoring Program* (GMP) (February 2006).

This IEA utilised the expertise of a groundwater specialist as part of AECOM's audit team. Appendix I outlines each condition and its audit finding as determined by the audit team with assistance from the groundwater specialist.

Seven (7) non-compliances were noted against the GWMP during the audit period, refer Table 17. Majority of the non-compliances noted related to monitoring requirements, refer to Table 18 for recommendations for improvement. Following a review of the groundwater management measures in place at WCM and monitoring results reported in the 2012 and 2013 AEMRs it is evident that groundwater related risks are being appropriately managed on site at WCPL during the audit period.

5.6.3 Erosion and Sediment Control

An *Erosion and Sediment Control Plan* (ESCP) (WCPL, 2006) has been prepared and implemented for the WCM. The ESCP was developed as part of the SWMP and has been constructed in accordance with planning approval conditions. This ESCP has been prepared to assist WCPL in the implementation of appropriate environmental management measures during the development of the Project.

Erosion and sediment management procedures used at WCM, as reported in the AEMRs and confirmed during the audit interviews, include the construction of diversion drains, sediment dams, collection drains, sediment fences and minor infrastructure.

A number of observations were made relating to the inspection and maintenance of erosion and sediment controls. These include:

- From the audit site inspection the audit concludes that generally the site was well maintained from an erosion and sediment control perspective. Overall the off-site risks, at the time of the audit inspection, were very low due to the manner in which site drainage and water transfers are managed on site;

- The audit interviews indicated that regular inspections of the ESCP controls are carried out by mine personnel; however evidence of these could not be produced at the time of the audit;
- During the site inspection in a limited number of locations, some additional maintenance of erosion controls was noted as being required. Generally environmental risk was low as these were contained within the mine area of disturbance and therefore any runoff would ultimately be captured within mine water storages and contained on site. One exception was along the mine entry road, immediately west of the Keylah dump. A bund adjacent to the rehabilitation area, separating runoff from the disturbed area and table drains along the road required some minor maintenance in places. This presented the potential risk that runoff could overtop or breach the bund and be conveyed via the road drainage to Wilpinjong Creek (i.e. not captured on site);
- A number of long-term batters (e.g. Keylah Dump, and the Rail Loop) showed signs of substantial term rill erosion. These were also noted during the previous IEA (AECOM, 2012); and
- Minor rill erosion noted on some areas recently shaped and ripped ready for rehabilitation.

5.7 Waste

The WCPL's on site waste is managed in accordance with the principles of waste minimisation. Waste generated at the Project is monitored on a monthly basis through waste disposal receipts provided by Wilpinjong Coal's waste contractors. Visual inspections of on-site waste storage areas have been conducted on a regular basis to confirm waste materials are being suitably stored.

Waste management on site at WCM was generally acceptable with the exception of a few minor issues noted during the audit site inspection. Minor oil/fuel spills evidence at the MIA and heavy vehicle refuelling area. Fuel and oil spills were observed to collect on hardstand and be directed to drains which discharge to ground surface and not the oil/water separator.

5.8 Cultural Heritage

WCPL has developed an Aboriginal Cultural Heritage Management Plan (ACHMP) in consultation with DECCW and the local aboriginal community. The plan addresses the requirement of Schedule 3 Condition 48 of the DA-05-0021-2006 (as modified).

The ACHMP describes Aboriginal heritage management measures that are to be implemented at the WCM. Table 1 of the ACHMP outlines how the ACHMP addresses the requirements of DA-05-0021-2006 (as modified) with regard to content. The implementation of the ACHMP is analysed each year in the AEMR.

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6.0 Recommendations

This Section addresses Schedule 6 Condition 6(f) of DA-05-0021-2006 (as modified) which requires this IEA to recommend measures or actions to improve the environmental performance of the development, and/or the environmental management and monitoring systems.

In summary over 1,154 conditions and commitments in the documents listed above were audited, with a total of 39 non-compliances. These non-compliances have been outlined in Section 4.0.

During the IEA interviews and site inspections the lead auditor noted that all WCPL staff demonstrated a good working knowledge of the site. In particular there was an observed commitment from the mine's general manager, mine manager and environment team towards improved environmental performance.

Table 18 presents the key recommendations stemming from this IEA in relation to all non-compliances with approvals and management plans. WCPL should work to resolve non-compliances identified in Section 4.0 as far as is practical. Table 18 is intended to provide guidance for WCPL in resolving these non-compliances.

Table 18 Consolidated Audit Recommendations

Reference	Recommendation
Development Approval DA 05-0021 (as modified)	
Schedule 3, Condition 35	Update Site Water Management Plan to identify revisions and version history.
Environmental Assessments and Approvals	
EMS, Condition 1.2	Update EMS document and subsequent management plan to include revisions details and version control.
Management Plans and Other Recommendations	
Rehabilitation Management Plan – Section 7.2	Reintroduce large woody debris across the site for habitat value - may include ground based timber and / or stag tree.
Rehabilitation Management Plan – Section 7.2	Include bushfire management in the AEMR.
Rehabilitation Management Plan – Section 7.4	Implement a rabbit control program
Blast Management Plan – Section 8.4.2	Update email template to include all of the required information, or to have this requirement removed from the deed with ARTC (as these requirements are replicated within the ARTC deed).
Blast Management Plan – Section 8.4.2	In relation to manned stations updated new management plan to remove or alter this requirement.
Blast Management – Section 8.4.2	Remove reference to nearest manned signal box or at least to clarify that there is not always a manned signal box nearby.
AQGGMP – Section 6.4 (Table 2)	Update AQGGMP table 2 to reflect decommissioned monitoring points.
Surface Water - Haul Road construction across Cumbo Creek and flood bund	It is recommended that the design and intent of the coffer dams be verified with the designers of the works and the area stabilised as soon as practicable to prevent erosion.

Reference	Recommendation
Management Plans and Other Recommendations continued	
Surface Water - Upslope Diversions	Upslope diversions as referenced in the EIS and management plans are no longer achievable in key locations (i.e. south of Pit 5). Recommended that this be recognised in the relevant management plans (i.e. surface water and MOP), and that diversions continue to be put in place where practicable.
Surface Water – Long term batters (Keylah dump and Rail Loop)	It is recommended that potential measures for remediation of these batters be investigated.
Groundwater Monitoring Program – Section 4	Water quality results are reviewed as they are generated and actions and investigations are instigated to explain exceedances where triggered.
Groundwater Monitoring Program – Section 4.1	When management plans are created and reviewed, the persons who will be involved in the actual carrying out of the requirements are to be consulted with.
Groundwater Monitoring Program– Section 7	Analytical results should be routinely reviewed as they are received and re-testing conducted if anomalous results are received that cannot be explained.
Groundwater Monitoring Program– Section 7	Groundwater analytical and field results should be reviewed as soon as practicable to assess if repeat monitoring is required.
Groundwater Monitoring Program– Section 7	Groundwater analytical and field results should be reviewed as soon as practicable to assess if repeat monitoring is required.
Groundwater Monitoring Program– Section 9	It is recommended that future AEMRs contain information about the progress of the groundwater modelling and adequacy of predictions. The numbering in the groundwater section of the AEMR required revision.
Site Water MP – Section 2	In relation to the Cumbo Creek Relocation Plan, it is recommended that WCPL develop this document ASAP and commence the approval process.
SGWRP – Section 3.4	The new methodology, once approved, be adhered to with results presented in the AEMR.
MOP (2014) – Section 2.4.9	Construct the first campaign of the Elevated Waste Rock Emplacement in Pit 2.
MOP (2014) – Section 2.4.12	Update Radiation warning Placards outside of CHPP and at storage container.
MOP (2014) – Section 3.3.3	Undertake sampling of tailings and coarse reject to monitor for evidence of acid generating potential. Investigate and implement procedures for identifying, tracking and verifying placement of coarse rejects. Ensure ongoing monitoring of surface water quality of surface water storages for pH.
MOP (2014) – Section 3.3.5	WCPL to conduct soil assessments in context of salinity.
MOP (2014) – Section 3.3.5	Utilise silt fencing or equivalent around stockpiles.
MOP (2014) – Section 7.2.8 and 7.2.9	Opportunistic inspections of rehabilitated areas are to be documented.
MOP (2014) – Section 7.2.12 and 7.2.15	Review of weed control program, with particular focus of St John's Wort.
MOP (2014) – Section 8.3.1	Develop a framework for cattle grazing trial.
	Establish topsoil depth assessment.
	Document assessment of success of revegetation using the existing seed mix.

Appendix A

Audit Team Curricula Vitae

Appendix A Audit Team Curricula Vitae

Ian Richardson
Associate Director - Environment, Health & Safety

Qualifications

Graduate Diploma in Occupational Health & Safety -
University of Newcastle, NSW (2003)

Bachelor of Environmental Science (Earth Science) –
University of Newcastle, NSW (2000)

RABQSA Certified Lead Auditor - Occupational Health
& Safety Auditor Scheme

Associate Member Australian Institute of Occupational
Hygienists

Chartered Professional Member (CPMSIA) Safety
Institute of Australia Ltd

Licensed Asbestos Assessor (Licence No: A120260)

Career History

Ian Richardson is an Associate Director with over 18 years' experience working in environmental assessment and monitoring, occupational health and safety, hazardous materials and project management in both the private and government sectors. Ian also has experience in environmental and OHS management system development, asset management, workers compensation and environmental and OH&S auditing.

His work experience encompasses project management, environmental impact assessment, occupational hygiene and hazardous materials consultancy and a diverse range of environmental and occupational monitoring and assessment programs.

Ian has audited Environmental and OHS Management Systems, environmental compliance, Environmental Management Systems, NSW Planning approval conditions, Environment Protection License compliance, construction compliance, general environmental and OHS/EHS compliance and had direct involvement in National OHS Self Insurer Audits (NAT) and workers compensation self-insurer audits. He has been previously accepted by NSW Planning as a lead auditor for auditing of NSW Planning approval conditions and environmental compliance and as an approved EHS auditor by NSW DTIRS DRE.

Detailed Experience

Auditing

Ian is an RABQSA Accredited Lead Auditor. Ian has experience in the development and implementation of Environmental and OHS management systems, OH&S system audits and Workers Compensation Case Management audits. Ian also has direct experience in the implementation of OHS and workers compensation management systems and audits in a NSW self-insurer environment.

Representative projects include:

- **Tyco International Environmental, Health and Safety Compliance Assurance Process (CAP) Audits – Tyco Water Services, Tyco Flow Control and Tyco Fire and Security**
AECOM has been providing global EHS compliance auditing services for Tyco International over many years. Ian has been the AECOM audit program manager and Lead Auditor for Tyco Internationals Environmental, Health and Safety Compliance Assurance Process (CAP) Audit Program throughout Australia and the Pacific. The audit scope for these audits includes compliance with WHS legislation, environmental legislation and Tyco International Corporate EHS Standards.
- **Weston Aluminium – Independent Environmental Compliance Audit**
NSW Department of Planning approved lead auditor for an independent environmental compliance audit of the Weston Aluminium scrap and dross recovery facility as required under the development approval.
- **Glencore XStrata PLC – Independent Environmental Audit, West Wallsend Colliery**
Peer reviewer for an independent third party environmental audit of West Wallsend Colliery.
- **Bengalla Mining Company Pty Limited – Independent Environmental Audit, Bengalla Mine**
Project manager and peer reviewer for an independent third party environmental audit of Bengalla Mine.
- **XStrata Mangoola Pty Limited – Independent Environmental Audit, Mangoola Coal Mine**
Project manager and peer reviewer for an independent third party environmental audit of Mangoola Coal Mine.
- **Koppers Wood Products and Koppers Carbon Materials**
AECOM audit program manager and Lead Auditor for Environmental, Health and Safety compliance audits at Koppers Wood Products facilities in NSW, QLD, WA and Tasmania and Koppers Carbon Materials facilities in NSW and Victoria. The audit scope included compliance with WHS legislation, environmental legislation and management system review against Koppers Global Safety Health and Environmental Management System (SHEMS).
- **Navis EHS Due Diligence audit of TES AMM Facility, Villawood NSW**
Reviewed health and safety and environmental compliance for an electronics waste processor in Villawood, Sydney NSW. The audit included a review of all relevant State and Commonwealth legislation and regulations and pre-purchase due diligence. Despite the site being relatively benign with respect to the level of risk a number of non-compliances were identified and some areas of risk identified that the site were not aware of or managing currently.
- **Smith Group – Interconnect – Kaelus Audit, Cannon Hill QLD**
Reviewed health and safety and environmental compliance for a communication electronics manufacturer in Cannon Hill, Queensland. The audit assessed compliance with relevant State and Commonwealth legislation and regulations and also addressed additional corporate requirements.
- **Valspar Due Diligence Audits**
Lead auditor for EHS due diligence audits of Valspar sites within ANZ. Key focus on hazardous substances handling and management due to the nature of paint production facilities. The audit scope included compliance with state and commonwealth environmental and WHS legislation and Valspar Corporate EHS Standards.
- **Sikorsky Helitech EHS Compliance Audits**
Lead auditor for EHS compliance audit of Sikorsky Helitech Facility in Brisbane, QLD to assess compliance with QLD Environment, Planning and WHS legislation and global corporate EHS standards.

- **University of the Sunshine Coast (Queensland) – WHS Compliance Audits**

Project director and technical reviewer for general WHS compliance audits of the University of the Sunshine Coast (Qld) campuses over a period of approximately 2 years. Approximately 30 WHS compliance audits were undertaken during this period.

- **Moolarben Coal Operations Pty Ltd – NSW Department of Trade and Investment Regional Infrastructure and Services**

Compliance audits of exploration licences as an approved EHS auditor by DTIRS DRE.

- **Estee Lauder International – EHS Compliance Auditing Program**

Lead auditor under Estee Lauder international compliance auditing program for EHS compliance audits of the Roseberry Warehousing and Distribution Centre, NSW.

- **Hunter Water Corporation – WHS Compliance Audits**

Following the implementation of the new WHS Act and Regulation in NSW, a compliance audit of the existing OHSMS was undertaken to identify compliance with the new legislation and to facilitate the development of a gap analysis and action plan to achieve compliance.

- **Newcastle City Council – National OHS Self Insurer Audits**

Self-insurer compliance audits for Newcastle City Council. Audits of a range of operational business units undertaken in various capacities (Lead Auditor, audit team).

- **Newcastle City Council - NSW Workers Compensation Self Insurer Compliance Audits**

Case management audits undertaken to assess compliance with regulatory requirements and NSW Self Insurer Scheme.

Certificate II in Mould Remediation & Investigation

Two Day Project Manager Training, PSMJ for AECOM Australia, 2010

Train the Trainer, AECOM 2010

New Framework for Development Contributions Short Course - University of Technology, Sydney 2008

Erosion and Sediment Control Management on Building and Development Sites 2007

Environmental Assessment & Cleaner Production Training for Local Government - NSW Department of Environment & Conservation 2006

Asbestos Awareness Course for Management 2006

Environmental Noise Workshop – Australian Institute of Environmental Health 2003

Noise Guide for Local Government – NSW Department of Environment and Conservation 2004

WorkCover NSW Occupational Health and Safety Induction Training for Construction Work 2000

Professional History

2012 – Present

AECOM

Associate Director – Environment, Health & Safety

2010 – 2012

AECOM

Workgroup Manager EHS

2008 – 2010

Newcastle City Council

Manager Business Support/ OH&S Injury Management Advisor

2007-2008

Newcastle City Council

Senior Development Officer – OH&S Systems Development.

2003-2007

Newcastle City Council

Senior Environment Protection Officer

1995-2003

HLA-Envirosciences

Environmental Health Officer

Training

NSW Underground Coal Mine Induction incorporating Self Escape and Compressed Air Breathing Apparatus (CABA) – NSW Mines Rescue Service

Bronze Medallion/Certificate II in Public Safety (Aquatic Rescue)

Advanced Resuscitation Techniques Certificate (ARTC)

Spinal Management Certificate (SLSA)

Radio Operator Certificate (SLSA)

Senior First Aid, 2012

Rail Industry Safety Induction (RISI)

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Jessica Miller

Environmental Planner

Qualifications

Bachelor of Laws, University of Newcastle

Advanced Diploma of Applied Environmental Management, Belmont TAFE

Bachelor of Arts (Sociology and Anthropology), University of Newcastle

Auditing Experience

Jessica's background in environmental management and law gives her a unique perspective in assisting clients as she audits their environmental compliance. She has acted as audit assistant for several Independent Environmental Audits. In this role, she is responsible for developing audit protocol and formulae for reporting environmental compliance, liaising with key clients, interpreting and determining issues of audit compliance, and providing recommendations to improve the effectiveness and workability of management plans.

Mining audits include the following:

- Werris Creek Mine.
- Ravensworth Underground Mine.
- Mt Owen Mine.
- Wilpinjong Mine.
- West Wallsend Colliery.
- Mangoola Coal Mine
- Bengalla Coal Mine.
- Moorlarben Coal Mine and Clarence Colliery as part of the NSW Department of Resources and Energy's state-wide audit of Exploration Licences in mid-2011.
- Preparation of audit protocol for the Ravensworth North Project, to assist with ongoing internal compliance.

She has also undertaken two Independent Environmental Audits for Allied Mills' manufacturing facilities in the greater Sydney region.

Environmental Planning Experience

- Preparation of Environmental Impact Assessments under Part 4 of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act).
- Preparation of Reviews of Environmental Factors under Part 5 of the EP&A Act. Includes projects such as ARTC, RailCorp and Sydney Trains rail maintenance, RMS road widening, construction of a shared pedestrian and cycle pathway by local government, and exploratory drilling works at Mangoola Coal Mine.
- Preparation of Environmental Assessment for Major Project under old Part 3A of the EP&A Act: construction and operation of a bulk fuel storage facility in Newcastle Harbour.
- Preparation of Environmental Impact Assessment for State Significant Development under Part 4.1 of the EP&A Act: conversion of Shell's crude oil refinery in Parramatta into a refined oil storage facility. This included co-authoring the Ecological Assessment and related referral under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) for *Litoria aurea* (Green and Golden Bell Frog).

Legal Experience

- Works alongside in-house counsel and independently to review, negotiate and redraft commercial contracts with AECOM's clients.
- Has prepared quarterly update reports on environmental and occupational health and safety law amendments for Eraring Energy.
- Experience in managing freedom of information request via government stakeholder.
- Member of AECOM's safety committee.
- Land access and statutory approvals for the rollout of the National Broadband Network.

Previous Secondments

- Transport Express Joint Venture in the role of Environmental Planner as part of the North Coast Curve Easing program.
- AECOM commercial team in the role of Contracts Advisor.
- NBN Co Limited, in the role of Land Access and Statutory Approvals Officer for the rollout of the National Broadband Network within NSW and the ACT.

Other Experience

- Preparation of Annual Environmental Management Report for Hydro Aluminium Kurri Kurri.
- Review and update of the Long Term Management Strategy for Eraring Energy's Coal Combustion Products.
- Preparation of winning submission for Eraring Energy's entry into the 2011 Hunter Manufacturing Awards.
- Undertaken in-field ecological and water quality monitoring work for Centennial Coal.

Conferences

Attended AECOM's Graduate Induction conference in Brisbane, March 2011

Training

Currently undertaking Exemplar Global (formally RABQA International) certified auditor accreditation (to be completed by the end of May 2014)

WorkCover NSW Construction Induction

Communication for Success – EQ

Delivering Successful Presentations

Safety for Life

Managing AECOM Projects (MAP) training course

Professional History

2010 - 2014

AECOM

Graduate Environmental Planner

2014 – Present

AECOM

Professional Environmental Planner

Amanda Kerr

Principal Environmental Engineer

Qualifications

Bachelor of Engineering (Environmental)
Graduate Diploma in Urban and Regional Planning

Affiliations

Member, Institute of Engineers Australia
Member, Society for Sustainability and Engineering

Career History

Amanda has over 12 years professional experience specialising in environmental impact assessment, environmental management, water quality assessment, stormwater management and drainage design. Her fields of expertise include:

- Environmental impact assessment
- Environmental management
- Subsidence management
- Hydrologic and hydraulic analysis and modelling for flood studies
- Stormwater drainage design for urban, commercial, industrial, and extractive industry
- Surface water quality and stormwater treatment
- Flood modelling/studies
- Erosion and sediment control

Amanda is an experienced project manager of environmental assessment/management projects for a wide range of industry sectors, particularly utility and transport infrastructure and extractive industries.

Her experience includes the preparation of a wide range of post-approval environmental management plans to address: surface water, erosion, mining subsidence, acid sulphate soils, construction impacts and waste.

Amanda is also a qualified and experienced planner with a strong understanding of Commonwealth and NSW planning approvals. Her broad skills and in-depth environmental knowledge enable her to provide highly effective project coordination and assist clients with successful agency liaison and project approvals.

Detailed Experience

- Eraring Power Station, Water Balance – preparation of a Goldsim water balance to analyse the overflow frequency and severity of surface water storages designed to capture runoff from coal storage pads, and other 'dirty' catchment areas. Included the development of options to improve the retention of site runoff.
- Narrabri Mine Extraction Plan – coordination and preparation of the Extraction Plan to manage impacts of subsidence to the built and natural environment.
- Wilpinjong Independent Site Audit (surface water) – assisted the site audit through review of surface water requirements and implementation of monitoring and management actions.
- Ashton Coal Subsidence Management – Preparation of Ashton's Subsidence Management Plans and Extraction Plans from commencement of the underground operations (2006 to 2012), including stakeholder consultation and addressing management of subsidence impacts to a range of natural and man-made surface features.
- Ravensworth North Project, Soil and Water Management Plan – preparation of a detailed SWMP outlining the procedures, standards, and practices to be undertaken to manage surface water quality, erosion and sedimentation throughout all phases of construction.
- Baal Bone Colliery, Tailings Assessment and Water Balance Model – Assessment of existing tailings disposal arrangements to identify projected lifespan and preparation of a water balance in support of the EA and application to extend the life of the mine.
- Bowmans Creek Diversion, Construction Mining Operations Plan – preparation of the construction MOP for Ashton Coal prior to the commencement of works to divert two reaches of Bowmans Creek to allow for the underground mine.
- Chain Valley Mine Environmental Assessment – preparation of site water balance and surface water impacts assessment in support of the EA for an application to extend the life of the mine. Key aspects included protection of important wetlands from subsidence impacts, and the water quality impacts and monitoring program associated with the Pit Top facilities.
- Bowmans Creek Geomorphology – Baseline assessment of the creek morphology prior to the approaching underground longwall mining by Ashton Coal as a requirement of their consent conditions. Included review of stream morphology, and assessment of stream condition.
- Mandalong Haul Road – drainage design for 3.5km of private haul road through bushland near Morisset including stormwater detention, stormwater treatment for removal of coal fines, and three major culvert crossings.
- Wallarah Flood Study - Re-establishment and refinement of a previous MIKE-11 model of the Yarramalong and Dooralong Valleys to assess underground mining impacts and subsidence on the floodplain and river channels.
- Mount Thorley Warkworth Clean Coal Pads Drainage Design – key design objectives were to ensure the protection of site infrastructure (reclaimers, conveyors, rails etc) and provide adequate sediment and coal fines capture.
- Mount Thorley Warkworth Workshop – upgrade of external workshop areas to improve surface drainage and provide new pavements, including design of extensive site grading of the trafficable areas and park up bays and provision of a new concrete apron.
- Mount Arthur Audit Pit Stormwater Modelling and Civil Works Design - A key objective of the project was to ensure sufficient storage capacity was available during major storm events to hold stormwater runoff from the exploration adit pit floor without posing a risk of inrush into underground workings. Civil works design to manage stormwater across the pit floor.
- Beresfield Electricity Augmentation - Preparation of an environmental impact statement for two high voltage sub-transmission lines through SEPP 14 listed wetlands. Included ongoing discussion and negotiation with statutory authorities. Subsequent works included preparation of management plans for management of erosion and acid sulphate soils during construction activities.

Professional History

- **June 2007 – present**
Senior - Principal Environmental Engineer
AECOM Australia Pty Ltd
- **July 2004 – June 2007**
Environmental Engineer
ERM Australia Pty Ltd
- **April 2002 – June 2004**
Environmental Engineer
ACM Landmark Pty Ltd
- **January 2000 – March 2002**
Graduate Environmental Engineer
Paterson Consultants Pty Ltd

Dee Murdoch
Associate Director**Qualifications**

AQF IV Chemical Risk Management - Total 2009

Graduate Diploma of Land Rehabilitation, Ballarat University, 1995

Certificate of Horticulture, Charlestown TAFE, 1990

Bachelor of Science, University of Newcastle, 1982

Affiliations

Member, International Society for Ecological Restoration

Member, Ecology Society of Australia

Member, Environment Institute of Australia and New Zealand

Member, Australian Network for Plant Conservation

Member, NSW Weeds Association

Career History

Dee is a land management specialist. Her area of core expertise is the establishment of objectives and criteria for post mining landuse and landscape through to the development and implementation of rehabilitation programs. These include ecologically sustainable native plant communities, mine site revegetation, assessment of stocking rates / carrying capacity and pasture productivity, seed collection, habitat reconstruction and enhancement, weed and vertebrate pest animal management and control.

Dee has been working at the cutting edge of the management and rehabilitation of native plant communities for the past 25 years. Her work has focused on the formulation of sustainable solutions for the rehabilitation of grossly disturbed ecosystems that have resulted from mining for coal and mineral sands, land development and military activities with the solutions incorporating key issues as raised by all stakeholders. During this time Dee has been involved in a range of stakeholder and community liaison projects ranging from access agreements through to final land use and landscape assessment.

She has developed, project managed, supervised and implemented, innovative cost effective and ecologically sustainable solutions for many projects, with many of these concepts having become industry standards and lead practice benchmarks. Dee also has extensive experience in all facets of adult learning having worked on national industry panels for the development and delivery of qualifications, competency standards and training modules under the National Qualification Framework.

Dee's expertise also extends to the development and implementation of monitoring programs for mine site rehabilitation using the CSIRO developed Landscape Function Analysis. Her knowledge and skills have also been combined in the development and implementation of monitoring programs designed to assess pasture productivity, carrying capacity and stocking rates for areas of post mining landuse returning to agriculture and the development and implementation of monitoring and management programs for the control of macropods and wild horses on the Commonwealth lands of the Defence estate.

Detailed Experience*Mine Planning and Closure*

An integral of any mining operation is that as relates to mine planning and closure. Dee has developed a range of management plans for AECOM clients being based on the State relevant regulatory guidelines. The strength of these documents lies in the strategic development of completion criteria, performance measures and indicators using domains to define the landscape.

- NSW Trade & Investment Environment Sustainability Unit -Mineral Resources – *ESG3 Mining Operations Plan (MOP) Guidelines* – Technical author - Mar 2013
- Rio Tinto Coal Australia – *Blair Athol Mine – Microhabitat Report* –(Feb 2013); Revegetation Planning Report (Mar 2013) - components of the Decommissioning Plan
- Bloomfield Group - *Rix's Creek Mining Operations Plan* (Feb 2013)
- Ashton Coal Operation - *Ashton Coal Project Mining Operations Plan* (Mar 2013)
- Coal & Allied - *Hunter Valley Operations North Mining Operations Plan* (Aug 2012)
- Coal & Allied - *Mt Thorley Warkworth Mining Operations Plan* (Aug 2012)
- Coal & Allied - Mount Pleasant Mine – *Biodiversity and Rehabilitation Management Plan* – Dec 2011.
- BHP Billiton - Mt Arthur Coal - *Rehabilitation Strategy* - Oct 2011, *Biodiversity and Rehabilitation Management Plan* – Dec 2011
- CMPL - CSA Mine Cobar - *Rehabilitation and Environment Management Plan* – Dec 2011; *Mining Operations Plan* 2012
- Coal & Allied - Mount Thorley Operations – Abbey Green - *Rehabilitation and Land Management Plan* – May 2010; *Mining Operations Plan* 2012
- Coal & Allied - Hunter Valley Operation South Coal Project – *Rehabilitation and Land Management Plan* – Mar 2010; *Mining Operations Plan* 2012
- Xstrata - Ravensworth Complex – *Rehabilitation, Biodiversity and Land Management System* – 2009-2010

Management and Monitoring of Sustainable Landscapes

To have a true understanding of a landscape the data collection, collation and interpretation techniques that are associated with monitoring programs need to be relevant to the client's ongoing land management commitments. Over the past 25 years Dee's work has included the development, implementation and supervision of a range of monitoring projects. The use of the data derived from seed, pasture and habitat surveys, has been used to underpin the range of restoration ecology techniques that she has developed, many of which have subsequently become accepted as industry lead practice. These techniques range from the innovative use of large woody debris in mineral sands mining projects on the Tomago Sandbeds (NSW) to habitat reconstruction for woodland birds on coal mining sites across the Hunter Valley of NSW.

Recent projects Dee has authored, technically peer reviewed, managed, supervised and/or implemented include:

- Centennial Coal – *Lamberts Gully, Ivanhoe North, Ivanhoe No. 1, Blue Mountains Colliery Annual Monitoring using Ecosystem Functional Analysis* – 2010 - current
- Centennial Coal – *Charbon Mine Annual Monitoring using Ecosystem Functional Analysis* (Mar 2013)
- Bengalla Mine - Annual Monitoring using Ecosystem Functional Analysis - 2011, 2012
- Ravensworth Operations - Annual Monitoring using Ecosystem Functional Analysis, Pasture Assessment and Carrying Capacity - 2009, 2010, 2011
- Hunter Valley Operations - Habitat Augmentation Survey – Nesting boxes, Timber Debris and Rock Stockpiles – 2007 - 2011

Weed Management and Control

Dee has undertaken a diverse range of projects relating to strategic weed management and control projects for Weeds of National Significance (WONS), noxious species as listed under the *Noxious Weeds Act 1999* and environmental species that have a proven impact on the biodiversity of a site.

The projects have incorporated innovative ideas that have been aligned to industry best practice guidelines, OHS and site capability requirements (as required under the *Pesticide Act 1999*), ecologically sustainable goals and legislative requirements related to the development of weed management plans and strategies.

Dee has extensive experience in the supervision and implementation of on-ground weed control operations via the utilisation of chemical, manual, mechanical and biological control techniques that have incorporated work crews of up to 35 people on ecologically sensitive plant communities relevant to weeds.

Projects include:

- *National Guidelines for the Management of Ferals, Weeds and Overabundant Species*, Department of Defence, 2004 – 2008.
- Weed Management and Control RAAF Base Richmond, RAAF Base Glenbrook and Defence Establishment Orchard Hills DMM Pty Ltd on behalf of the Department of Defence 2008 – June 2011.
- Weed Management and Control Operations Hunter Valley Operations Mine, Singleton, NSW, 2003 – Dec 2011.
- Weed Management and Control Operations Mt Thorley Warkworth Mine, Singleton, NSW, 2003 – Dec 2011.
- Weed Management and Control Ravensworth Narama and East Mines, Ravensworth Operations Pty Limited, Singleton, 2002 – 2011.
- Weed Management Plan and On-ground Weed Control Operations Eraring Power Station, Eraring Energy, Eraring, 2003 – 2011.

Overabundant Native Fauna

During her time with AECOM Dee has undertaken/been closely involved in the development of industry leading practice relating to the management and control of overabundant native fauna, with a particular focus on macropod species. These projects have resulted in the development of the *National Guidelines for the Management of Feral, Weeds and Overabundant Native Species* for the Department of Defence, together with management plans for areas of the Defence estate including the *Eastern Grey Kangaroo Management Plan for Singleton Military Area* and the *Macropod Management Plan for RAAF Base Williamtown*. Further to this Dee has taken the role of Project Manager of works relating to macropod management for RAAF Base Williamtown.

Vertebrate Pest Animal Management and Control

Dee has undertaken many strategic vertebrate pest animal management and control projects. These projects have incorporated industry best practice guidelines, OHS and site capability requirements, environmental conservation goals and legislative requirements related to the development of vertebrate pest animal management plans and strategies, and the

supervision and implementation of on-ground vertebrate pest animal control operations.

Projects have incorporated industry best practice methods related to the management of impacts to non-target species and the implementation and/or supervision of control techniques including trapping, baiting, fumigation and shooting of pigs, rabbits, hares, dogs, foxes, horses, introduced bird species and cats.

Dee assesses the project goals and objectives and management and control methods available to evaluate their use or impracticalities for each site before determining a control program.

Monitoring programs are designed to collect sufficient and relevant data that can be integrated with GIS methodologies to assess the effectiveness of the on-ground pest animal control operations program and the impacts the target animals are having at each specific site.

Depending on the reasons for control of pest species, monitoring usually involves whether the control action actually reduced the abundance of pest species and the response of native species and ecological communities to the control action.

An example of project experience is Dee's role as author of the *Management Strategy for the Removal of Feral Horses from the Singleton Training Area*. This report was used as the framework against which Defence could mitigate the risks that feral horses pose to the safety of range users and to the military and environmental values of the site. The Strategy provided an analysis of a wide range of horse removal options and recommended those that are the most prudent and feasible methods relative to the constraints of the Singleton Training Area.

Significant Conference Presentations

SPE APPEA International Conference – HSE – Sept 2012 – Decommissioning and Mine Closure

International Society of Restoration Ecology – 2009 – Habitat Enhancement

NSW Minerals Council Conference - 2011 – Monitoring landscapes; 2012 – Overview of the Guidelines for compiling a Mining Operations Plan in NSW

Professional History

2010 - Present
AECOM Australia Pty Ltd
Associate Director

2009 - 2010
AECOM Australia Pty Ltd
Manager – Singleton Office

2001 - 2009

HLA- Envirosciences Pty Ltd
Manager – Singleton Office

2000 - 2001

HLA- Envirosciences Pty Ltd
Land Rehabilitation Scientist

1995 - 2000

NSW Department of Land and Water Conservation
Crown Reserves Management Officer - Hunter

1990 - 1995

RZM Pty Ltd
Rehabilitation Specialist

1985 - 1990

Retail and wholesale nursery industry

1989 - 1999

TAFE NSW
Teacher, Syllabus technical writer

Gary Mace

EHS Team Leader – Principal Hygienist

Qualifications

Master of Science (Hydrogeology and Groundwater)
Bachelor of applied Science - Environmental Health -
UWS 1998

Cert IV workplace Assessment and Training 2002

Affiliations

Associate Member Australian Institute of Occupational Hygienists

Member Australian Standards Committee CH -031 –
Methods for Examination of Workplace Atmospheres

Past Member Standing Committee on Dust Research &
Control

Past Chairman Noise Induced Hearing Loss
Committee

Past Member IOHA Scientific Committee

Past Member Australian Acoustical Society

Publications and Technical Papers

A Ten Mine Study into Diesel Particulate Exposure to
Mine Personnel Involved in Longwall Transfers Coal
Services Health and Safety Trust – Project No. 20391 -
2008

Career History current

Gary is a senior Occupational Hygienist with more than thirty years' experience in heavy industry, manufacturing and mining. Gary will provide specialist knowledge in the areas of coal mine sampling, spon-com issues and assist in directing and reviewing team activities and reports.

Gary is the EHS team leader in the Hunter region and has a high level of understanding of the National Work Health and Safety framework and the relevant state Acts and Regulations. He worked as the principal occupational hygienist to the NSW coal industry in his previous role as the Manager of the Coal Services Occupational Hygiene division. In addition his extensive industrial experience has assisted in developing the relevant skills to review both compliance and provide suitable advice in respect to procedural and organisational change to meet legislative requirements.

Gary has many year experience is assisting the Hunter Valley mining industry monitoring and managing their spontaneous combustion issues on site. This has included Wilpinjong Mine, Liddell Coal, Drayton operations and Muswellbrook Coal. Gary would use his depth of understanding derived over the years to provide specialist input to the proposed Wilpinjong audit in 2014.

He has been a member of the Australian Standards committee (CH -031 – Methods for Examination of Workplace Atmospheres) for 10 years and is fully conversant with all aspects of the current National and State based Workplace Safety and Health Acts and Regulations and in particular NSW and Qld based Mining Acts and Regulations.

Gary has written MSDS documents for a number of clients and is well-versed in hazardous substances assessment and dangerous goods licensing requirements He has assisted in a number of self-insurance audits.

He has worked with major clients including Glencore (Xstrata Coal), Rio Tinto, BHP Billiton, Centennial Coal, Peabody Energy, Newcrest Mining, Yancoal, Barrick, Pacific National, Downer EDI, Thiess, Alcoa, Australian and New Zealand Defence Forces, BlueScope Steel, Comalco, Mount Isa Mines, Qld Fire and Rescue, Orica and numerous universities, researchers and Occupational Hygiene Groups across Australia and New Zealand.

Detailed Experience – Mine Sites*Sampling for Spon Com exposures for Muswellbrook Coal - 2006*

Gary conducted spon com assessments of the Muswellbrook Open Cut Mine and developed an operational procedure with Muswellbrook Management in consultation with personnel (Dr Brian Davies, Charles Steer) involved in Leigh Creek to manage personal exposures to spon com exposures on site. That procedure has been highly successful in controlling potential exposure risks on site with no recorded incidents, is still in place and has been adopted in a number of other Hunter Valley Mines.

Sampling for Spon Com exposures for Liddell Coal - 2012

Gary developed, oversaw and reviewed the sampling program and assisted Liddell in implementing an operational procedure to manage personal exposures to fire products when working over "hot ground". The sampling procedure has been adopted at all other mine sites as a measure of spon-com measurement.

The control methodology utilised for Muswellbrook Coal was adopted successfully by the LCO safety team and has assisted in controlling risks, with additional sampling only utilised under severe or significantly varied conditions.

Sampling for Spon Com exposures for Wilpinjong - 2012

Gary developed the sampling program and reviewed all results and subsequent reports and recommendations that was conducted by Chris Maw at the Wilpinjong site in 2012.

Sampling for Spon Com exposures for Drayton Operation - 2014

Gary is currently working with Anglo Coal (Drayton Management) Pty Ltd in respect to Spon-com issues at the Drayton site. This is an extension of work he conducted with Drayton in his previous role. Sampling has been undertaken and the development of control measures under review.

Audit/Assessment of Hazardous Materials – NSW Mines Rescue Stations 2010 (Lithgow, Singleton, Newcastle, Woonona)

Gary conducted a comprehensive assessment of hazardous chemicals used and stored at all NSW Mines Rescue Stations including an audit of all MSDS. Compliance with the NSW OH&S Act was integral to the process along with timeliness and minimal disruption to training and safety operations. Safe disposal of out of date and obsolete chemicals formed part of the project and sourcing appropriate and date compliant MSDS. The project was successfully completed ahead of schedule.

Audit/Assessment of Hazardous Substances Control – Coal Services – 2009 (Woonona, Sydney, Speers Point, Lithgow, Singleton)

Gary conducted a comprehensive assessment of hazardous chemicals used and stored at all Coal Services offices including an audit of all MSDS. Compliance with the NSW OH&S Act was integral to the process along with timeliness and minimal disruption to medical assessment and treatment operations. Safe disposal of out of date and obsolete chemicals formed part of the project as was the sourcing of appropriate and date compliant (ie met Australian SDS requirements).

NSW Coal Mines – SCBA Cleaning Procedures Audit 2007/8

In conjunction with Mines Rescue, Department of Mineral Resources and Safety Co-ordinators / Managers, Gary a comprehensive audit of all in-situ Self Contained Breathing Apparatus units and refill stations was undertaken in every underground Coal mine in NSW. A review of cleaning and storage procedures ensued with biological testing of equipment at a number of mine sites to ensure the practical and ongoing safety of mining personnel.

The safety alert raised at the time was withdrawn and a procedure rolled out across all underground mines in respect to the storage, clearance testing and cleaning of breathing apparatus utilised on all mine sites.

In conjunction with this audit an ongoing testing regime was adopted by the NSW Mines Rescue Service at all sites, Woonona, Argenton, Lithgow and Singleton for periodic sampling and review of training apparatus for self-escape. This program was designed and undertaken by Gary from 2007 up until this year.

Self-Insurer Audit – Pasminco Cockle Creek Smelter 1999

An extensive audit of the Safety Management systems, Occupational Hygiene, Medical facilities and practices, security, Hazardous Substances, Dangerous Goods, Records keeping, archiving, personnel records and health surveillance was undertaken by Gary with assistance of one other person and an undergraduate.

Self-Insurance accreditation was approved by WorkCover NSW

Dangerous Goods Audit – License - Pasminco Cockle Creek Smelter 1998, 1999, 2000

Audits were conducted annually by Gary to ensure continued approval of the site Dangerous Goods License by WorkCover NSW. An external audit was undertaken by WorkCover in 1999 and compliance with all items ratified.

Graham Hawkes

Principal Hydrogeologist

Qualifications

Master of Science (Hydrogeology and Groundwater Management), University of Technology, Sydney, 1999.
 Graduate Diploma in Science (Geology), Australian National University, 1990.
 Bachelor of Science (Geology), Australian National University, 1989.
 Associate Diploma in Geoscience, Canberra TAFE College, 1988

Affiliations

International Association of Hydrogeologists (IAH),
 NSW Committee Member 2007- Present.
 NSW Branch President (2011-12);

The Australian Institute of Geoscientists (AIG):
 Member; Registered Professional Geoscientist
 (Hydrogeology) RPGeo (No 10,067);

Organising Committee of *IAH Groundwater in the Sydney Basin* Symposium, Sydney, August 2009 and
IAH Hydrogeology in NSW – the challenge of uncertainty Symposium, Sydney, September 2011.

Selected Publications and Technical Papers

- Hawkes G and Hawkins P, 2013; Innovative solutions to stabilise groundwater levels and protect the Seacliff Bridge, Coalcliff, NSW, Australia. 40th IAH International Congress, IAH, Perth Convention and Exhibition Centre, Perth, Australia, 15 – 20 September 2013.
- Hawkes G 2011; Urban groundwater dewatering in the Botany Sands Aquifer, eastern Sydney, NSW, Australia, Deep Basements and Underground Structures Conference, Sydney. International Quality & Productivity Centre. 28 – 29 June 2011.
- Hawkes G., Ross J and Watkins 2011; The Impacts of Aquifer Recharge via Exfiltration. Expansion of the effluent discharge capacity of sea-change towns along the NSW mid-north coast. Journal of the Australian Water Association, April.
- Hawkes G., 2011; Groundwater Modelling and Management of the Impacts of Aquifer Recharge via Exfiltration along the Mid North Coast, NSW, Australia. International Perspective on Water Resources and the Environment (IPWE) proceedings, Singapore, 4-6 January 2011.

Career History current

Graham Hawkes is a Principal Hydrogeologist based in Sydney, NSW with more than 20 years experience in contaminated groundwater site and clean water regional groundwater investigations specializing in groundwater remediation and characterization. He has worked in most states of Australia including Western Australia on many groundwater related projects in a variety of hydrogeological settings. Within ACOM Graham provides specialist hydrogeological training ranging from groundwater theory to specialist field techniques.

Graham provides hydrogeological technical support for many of AECOM's registered contaminated land auditors providing technical review and advice. Contaminant hydrogeology experience undertaken by Graham includes sewage exfiltration sites, industrial sites, brickworks and fuel storage terminals. At many of these sites groundwater characterization, groundwater modeling and remediation was undertaken. He has also been involved in many environmental assessments outlining potential groundwater impacts and mitigation measures. Project experience in clean groundwater undertaken and managed by Graham includes groundwater exploration for mining and rural water supplies, dewatering in urban environments, hydrogeological resource investigations and salinity investigations. Most recently Graham has undertaken mass flux modeling at the Barangaroo and Port Kembla development site in NSWs. He also provided hydrogeological technical advice during the audit of the Bellevue Permeable Reactive Barrier (PRB), Perth.

He provides technical review for groundwater related multidisciplinary projects. He has been a committee member of the NSW branch of the International Association of Hydrogeologists (IAH) since 2007 and was the NSW Chapter President (2011-12).

- Hawkes G., Ross JB and Gleeson L 2009; Hydrogeological resource investigations – to supplement Sydney's water supply at Leonay, western Sydney, NSW, Australia. 37th IAH Congress, IAH, Hyderabad, India, 6 – 12 September 2009.
- Hawkes G. 2009; Discovery of a Large Palaeochannel During Exploratory Resource Investigations at Glen Innes, NSW. Thailand 2009: 2nd International Perspective on Environmental and Water Resources (IPWE) conference proceedings. Bangkok, Thailand 5-7 January.

Detailed Experience*Contaminated site Investigations*

Graham has undertaken and managed site assessment and remediation projects where groundwater has been significantly impacted. Each site required the development of a conceptual hydrogeological model, groundwater characterisation and sometimes groundwater modelling or groundwater remediation. Many sites required the preparation of technical reports for a NSW EPA accredited contaminated land auditor and preparation of remediation action plans, groundwater management programs, fate and transport modelling and characterisation of hydraulic aquifer parameters. Examples of site assessment and remediation projects include:

- Barangaroo Development, Millers Point, Sydney. Lend Lease. (2012-2013) Principal Hydrogeologist. Assess various lines of evidence to determine the significance of contaminant mass flux and discharge in the natural soil, marine sediments, sandstone and groundwater underlying the southern and central part of the former gasworks site. The percentage improvement in the contaminant mass flux due to remediation was calculated to assist the EPA in approving the recommended remediation strategy. The fate and transport modelling was undertaken using the Mass Flux Toolkit V2.0, a software program that calculates mass flux from transect data.
- Confidential Client. Perth Airport, Western Australia. Preparation of a groundwater management plan to manage perfluorinated compounds (PFCs) that entered the local aquifer via the discharge of aqueous film forming foams (AFFF). The plan followed a human health and ecological risk assessment and environmental site assessment. The plan summarised the groundwater conditions, groundwater contamination and outlined a monitoring program and recommended a groundwater abstraction exclusion zone.
- Environmental Audits: Hydrogeologist within a specialist team to conduct independent environmental audits of various coal operations in the Hunter Valley. The objective of the audits was to review the current status of exploration licences or compliance conditions to ensure licence holders are adhering to all conditions contained in their licences including evidence of compliance or otherwise. Graham reviewed the groundwater licensing and compliance conditions relating to abstraction, monitoring, impacts, off-site discharge reinjection and groundwater management plan compliance. Operations audited include Moolarben Coal (Yan Coal), Clarence Colliery (Centennial Coal), Ravensworth (Xstrata) and

Wilpinjong Coal Operations (Peabody Energy Coal).

- Wilpinjong Coal (2011); Hunter Valley, NSW, Australia, Peabody Energy Coal. Principal Hydrogeologist. Team member and specialist hydrogeologist to conduct an Independent Audit of the Wilpinjong Coal Operations to assess compliance approval conditions for the period 2009-2011 to be reported to the NSW Department of Planning.
- Groundwater remediation of a former service station site (Mona Vale, Sydney) using a biosparge system for 7 years to promote bioremediation and reduce off-site migration of hydrocarbons. Soil and gas characterisation was also undertaken.
- Development of a groundwater management plan, remediation action plan and closeout strategy for a dissolved phase hydrocarbon plume at a former oil terminal South West Rocks, and former petrol station at Calga NSW.
- Soil remediation (asbestos and hydrocarbon) and characterisation of groundwater and landfill gas at an abandoned 70 hectare brickworks remediated for residential development, Woonona, NSW.
- Emergency groundwater remediation works to manage and delineate a hydrocarbon plume that leaked into a deep alluvial aquifer used for town water supply, Dubbo, NSW.
- Assessment of the proposed exfiltration schemes for the discharge of tertiary treated effluent at numerous NSW mid-north coast sites.

Preparation of Environmental Assessments

Graham has been involved in the preparation of numerous environmental assessments and environmental impact statements assessing potential impacts to the existing groundwater regime and developing mitigation measures. Examples of such assessments are:

- Gerringong to Berry Princes Highway upgrade concept design. Roads and Maritime Services. Preparation of a groundwater environmental assessment for the Foxground to Berry Bypass Environmental Assessment under Part 3A of the Environmental Planning and Assessment Act 1979. The assessment involved summarising existing groundwater conditions; assess potential groundwater impacts and outlining management and mitigation measures during the construction and operation phases.

James McIntyre**Associate Director & Environmental Planning & Management (EP&M) Team Leader****Qualifications**

Master of Social Science (Environment and Planning),
RMIT University, 2007

Graduate Diploma of Environmental Studies, University
of Melbourne, 1999

Bachelor of Commerce, University of Canterbury, New
Zealand, 1996

Affiliations

Member of the Planning Institute of Australia (MPIA)

Career History

James McIntyre is the EP&M Team leader in AECOMs Hunter Region. This management assignment has seen James contribute proactively to the Hunter Region management team and perform the full range of management functions and responsibilities. James brings to the table a solid commercial perspective, with a key interest in risk management, quality control, encouraging safe behaviour and project delivery and ensuring reputation is maintained. Ultimately James strives to obtain the right outcome without consequence.

James is the AECOM Hunter Region Project Delivery Group Leader and a member of AECOM NSW OHS committee. His roles in these leadership groups are examples of his commitment to project delivery excellence and commitment to workplace and project safety.

As part of his roles as project manager \ director, James actively prepares, reviews and contributes to project related assessment of risk, including project health and safety plans, risk assessments and safe work method statements.

James is a project manager and director who has been involved with project development, environmental impact assessments and environmental management across the Hunter Region. James has managed and worked on a diverse range of environmental management, assessments and approvals for mining, industrial, energy and public sector clients.

James has prepared environmental management plans and other regulatory compliance documents for mining, industry and energy sector clients. James has also extensively consulted and negotiated with the Department of Planning and Infrastructure and the NSW Office of Environment and Heritage on behalf of existing clients.

Prior to commencing work with AECOM, James completed his Masters Degree in Environment and Planning at RMIT University in Melbourne. During this time James worked in project implementation at the University of Melbourne. This involved co-managing various online infrastructure projects, staff supervision, client liaison, system maintenance and reviewing project performance.

Detailed Experience

Environmental Approvals

James has managed and prepared environmental Planning and Impact Assessments for private and public sector clients. These have included new project development applications as well as modifications to existing developments. Some highlights include:

- Sydney Trains, Geotechnical Works Review of Environmental Factors (5 x REFs), 2014 -15
- ARTC, Wingen Crossing Loop Review of Environmental Factors, 2014
- VUE Australia, Change of Use Environmental Impact Statement, 2014
- Downer Infrastructure, Enfield Staging Facility Review of Environmental Factors Addendum, 2014
- Roads and Maritime Services, Mackenzie Street Footbridge, Minor Works Review of Environmental Factors, 2014
- Orica Mining Services, Boiler Relocation, Consistency Review (section 75W), 2014
- Roads and Maritime Services, Frederick Street Intersection Upgrade, Review of Environmental Factors, 2013
- Kooragang Bulk Facilities, Pre-Development Application, 2013
- Orica Mining Services, Nitric Acid Tank, modification to project approval (section 75W), 2013
- Orica Mining Services, Ammonia Management Improvement (AMI), modification to project approval (section 75W), 2013
- Transpacific Industries Group, Additional Tank Farm, modification to project approval (section 75W) current
- National Ceramic Industries Australia, Modifications to project approval (under section 75W) 2013
- Xstrata Mangoola, Exploration Drilling Program, Review of Environmental Factors 2011-12
- Orica Mining Services, Preliminary Environmental Assessment, Upper Hunter Mining Support Facility, SSD Major Project Application, 2012
- National Ceramic Industries Australia, Numerous modifications to development consent (under S96) 2009-2011
- National Ceramic Industries Australia, Facility Expansion Part 3A Environmental Assessment, 2010 (Approved).
- Richmond Valley Council, Evans Head Memorial Aerodrome, Vacant Industrial Land Remediation Works, Review of Environmental Factors, 2009-10.
- Richmond Valley Council, Evans Head Memorial

Aerodrome, Remediation Works Environmental Impact Statement, 2009-10.

- Eraring Energy, Rail Coal Unloader Throughput Limit Increase Statement of Environmental Effects, 2009.
- Tomago Aluminium, Production Capacity Increase Statement of Environmental Effects, 2009.
- Orica Mining Services, Ammonia Plant Uprate, Part 3A Environmental Assessment, Kooragang Island, 2008-2009.
- BHPB, Hunter River Remediation Project, Stage 2 Approval to Proceed Environmental Assessment, 2008.
- National Ceramic Industries Australia, Facility Expansion Scoping Report, 2008.

Environmental Management & Compliance

James has a sound understanding of the potential environmental impacts of the development and operational processes of industrial, mining and energy businesses. James has experience in the development of environmental management documentation which has included the management of assessed environmental risk through EMPs and EMSs. Relevant projects include:

- Shenhua Watermark, 2014-15 (current), Environmental and Operational Management Plans. As Project Manager James is currently overseeing the production of eleven critical Management Plans for the Watermark project near Gunnedah, NSW.
- Orica Mining Services, throughout 2012 and 2013 James project managed the following projects for Orica:
 - Air Quality Verification Study
 - Safety and Operating Plan: Nitric Acid Pipeline
 - Orica Kooragang Island Transport of Hazardous Materials Study
 - Hazardous Materials Site Audit
 - Recycled Water Management Plan
- Macquarie Generation, Project Manager for:
 - Antiene Rail-unloader AEMR 2014
 - Antiene Rail-unloader AEMR 2013,
 - Resource Recovery Exemption application 2013,
 - Independent Environmental Audit for Hunter River Pump Station 2013
 - Independent Environmental Audits for Water treatment Plant Upgrade 2103

- Origin, Eraring Power Station, 2014, project manager for Environmental Compliance and Hardware Audits. Project Director for Ash Placement options assessment (current).
- Summerhill Waste Management Center (Newcastle Council), Annual Environmental Report 2013 and 2014
- Ravensworth North Alliance (Xstrata), Land tenure, approvals and property support services, including Risk Assessments regarding Lemington Road re-alignment and impacts to adjoining infrastructure and properties, 2011-2012
- National Ceramic Industries Australia, Environmental compliance support and environmental management, 2009-current
- Colongra Power Station, Delta Electricity, Environmental Management Services (including OEMP, EMS and the management of risk through the Aspects and Impacts register), 2009-2013.
- National Ceramic Industries Australia, review and update of Operation Environmental Management Plan (OEMP), 2011 and 2014.
- New England Trading, Environmental Management System, 2010-11
- National Ceramic Industries Australia, On-site Officer (environmental compliance) secondment, 2009-10.
- Thiess, Hunter River Remediation Project management plans, Thiess (2009).
- Thiess, Environmental Reports, Victorian EPA, Highett Gasworks site remediation, (2009).
- Eraring Energy, Annual update and review, Long Term Management Strategy for Coal Combustion Products, 2009.
- Ravensworth Underground Mine (Xstrata) Lighting Management Plan, 2009.
- Eraring Energy, Preparation and implementation of Acid Sulfate Soil Rehabilitation Trial, 2008-2009.

other land management programs for mine sites in the Hunter Valley and across NSW.

Professional History

2013 - Current
AECOM, EP&M Team Leader (Newcastle)

2010 - 2013
AECOM, Singleton Office and Natural Resources Team Leader (Singleton)

2008 - 2010
AECOM, Environmental Planner (Newcastle)

2003 – 2008
The University of Melbourne - Client Services Project Officer.

Training

- AECOM Contracts, 2013
- Winning Client Conversations, 2012
- Leading an Engaged Workforce, 2011
- AECOM SHE Management Training, 2010
- AECOM Safety for Life Training, 2010
- PSMJ \ AECOM Project Management Accreditation, 2010
- Introduction to AECOM Project Management, 2009
- OHS General Induction for Construction in NSW, 2008
- Managing Change and Transition, 2007
- Manage Yourself Through Change, 2007
- Conflict Resolution, 2006
- Emotional Intelligence, 2006
- Project Management: Essential Techniques (Thomsett), 2005

Natural Resource Management

James acted in the role of project director and lead for the Natural Resources team in the Hunter Valley for the period June 2010 to July 2014. These projects have included site rehabilitation programs including tree planting, noxious weed control and feral animal management. More recently James has overseen a diverse range of land management projects including mining operations plans, mine site closure criteria, mine site biodiversity and rehabilitation strategies, ecological management planning, rehabilitation monitoring and

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Appendix B

Consultation

Appendix B Consultation



Planning Services

Resource Assessments

Contact: Wayne Jones

Phone: (02) 65753406

Email: wayne.jones@planning.nsw.gov.au

Mr Kieren Bennetts
Environment and Community Manager
Wilpinjong Coal Mine
Locked Bag 2005
MUDGEE NSW 2850

Dear Kieren,

**Wilpinjong Coal Mine
2014 Independent Environmental Audit**

I refer to your email dated 23 October 2014 seeking the approval of an audit team to undertake an independent environmental audit of the Wilpinjong Coal Mine, required under the approval for the Wilpinjong Coal Project (MP 05-0021).

In accordance with condition 9 of Schedule 5 of the approval, the Secretary has approved the following audit team to conduct this audit of the Wilpinjong Coal Mine:

- Ian Richardson – Lead Auditor
- Jessica Miller – Auditor
- Dee Murdoch – Rehabilitation Specialist
- Patrick Martinez – Noise Specialist
- Amanda Kerr – Surface Water Specialist
- Graham Hawks – Ground Water Specialist
- Gary Mace – Spontaneous Combustion Specialist

In carrying out this audit, the audit team must consult with the relevant government agencies referred to in the approval, and include the results of this consultation in the audit report.

The Department expects the audit to be commissioned by 30 December 2014, and in accordance with condition 10 of Schedule 5 of the approval, a copy of the audit report must be submitted to the Secretary, together with responses to any recommendations contained in the audit report, within three months of commissioning this audit, or as otherwise agreed by the Secretary.

Should you have any enquiries in relation to this matter, please contact Wayne Jones on telephone 6575 3406.

Yours sincerely,


Howard Reed *29.10.14*
Manager – Mining Projects
as the Secretary's nominee

Appendix C

Audit Meeting Agenda

Appendix C Audit Meeting Agenda

Agenda of Meeting

Wilpinjong Independent Environmental Audit

Subject	Site Audit	Page	1
Venue	Wilpinjong	Time	
Participants	As per Agenda Items		
Apologies			
File/Ref No.		Date	15 / 17 December 2014
Distribution	As above		

Day 1 – 15 December 2014 (Half Day)

No	Item	Personnel	Time
1	Opening Meeting • Introductions & Audit Purpose • Confirmation of Meetings & Process	Ian Richardson – AECOM	12.30 pm
2	Overview of Wilpinjong mine: - Operations - Approvals - Context - Environmental Management Including: • Blasting • Air Quality • Heritage • Visual Impact • Greenhouse Gas • Waste • Bushfire • Mine Closure • Environmental Monitoring • Community (note: key environmental issues to be discussed on day 2)		12:50 pm
3	Site Inspection (Core Audit team)	Environment and Community Coordinator – Wilpinjong	3:00 pm
4	Close		5.00 pm

Day 2 – 16 December 2014 (Full Day)

No	Item	Personnel	Time
1	Blasting	Drill and Blast Manager, Supervisors and Technicians Environment Staff	8.30 am
2	CHPP Management Including: • Water Management • Noise Management • Waste Management • Air Quality • Radiation Licences	CHPP Manager, Supervisors and Technicians Environment Staff	9:30 am
3	Mine Planning Including: • Mining Lease and MOP review • Mine Closure	Mining Manager, Supervisors and Technicians Geologist	10:30 am
	<i>Lunch: to be provided by Wilpinjong</i>		12:00 pm
4	Environmental Management Including: • Noise • Water • Rehabilitation • Flora • Fauna • Mine Closure • Spontaneous Combustion	Environment and Community Coordinator – Wilpinjong	12.:30 pm
5	Closure		5pm

Day 3 – 17 December 2014 (Half Day)

No	Item	Personnel	Time
1	Site Inspection	Environment and Community Coordinator – Wilpinjong	8:00am
4	Audit Team Review	AECOM	10.30 am
5	Closeout meeting: • Preliminary findings	Ian Richardson – AECOM	11.30 am
6	Closure		12.30 pm

Appendix D

Audit Protocol DA 05-0021 (as modified)

Appendix D Audit Protocol - DA 05-0021 (as modified)

Condition	Requirement	Current Audit Evidence	Audit Finding
SCHEDULE 2 - ADMINISTRATIVE CONDITIONS			
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT			
1	In addition to meeting the specific performance criteria established under this approval, the Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the project.	During the site visit, the audit team observed the WCM site being generally carried out in accordance with best environmental management practices.	Complies
Condition			
2	The Proponent shall carry out the project generally in accordance with the: (a) EIS; (b) statement of commitments; and (c) conditions of this approval. <i>Notes: The general layout of the project is shown in Appendix 2; The statement of commitments is reproduced in Appendix 8.</i>	The Proponent shall carry out the project generally in accordance with the: (a) EIS; (b) statement of commitments; and (c) conditions of this approval. <i>Notes: The general layout of the project is shown in Appendix 2; The statement of commitments is reproduced in Appendix 8.</i>	Complies
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.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
4	The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of: (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and (b) the implementation of any actions or measures contained in these documents.	This has not occurred during the auditing period, as confirmed during audit interview with WCPL's Environmental Manager.	Not Triggered

Condition	Requirement	Current Audit Evidence	Audit Finding
LIMITS ON APPROVAL			
5	The Proponent may undertake mining operations on the site until 8 February 2027. <i>Note: Under this approval, the Proponent is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Director-General and DRE. Consequently, this approval will continue to apply in all other respects other than the right to conduct mining operations until the site has been properly rehabilitated.</i>	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
6	The Proponent shall not: (a) extract more than 16 million tonnes of ROM coal from the site in a calendar year; and (b) transport more than 12.5 million tonnes of product coal from the site in a calendar year.	2012 AEMR - 14,743,790 tonnes of ROM coal was mined and 5,278,956 tonnes of product coal was transported from the mine 2013 AEMR - 15,068,286 tonnes of ROM coal was mined and 6,001,078 tonnes of product coal was transported from the mine 2014 data verified during site inspection	Complies
7	The Proponent shall ensure that: (a) all product coal is transported from the site by rail; (b) no more than 10 laden trains leave the site on any one day; and (c) not more than 6 laden trains leave the site per day on average when calculated over any calendar year.	AEMR 2012 - product coal transported from the mine via train did not exceed 12.5 million tonnes in the reporting period. Laden trains leaving site did not exceed the criteria of 10 and the average laden trains leaving site did not exceed 6 over the year. AEMR 2013 - approx. 10.4 Mt of product coal was transported from the mine via train in the reporting period. Laden trains leaving site did not exceed the criteria of 10 and the average laden trains leaving site did not exceed 6 over the year. 2014 data verified during site inspection	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding
STRUCTURAL ADEQUACY			
8	The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. <i>Notes: Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works; and Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.</i>	Construction certificates sighted by Audit team. GAP analysis conducted in 2014 identified some structures without appropriate certification. At the time of the audit WCPL was in program to gain approval for these structures.	Complies
DEMOLITION			
9	The Proponent 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.	Contractor engages to conduct demolition. The contract company hired to conduct the demolition is no longer employed at WCPL. As a result the associated demolition paperwork is unavailable for viewing. WCPL have stated there willingness to undertake a statutory declaration supporting this statement.	Unable to be verified
PROTECTION OF PUBLIC INFRASTRUCTURE			
9A	Unless the Proponent and the applicable authority agree otherwise, the Proponent shall: (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project. <i>Note: This condition does not apply to any damage to roads caused as a result of general road usage.</i>	This has not occurred during the auditing period, as confirmed during audit interview with WCPL's Environmental Manager.	Not Triggered
OPERATION OF PLANT AND EQUIPMENT			
10	10. The The Proponent shall ensure that all plant and equipment used at the site is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Auditors viewed the maintenance planning database used at WCPL. The system keeps track of equipment requiring maintenance and servicing and also includes forward maintenance plans (weekly and 50 week) for mobile and fixed equipment. Auditors also viewed the contractor plant register and inspection process which is implemented on site in order to manage contractors equipment.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding
STAGED SUBMISSION OF STRATEGIES, PLANS OR PROGRAMS			
11	With the approval of the Director-General, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis. <i>Note: The conditions of this approval require certain strategies, plans, and programs to be prepared for the project. They also require these documents to be reviewed and audited on a regular basis to ensure they remain effective. However, in some instances, it will not be necessary or practicable to prepare these documents for the whole project at any one time; particularly as these documents are intended to be dynamic and improved over time. Consequently, the documents may be prepared and implemented on a progressive basis. In doing this however, the Proponent will need to demonstrate that it has suitable documents in place to manage the existing operations of the project.</i>	Document control register and document change request form (Document ID WI-SAH-FRM-0088) sighted by auditors. DG approval and submission letters for environmental management plans and programs sighted by audit team.	Complies
PLANNING AGREEMENT			
12	By 31 December 2010, unless otherwise agreed by the Director-General, the Proponent shall use its best endeavours to enter into a planning agreement with Council, in accordance with Division 6 of Part 4 of the EP&A Act, that provides for the upgrade of Ulan-Wollar Road as described in Appendix 9.	VPA Sighted by audit team.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding	
12A	By 31 December 2012, the Proponent shall enter into an agreement with Council to pay community infrastructure and amenity contributions to Council equivalent to a total of \$12,000 (in 2012 dollar value) for each permanent employee/contractor at the site in excess of 100, with part-payments of this total to be: (a) spread equally over the following 20 years of mine life; (b) payable by 31 March each year; and (c) indexed in accordance with the CPI for the December quarter of the previous year (except for the initial 2013 part-payment). <i>Notes: For example, if at 1 January 2013 the site workforce is 333, the Proponent must pay Council, by 31 March 2013, an amount calculate as follows:</i> <i>(333-1000 x (\$12,000 ÷ 20) = \$139,800</i> <i>This requirement is in addition to the continuation of previous planning agreements entered into between the Proponent and the Council.</i>	Sighted VPA with Mid Western Council and record of payment of VPA contributions for community infrastructure and roads maintenance.	Complies	
SUPPLY OF OVERBURDEN				
13	With the approval of the Director-General, the Proponent may supply small quantities of overburden material to regional infrastructure projects in the vicinity of the site. <i>Note: The use of this material in the regional infrastructure project must be authorised prior to the supply of any material.</i>	Outside of audit period	Not Triggered	
SCHEDULE 3 - SPECIFIC ENVIRONEMNTAL CONDITIONS				
ACQUISITION UPON REQUEST				
1	Upon receiving a written request for acquisition from the owner of the land listed in Table 1, the Proponent shall acquire the land in accordance with the procedures in conditions 5 -6 of schedule 4. Table 1: Land subject to acquisition upon request <table><tr><td>30 – Gaffney</td></tr></table> Note: To interpret the locations referred to in Table 1, see the applicable figures in Appendix 7.	30 – Gaffney	This sale of the Gaffney property took place during the audit period. Correspondence provided, Peabody is in accordance with condition 1.	Complies
30 – Gaffney				

Condition	Requirement	Current Audit Evidence	Audit Finding																																																						
NOISE																																																									
Noise Criteria																																																									
2	Except for the land referred to in Table 1, the Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 2 at any residence on privately-owned land, or on more than 25 per cent of any privately-owned land. <i>Table 2: Noise Impact assessment criteria dB(A)</i> <table><tr><th rowspan="2">Location</th><th>Day</th><th>Evening</th><th colspan="2">Night</th></tr><tr><th>L_{Aeq}(15 minute)</th><th>L_{Aeq}(15 minute)</th><th>L_{Aeq}(15 minute)</th><th>L_{A1}(1 minute)</th></tr><tr><td>135</td><td>38</td><td>38</td><td>38</td><td>45</td></tr><tr><td>129 and 137</td><td>37</td><td>37</td><td>37</td><td>45</td></tr><tr><td>69</td><td>36</td><td>36</td><td>36</td><td>45</td></tr><tr><td>Wollar Village – Residential</td><td>36</td><td>35</td><td>35</td><td>45</td></tr><tr><td>All other privately owned land</td><td>35</td><td>35</td><td>35</td><td>45</td></tr><tr><td>901 – Wollar School</td><td colspan="3">35(internal) 45 (external) When in use</td><td>-</td></tr><tr><td>150A – St Luke's Anglican Church</td><td colspan="3">40 (internal) When in use</td><td>-</td></tr><tr><td>900 – St Laurence O'Toole Catholic Church</td><td colspan="3"></td><td>-</td></tr><tr><td>Goulburn River National Park/Munghorn Gap Nature Reserve</td><td colspan="3">50 When in use</td><td>-</td></tr></table> Noise generated by the project is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy. Appendix 10 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria. However, the criteria in Table 2 do not apply if the Proponent has an agreement with the relevant owner/s to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement. Notes: - To interpret the locations referred to in Table 2, see the applicable figures in Appendix 7. - For the Goulburn River National Park/Munghorn Nature Reserve noise levels are to be assessed at the most affected point at the boundary of the Goulburn River National Park/Munghorn Nature Reserve.	Location	Day	Evening	Night		L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{A1} (1 minute)	135	38	38	38	45	129 and 137	37	37	37	45	69	36	36	36	45	Wollar Village – Residential	36	35	35	45	All other privately owned land	35	35	35	45	901 – Wollar School	35(internal) 45 (external) When in use			-	150A – St Luke's Anglican Church	40 (internal) When in use			-	900 – St Laurence O'Toole Catholic Church				-	Goulburn River National Park/Munghorn Gap Nature Reserve	50 When in use			-	Report and correspondence viewed by auditors during site visit. Investigations were undertaken at property 137 which showed no exceedances.	Complies
	Location		Day	Evening	Night																																																				
		L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{A1} (1 minute)																																																				
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	Wollar Village – Residential	36	35	35	45																																																				
	All other privately owned land	35	35	35	45																																																				
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Goulburn River National Park/Munghorn Gap Nature Reserve	50 When in use			-																																																					

Condition	Requirement	Current Audit Evidence	Audit Finding		
Mitigation Upon Request					
3	Upon receiving a written request from the owner of any residence on the land listed in either Table 1 or Table 3, the Proponent shall implement additional noise mitigation measures (such as double-glazing, insulation and/or air conditioning) at the residence in consultation with the landowner. These measures must be reasonable and feasible, and directed towards reducing the noise impacts of the project on the residence. If within 3 months of receiving this request from the owner, the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution. <i>Table 3: Land subject to additional noise mitigation upon request</i> <table><tr><th>Receiver ID</th></tr><tr><td>69, 129, 135 and 137</td></tr></table> Note: To interpret the land referred to in Table 3, see the applicable figures in Appendix 7.	Receiver ID	69, 129, 135 and 137	The criteria was not exceeded, however offers of purchase were made. No additional mitigation measures were put in place during this time, but neither were they triggered.	Complies
Receiver ID					
69, 129, 135 and 137					
Operating Conditions					
4	The Proponent shall: (a) implement best management practice to minimise practice the operational, road, and rail noise of the project; (b) operate a comprehensive noise management system that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations, and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this approval; (c) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply (see Appendix 11); (d) only use locomotives and rolling stock that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL; (e) co-ordinate noise management at the site with the noise management at Moolarben and Ulan mines to minimise cumulative noise impacts; and (f) carry out regular monitoring to determine whether the project is complying with the relevant conditions of this approval, and publish these monitoring results on its website, to the satisfaction of the Director General.	Noise management and mitigation measures are undertaken in accordance with the WCLP Noise Management Plan (NMP). During the 2013 AEMR reporting period a total of 157 hours were lost because equipment was stood down to control environmental noise levels. During the 2012 AEMR reporting period WCPL conducted investigation into the implementation of further noise attenuation at the mine, however it was identified that no further feasible or reasonable measures were currently available. WCLP's efforts have been focused on the management of noise impacts through operational modifications, refinement of monitoring and management procedures and written agreements with landowners (AEMR, 2013). WCLP intend to update the NMP to ensure that the attended and real time monitoring locations better reflect the requirements of EPL12425 and the project approval.	Complies		
Noise Management Plan					

Condition	Requirement	Current Audit Evidence	Audit Finding															
5	The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with the EPA, and submitted to the Director-General for approval by the end of May 2014; (b) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this approval; (c) describe the proposed noise management system in detail; and (d) include a monitoring program that: - evaluates and reports on: - the effectiveness of the noise management system; - compliance against the noise criteria in this approval; and - compliance against the noise operating conditions; - includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time (so the real-time noise monitoring program can be used as a better indicator of compliance with the noise criteria in this approval and trigger for further attended monitoring); and - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.	The Noise Management Plan has been updated and submitted to DP&E (Letter sighted by auditors). The draft NMP fulfils the requirements of condition 5b, 5c and 5d.	Complies															
BLASTING																		
Blast Impact Assessment Criteria																		
6	The Proponent shall ensure that blasting on the site does not cause exceedances of the criteria in Table 4: <i>Blasting impact assessment criteria</i> <table border="1"> <thead> <tr> <th>Location</th><th>Airblast overpressure (dB(Lin Peak))</th><th>Ground vibration (mm/s)</th><th>Allowable exceedance</th></tr> </thead> <tbody> <tr> <td rowspan="2">Residence on privately owned land</td><td>115</td><td>5</td><td>5% of the total number of blasts over a period of 12 months</td></tr> <tr> <td>120</td><td>10</td><td>0%</td></tr> <tr> <td>All public infrastructure</td><td>-</td><td>50 (or a limit determined by the structural design methodology in AS 2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Director-General)</td><td>0%</td></tr> </tbody> </table> However, these criteria do not apply if the Proponent has a written agreement with the relevant owner to exceed these criteria, and has advised the Department in writing of the terms of this agreement.	Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance	Residence on privately owned land	115	5	5% of the total number of blasts over a period of 12 months	120	10	0%	All public infrastructure	-	50 (or a limit determined by the structural design methodology in AS 2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Director-General)	0%	Auditors observed the most recent blasting data since the previous AEMR was prepared, and there have been no exceedances in this time. No exceedances were recorded in the 2012 or 2013 reporting periods (AEMRs 2012 and 2013). Auditors viewed blasting results for 2014 (blast register) during the audit site inspection. No exceedances were identified in 2014 in relation to blasting criteria specified in Table 4 (Schedule 3, condition 6 DA 05-0021 (as modified)).	Complies
Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance															
Residence on privately owned land	115	5	5% of the total number of blasts over a period of 12 months															
	120	10	0%															
All public infrastructure	-	50 (or a limit determined by the structural design methodology in AS 2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Director-General)	0%															

Condition	Requirement	Current Audit Evidence	Audit Finding
7	deleted	N/A	N/A
8	deleted	N/A	N/A
Blasting Hours			
9	The Proponent shall only carry out blasting on the site between 9am and 5pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Director-General.	The audit team reviewed WCPLs blasting register and verified the blasting times.	Complies
Blasting Frequency			
10	The Proponent may carry out a maximum of: (a) 2 blasts a day; and (b) 5 blasts per week, averaged over a calendar, at the project site. This condition does not apply to blasts that generate ground vibration of 0.5mm/s or less at any residence on privately-owned land, blast misfires or blasts required to ensure the safety of the mine or its workers. <i>Note: For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete are of the mine.</i>	3 blasts with a MIC of over 400 kg occurred within a week during 2012 annual return reporting period. Annual Return reports that an oversight in how the blast checklist was completed occurred. No action could be taken. As a result of this occurrence the blast checklist has been changed to prevent a reoccurrence. EPA reports that appropriate action was taken by WCPL.	Not Compliant
Property Inspections			
11	If the Proponent receives a written request from the owner of any privately-owned land within 2 kilometers of any approved open cut mining pit on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Proponent shall: (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable both parties, to: - establish the baseline condition of any building or structures on the land, or updates the previous property inspection report; and - identify measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and (b) give the landowner a copy of the new or updated property inspection report. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or the landowner disagrees with the findings of the property inspection report, either party may refer the matter to the Director-General for resolution.	Not triggered during the audit period. Other properties outside the 2km boundary have been subject to such requests and this has been appropriately managed as per correspondence viewed by auditors.	Not Triggered

Condition	Requirement	Current Audit Evidence	Audit Finding
Property Investigations			
12	If any landowner of privately-owned land claims that buildings and/or structures on his/her land have been damaged as a result of blasting associated with the project, then within 3 months of receiving this request, the Proponent shall: (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to investigate the claim; and (b) give the landowner a copy of the property investigation report. If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Director-General. If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or the landowner disagrees with the findings of the property inspection report, either party may refer the matter to the Director-General for resolution.	This has not been triggered during the audit period.	Not Triggered
Operating Conditions			
13	During mining operations on the site, the Proponent shall: (a) implement best blasting practice to: - protect the safety of people and livestock in the area surrounding blasting operations; - protect public or private infrastructure/property and Aboriginal cultural heritage sites in the area surrounding blasting operations from blasting damage; and - minimise the dust and fume emissions from blasting at the project; (b) limit temporary blasting-related road closures to 1 per day; (c) co-ordinate the timing of blasting on site with the timing of blasting at the adjoining Moolarben and Ulan coal mines to minimise the potential cumulative blasting impacts of the three mines, and (d) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site; and (e) carry out regular monitoring to determine whether the project is complying with the relevant conditions of this approval, and publish these monitoring results on its website, to the satisfaction of the Director-General.	WCPL maintains a register of people who receive phone calls before blasting. A blasting hotline is also maintained (AEMRs 2012 and 2013). The Wilpinjong Coal Mine Blast Management Plan was updated during the reporting period and is currently with DP&E for approvals. The auditors note that the BMP fulfils these requirements. The new Fume Management Strategy was also prepared during the audit period and is with DP&E for final approval (as part of requirements for Mod 5). During the site visit the auditors also viewed correspondence and comments from DP&E on the progress of the new Blast Management Plan and Fume Management Strategy, evidencing the satisfaction of the DP&E WCPL maintain the Wilpinjong Coal Webpage with up to date information regarding planned blasts.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding
14	Prior to carrying out any blasting within 500 metres of a public road or railway on the site, the Proponent shall obtain approval from Council (in respect of public roads) and ARTC (in respect of the Gulgong-Sandy Hollow railway).	No new deeds have been required to be entered into during the current audit period. Letters were sighted by the audit team during the site visit to Mid Western Regional Council and the ARTC (dated 26 May 2006) advising that such blasting will occur, seeking blanket approval for such blasting, and advising that WCPL will provide notification of each relevant blast.	Complies
Blast Management Plan			
15	The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with the EPA, and submitted to the Director-General for approval by the end of May 2014; (b) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this approval; (c) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site (if relevant); and (d) include a monitoring program for evaluating and reporting on compliance with the blasting criteria and operating conditions of this approval.	Check new plan updates to make a call on this – e.g. was approval sought for any management plant to be combined?	Complies
AIR QUALITY			
Odour			
16	The Proponent shall ensure that no offensive odours are emitted from the site, as defined under the POEO Act.	The Spontaneous Combustion Management Plan¹⁶ (SCMP) has been developed and implemented to prevent and reduce the potential impacts associated with spontaneous combustion A total of 35 environmental complaints were received during the 2013 review period in relation to odour that may have been attributed to spontaneous combustion (AEMR, 2013). EPA has commented officially that there has been no offensive odour after an unofficial investigation carried out. In August 2014 the Analysis of Odour Complaints and Ambient Air Quality in Wollar and Cooks Gap, NSW (August 2014) was undertaken. The report showed levels of components in atmosphere acceptable. The site has received complaints in relation to offensive odours. However the EPA has not made a finding that offensive odours have occurred.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding									
17	Greenhouse Gas Emissions											
	Except for the land referred to in Table 1, the Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not cause exceedances of the criteria listed in Tables 5, 6 and 7 at any residence on privately-owned land.		Exceedances of PM10 criteria (of 50µg/m3) occurred in the 2013 calendar reporting period (AEMR, 2013). These occurred on the 19/10/2013 with a 24hr concentration of 55.6µg/m3 and the 29/04/2013, 30/04/2013, 26/09/2013, 18/10/2013 and 19/10/2013 with a 24 hr concentration of 53.3µg/m3, 50.2µg/m3, 68.9µg/m3, 50.37µg/m3 and 53.5µg/m3 respectively. Influencing factors on these exceedances were noted, these included dust generated from the unsealed Araluen Rd and prolonged dry conditions and bushfire activity in the area. Exceedances of PM10 criteria also occurred in the 2012 calendar reporting period (AEMS, 2012). This occurred on the 25/10/2012 due to PM10 levels recorded above internal action limits. In all exceedance cases WLMP implemented internal actions in order to reduce dust emissions from site. These include Increasing water carts, rotating activities occurring in the pit, stopping work on spon com at stockpiles and ceasing work of all operations and mining equipment until the exceedance has been investigated.									
	<i>Table 5: Long term impact assessment criteria for particulate matter</i>											
	<table><tr><th>Pollutant</th><th>Averaging period</th><th>^dCriterion</th></tr><tr><td>Total suspended particulate (TSP) matter</td><td>Annual</td><td>^a 90 µg/m³</td></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>Annual</td><td>^a 30 µg/m³</td></tr></table>			Pollutant	Averaging period	^d Criterion	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³
	Pollutant	Averaging period		^d Criterion								
	Total suspended particulate (TSP) matter	Annual		^a 90 µg/m ³								
	Particulate matter < 10 µm (PM ₁₀)	Annual		^a 30 µg/m ³								
	<i>Table 6: Short term impact assessment criterion for particulate matter</i>											
	<table><tr><th>Pollutant</th><th>Averaging period</th><th>^dCriterion</th></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>24 hour</td><td>^a 50 µg/m³</td></tr></table>			Pollutant	Averaging period	^d Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³			
	Pollutant	Averaging period		^d Criterion								
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³										
<i>Table 7: Long term impact assessment criteria for deposited dust</i>												
<table><tr><th>Pollutant</th><th>Averaging period</th><th>Maximum increase in deposited dust level</th><th>Maximum total deposited dust level</th></tr><tr><td>^cDeposited dust</td><td>Annual</td><td>^b 2 g/m²/month</td><td>^a 4 g/m²/month</td></tr></table>		Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month			
Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level									
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month									
NOTES TO TABLES 5-7:												
a - Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources);												
b - Incremental impact (i.e. incremental increase in concentrations due to the development on its own);												
c - Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and												
d - Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Director-General.												

Condition	Requirement	Current Audit Evidence	Audit Finding
Mine-owned Land			
18A	The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not cause exceedances of the criteria listed in Tables 8, 9 and 10 at any occupied residence on mine-owned land (including land owned by another mining company) unless: a) the tenant and landowner (if the residence is owned by another mining company) have been notified of any health risks associated with such exceedances in accordance with the notification requirements under schedule 4 of this approval; (b) the tenant of any land owned by the Proponent can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice; (c) air mitigation measures such as air filters, a first flush roof water drainage system and/or air conditioning) are installed at the residence, if requested by the tenant or landowner (if the residence is owned by another mining company); (d) air quality monitoring is regularly undertaken to inform the tenant or landowner (if the residence is owned by another mining company) of particulate emissions in the vicinity of the residence; and (e) data from this monitoring is presented to the tenant and landowner in an appropriate format for a medical practitioner to assist the tenant and landowner in making informed decisions on the health risks associated with occupying the property, to the satisfaction of the Director-General.	Auditors viewed correspondence between WCPL and relevant tenant which showed the tenant had been provided with the Mine Dust and You Factsheet (provided on 7 July 2014). The tenants have since moved out.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding																										
Air Quality	Acquisition Criteria																												
18	If particulate matter emissions generated by the project exceed the criteria, or contribute to the exceedance of the relevant cumulative criteria, in Tables 8, 9 and 10 at any residence on privately-owned land, then upon receiving a written request for acquisition from the landowner, the Proponent shall acquire the land in accordance with the procedures in conditions 5 – 6 of schedule 4. <i>Table 8: Long term land acquisition criteria for particulate matter</i> <table><tr><th>Pollutant</th><th>Averaging period</th><th>^dCriterion</th></tr><tr><td>Total suspended particulate (TSP) matter</td><td>Annual</td><td>^a 90 µg/m³</td></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>Annual</td><td>^a 30 µg/m³</td></tr></table> <i>Table 9: Short term land acquisition criteria for particulate matter</i> <table><tr><th>Pollutant</th><th>Averaging period</th><th>^dCriterion</th></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>24 hour</td><td>^a 150 µg/m³</td></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>24 hour</td><td>^b 50 µg/m³</td></tr></table> <i>Table 10: Long term land acquisition criteria for deposited dust</i> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Maximum increase in deposited dust level</th><th>Maximum total deposited dust level</th></tr><tr><td>^c Deposited dust</td><td>Annual</td><td>^b 2 g/m²/month</td><td>^a 4 g/m²/month</td></tr></table> a - Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources); b - Incremental impact (i.e. incremental increase in concentrations due to the development on its own); c - Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and d - Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Director-General.	Pollutant	Averaging period	^d Criterion	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Pollutant	Averaging period	^d Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 150 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	24 hour	^b 50 µg/m ³	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month	This has not been triggered during the audit period: no landowners have requested this after experiencing an exceedance.	Not Triggered
Pollutant	Averaging period	^d Criterion																											
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³																											
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³																											
Pollutant	Averaging period	^d Criterion																											
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 150 µg/m ³																											
Particulate matter < 10 µm (PM ₁₀)	24 hour	^b 50 µg/m ³																											
Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level																										
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month																										

Condition	Requirement	Current Audit Evidence	Audit Finding
Operating Conditions			
19	The Proponent shall: (a) implement all practicable measures to minimise the off-site odour and fume emissions generated by any spontaneous combustion at the project; (b) implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site; (c) minimise any visible air pollution generated by the project; (d) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval; (e) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (See Note d above under Table 10); (f) co-ordinate the air quality management on site with the air quality management at the Moolarben and Ulan mines to minimise cumulative air quality impacts; (g) carry out regular monitoring to determine whether the project is complying with the relevant conditions of this approval, and publish these monitoring results on its website, to the satisfaction of the Director-General.	Management of off-site odour and fume emissions is covered by under the Air Quality Management Plan and the Spontaneous Combustion Management Plan (Date 2006). The SponCom Management Plan has been updated (2014) and has been submitted to the DG for approval. WCPL ensures all practicable measures are in place to minimise off-site odour and fume emissions and greenhouse gas emissions from site. During the site inspection the auditors noted a number of dust and emission mitigating measures in place at WCPL which come under the dust suppression and air quality management system and included automatic dust suppression, real time equipment fed to the control room and active monitoring of air quality conditions. The audit team also viewed the onsite live online system which manages the data sharing agreement between Ulan and Moolarben Coal Mines with WCPL. Air Quality monitoring data was viewed by the audit team and verified on the WCPL website.	Complies
Air Quality Management Plan			
20	The Proponent shall prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Director-General. This plan must: The Proponent shall prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with the EPA; (b) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this approval; (c) describe the air quality management system; (d) include an air quality monitoring program that: - adequately supports the air quality management system; - evaluates and reports on the: - the effectiveness of the air quality management system; - compliance with the air quality criteria; - compliance with the air quality operating conditions; and - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents. Note: The air quality monitoring program may incorporate monitoring from any relevant regional monitoring network endorsed by EPA.	The Wilpinjong Coal Mine Air Quality and Greenhouse Gas Management Plan (WCPL, September 2011) and the Spontaneous Combustion Management Plan (WCPL, 2006) fulfil these requirements. Note: the SponCom Management Plan was updated in 2014, the draft plan is currently awaiting approval from DPI.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding
21	deleted	N/A	N/A
METEOROLOGICAL MONITORING			
22	During the life of the project, the Proponent shall ensure that there is a suitable meteorological station operating in the vicinity of the site that: (a) complies with the requirements in Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and (b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy, to the satisfaction of the Director-General. <i>Note: A system to measure temperature lapse rate at the site must be established in accordance with condition 22(b) by 31 December 2010, or as otherwise agreed by the Director-General.</i>	This real time sentynex online system was observed by the auditors during the site visit. WCPLs collection of meteorological data is compliant with this condition.	Complies
SOIL AND WATER			
Water Supply			
23	The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations to match its licensed water entitlements, to the satisfaction of the Director-General. <i>Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licences for the project.</i>	Wilpinjong Mine has had sufficient water onsite for operations during the auditing period.	Complies
Discharge Limits			
24	The Proponent shall not discharge any water from the site or irrigate any waste water on site except as may be expressly provided by an EPL, or in accordance with section 120 of the POEO Act.	This has not occurred as per audit interview and AEMRs	Complies
Cumbo Creek Relocation			
25	The Proponent shall design, construct, maintain, and rehabilitate the proposed relocation of Cumbo Creek, to the satisfaction of the Director-General.	The Cumbo Creek Relocation Plan has been approved by the DG and was still in place at the time of the audit. The creek relocation had not been triggered during the reporting period.	Not Triggered
26	Within one month of completing the construction of the Cumbo Creek relocation, the Proponent shall submit an as-executed report, certified by a practising registered engineer, to the Director-General.	The Cumbo Creek Relocation Plan has been approved by the DG and was still in place at the time of the audit. The creek relocation had not been triggered during the reporting period.	Not Triggered
27	Prior to destroying the original creek line, the Proponent shall demonstrate that the Cumbo Creek Relocation is operating successfully, in consultation with NOW, and to the satisfaction of the Director-General.	The Cumbo Creek Relocation Plan has been approved by the DG and was still in place at the time of the audit. The creek relocation had not been triggered during the reporting period.	Not Triggered

Condition	Requirement	Current Audit Evidence	Audit Finding
Site Water Management Plan			
28	The Proponent shall prepare and implement a Site Water Management Plan for the project, to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with EPA and NOW by suitably qualified expert/s whose appointment/s have been approved by the Director-General; and (b) include: - a Cumbo Creek Relocation Plan; - a Site Water Balance; - an Erosion and Sediment Control Plan; - a Surface Water Management and Monitoring Plan; - a Ground Water Monitoring Program; and - a Surface and Ground Water Response Plan. <i>Note: The Department accepts that the initial Site Water Management Plan may not include the detailed plans for the proposed relocation of Cumbo Creek. However, if this occurs, the Proponent will be required to seek approval from the Director-General for an alternative timetable for completion and approval of the Cumbo Creek Relocation Plan.</i>	The Site Water Management Plan: Wilpinjong Coal Project (Wilpinjong Coal Pty Limited, July 2006) fulfils these requirements. Was approved by D-G on 6 March 2006. Was subsequently revised. The CCRP was developed in 2013 and is not included in the 2006 SWMP. The CCRP continued to be under development at the time of the audit.	Not Compliant
Cumbo Creek Relocation Plan			
29	The Cumbo Creek Relocation Plan must include: (a) a vision statement for the creek relocation; (b) an assessment of the water quality, ecological, hydrological and geomorphic baseline conditions in Cumbo Creek; (c) the detailed design and specifications for the creek relocation; (d) a construction program for the creek relocation, describing how the work would be staged, and integrated with mining operations; (e) a revegetation program for the relocated creek using a range of suitable native species; (f) water quality, ecological, hydrological and geomorphic performance and completion criteria for the creek relocation based on the assessment of baseline conditions; and (g) a program to monitor and maintain the water quality, ecological, hydrological and geomorphic integrity of the creek relocation.	The Cumbo Creek Relocation Plan has been approved by the DG and was still in place at the time of the audit. The creek relocation had not been triggered during the reporting period.	Complies
Site Water Balance			
30	The Site Water Balance must: (a) include details of: - sources of water; - reliability of water supply; - water use on site; - water management on site; - off-site water transfers; - reporting procedures; and (b) describe measures to minimise water use by the project.	The Wilpinjong Coal Project Site Water Balance (WCPL, July 2006) fulfils these requirements.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding
Erosion and Sediment Control			
31	The Erosion and Sediment Control Plan must: (a) be consistent with the requirements of the Department of Housing's Managing Urban Stormwater: Soils and Construction manual; (b) identify activities that could cause soil erosion and generate sediment; (c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters; (d) describe the location, function, and capacity of erosion and sediment control structures; and (e) describe what measures would be implemented to maintain the structures over time.	The Wilpinjong Coal Project Site Water Balance (WCPL, July 2006) fulfils these requirements.	Complies
Surface Water Management and Monitoring			
32	The Surface Water Management and Monitoring Plan must include: (a) detailed baseline data on surface water flows and quality in creeks and other waterbodies that could potentially be affected by the project; (b) surface water and stream health assessment criteria; (c) a program to monitor surface water flows, quality and impacts on water users (upstream and downstream of the project in Wilpinjong and Cumbo Creeks); (d) a program to assess stream health conditions in Wilpinjong and Cumbo Creeks; (e) a program to monitor channel stability in Wilpinjong and Cumbo Creeks; (f) reporting procedures; and (g) a protocol for the investigation, notification, and mitigation of identified exceedances of the surface water and stream health assessment criteria.	The Wilpinjong Coal Project Surface Water Management and Monitoring Plan (WCPL, March 2006) fulfils these requirements.	Complies
Groundwater Monitoring			
33	The Groundwater Monitoring Program must include: (a) detailed baseline data, based on sound statistical analysis, to benchmark the pre-mining natural variation in groundwater levels, yield and quality (including privately owned groundwater bores within the predicted drawdown impact zone identified in the EA); (b) groundwater impact assessment criteria (including for monitoring bores and privately owned bores); (c) a program for accurately delineating the boundary of the Wilpinjong Creek alluvial aquifer in any areas intersected by mining; (d) a program to monitor: - impacts on the groundwater supply of potentially affected landowners; - impacts of the water supply borefield; - impacts on the Wilpinjong Creek alluvial aquifer; - connectivity and groundwater leakage to/from Cumbo Creek following relocation; - impacts on groundwater dependent ecosystems and riparian vegetation; - the volume of ground water seeping into the open cut mine workings; - regional ground water levels and quality in the alluvial, coal seam, and interburden aquifers; and - the groundwater pressure response in the surrounding coal measures. (e) procedures for the verification of the groundwater model; and (f) reporting procedures for the results of the monitoring program and model verification.	The Wilpinjong Coal Project Groundwater Monitoring Program (Wilpinjong Coal Pty Limited, March 2006) fulfils these requirements.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding						
Surface and Ground Water Response Plan									
34	The Surface and Ground Water Response Plan must include:	The Wilpinjong Coal project Surface and Groundwater	Complies						
35	Within 6 months of the Independent Environmental Audit (see condition 7 in schedule 5), the Proponent shall update the Site Water Management Plan to the satisfaction of the Director-General.	The audit team viewed the WCPL Controlled Documents Register however could not verify that the updates had been conducted to the Site Water Management Plan (SWMP). The SWMP does not contain revision or version history to verify updates of the plan.	Not Compliant Recommendation Made						
BIODIVERSITY									
Biodiversity Offset Strategy									
36	The Proponent shall implement the biodiversity offset strategy described in the EIS, summarised in Table 11, and shown conceptually in Appendix 3, to the satisfaction of the Director-General. <i>Table 11: Biodiversity Offset Strategy</i> <table><tr><th>Area</th><th>Size</th></tr><tr><td>Enhancement and Conservation Areas</td><td>480 ha</td></tr><tr><td>Biodiversity Offset Areas D and E</td><td>211 ha</td></tr></table>	Area	Size	Enhancement and Conservation Areas	480 ha	Biodiversity Offset Areas D and E	211 ha	Monitoring of the offset areas (including the ECAs) was undertaken in September 2013 as part of an annual monitoring programme which commenced in 2007, and is designed to assess the degree and rate of rehabilitation and/or regeneration in these areas (Appendix E, AEMR 2013). Monitoring was compared to the baseline data collected in the previous reporting period for a number of long-term monitoring transects that have been established across the Mine. The offset strategy will continue to be implemented during the new review period. Monitoring of the offset areas (including the ECAs) will be undertaken during the next review period.	Complies
Area	Size								
Enhancement and Conservation Areas	480 ha								
Biodiversity Offset Areas D and E	211 ha								
Long Term Security of Biodiversity Offsets									
37	By the end of December 2015, unless the Director-General agrees otherwise, the Proponent shall make suitable arrangements to protect the Enhancement and Conservation Areas and Biodiversity Offset Areas in Table 11 in perpetuity to the satisfaction of the Director-General. In relation to protecting Biodiversity Offset Areas D and E, the Proponent shall use its best endeavours to add the relevant land to the adjoining National Park.	Outside of audit period	Not Triggered						
Biodiversity Management Plan									
38	The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Director-General. This plan must: Note: The Regeneration Areas nominally comprise some 357 ha and are shown conceptually in Appendix 4. In the event that the Enhancement and Conservation Areas are greater than 480 ha, the Regeneration Areas may be reduced in area to the equivalent extent.	N/A	N/A						

Condition	Requirement	Current Audit Evidence	Audit Finding
38(a)	be prepared in consultation with OEH, and submitted to the Director-General for approval by the end of September 2014;	The Biodiversity Management Plan is currently in draft and awaiting approval from the DG. (Submission letter sighted)	Complies
38(b)	describe the short, medium, and long term measures that would be implemented to: - manage the remnant vegetation and fauna habitat on the site; and - implement the biodiversity offset strategy; - integrate the implementation of the biodiversity offset strategy to the greatest extent practicable with the rehabilitation of the site and the adjacent regeneration areas;	BMP (WCPL, 2014) provided to the audit team and verifies this condition.	Complies
38(c)	include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);	BMP (WCPL, 2014) provided to the audit team and verifies this condition.	Complies
38(d)	include a detailed description of the measures that would be implemented for over the next 3 years for: - enhancing the quality of existing vegetation and fauna habitat in the biodiversity offset areas; - creating native vegetation and fauna habitat in the biodiversity offset areas, regeneration areas and rehabilitation area through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary); - maximising the salvage of resources within the approved disturbance area - including vegetative and soil resources – for beneficial reuse in the enhancement of the biodiversity offset areas, regeneration areas or rehabilitation area; - collecting and propagating seed; - protecting vegetation and fauna habitat outside the approved disturbance area on-site; - minimising the impacts on fauna on site, including undertaking pre-clearance surveys; - managing any potential conflicts between the proposed enhancement works in the biodiversity offset strategy areas and any Aboriginal heritage values (both cultural and archaeological) in these areas; - managing salinity; - controlling weeds and feral pests; - controlling erosion; - managing grazing and agriculture on site; - controlling access; and - bushfire management;	BMP (WCPL, 2014) provided to the audit team and verifies this condition.	Complies
38(e)	include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;	BMP (WCPL, 2014) provided to the audit team and verifies this condition.	Complies
38(f)	identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and	BMP (WCPL, 2014) provided to the audit team and verifies this condition.	Complies
38(g)	include details of who would be responsible for monitoring, reviewing, and implementing the plan.	BMP (WCPL, 2014) provided to the audit team and verifies this condition.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding
Conservation Bond			
39	By 31 December 2015, unless otherwise agreed by the Director-General, the Proponent shall lodge a Conservation Bond with the Department to ensure that the Biodiversity Offset Strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan. The sum of the bond shall be determined by: (a) calculating the full cost of implementing The Biodiversity Offset Strategy (other than land acquisition costs); and (b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Director-General. If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Director-General, the Director-General will release the bond. If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Director-General will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works. <i>Notes:</i> - Existing bonds which have been paid for the existing Enhancement and Conservation Areas remain current and are satisfactory to fulfill the requirements of this condition for those areas; - Alternative funding arrangements for long-term management of the Biodiversity Offset Strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate can be used to reduce the liability of the conservation and biodiversity bond, and - The sum of the bond may be reviewed in conjunction with any revision to the Biodiversity Offset Strategy.	Not triggered during the audit period. Deadline is 31 December 2015.	Not Triggered
40	deleted		
41	deleted		
42	deleted		
43	deleted		
44	deleted		
HERITAGE			
Archaeological Salvage Program			
45	The Proponent shall prepare and implement a salvage program for the project, in consultation with the OEH and the Aboriginal communities, and to the satisfaction of the Director-General.	Sections 4.2 and Attachment A of the ACHMP deal with these matters. The 2014 updates to the plan are awaiting approval from the DP&E. The auditors sighted correspondence between WCPL and DP&E regarding the 2014 version of the plan.	Complies
46	Before the commencement of salvage operations, the Proponent shall ensure that a keeping place is established to temporarily house objects recovered from the salvage program.	Keeping place has changed since last audit. Now managed by Cultural Heritage Liaison Officer. Some items are later returned to site where possible.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding
47	The Proponent shall temporarily house the objects recovered during the salvage program in the keeping place established for the purpose, and in consultation with the OEH and the Aboriginal communities, replace the objects within the rehabilitated landscape.	Keeping place has changed since last audit. Now managed by Cultural Heritage Liaison Officer. Some items are later returned to site where possible. The new ACHMP 2014 deals with consulting with OEH when returning salvaged items. The ACHMP lists protocol that needs to be followed when returning items to land, these are recorded on a GPS database and information is forwarded on to OEH.	Complies
Aboriginal Cultural Heritage Management Plan			
48	The Proponent shall prepare and implement an Aboriginal Cultural Heritage Management Plan, in consultation with DECCW and the Aboriginal communities, and to the satisfaction of the Director-General. The plan must include: (a) a detailed description of the measures that would be implemented to protect Aboriginal sites outside the project disturbance area; (b) a detailed monitoring program for Aboriginal sites 72, 152 and 153 (as shown in Appendix 5); (c) a description of the measures that would be implemented if any new Aboriginal objects or skeletal remains are discovered during the project; and (d) a protocol for the ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site.	Auditors viewed comments and correspondence on latest draft plan with the DP&E during the site visit. The plan meets the needs of condition 48.	Complies
Archival Record of Certain Heritage Sites			
49	The Proponent shall prepare an archival record of the remaining heritage sites listed in Table 3-20 of the EA (shown in Appendix 6), prior to any activity associated with the project that may disturb these sites, in accordance with the requirements of the NSW Heritage Office, and to the satisfaction of the Director-General.	Another site was triggered in May 2012. An archival record was completed before it was demolished. This was viewed by the auditors during the site visit.	Complies
TRANSPORT			
Monitoring of Coal Transport			
50	The Proponent shall: (a) keep records of the: - amount of coal transported from the site each year; and - number of coal haulage train movements generated by the project (on a daily basis); and (b) include these records in the Annual Review.	These are included in AEMRs (AEMRs 2012 and 2013). Also provided in a weekly summary, a copy of which was viewed by the auditors during the site visit.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding
Ulan Road Strategy			
51	The Proponent shall: (a) work with Council and the owners of the Moolarben and Ulan mines to develop a detailed plan for the implementation of the Ulan Road Strategy; and (b) make financial contributions towards the implementation of this detailed plan, in accordance with the requirements in the plan, with its share of the mining companies' contribution for implementation of the strategy to be proportionate to its share of mining-related traffic to be generated on the road during the life of the strategy. If there is any dispute between the various parties involved in either the development of the detailed plan or the implementation of the strategy, then any of the parties may refer the matter to the Director-General for resolution.	This was viewed by the auditors. Deed was executed on 31 July 2014 by Ulan, Wilpinjong and Moolarben.	Complies
Traffic Management			
52	The Proponent shall: (a) schedule shift changes on site to occur outside of school bus hours; and (b) co-ordinate the shift changes on site with the shift changes of the adjoining Moolarben and Ulan mines to minimise the potential cumulative traffic impacts of shift changes of the three mines, to the satisfaction of the Director-General.	The auditors viewed correspondence between mines confirming alignment of shifts, also viewed correspondence sent to DP&E on 18 April 2003 regarding school bus movements.	Complies
53	deleted		
VISUAL IMPACT			
Visual Amenity			
54	The Proponent shall minimise the visual impacts of the project to the satisfaction of the Director-General.	The auditor noted screening and visual amenity at the front of the site. DG approval sighted by the audit team (AEMR Approval and Visual assessment MOD 5 Approval).	Complies
Lighting Emissions			
55	The Proponent shall: (a) take all practicable measures to mitigate off-site lighting impacts from the project; and (b) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting, to the satisfaction of the Director-General.	WCPL External lighting audit sighted by audit team. Evidence demonstrating compliance with AS4282 sighted. External lighting register sighted.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding
WASTE			
56	The Proponent shall: (a) monitor the amount of waste generated by the project; (b) investigate ways to minimise waste generated by the project; (c) implement reasonable and feasible measures to minimise waste generated by the project; (d) ensure irrigation of treated wastewater is undertaken in accordance with DECCW's Environmental Guideline for the Utilisation of Treated Effluent; and (e) report on waste management and minimisation in the Annual Review, to the satisfaction of the Director-General.	Waste records and methods of waste management and mitigation techniques are recorded in the 2012 and 2013 AEMRs. 2014 records verified in audit interview.	Complies
57	The Proponent shall prepare and implement a Waste Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be submitted to the Director-General for approval prior to the acceptance of building wastes and the like at the site, or prior to the end of May 2014, whichever is the later; (b) identify the various waste streams of the project; (c) include a Life of Mine Tailings Strategy that must: - be prepared by a team of suitably qualified and experienced persons whose appointment has been endorsed by the Executive Director, Mineral Resources; and - address all aspects of life-of-mine tailings management, including design, operation, water balance, decommissioning and rehabilitation. (d) describe what measures would be implemented to manage other wastes at the site; (e) (deleted) (f) describe what measures would be implemented to reuse, recycle, or minimise wastes generated by the project; and (g) include a program to monitor the effectiveness of these measures.	Waste Management Plan has been prepared and submitted to DPE for approval following initial consultation and feedback. Building wastes have not yet been received on site. Endorsement of the team to develop the Life of Mine Tailings Strategy was requested from DTIRE. Response letter from DTIRE dated 28 March 2014 confirming team was acceptable to the Department was observed on sit	Complies
57A	The Proponent shall prepare and implement a Spontaneous Combustion Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be submitted to the Secretary for approval by the end of December 2014; (b) identify and characterise all plies, seams and interburden which carry a risk of generating spontaneous combustion; (c) identify all areas (including stockpiles and waste emplacement) at risk of spontaneous combustion events; (d) include a protocol for the ongoing monitoring and management of areas at risk of spontaneous combustion events; and (e) include a protocol for the management of on-site heating and spontaneous combustion events.	This requirement evidenced by the current Spontaneous Combustion Management Plan (SCMP). A risk assessment has lead to the drafting of an updated SCMP to be submitted to the Dept for approval. In draft form only and is proposed to be complete on time (Part a); Part b and Part c - is compliant under exist SCMP and observed practice; Part d - is compliant under exist SCMP and observed practice and Part e - is compliant under exist SCMP and observed practice.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding														
REHABILITATION																	
58	The Proponent shall rehabilitate the site to the satisfaction of the Executive Director, Mineral Resources. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EIS and EA (Mod 5) (and depicted conceptually in the figure in Appendix 4), and comply with the objectives in Table 12. <i>Table 12: Rehabilitation Objectives</i> <table><tr><th>Feature</th><th>Objective</th></tr><tr><td>Mine site (as a whole)</td><td> - Safe, stable and non-polluting; - Constructed landforms are to drain to the natural environment (excluding final voids); - Minimise the visual impact of final landforms as far as is reasonable and feasible; and - Ensure the final landforms are generally consistent with the surrounding topography of the area, taking into account relief patterns and principles. </td></tr><tr><td>Final Voids</td><td> - Minimise the size and depth of final voids so far as is reasonable and feasible, subject to meeting the objectives below; - Minimise the drainage catchment of the final void so far as is reasonable and feasible; - Negligible high wall instability risk; - The size and depth of the final voids must be designed having regard to their function as long-term groundwater sinks, to ensure that groundwater flows through the back-filled pit towards the final void; and - Minimise risk of flood interaction for all flood events up to and including the Probable Maximum Flood level. </td></tr><tr><td>Surface infrastructure</td><td> - To be decommissioned and removed, unless the Executive Director, Mineral Resources agrees otherwise. </td></tr><tr><td>Agricultural land</td><td> - Establish agricultural land in areas indicated in the figure in Appendix 4 to a similar agricultural suitability to that existing prior to mining. </td></tr><tr><td>Other Land</td><td> - Restore ecosystem function in the Enhancement and Conservation Areas including maintaining or establishing self-sustaining ecosystems comprised of a combination of: - native woodland, including EECs; - habitat for threatened fauna species; and - wildlife corridors (as indicated in the figure in Appendix 4). - Restore ecosystem function in Regeneration Areas, establishing a trajectory towards self-sustaining ecosystems comprised of a combination of: - native woodland/riparian areas; and - wildlife corridors (as indicated in the figure in Appendix 4). </td></tr><tr><td>Community</td><td> - Ensure public safety; and - Minimise the adverse socio-economic effects associated with mine closure. </td></tr></table>	Feature	Objective	Mine site (as a whole)	- Safe, stable and non-polluting; - Constructed landforms are to drain to the natural environment (excluding final voids); - Minimise the visual impact of final landforms as far as is reasonable and feasible; and - Ensure the final landforms are generally consistent with the surrounding topography of the area, taking into account relief patterns and principles.	Final Voids	- Minimise the size and depth of final voids so far as is reasonable and feasible, subject to meeting the objectives below; - Minimise the drainage catchment of the final void so far as is reasonable and feasible; - Negligible high wall instability risk; - The size and depth of the final voids must be designed having regard to their function as long-term groundwater sinks, to ensure that groundwater flows through the back-filled pit towards the final void; and - Minimise risk of flood interaction for all flood events up to and including the Probable Maximum Flood level.	Surface infrastructure	To be decommissioned and removed, unless the Executive Director, Mineral Resources agrees otherwise.	Agricultural land	Establish agricultural land in areas indicated in the figure in Appendix 4 to a similar agricultural suitability to that existing prior to mining.	Other Land	- Restore ecosystem function in the Enhancement and Conservation Areas including maintaining or establishing self-sustaining ecosystems comprised of a combination of: - native woodland, including EECs; - habitat for threatened fauna species; and - wildlife corridors (as indicated in the figure in Appendix 4). - Restore ecosystem function in Regeneration Areas, establishing a trajectory towards self-sustaining ecosystems comprised of a combination of: - native woodland/riparian areas; and - wildlife corridors (as indicated in the figure in Appendix 4).	Community	- Ensure public safety; and - Minimise the adverse socio-economic effects associated with mine closure.	The rehabilitation program is in its infancy as a function of the mine / pit layout. Where earthworks have been undertaken the landform is consistent with the surrounding topography, with the mine site rehabilitation being undertaken in context of the overall objective. Final void - Not applicable due to active operation Surface infrastructure - not applicable due to active operation Agricultural and other lands are being managed in accordance with the Rehabilitation Management Plan and the MOP	Complies
Feature	Objective																
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Community	- Ensure public safety; and - Minimise the adverse socio-economic effects associated with mine closure.																
Progressive Rehabilitation																	
59	The Proponent shall rehabilitate the site progressively as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies shall be employed when areas prone to dust generation cannot be permanently rehabilitated. <i>Note: It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage of the project.</i>	The rehabilitation program is in its infancy as a function of the mine / pit layout.	Complies														

Condition	Requirement	Current Audit Evidence	Audit Finding
Long Term Security of Rehabilitated Areas			
60	Prior to relinquishing the mining lease over the site, unless the Director-General agrees otherwise, the Proponent shall make suitable arrangements to protect rehabilitation areas having significant conservation value, to the satisfaction of the Director-General. <i>Note: This condition does not apply to land tenure commitments with Native Title Claimant Groups.</i>	Not Triggered during audit period.	Not Triggered
Rehabilitation Management Plan			
61	The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Executive Director, Mineral Resources. This plan must: (a) be prepared in consultation with the Department, NOW, OEH, Council and the CCC; 19 (b) be submitted to the Executive Director, Mineral Resources for approval by 31 December 2014, unless the Director-General agrees otherwise; (c) be prepared in accordance with any relevant DRE guideline; (d) describe how the rehabilitation of the site would be integrated with the implementation the biodiversity offset strategy; (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary); (f) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, and address all aspects of rehabilitation including mine closure, final landform, and final land use; (g) include interim rehabilitation where necessary to minimise the area exposed for dust generation; (h) include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and (i) build to the maximum extent practicable on the other management plans required under this approval.	RMP dated Sept 2011 was reviewed - approved and as per DRE Guidelines Covers work to be undertaken in ECA's - however this will be updated in the BMP which has been lodged and is awaiting approval	Complies
SCHEDULE 4 - ADDITIONAL PROCEDURES FOR AIR QUALITY & NOISE MANAGEMENT			
NOTIFICATION OF LANDOWNERS			
1	The Proponent shall: (a) notify in writing the owners of: - any residence on the land listed in Table 1 of Schedule 3 that they have the right to require the Proponent to acquire their land at any stage during the project; - any residence on the land listed in Table 2 of Schedule 3 that they have the right to request the Proponent to ask for additional noise mitigation measures to be installed at their residence at any stage during the project; and - any privately-owned land within 2 kilometres of the approved open cut mining pit/s that they are entitled	Email copies of correspondence sighted in previous audit to verify this condition (letters were sent to Gaffney, Power and Smith, and were dated 3 March 2006).	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding
2	Prior to entering into any tenancy agreement for any land owned by the Proponent that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Tables 1 or 2 that is subsequently purchased by the Proponent, the Proponent shall: (a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and (b) advise the prospective tenants of the rights they would have under this approval, to the satisfaction of the Director-General.	Did not occur during the audit period.	Not Triggered
3	As soon as practicable after obtaining monitoring results showing: (a) an exceedance of any relevant criteria in Schedule 3, the Proponent shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the project is again complying with the relevant criteria; and (b) an exceedance of the relevant air quality criteria in Schedule 3, the Proponent shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).	Sighted in audit interview.	Complies
INDEPENDENT REVIEW			
4	If an owner of privately-owned land considers the project to be exceeding the criteria in Schedule 3, then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land. If the Director-General is satisfied that an independent review is warranted, then within 2 months of the Director-General's decision, the Proponent shall: (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Director-General, to: - consult with the landowner to determine his/her concerns; - conduct monitoring to determine whether the project is complying with the relevant impact assessment criteria in Schedule 3; and - if the project is not complying with these criteria then: - determine if more than one mine is responsible for the exceedance, and if so the relative share of each mine regarding the impact on the land; - identify the measures that could be implemented to ensure compliance with the relevant criteria; and (b) give the Director-General and landowner a copy of the independent review.	Complaints from residence of privately-owned land were received during the audit period. In all cases WCPL followed up on complaints and conducted appropriate investigations. Majority of complaints were noise or dust related and upon WCPL conducting testing at the neighbours location it was determined that no criteria has been exceeded. No independent reviews were required.	Not Triggered

Condition	Requirement	Current Audit Evidence	Audit Finding
LAND ACQUISITION			
5	Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on: (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the project, having regard to the: - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and - presence of improvements on the land 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, but excluding any improvements that have resulted from the implementation of the additional noise mitigation measures in condition 1 of schedule 3; (b) the reasonable costs associated with: - relocating within the Mid-Western Regional Council local government area, or to any other local government area determined by the Director-General; and - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and (c) reasonable compensation for any disturbance caused by the land acquisition process. However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution. Upon receiving such a request, the Director-General will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to: ☐ consider submissions from both parties; ☐ determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above; ☐ prepare a detailed report setting out the reasons for any determination; and ☐ provide a copy of the report to both parties. Within 14 days of receiving the independent valuer's report, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.	Did not occur during the audit period.	Not Triggered

Condition	Requirement	Current Audit Evidence	Audit Finding
	However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Director-General for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Director-General will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions. Within 14 days of this determination, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the Director-General's determination. If the landowner refuses to accept the Proponent's binding written offer under this condition within 6 months of the offer being made, then the Proponent's obligations to acquire the land shall cease, unless the Director-General determines otherwise.	Did not occur during the audit period.	Not Triggered
6	The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 5 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.	Did not occur during the audit period.	Not Triggered

Condition	Requirement	Current Audit Evidence	Audit Finding
SCHEDULE 5 - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING			
ENVIRONMENTAL MANAGEMENT			
Environmental Management Strategy			
1	The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. The strategy must: (a) be submitted to the Director-General for approval within 6 months of the date of this approval; (b) provide the strategic framework for environmental management of the project; (c) identify the statutory approvals that apply to the project; (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project; (e) describe the procedures that would be implemented to: - keep the local community and relevant agencies informed about the operation and environmental performance of the project; - receive, handle, respond to, and record complaints; - resolve any disputes that may arise during the course of the project; - respond to any non-compliance; - respond to emergencies; and (f) include: - copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and - a clear plan depicting all the monitoring to be carried out in relation to the project.	The <i>Wilpinjong Coal Project Environmental Management Strategy</i> (WCPL, February 2006) fulfils these requirements.	Complies
1A	The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation. Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must, at the earliest opportunity: (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur; (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and (c) implement remediation measures as directed by the Director-General, to the satisfaction of the Director-General.	A broad brush environmental risk assessment was undertaken in 2012 and reviewed/updated in July 2013. This is incorporated in the current MOP. Broader site risk assessments incorporate environmental risks and emergency responses are incorporated into site emergency procedures. No high risk catastrophic environmental incidents have been identified and therefore this condition is not triggered.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding
Management Plan Requirements			
2	The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include: (a) detailed baseline data; (b) a description of: - the relevant statutory requirements (including any relevant approval, licence or lease conditions); - any relevant limits or performance measures/criteria; - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures; (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria; (d) a program to monitor and report on the: - impacts and environmental performance of the project; - effectiveness of any management measures (see c above); (e) a contingency plan to manage any unpredicted impacts and their consequences; (f) a program to investigate and implement ways to improve the environmental performance of the project over time; (g) a protocol for managing and reporting any: - incidents; - complaints; - non-compliances with statutory requirements; and - exceedances of the impact assessment criteria and/or performance criteria; and (h) a protocol for periodic review of the plan.	These features are noted throughout all of the management plans reviewed as part of this IEA.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding
Annual Review			
3	By the end of March each year, and annually thereafter, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must: (a) describe the development (including any rehabilitation) that was carried out in the past year, and the development that is proposed to be carried out over the next year; (b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the: - relevant statutory requirements, limits or performance measures/criteria; - monitoring results of previous years; and - relevant predictions in the EA; (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; (d) identify any trends in the monitoring data over the life of the project; (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and (f) describe what measures will be implemented over the next year to improve the environmental performance of the project.	AEMRs are completed annually and verify this condition.	Complies
Revision of Strategies, Plans and Programs			
4	Within 3 months of: (a) the submission of an annual review under condition 3 above; (b) the submission of an incident report under condition 7 below; (c) the submission of an audit under condition 9 below; and (d) any modification to the conditions of this approval; the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted to the Director-General for approval. <i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.</i>	The audit team viewed the WCPL Controlled Documents Register. Correspondence sighted by the audit team: - Letter to NOW (20 June 2014) - Letter from EPA regarding management plans (28 Nov 2014) - Letters to DoP (11/04/2014, 23/04/2014, 22/05/14, 27/05/2014, 23/05/2014, 21/2/2013/23/04/2014))	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding
Community Consultative Committee			
5	The Proponent shall establish and operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General. This CCC must be established and operated in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version). <i>Notes:</i> - The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval; and - The CCC should be comprised of an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.	The CCC is in place and has been meeting regularly throughout the life of the mine (AEMR 2012 and 2013). Meeting minutes are placed on the WCPL webpage and viewed by the audit team.	Complies
Management of Cumulative Impacts			
6	In conjunction with the owners of the nearby Moolarben and Ulan mines, the Proponent shall use its best endeavours to minimise the cumulative impacts of the project on the surrounding area, to the satisfaction of the Director-General.	Blasting is coordinated with all three mines to ensure no blasting occurs at the same time and to ensure that any road closures do not impact on other operations, as confirmed during audit interview (correspondence from DG sighted).	Complies
REPORTING			
Incident Reporting			
7	The Proponent shall immediately notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident.	Fume event occurred during the audit period (14 July 2014). Correspondence to the DG and appropriate authorities sighted by the audit team.	Complies
Regular Reporting			
8	The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval, and to the satisfaction of the Director-General.	WCPL was observed to regularly update its website with environmental performance information for the WCM.	Complies

Condition	Requirement	Current Audit Evidence	Audit Finding
INDEPENDENT ENVIRONMENTAL AUDIT			
9	By the end of December 2011, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must: (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General; (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. <i>Note: This audit team must be led by a suitably qualified auditor and include experts in surface water, groundwater and any other fields specified by the Director-General.</i>	The current IEA meets these requirements.	Complies
10	Within 3 months of commissioning this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.	The current IEA meets these requirements.	Complies
ACCESS TO INFORMATION			
11	From the end of October 2010, the Proponent shall: (a) make the following information publicly available on its website: - the EIS; - current statutory approvals for the project; - approved strategies, plans or programs required under the conditions of this approval; - a comprehensive summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval; - a complaints register, which is to be updated on a monthly basis; - minutes of CCC meetings; - the last five annual reviews; - any independent environmental audit, and the Proponent's response to the recommendations in any audit; - any other matter required by the Director-General; and (b) keep this information up to date, to the satisfaction of the Director-General.	The WCM website was observed to contain all of this information. DPE conducted audit of the WCPL website (21/10/2014) and verified compliance with this condition (audit report sighted).	Complies

Condition	Requirement	Audit Evidence	Audit Finding
APPENDIX B - STATEMENT OF COMMITMENTS DA 05-0021 (as modified)			
BLASTING, VIBRATION AND PUBLIC SAFETY			
Pg1	WPCL will:	N/A	N/A
Pg1	Undertake all additional blasting activities in accordance with the Blast Management Plan and Monitoring Programme, including:	N/A	N/A
Pg1	Operating a free-call Blasting Hotline that provides information on the daily and proposed weekly blasting schedule. Advertisement of the contact number in local newspapers at least quarterly, via the Wilpinjong Community Newsletter.	WCPL maintains a register of people who receive phone calls before blasting. A blasting hotline is also maintained (AEMRs 2012 and 2013). Blasting hotline number viewed on the WCPL webpage.	Complies
Pg1	Maintenance of road closure notification boards on Ulan-Wollar Road. Provision of at least three days warning of impending road closures subject to blasting demands.	Sighted by audit team.	Complies
Pg1	Maintenance of road closure notification boards on Ulan-Wollar Road. Provision of at least three days warning of impending road closures subject to blasting demands.	Sighted by audit team.	Complies
Pg1	Modification of blast design to meet vibration and airblast limits and avoid damage to life or property from flyrock, including consideration of wind speed, direction and other meteorological factors prior to blasting to minimise impacts on neighbours.	Blast schedule was sighted by lead auditor. On the day of the audit the auditors observed the blasting coordinator conducting blasting checklist of planned blast that day. As a result of unfavourable weather conditions the blast checklist triggered that the blast should be postponed. Blast was cancelled and register was updated as a result.	Complies
Pg1	Assessment of wind speed and direction immediately prior to each blast to minimise the potential for dust emissions from blasting to adversely impact on neighbouring private residences.	Sighted by audit team. Blast results viewed by lead auditor.	Complies
Pg1	Monitoring of blasts to determine whether airblast and ground vibration limits are met. Review of monitoring results and management practices to evaluate performance and identify responsive action, if required.	AEMRs and BMP report on blast results, and evaluate improvement measures.	Complies
Pg 2	Establishment of a meteorological assessment protocol so that blasts are postponed during adverse weather conditions.	Meteorological Assessment Protocol is in place A copy of any current meteorological assessment protocol will be reported in the Annual Review and provided to residents on request (as per section 8.8.3 of the BMP).	Complies
Pg 2	Restriction of blasting activities to Monday to Saturday inclusive between 9.00am and 5.00 pm EST, with no blasting on Sundays, public holidays, or at any other time without the written approval of the Department of Environment and Climate Change (DECC).	Auditors sighted blasting schedule and verified in AEMR results (AEMRs 2012 and 2013)	Complies

Condition	Requirement	Audit Evidence	Audit Finding
Pg 2	• Notification of private landholders within 2km of the Project who have registered an interest in being informed of the blasting frequency via telephone, e-mail or as otherwise agreed.	Landholders are notified of upcoming blasts, scheduled blasts are also available on the WCPL website and notification boards on Ulan-Wollar Road.	Complies
Pg 2	• Repairing of any damage to buildings and/or structures on private residences confirmed to have been incurred as a result of blasting activities at the Project (via structural assessment process).	This has not occurred during the auditing period.	Not Triggered
Pg 2	• Gaining approval from the MWRC (in respect of public roads) and Australian Rail Track Corporation (ARTC) (in respect of Gulgong-Sandy Hollow railway) prior to blasting within 500m of a public road or railway.	Correspondence between WCPL and MWRC sighted by the audit team relating to blasts occurring within 500m of a public road.	Complies
Pg 2	• Operating the complaints line and register and managing all blast related complaints in accordance with the existing complaints protocol.	WCPL maintains a register of people who receive phone calls before blasting. A blasting hotline is also maintained (AEMRS 2012 and 2013). The Wilpinjong Coal Mine Blast Management Plan (WCPL, September 2011) fulfils these requirements. Relevant blasting complaints were sighted by the audit team within the general complaints register (Complaints Register Summary on the WCPL website).	Complies
Pg 2	• Limit the maximum instantaneous charge of additional blasts for coal and interburden to a maximum of 400 kg.	BMP confirms this commitment (Section 5.1.3)	Complies
Pg 2	• Update the Blast Management Plan and Monitoring Programme and the Aboriginal Cultural Heritage Management Plan to include notification of the Department of Planning and DECC (within 24 hours) following the identification of an exceedance of ground vibration levels (specified in the Blast Management Plan and Monitoring Programme i.e. 80 mm/s) at Aboriginal Rock Art Sites 72, 152, 153 or identification of actual damage.	Section 4.7 of the ACHMP and Section 9 of the BMP have included these procedures into the plans.	Complies
Pg 2	• Consult with Moolarben Coal Mines Pty Limited regarding management of potential cumulative blasting amenity impacts associated with road closure (should the Moolarben Coal Project be approved).	Moolarben/Ulan/WCPL strategy sighted. Consultation with Moolarben Coal sighted by audit team.	Complies
Pg 2	• Continue to consult with the MWRC and the ARTC (in accordance with the current legal agreement between WPCL and the ARTC) in regard to managing blasting amenity impacts.	BMP confirms this commitment	Complies
TRAFFIC AND PUBLIC SAFETY			
Pg 2	WPCL will:	N/A	N/A
Pg 2	• Contribute an additional \$20,000 per annum to the MWRC over the next three years for the development of school bus lay-by areas along Ulan Road.	Tax Invoice to MWRC was sighted for the period of 1-DEC-08 to 30-NOV-09 for \$20,000.00. SoC is from 2007 and therefore outside of audit period.	Not Triggered
Pg 2	• Finance and sealing of the un-sealed section of Ulan-Wollar Road between Ulan Road and the internal mine access road.	Minor Services Agreement between Wilpinjong Coal Pty Ltd and Mid-Western regional Council was sighted, and confirms this condition.	Complies

Condition	Requirement	Audit Evidence	Audit Finding
Pg 2	Continue to water the unsealed section of Ulan-Wollar Road until the section of Ulan-Wollar Road between Ulan Road and the internal mine access road is sealed.	At the time of the site audit inspection, all of this area of road was sealed. This condition was therefore not able to be verified by the audit team.	Not Triggered
Pg 2	Finance the installation appropriate line-marking and signage along the section of Ulan-Wollar Road between Ulan Road and the internal mine access road.	Minor Services Agreement between Wilpinjong Coal Pty Ltd and Mid-Western regional Council was sighted, and confirms this condition.	Complies
Pg 3	Contributed (in consultation with the MWRC and Moolarben Coal Mines Pty Limited) to the upgrading of the Ulan Road/Ulan-Wollar Road intersection and the Ulan-Wollar Road/internal mine access road intersection.	These intersections were upgraded as reported in Section 3.15.1 of the 2008 AEMR, in consultation with Moolarben Coal Mine.	Complies
Pg 3	Continue to minimise the number of light and heavy vehicles using the local road network by promoting car pooling and/or utilising employee bus services and by limiting the number of heavy vehicle deliveries to site, where practicable.	WCPL encourages staff car pooling with financial incentives, and encourages an 80km/hr speed limit for its staff on Ulan-Wollar Road to minimise traffic impacts (AEMR 2012 and 2013). Shift times are staggered against Moolarben and Ulan and attempt to stay outside of school bus hours (as confirmed during audit interview).	Complies
Pg 3	- Assist MWRC to direct existing financial contributions made by WPCL to MWRC (in accordance with the Wilpinjong Coal Project Planning Agreement and Project Approval 05_0021) towards the following recommended improvements: - Upgrading of Ulan-Wollar Road/internal mine access road intersection to include: (i) geometry and linemarkings as per RTA type 'AUR Right Turn Treatment for vehicles travelling west on Ulan-Wollar Road and turning right into the Project access road; and (ii) appropriate lighting at the intersection in accordance with <i>AS 1158:2005 Lighting for Roads and Public Spaces (AS 1158)</i> to Country Energy and RTA requirements. - Upgrading of the Ulan Road/Ulan-Wollar Road intersection to include: (i) geometry and linemarking as per RTA type 'AUR Right Turn Treatment for vehicles travelling north on the Ulan Road and turning right into Ulan-Wollar Road; (ii) a separate left turn deceleration lane (for vehicles travelling southbound on Ulan Road) to improve safety and capacity for left turn from Ulan Road; and (iii) appropriate lighting at the intersection in accordance with AS 1158 to Country Energy and RTA requirements.	Tax Invoice to MWRC was sighted for the period of 1-DEC-08 to 30-NOV-09 for the upgrading of Ulan-Wollar road.	Complies
Pg 3	Continue to provide MWRC with annual payments for community infrastructure and road maintenance via the Wilpinjong Coal Project Planning Agreement and Project Approval 05-0021.	Confirmed in audit interview - evidence sighted	Complies
Pg 3	A Traffic Management Plan would be prepared for any works required on Ulan-Wollar Road and works associated with the Ulan Road/Ulan-Wollar Road intersection in accordance with AS 1742.3:2002 Manual of Uniform Traffic Control Devices - Traffic Control Devices for Works on Roads (AS 1742.3) and the RTA publication Traffic Control at Work Sites.	Proponent did not actually design or conduct the upgrade works. Traffic management was undertake by other parties.	Not Triggered

Condition	Requirement	Audit Evidence	Audit Finding
RAIL SAFETY AND ROAD SURFACE PERFORMANCE STRATEGY			
	WPCL will:	N/A	N/A
Pg 3	Implement a Road Performance Strategy during the Project life to maintain an appropriate level of road safety and road surface performance on Ulan-Wollar Road and Ulan Road. The Road Performance Strategy would be implemented in consultation with the MWRC, RTA and other local mining operators; and include the following measures:	Ulan Road Strategy (sighted by audit team). Verifies compliance with this condition.	Complies
Pg 3	Encourage the MWRC to allocate a proportion of WCPL's (and other local mine operator's) annual financial contributions towards the cost of annual traffic count surveys to determine the relative contribution of each local mining operation to total traffic flows on the road network and for road dilapidation/safety surveys to identify any required works to maintain road safety and the road pavement surface on Ulan Road and Ulan-Wollar Road.	Ulan Road Strategy (sighted by audit team). Verifies compliance with this condition.	Complies
Pg 4	Encourage employee traffic minimisation throughout the life of the Project by advocating car pooling through site inductions and regular tool box meetings and/or utilising employee bus services.	WCPL encourages staff car pooling with financial incentives, and encourages an 80km/hr speed limit for its staff on Ulan-Wollar Road to minimise traffic impacts (AEMR 2012 and 2013). Shift times are staggered against Moolarben and Ulan and attempt to stay outside of school bus hours (as confirmed during audit interview).	Complies
Pg 4	Continue to actively promote safe driving on public roads.	WCPL encourages staff car pooling with financial incentives, and encourages an 80km/hr speed limit for its staff on Ulan-Wollar Road to minimise traffic impacts (AEMR 2012 and 2013).	Complies
Pg 4	Consult with other local mining operators to identify whether the staggering of shift times could be undertaken to reduce cumulative peak hour traffic on Ulan Road and Ulan-Wollar Road if peak hour movements are identified as being excessive.	Shift times are staggered against Moolarben and Ulan and attempt to stay outside of school bus hours (as confirmed during audit interview).	Complies
Pg 4	Consult with the MWRC and other local mining operators to encourage the focussing of annual financial contributions from mining operations on road safety, road pavement improvements and general maintenance on Ulan Road and Ulan-Wollar Road.	See above, Ulan Road Strategy confirms compliance	Complies
TRAFFIC NOISE			
Pg 4	WPCL will continue to minimise the number of light and heavy vehicles using the local road network by promoting car pooling and/or utilising employee bus services and by limiting the number of heavy vehicle deliveries to site, where practicable.	WCPL encourages staff car pooling with financial incentives, and encourages an 80km/hr speed limit for its staff on Ulan-Wollar Road to minimise traffic impacts (AEMR 2012 and 2013). Shift times are staggered against Moolarben and Ulan and attempt to stay outside of school bus hours (as confirmed during audit interview).	Complies

Appendix E

Audit Protocol - Environmental Impact Statement (2005)

Appendix E Audit Protocol - Environmental Impact Statement (2005)

Section	Requirement	IEA Evidence	Audit Finding
Section One Volume One - Introduction			
1.2.3	A number of dwellings within or adjacent to the Project MLA 1 are owned by WCPL and currently vacant or tenanted (Figure 1-5). These dwellings would be progressively vacated, and in some cases demolished, by Year 4 of the Project life. Those WCPL-owned dwellings that would be tenanted during portions of the Project life are assessed in the relevant sections of this EIS.	Noted, the company has purchased numerous properties and there are no privately owned properties adjacent to the development remaining.	Noted
Table 1-1	Waste rock would be deposited predominantly within mined-out voids.	This is occurring, note there are out of pit dumps but the majority is now going in-pit.	Complies
Table 1-1	Up to 19 bores proposed at various locations north of MLA 1. Water extracted from the water supply bores would be reticulated to the CHPP water supply storage.	This has occurred, there has been no need to extract for use as process water.	Complies
Table 1-1	Coarse rejects would be placed predominantly within mined-out voids. Apart from initial tailings disposal in a partitioned section of the CHPP water supply storage, all tailings would be placed within in-pit tailings disposal areas.	Verified during site inspection	Complies
Table 1-1	A block bank would be constructed across Cumbo Creek to direct sub-surface and surface flows into a relocation corridor constructed adjacent to Cumbo Creek.	Cumbo Creek is not yet within the area being mined.	Complies
Table 1-1	Construction of the rail spur and rail loop, coal stockpiling, reclaim and train loading infrastructure, CHPP and mine facilities area would be undertaken over a period of approximately 6 months.	This occurred at site establishment - outside the audit period.	Not Triggered
Table 1-1	Mining operations would take place 24 hours per day, seven days per week. Construction activities would generally be undertaken between 7.00 am and 6.00 pm, up to seven days per week. Trains would operate 24 hours per day, seven days per week (expected average of four trains per day).	Verified during site inspection	Complies
Table 1-1	Production of up to 10 Mtpa of coal predominantly for the purpose of fulfilling contractual obligations to Macquarie Generation. Approximately 147 Mt and 33 Mt of product coal would be produced for domestic use and export, respectively.	2014 Project Approval Condition states: The Proponent shall not: (a) extract more than 16 million tonnes of ROM coal from the site in a calendar year; and (b) transport more than 12.5 million tonnes of product coal from the site in a calendar year. WCPL is in compliance with this condition.	Complies
Table 1-1	Product coal would be loaded onto trains and transported to market via the Project rail loop and rail spur connected to the Gulgong-Sandy Hollow railway.	Verified during site inspection	Complies
1.3.5	As described in Section 2, the proposed mine access road would provide access to the Project from Wollar Road (Main Road 208), and would involve the realignment of an existing intersection on this road (i.e. the Wilpinjong Road intersection). The intersection would be designed to suitable standards (Section 2.3.2) and the operation of this intersection is assessed in Section 4.12 and Appendix K.	2008 AEMR report on the intersection upgrade between Ulan Road (MR 208/214) and Ulan-Wollar Road in consultation with the owners of the Moolarben coal mine	Complies
1.3.5	WCPL would incorporate suitable access for firefighting vehicles, utilise fireproof building materials and consider fire breaks and fire radiation zones in the design of infrastructure and buildings. WCPL would also site buildings in a manner which reduces bushfire hazard. A Bushfire Management Plan would also be developed for the Project (Section 5.1.2.3).	Buildings are sited in the centre of the development and are not subject to high bushfire risks.	Complies

Section	Requirement	IEA Evidence	Audit Finding
1.3.5	The conservation of productive agricultural land for grazing in accordance with objective (a) is supported by the progressive nature of mining and rehabilitation. As set out in Sections 2 and 5, substantial areas are available for grazing throughout the life of the Project prior to and after mining, and substantial parts of the Project DA area will be returned to grazing after the Project.	There are small areas that could be grazed but the active nature of the site and site safety requirements currently prevent grazing activities.	Noted
1.3.5	As part of its consultation programme during the EIS assessment process, WCPL would undertake consultation with the MWRC regarding a dedication or contribution for the provision, extension or augmentation of public services by the Council, having regard to the additional demand on these services that could potentially result from the Project. Under section 94A, the Minister must consider any section 94 contributions plan but may impose conditions that are inconsistent with that plan.	Not Applicable during the audit period.	Not Triggered
1.3.7	The Project will be referred to the Commonwealth Minister for the Environment and Heritage for an assessment of whether or not it includes a controlled action under the EPBC Act. If the action is a controlled action, either a separate approval process will be required for those aspects of the proposal that form part of the controlled action or the Commonwealth Minister may declare that the assessment under the NSW EP&A Act is sufficient and a separate assessment will therefore not be required.	Not relevant to this auditing period.	Not Triggered
1.5	WCPL is committed to an open and constructive consultation programme, which aims to: - inform government and public stakeholders of the nature and status of the Project; - present information to stakeholders to facilitate a clear understanding of the Project; - identify local concerns or interests in the Project; and - establish dialogue between WCPL and government and community stakeholders that would be on-going, should the Project be approved.	AEMRs and interviews with WCPL staff confirm this condition	Complies
1.5.1	WCPL is a member of the Wilpinjong Landcare Group. WCPL would co-operate with Landcare in regard to land management initiatives within the Project area.	Noted, no evidence sighted during audit to confirm though there are no longer as many privately owned properties in the Wilpinjong area so the Wilpinjong Landcare Group may not operate effectively anymore.	Noted
1.5.1	The Project CCC will continue to meet on a monthly basis.	The CCC is in place and has been meeting regularly throughout the life of the mine (AEMR 2012 and 2013). Meeting minutes are placed on the WCPL webpage and viewed by the audit team.	Complies
1.5.1	Post lodgement of the EIS, WCPL will continue to consult with the public regarding the Project and proposes to: - discuss the Project individually with interested neighbours; conduct an informal information session at Wollar during the EIS exhibition period, where interested parties can attend and discuss issues of concern or interest to them; and - provide an opportunity for local people in the Project area to make an appointment with the company to discuss EIS assessment findings that are of specific relevance to them.	This occurred prior to the audit period.	Not Triggered
1.6.2	Regeneration Areas – to be established on areas of WCPL-owned land proximal to Project disturbance areas/ rehabilitation areas. Woodland vegetation would be established in the regeneration areas which currently comprise predominantly cleared agricultural land.	No plantings yet, regeneration of protected areas was noted during the site inspection.	Complies

Section	Requirement	IEA Evidence	Audit Finding
1.7.2	The Project would utilise open cut mining methods to recover the coal, as the Ulan Seam which is to be mined at Wilpinjong is shallow and subcrops in the Project area.	Noted	Noted
1.7.2	The throw blast/dozer push mining method would be employed for the Project (Section 2.4). This mining method provides for operational and planning flexibility. Highwall mining from the open cut would also be used to maximise resource recovery (Section 2.4.7).	Mining methods are consistent with this description, no high wall mining has occurred to date.	Complies
1.7.3	traffic coming to and from the site would be separated from the mining operations and rail line; and	This has occurred.	Complies
1.7.3	A temporary access from the Project to Ulan-Wollar Road would be established for access to and from the Project mine facilities area and construction camp during construction of the Project (Section 2.3.1). This would avoid the need for the construction camp workers to travel to the site via the village of Wollar during construction activities.	Prior to this audit period	Not Triggered
1.7.5	No permanent out-of-pit mine waste rock emplacements are proposed however mine waste rock would be used for the construction of safety bunds and other contained infrastructure (e.g. ROM pad, rail/road embankments, water diversion/containment bunds).	Noted	Noted
1.7.6	Mine scheduling indicates that the open cut operation would not have advanced sufficiently during the initial stages of the development to create a void for the disposal of tailings. Initially, tailings would be placed in a partitioned section of the CHPP water supply storage (Section 2.8.3). Subsequently, tailings would be progressively disposed in open cut voids.	Verified during site inspection	Complies
1.7.6	A series of cells would be constructed in the open cut voids to establish a water collection sump which would move as required to maximise recycling of water. Further details are provided in Section 2.8.3.	Noted	Noted
1.7.7	Mining operations at Wilpinjong would intersect aquifers associated with the Ulan Seam. As such, a considerable but variable proportion of the Project water supply will be obtained directly as part of open cut mining operations.	Noted	Noted
1.7.7	WCPL propose to continue to consult with the Ulan Coal Mines during the life of the Project on water supply issues.	Verified during site inspection - there are water sharing arrangements that have not yet been required (sighted by audit team).	Complies
1.7.8	Two final voids would be left at the completion of mining (Section 2.4.9). These voids would both extend below the post-mining groundwater table and would act as localised sinks for groundwater. Post-mining, water levels in the voids would slowly increase until they reach an equilibrium level and the voids would increase in salinity as they accumulate salt from saline inflows and evapoconcentration effects.	Outside of audit period.	Not Triggered
1.7.9	The relocation of the creek within an adjacent corridor was therefore selected for the Project. The relocation works are described in Section 2.9.1. The potential environmental impacts associated with the relocation would be minimised through the detailed geotechnical, hydrological and hydraulic design that would be implemented prior to construction. The Cumbo Creek relocation corridor and bunds would be revegetated with native riparian vegetation.	Cumbo Creek relocation is outside of the audit period.	Not Triggered

Section	Requirement	IEA Evidence	Audit Finding
1.7.9	The revegetation, livestock access management and weed control in the relocation corridor and upstream of the relocation corridor (in ECA-A –Figure 1-4) should lead to an improvement in the habitat value of Cumbo Creek over time. A Cumbo Creek Relocation Plan (CCRP) would be developed for the Project in consultation with relevant authorities (Section 5.1.2.6).	The Cumbo Creek Relocation Plan was developed in 2014 (sighted) and is currently awaiting approval from the DG.	Complies
Section One Volume Two - Project Description			
2.2	The mining sequence shown on Figures 2-4 to 2-11 may vary to take account of coal market volume and quality requirements, mine economics and localised geological features. The mining sequence over any given period would be documented in the relevant Mining Operations Plan (MOP) as required by the DPI-MR. Should the mining sequence vary, the development schedule (Figure 2-2) would adjust accordingly to reflect any such changes. The Project general arrangement (Figure 2-3) may also B41vary to take into consideration detailed design aspects for Project infrastructure components and actual water supply requirements.	Noted	Noted
2.3.2	The primary access to the Project would be provided from the south via construction of an unsealed two-lane mine access road connecting the mine facilities area to Wollar Road (Figure 2-3). Existing public roads which pass through the Project disturbance area including Bungulla Road and Wilpinjong Road would be closed for public access.	Noted	Noted
2.3.2	Warning and restricted access signs would be posted at intervals along the mine access road. Separate parking areas for heavy and light vehicles would be provided adjacent to the mine facilities area. Road shoulders and guardrails would be installed where required in accordance with Section 6 of the RTA Road Design Guide (RTA, 1996).	This has occurred.	Complies

Section	Requirement	IEA Evidence	Audit Finding
2.3.2	The mine access road geometry has been designed to comply with the Rural Road Design – Guide to Geometric Design of Rural Roads (Austroads, 2003). The mine access road would be constructed generally along the alignment of Wilpinjong Road; however realignment of the intersection of Wilpinjong Road with Wollar Road would be required to improve visibility. A minor road deviation would also be required to avoid a heritage site (Site 9 – Wilpinjong Road Stone Embankment) (Section 4.11).	The audit team does not have the expertise required to verify this condition against Aus Standards. No evidence of consultation from council was sighted.	Not able to be Verified
2.3.2	A low level floodway crossing would be installed for the mine access road across Cumbo Creek and one of its tributaries. These works would be scheduled during periods of no or low flow in Cumbo Creek so as to minimise the potential for flow interruptions.	Not commenced	Not Triggered
2.3.2	The intersection of the mine access road and Wollar Road would be designed as a "Type B" intersection incorporating a "Type AUR" right turn treatment from Wollar Road (with an auxiliary turn lane) and a "Type BAL" left turn treatment from Wollar Road (a basic left turn treatment), in accordance with the Section 4 of the RTA Road Design Guide (RTA, 1996). The intersection would also be designed in accordance with the Guide to Traffic Engineering Practice: Part 5 – Intersections at Grade (Austroads, 1988). Intersection pavement design would be prepared in accordance with Pavement Design: a Guide to the Structural Design of Road Pavements (Austroads, 1992). Approximately 100 m of the mine access road would be sealed on the approach to the intersection with Wollar Road.	The audit team does not have the expertise required to verify this condition against Aus Standards. No evidence of consultation from council was sighted.	Not able to be Verified
2.3.2	A minor realignment of the mine access road would be temporarily required prior to Year 7 of the Project as mining within Pit 2 progresses (Figures 2-5 and 2-6). A portion of the mine access road would be moved to the south to accommodate mining in Pit 2 before being relocated back to its original alignment across the re-profiled mine waste rock emplacement.	Noted	Not Triggered

Section	Requirement	IEA Evidence	Audit Finding
2.3.3	The existing 11 kV electricity transmission line is shown on Figure 3-1. The extent of the open cut operation in the north of the Project area would require the relocation of approximately 9 km of the existing 11 kV electricity transmission line to the immediate north of the Gulgong-Sandy Hollow railway (Figure 2-3).	This has occurred.	Complies
2.3.6	Construction water (e.g. water used for dust suppression and moisture conditioning of earthworks) would be supplied from the early development and commissioning of the Project water supply borefield and/or by advance dewatering from temporary bores within open pit limits.	Prior to this audit period	Not Triggered
2.3.6	The Project water supply borefield would be developed to the north and north-east of the Project open pits (Figure 2-11). The Project water supply borefield would comprise a network of up to 19 individual bores. The number of bores and operational management requirements of the borefield to meet the Project water supply make-up requirements would be determined during the detailed design of the Project water supply system. A Water Supply Borefield Plan (WSBP) (Section 5.1.2.5) would be developed in consultation with relevant authorities.	No WSBP is in place at WCM - Not triggers in the reporting period.	Not Triggered
2.3.6	Water extracted from the water supply bores would be reticulated to the CHPP water supply storage. For bores located north of Wilpinjong Creek, the delivery pipelines would cross Wilpinjong Creek at selected locations via buried trenches and follow the rail spur and rail loop corridor to the CHPP water supply storage.	The CHPP water supply storage is as described, tailings disposal is now in pit.	Complies
2.3.7	Trench excavations for the delivery pipelines would be scheduled to occur during periods of no or low flow in Wilpinjong Creek so as to minimise the potential for flow interruptions. Excavated spoil would be temporarily stockpiled and used to backfill the trenches immediately following laying of the pipe. Backfill material would be compacted to minimise post-placement settlement. Temporary erosion and sediment control structures would be installed in accordance with the Project Erosion and Sediment Control Plan (ESCP) (Section 5.1.2.2).	Constructed prior to the audit period	Not Triggered
2.3.7	The CHPP water supply storage would comprise a conventional 'Turkey's Nest' structure with capacity to hold some 200 million litres (ML) of water. Some tailings would be placed in a partitioned section of the CHPP water supply storage during excavation of the initial box cut.	The CHPP water supply storage is as described, tailings disposal is now in pit.	Complies

Section	Requirement	IEA Evidence	Audit Finding
2.3.7	Water stored in the CHPP water supply storage would include mine water from a number of sources (Section 2.9.2) and would be used to meet the make-up demand of the CHPP.	Noted	Noted
2.3.9	The extent of the Project open pits in the north of the Project area would require the realignment of two sections of Ulan-Wollar Road (Figures 2-7 and 2-9). The realigned sections would be approximately 3 km in length in the north-west and approximately 800 m in length in the north-east. Realignment of Ulan-Wollar Road would occur in the north-east prior to development of the Cumbo Creek relocation corridor (approximately Year 8) and in the north-west prior to mining operations commencing in Pit 5 (approximately Year 13).		Not Triggered
2.3.9	The realignments would involve the construction of an unsealed two-lane road to the immediate north of the Gulgong-Sandy Hollow railway. The realigned road sections would be designed and constructed in consultation with the MWRC. Consideration would be given to the soil types (e.g. potential dispersiveness associated with podzolic soils) during the detailed design of the realigned road sections to construct a stable road pavement and to minimise erosion potential.	Noted	Noted
2.3.9	The realignments would also require the relocation of two road-rail crossings. The road-rail crossings (including active control treatments) would be designed and constructed in consultation with ARTC and the MWRC.	Noted	Noted
2.4.2	Waste rock material excavated would be used in the construction of various mine and rail infrastructure components.	Noted	Noted

Section	Requirement	IEA Evidence	Audit Finding
2.4.2	The general sequence of open cut mining operations for the Project would be as follows (Figures 2-12 and 2-13): 1. Vegetation clearing and topsoil/subsoil stripping (Section 2.4.4). Stripped topsoil and subsoil would be used directly in progressive rehabilitation or placed in temporary stockpiles. 2. Drilling and blasting of overburden, with some waste rock "throw blast" into the adjacent mined-out strip (Section 2.4.5). 3. Dozer pushing of blasted overburden into the adjacent mined-out strip to expose the upper ply of the Ulan Seam (Section 2.4.6). Exposed coal would then be selectively mined and hauled by trucks to the ROM coal stockpiles (Section 2.4.7). 4. Interburden/parting material would then be ripped, pushed or excavated and hauled to expose the underlying working sections of the Ulan Seam (Sections 2.4.6 and 2.4.7). 5. Progressive rehabilitation of the mine waste rock emplacements (Section 5.2).		Complies
2.4.4	Some 290 ha of vegetation would be progressively cleared over the life of the Project. Specific vegetation clearance procedures would be developed for the Project and are discussed in Section 5.1.2.7.	Vegetation clearance procedures have been sighted by the audit team.	Complies
2.4.4	Subsoils across the Project disturbance areas would also be suitable for selective use as a subsoil medium for plant growth (Appendix M). Trials of various surface treatments (including subsoil and topsoil depths) would be undertaken during the Project life (Section 5.2.7).	Subsoils used during the audit period. Soil analysis sighted.	Complies
2.4.4	Where topsoil/subsoil cannot be used directly for progressive rehabilitation, they would be stockpiled separately and seeded with grasses to maintain soil viability.	verified during site inspection	Complies
2.4.5	Blast sizes would typically be around 280,000 bcm in volume. Actual numbers of blasts in any week would be dependent on mine production. It is estimated, however, that an average of one blast per week would be required. Blasting would only occur during daylight hours.	Noted	Noted
2.4.5	Prior to each blast an assessment of wind direction and speed would be made. During unfavourable conditions blasts would be modified or delayed, where practicable, to minimise the potential for excessive dust migration from the site.	Auditors reviewed the blasting checklist and verified this condition.	Complies
2.4.5	Wollar Road, Ulan-Wollar Road and the Gulgong-Sandy Hollow railway would be temporarily closed during blast events within 500 m of the road or railway, as discussed in Sections 4.12.1 and 4.13.	confirmed during audit interview. Evidence sighted	Complies

Section	Requirement	IEA Evidence	Audit Finding
2.4.8	Sumps would be excavated in the floor of active open cuts to manage the quantities of inflows expected to report to mine workings. Water that accumulates in the sumps would be used for dust suppression over Project haul roads and active mine waste rock emplacement surfaces and used for water supply for the CHPP.	Sighted in site inspection	Complies
2.4.8	During mining operations any direct groundwater inflows from alluvium exposed in the highwall of the open cut would be intercepted prior to it reaching the floor of the open cut and pumped back to the nearest creek. This would be achieved by the installation of sumps and a pump/pipe system on a bench of the open cut (as is the current practice for similar circumstances at other mines in the Hunter Valley). These areas would be sealed during the backfilling of the completed open cuts. This would be achieved by the selective placement of more weathered materials against the alluvium intersect as the open cut excavation is backfilled with waste rock. These materials would be sourced from prestripping operations. If necessary, placement methodologies for these materials (i.e. placement in thinner layers and trafficked with mine fleet) would be developed to achieve the desired degree of compaction.	No alluvium has been intercepted in mining operations to date.	Not Triggered
2.4.8	As discussed in Section 2.9.1, the block bank at the head of the Cumbo Creek relocation corridor would include a sub-surface cut-off wall to divert subsurface flows into the new creek alignment. The results of surface water modelling indicate	Cumbo Creek is not yet within the area being mined.	Not Triggered
2.4.9	Final voids would remain at the north-eastern extent of Pit 3 and at the southern extent of Pit 6 (Figure 4-1).	Noted	Noted
2.4.9	The surface catchment of the final voids would be reduced to a practicable minimum by the use of upslope diversions (Section 2.9.1) and contour drains around their perimeter.	Noted	Noted
2.7	WCPL does not propose to haul coal along public roads. All coal would be hauled on internal roads on WCPL-owned land and transported externally by rail.	All coal hauled internally. Product trained to point of sale.	Noted
2.8.1	The mine waste rock emplacements behind the advancing open cut would be constructed to approximate the pre-mining topography. Final landforms would be designed with an allowance for the long-term settlement of mine waste rock. Mine waste rock emplacements would be shaped by dozer prior to the commencement of rehabilitation activities (i.e. re-profiling, re-application of topsoil/subsoil and revegetation). Section 5.2 further describes these activities.	The mine has not advanced enough to verify this aspect of the final landform but the MOP plans reflect this outcome.	Not Triggered

Section	Requirement	IEA Evidence	Audit Finding
2.8.2	To manage acid generation potential, coarse reject material would be dispersed throughout the overburden within the mine waste rock emplacements with the aim of producing a mix with a sulphur content that has an acid producing potential less than the acid neutralising capacity of the overburden. A blend ratio of at least 2:1 (overburden: coarse rejects) would be used (Appendix C). The total tonnage of coarse rejects produced over the life of the Project would be approximately one-seventh of the total mine waste rock produced therefore there would be scope to increase the blending ratio, if required.	Noted	Noted
2.8.2	Where possible, coarse rejects would not be placed within 5 m of the final landform surface so there is sufficient coverage by non-acid forming overburden to provide a barrier to oxygen movement through the rehabilitated profile (Appendix C).	Course rejects are placed in the pit bottoms.	Complies
2.8.3	Where practicable, tailings disposal areas would be saturated during the operational phase by maintaining a water cover. Where this is not practicable (e.g. for reasons of settling density and/or water recycling), the surface area of the tailings without a water cover would be kept to a minimum and managed so as they are periodically covered by fresh tailings to maintain saturation levels.	Site inspection verifies compliance. Tailings sighted during audit and storage was maintained wet.	Complies
2.8.3	Once the tailings disposal areas are near-filled, they would be progressively capped with overburden material to a minimum depth of cover of 2 m prior to final profiling and rehabilitation.	Site inspection verifies compliance. Tailings sighted during audit and storage was maintained wet.	Complies
2.9.1	Both temporary and permanent upslope diversion bunds/drains and temporary interception dams would be constructed over the life of the Project, so as to divert runoff from undisturbed areas around the open cut and mine waste rock emplacement areas to off-site drainages. Permanent upslope diversion bunds/drains would remain around the two final voids.	Observed in site inspection.	Complies

Section	Requirement	IEA Evidence	Audit Finding
2.9.1	Toe drains and isolation bunds would be constructed around the perimeter of any temporary out-of-pit mine waste rock emplacements and other areas disturbed by mining to collect and convey drainage from these areas to containment storages.	Observed in site inspection.	Complies
2.9.1	Upslope diversion works would be designed in consultation with DIPNR.	Observed in site inspection. Evidence sighted during audit interview.	Complies
2.9.1	Upslope diversions would be designed to be stable (non-eroding) at the design flows. Stabilisation of the upslope diversion works would be achieved by design of appropriate channel cross-sections and gradients and the use of channel lining with grass or rockfill as required. The conceptual layout and extent of the proposed upslope diversion works is provided in Appendix A.	Observed during site inspection	Complies
2.9.1	The Cumbo Creek relocation corridor would provide for the diversion of upslope runoff and flows in Cumbo Creek.	Observed during site inspection	Complies
2.9.1	The required level of any flood bunds would be determined by a flood study prior to mining in the northern limit of Pit 1 to assess appropriate flood bund levels. A preliminary consideration of flood potential in Wilpinjong and Cumbo Creeks indicates that only limited flood mitigation works are likely to be necessary (Appendix A).	noted: This has occurred in the first area mined and would have been reviewed during the previous audit	N/A
2.9.1	Water removed from active mine workings would be contained in one or more water supply storages for use in the CHPP and for dust suppression. The open cut workings would become sinks for incident rainfall, infiltration through mine waste rock emplacements and rainfall-runoff. Sumps would be excavated in the floor of the active open cut as part of routine mining	Noted	Noted
2.9.1	Surface runoff from mine waste rock emplacements prior to rehabilitation) and supernatant water from tailings disposal areas would be intercepted and diverted to containment storages for re-use in the water management system.	Dirty water system appeared adequate.	Complies

Section	Requirement	IEA Evidence	Audit Finding
2.9.1	The Project would include the relocation of Cumbo Creek. Any works in close proximity to the existing creek alignment would be scheduled to coincide with drier periods so as to minimise the interruption of flows in Cumbo Creek. The relocation would comprise the construction of a block bank and subsurface cut-off wall across Cumbo Creek upstream of Pit 4 to direct surface and sub-surface flows into a relocation corridor constructed adjacent to Cumbo Creek (Figure 2-7). The relocation corridor would be constructed in Year 8, once the underlying coal has been mined.	Relocation of Cumbo Creek not yet commenced.	Not Triggered
2.9.1	The relocation works would be subject to detailed geotechnical, hydrological and hydraulic design.	Relocation of Cumbo Creek not yet commenced.	Not Triggered
2.9.1	The low flow path would be designed to convey flows up to the 1 in 10 year peak flood discharge. Larger flows would be allowed to flow over the adjacent land surface (i.e. high flow flood path). Containment landforms would be formed on both sides of the high flow flood path to act as a flood levee between the Cumbo Creek relocation corridor and the mine workings to reduce the risk of flood water entering the mine area during the Project life.	Relocation of Cumbo Creek not yet commenced.	Not Triggered
2.9.1	The actual design flow capacity of the high flow flood path would be determined as part of detailed design studies using a risk analysis approach incorporating a comparative assessment of the integrity of the original and reconstructed creek under high flow conditions.		Not Triggered
2.9.1	The corridor would be revegetated with native riparian vegetation to enhance stability during high flow events. The Cumbo Creek relocation corridor would be constructed 12 months prior to being commissioned to allow vegetation elements time to commence establishment and provide stability.		Not Triggered
2.9.1	Based on the planned mining schedule, the Cumbo Creek relocation corridor would be constructed in Year 8. The detailed design of the corridor would be developed in the SWMP and Cumbo Creek Relocation Plan (CCRP) (Sections 5.1.2.4 and 5.1.2.6) in consultation with the relevant authorities.		Not Triggered
2.9.1	A pattern of creek features (i.e. flow paths) would be formed over the rehabilitated landforms comparable to the pre-mine regime (i.e. in similar locations to the existing Planters, Spring, Narrow and Bens Creeks). These reconstructed creek features would convey upslope runoff across the Project area to Wilpinjong Creek.		Not Triggered

Section	Requirement	IEA Evidence	Audit Finding
2.9.1	Detailed design of the creek features would form part of the MOP (Section 5.1.1.1).	Relocation of Cumbo Creek not yet commenced.	Not Triggered
2.9.2	Where practicable, Project water supply would be prioritised as follows (Figure 2-16): 1. Recycling of water from the tailings thickener overflow. Capture of incident rainfall and runoff across the mining operational areas (i.e. CHPP, mine facilities area, ROM and product coal stockpile areas). 2. Recovery of supernatant waters and seepage collected from tailings disposal areas. Dewatering of active open cut mining areas including groundwater inflows, incident rainfall and infiltration/runoff from adjacent mine waste rock emplacements. Advance dewatering via temporary bores (Section 2.4.8). 3. Dewatering of inactive open cut mining areas including groundwater inflows, incident rainfall and infiltration/runoff from adjacent mine waste rock emplacements. 4. Licensed groundwater extractions from Project water supply borefield to the north of the open cut mining operations.	To date, pit inflow and rainfall runoff have provided adequate water for site management and CHPP use.	Complies
2.9.2	The majority of the Project make-up water supply requirements would be met by dewatering of the open cut mining areas and the Project water supply borefield. Mine water would be suitable for use in the CHPP and for dust suppression purposes (Appendix A). The groundwater quality in the Ulan Seam aquifer (Appendix B) is considered suitable for use in the CHPP. Further details of the Project water supply borefield are provided in Section 2.9.3.	To date, pit inflow and rainfall runoff have provided adequate water for site management and CHPP use.	Complies
2.9.3	A series of up to 19 production bores would be installed to the north of the open cut operations (Figure 2-3) as part of the Project water supply system. The production bores would operate at between approximately 1 litre per second (L/s) and 3 L/s to extract groundwater from the Ulan Seam and underlying Marrangaroo Sandstone using electric submersible pumps. An electricity spurline from the existing 11 kV electricity transmission line would supply electricity to the borefield. The Project borefield would be developed and	To date, pit inflow and rainfall runoff have provided adequate water for site management and CHPP use.	Complies
2.9.3	The Project borefield would be developed and commissioned during Year 1 of the Project life. A WSBP (Section 5.1.2.5) would be developed in consultation with relevant authorities and would include the expected annual groundwater extractions from individual bores.	No WSBP is in place at WCM - Not triggers in the reporting period.	Not Triggered
2.10.2	Existing public roads within the vicinity of the Project area including Bungulla Road and Wilpinjong Road would be closed for public access. Internal access roads would be progressively constructed as required as the mine progresses.	This is conducted.	Complies

Section	Requirement	IEA Evidence	Audit Finding
2.10.2	The Project would require the progressive construction of internal haul roads between the open cut operations, mine waste rock emplacements and ROM coal stockpiles. Haul roads would be regularly watered to minimise dust generation potential.	Noted	Noted
2.10.4	Potable water would be provided by a 35,000 litres (L) storage tank which would be located in the mine facilities area. Potable water would be provided from town water supply delivered by tanker truck. A potable water supply reticulation system would service the appropriate areas around the site (e.g. office buildings, crib rooms and maintenance areas).	Noted	Noted
2.11.1	Hazardous reagents and explosives required for the Project would be transported in accordance with the appropriate regulations under the Road and Rail Transport (Dangerous Goods) Act, 1997. These regulations apply versions of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) (DTRS, 2000).	Noted	Noted
2.11.1	Diesel and petrol usage would be approximately 13 ML and 10,000 L respectively per annum. A fuel dispensing facility would be installed with a 20,000 L diesel storage capacity. An oil storage facility would also be installed comprising of 1,000 L oil storage pods with dispensing pumps and flow meters. Hydrocarbon storage facilities would be designed, located, constructed and operated in accordance with Australian Standard (AS) 1940-1993 The Storage and Handling of Flammable and Combustible Liquids.	This area was not inspected.	Not able to be Verified
2.11.1	Waste hydrocarbons would be collected, stored and removed by licensed waste transporters on a periodic basis. Workshop hydrocarbon spills and leaks, and truck washdown areas would be contained by purpose built oil/water separator systems which would be inspected and maintained on a regular basis.	Minor oil/fuel spills evidence at the MIA and heavy vehicle refuelling area. Fuel and oil spills were observed to collect on hardstand and be directed to drains which discharge to ground surface and not the oily water separator.	Not Compliant
2.11.1	Explosives required for the Project would include initiating products and detonators, ANFO and emulsion explosives. The explosives would be used in accordance with AS 2187.2-1993 Explosives – Storage, Transport and Use – Use of Explosives. AS 2187.2-1993 details the requirements for the safe storage, handling and land transport of explosives, safe storage distances from other activities and bunding requirements.	Noted	Noted
2.11.1	The explosives magazine would be initially located in the west of the Project area as shown on Figure 2-4. As mining progresses into Pits 5 and 6 later in the Project life, the explosives magazine would be relocated to another appropriate location in the Project area (Figure 2-11).	Explosives magazine was located on the western side of the project	Complies
2.11.1	No chemical or hazardous material would be permitted on-site unless a copy of the appropriate Material Safety Data Sheet (MSDS) is available onsite, or in the case of a new product, it is accompanied by a MSDS.	No such materials observed in the site inspection.	Not Triggered

Section	Requirement	IEA Evidence	Audit Finding
2.11.1	All chemicals brought on-site for use in the mining operations would be recorded in an inventory register which would identify the type of product, dangerous goods class, liquid class, hazchem class and the quantity held on-site. The inventory register would also identify the compatibility of materials and the emergency response procedures in the event of a spill.	Evidence sighted during site inspection. Also detailed in AEMRs	Not able to be Verified
2.11.1	Chemical storages would be provided within the workshop and storage buildings and would be separated according to chemical type and storage requirements.	Not inspected during site visit.	Not able to be Verified
2.11.3	Recyclable and non-recyclable domestic waste from office buildings and workforce areas would be collected regularly and managed by waste disposal contractors. A register of waste collected by contractors for disposal would be maintained. Where licensed contractors handle waste, those contractors would be required to comply with their own license agreements with the DEC. Waste would be disposed of at a DEC approved waste facility that is licensed under the Protection of the Environment Operations Act, 1997.	Waste records sighted and information available in the AEMRs	Complies
2.11.4	Sewage would be treated in an on-site sewage treatment plant. The sewage treatment plant would be designed and installed in accordance with the requirements of the MWRC and DEC. Treated wastewater would be irrigated on vegetated and garden areas around the mine facilities area and conform to the draft Environmental Guideline for the Utilisation of Treated Effluent (DEC, 1995).	As with the previous audit, 3 aerated sewage and pumping systems operate at WCPL.	Complies
Stre			
3.2.2	Gauging stations have been installed on Cumbo and Wilpinjong Creeks by WCPL (Figure 3-4) and would continue to be maintained during development of the Project. No streamflow records for the local catchments were available for reporting in the EIS.	Surface Water specialist noted compliance. Results reported in AEMRs (Stream flow records)	Complies

Section	Requirement	IEA Evidence	Audit Finding
Section One Volume Four - Potential Impacts and Mitigation Measures			
Soils and Erosion Potential			
4.1.2	Erosion and sediment control strategies for the Project would be developed and documented in an ESCP (Section 5.1.2.2). The measures presented in the ESCP would aim to control soil erosion and sediment generation proximal to the source and thereby minimise the potential for Project activities to adversely affect downstream water quality.	Noted in the ESCP	Complies
4.1.2	Specific mitigation measures to control soil erosion and sediment migration would include: - minimising surface disturbance and restricting access to undisturbed areas; - progressive rehabilitation and revegetation of mine landforms; - minimising soil compaction during soil excavation and handling; - use of erosion control features (e.g. silt fences and temporary sediment traps, diversion banks, channels and rip-rap structures) to minimise sediment migration, divert surface water around disturbed areas and to control runoff velocity; and - use of sediment retention storages to contain runoff from disturbed areas and permit the settling of solids.	Noted in the ESCP	Complies
4.1.2	In addition to the above, soil resource management practices have been developed and are provided in Appendix M. These practices would be further developed as part of the Project rehabilitation programme and are summarised in Section 5.2.4.	Soil Resource Management Strategies identified in table 8 of Rehabilitation Management Plan	Complies
4.1.2	During mining operations, quantification of soil resources available for rehabilitation works, stripping and re-application schedules and stockpiling inventories would be included in the MOP, in accordance with the requirements of the DPI-MR.	This has been observed by the audit team	Complies

Section	Requirement	IEA Evidence	Audit Finding
4.1.2	Wherever practicable, recovered topsoil and subsoil would be spread directly onto mine waste rock emplacements that have been prepared for rehabilitation. Where direct spreading is not practicable, the material would be stockpiled. Soil stockpiles would be managed to improve the longterm viability of the soil resource through implementation of the following management practices: - Soil stockpiles to be located outside of active mining areas. - Stockpiles to be constructed with a rough surface condition to reduce erosion hazard, improve drainage and promote revegetation. - Stockpiles which are inactive for extended periods to be fertilised and seeded, to maintain soil structure, organic matter and microbial activity. - Silt fences to be installed around soil stockpiles to control potential loss of soil where necessary. - Soil stockpiles to be deep-ripped to establish aerobic conditions, prior to soil use in rehabilitation.	Rehabilitation specialist confirmed compliance during site inspection and subsequent interviews.	Complies
4.1.2	Potential soil salinity and dispersivity issues associated with some soil types would be managed during stockpiling as follows: - Saline soil types to be stockpiled separately and then placed in mine waste rock emplacements below the topsoil/subsoil cover layer. - Gypsum to be applied at an appropriate rate to stockpiles of dispersive soil types where necessary. Details of the above management strategies and practices including timing of implementation and relevant methodology would be included in the MOP (Section 5.1.1.1).	Methodology is included in 2014 MOP which was conducted to the satisfaction of DRE.	Complies
4.1.3	As at 1 May 2005, WCPL controls approximately 4,200 ha of land in the Project area and surrounds, including all lands to be directly affected by mining operations. WCPL would either purchase properties or negotiate lease or compensation agreements with other landowners directly affected by the Project. Negotiations with relevant landowners in this regard are on-going.	WCM is in accordance with this condition. Correspondence sighted.	Complies
Landuse and Land Capability Assessment			
4.1.3	As at 1 May 2005, WCPL controls approximately 4,200 ha of land in the Project area and surrounds, including all lands to be directly affected by mining operations. WCPL would either purchase properties or negotiate lease or compensation agreements with other landowners directly affected by the Project. Negotiations with relevant landowners in this regard are on-going.	Noted	Noted

Section	Requirement	IEA Evidence	Audit Finding
4.1.3	Land management practices on WCPL-owned land would be undertaken in accordance with the Land Management Plan (LMP) to be developed for the Project (Section 5.1.2.1).	Noted	Noted
4.1.3	The progressive development of the Project open cut mining operations, backfilling of the open cut voids with mine waste rock and progressive rehabilitation would limit the Project disturbance area at any one time.	Noted	Noted.
4.1.3	The final landform would approximate the premining topography and would include some permanent creek features (Section 5.2.8). The final voids would form localised groundwater sinks within which salts would accumulate with time as evapoconcentration occurs (Section 4.3). The final voids would be located at the north-eastern extent and at the western extent of the final landform (Figure 4-1).	Sighted in MOP, site not advanced enough to verify physically.	Not able to be Verified
4.1.3	The final landform design concept proposes a balanced outcome, with the aim of establishing the potential for both sustainable agriculture and areas of woodland vegetation. Following mine closure and final Project rehabilitation, the final landform would include areas of woodland vegetation that would be linked to remnant vegetation that borders the southern Project area, as well as the northern border of the Munghorn Gap Nature Reserve (Section 5.2).	Sighted in MOP, site not advanced enough to verify physically.	Not able to be Verified
4.1.3	The development of the ECAs and regeneration areas would also result in the alteration of landuse in the Project area, with the management of livestock to encourage natural regeneration and selective planting in parcels of land that are currently used for agriculture (Sections 5.3 and 5.4).	Rehabilitation specialist confirmed compliance during site inspection and subsequent interviews.	Not able to be Verified
Land Contamination Potential			
4.1.4	Contractors carrying dangerous goods loads would be appropriately licensed in accordance with the provisions of the ADG Code (DTRS, 2000). Contractors would operate under the provisions of WCPL contractor management plans to ensure their safety standards and work procedures meet statutory requirements.	Contractors use of dangerous good was not investigated to the level where this point could be verified.	Not able to be Verified
4.1.4	Carriers of dangerous goods would maintain a communications system (e.g. two-way radio or mobile telephone) in truck cabs to allow for prompt notification in the event of an accident. Trucks would carry fire fighting equipment.	Contractors use of dangerous good was not investigated to the level where this point could be verified.	Not able to be Verified

Section	Requirement	IEA Evidence	Audit Finding
4.1.4	On-site consumable storage areas would be designed with appropriate bunding and would be operated, where applicable, in compliance with the requirements of AS 1940-1993 The Storage and Handling of Flammable and Combustible Liquids and AS 2187.1-1998 Explosives – Storage, Transport and Use – Storage. Storage areas would be regularly inspected and maintained as required.	Contractors use of dangerous good was not investigated to the level where this point could be verified.	Not able to be Verified
4.1.4	Project rail infrastructure and signalling systems would be designed in accordance with the relevant rail authority standards. Project train loading activities and rail infrastructure would be regularly inspected and maintained as required. Rail transport contractors would also operate under the provisions of WCPL contractor management plans.	Contractors use of dangerous good was not investigated to the level where this point could be verified.	Not able to be Verified
4.1.4	In addition, during development of the Project, areas that have the potential to contain soils contaminated by past agricultural landuses (e.g. sheep dips and fuel and chemical storage facilities) would be further sampled and, if necessary, appropriate management measures would be developed which may include the placement of materials excavated from these areas in the Project tailings disposal areas (Appendix O).	Audit schedule did not permit assessment of this	Not able to be Verified
Bushfire Hazard			
4.1.5	A Bushfire Management Plan (BMP) would be developed for the Project (Section 5.1.2.3) to identify bushfire management issues, assess bushfire risk, establish bushfire management measures and outline standard procedures in the event of a bushfire.	noted in Bushfire Management Plan (submitted to DP&E for approval in 2014)	Complies
4.1.5	Fire awareness and fire safety training would be included in the induction of all WCPL personnel and contractors. In addition to environmental responsibilities, there exists significant economic incentive to prevent fire damage to mining infrastructure and equipment. Suitable fireproofing, fire breaks and fire radiation zones would be established to reduce bushfire hazards (Section 1.3.5).	Noted.	Complies
Visual			
4.2.4	The mining method described in Section 2.4 involves progressive backfilling of mined-out voids behind the advancing open cut. Final landform shaping is to approximate existing topographic forms. Regular slopes and sharp transition angles would be varied and rounded to provide a more natural appearance.		Noted
4.2.4	The revegetation programme would be progressive, commencing soon after the completion of landform shaping. Visual impacts associated with unvegetated mine landforms would progressively reduce once the vegetative cover begins to establish. Revegetation in woodland areas would utilise native tree/shrub species, as well as grasses, characteristic of the area for consistency of colour and visual texture.	This was viewed by the auditors during the site visit.	Complies

Section	Requirement	IEA Evidence	Audit Finding
4.2.4	Other measures that would be employed to mitigate visual impacts include: - design and construction of Project infrastructure in a manner that minimises visual contrasts (e.g. suitably coloured cladding for buildings); and - early establishment of vegetation on safety bunds.	This was viewed by the auditors during the site visit.	Complies
4.2.4	In addition, it is proposed to establish vegetation screening at the "Wilpin Farm" residence early during the Project life.	Wilpin Farm is mine owned and has been since 2006. There are no occupants in the Wilpin Farm house.	Not Triggered
4.2.4	Night-lighting would be restricted to the minimum required for operational and safety requirements and would be directed away from roads and sensitive viewpoints. Lighting above topographic screens would be directed downwards and light shields would be used to limit the spill of lighting where practicable.	Lighting plan and audit viewed by audit team. Approval letters from regulatory authorities sighted.	Complies
Surface Water			
Surface Water Quality			
4.3.1	Detailed design of the Project water management system would be undertaken as part of the Project SWMP which is described in Section 5.1.2.4. The water management system would be developed in accordance with accepted water management principles including minimising contamination of water and maximising the re-use of mine water.	Site Water balance verifies this condition	Complies
4.3.1	surface water monitoring programme would be developed for the Project and detailed in the SWMP. The frequency, parameters and locations monitored as part of the surface water quality monitoring programme would be reviewed on an annual basis.	noted in Site Water Management Plan which contains the WCPL Surface Water Management Plan.	Complies
4.3.1	Areas disturbed by active mining would be minimised as far as practicable. In order to minimise and manage waters requiring on-site containment, the Project area would be segregated into several catchment types including: - undisturbed runoff areas; - construction/development runoff areas; - operation runoff areas; and - rehabilitation areas.	Rehabilitation was not progressed enough to verify this condition.	Complies

Section	Requirement	IEA Evidence	Audit Finding
4.3.1	Until the surfaces of rehabilitation areas have stabilised to a satisfactory condition, runoff from these areas would be directed to sediment retention storages prior to release to local drainages. Thereafter, sediment retention storages would be decommissioned (or left in place as farm dams if considered practicable) and the rehabilitated landforms would be allowed to free-drain. As such, the total disturbance area would be minimised as areas undergo progressive rehabilitation.	Sediment retention storages are in place at WCPL and a monitored monthly.	Complies
4.3.1	Runoff from catchment areas which are undisturbed by mining activities would be isolated and, where necessary, diverted around disturbance areas. The objective of this strategy is to minimise mixing of runoff from undisturbed areas with waters from construction/development and operation areas and therefore, minimise the volume of water that is required to be managed on-site. Over the life of the Project this would involve the construction of upslope diversion bunds and drains. Isolation bunds and toe drains would also be constructed around areas disturbed by mining to collect and convey drainage from these areas to sediment retention storages.	Site inspection verified compliance against this condition. Heavy rainfall occurred during the audit site inspection.	Complies
4.3.1	Runoff from construction/development areas and operation areas would be intercepted and channelled to sediment retention storages across the Project area and/or the CHPP and box cut water supply storages. Sediment retention storages would be sized to contain runoff from design rainfall events and trap silt and other suspended material. Sediment retention storages would be provided for the containment of spills and runoff from within construction/development areas. Water recovered from the open cut operations would be pumped to the CHPP water supply storage for use in the CHPP. During wet periods, when there may be an excess of water being generated on-site, water captured in active open cuts would be pumped to inactive open cut voids and/or tailings disposal areas for temporary storage.	Surface Water specialist sighted Sediment dams in numerous locations on site during site inspection and verified compliance. Dirty water discharge pit sighted.	Complies
4.3.1	Supernatant from tailings disposal areas, generated by settling and consolidation of tailings, would be decanted and returned to the CHPP water supply storage for re-use. Incident rainfall over tailings disposal areas and any adjacent undiverted catchment would contribute additional water which would combine with the supernatant.	This is the procedure that is used onsite, as confirmed during the audit interview.	complies
4.3.1	Runoff from haul roads and hardstand areas would be captured in sediment retention storages to provide for the settlement of suspended solids prior to being released. Runoff from the workshop and vehicle re-fuelling areas would be diverted to an oilwater separator and then to the CHPP water supply storage for re-use.	Surface Water specialist sighted Sediment dams in numerous locations on site during site inspection and verified compliance. Dirty water discharge pit sighted.	Complies

Section	Requirement	IEA Evidence	Audit Finding
4.3.1	Effluent from the sewage treatment plant would be irrigated within contained catchments over vegetated and garden areas around the administration and workshop facility area.	noted in AMERs	Complies
4.3.1	Runoff from rehabilitation areas would be directed to sediment retention storages prior to being released to local drainages.	Sighted in site inspection	Complies
4.3.1	Construction/development areas and operation areas would be progressively rehabilitated during the Project life. It is anticipated that once vegetation has established in the rehabilitation area, surface runoff would be of comparable water quality to undisturbed areas. Passive treatment systems in the form of temporary sediment retention storages, silt fences and vegetated buffers would be employed as erosion and sediment control measures during the rehabilitation process.	Sighted in site inspection	Complies
4.3.1	During the progressive rehabilitation of Project landforms, a pattern of creek features (i.e. flow paths) would be formed over the rehabilitated landforms comparable to the pre-mine regime (i.e. in similar locations to the existing Planters Creek, Spring Creek, Narrow Creek and Bens Creek). Revegetation of the permanent creek features would include the use of native riparian species (Section 5.2).	Sighted in site inspection	Complies
4.3.1	Erosion and sediment control measures would be designed in accordance with the above water management principles and would involve the preparation and implementation of an ESCP (Section 5.1.2.2).	noted in the Erosion and Sediment Control Management Plan	Complies

Section	Requirement	IEA Evidence	Audit Finding
4.3.1	The ESCP would describe the sequencing of construction/development works and mining activities so as to minimise the area of disturbance at any given time in conjunction with the implementation of a progressive rehabilitation programme. Specific mitigation measures to control soil erosion and sediment migration are described in Section 4.1.2.	noted in the Erosion and Sediment Control Management Plan	Complies
4.3.1	As described in Section 2.9.1, the potential environmental impacts associated with the relocation of Cumbo Creek would be minimised through the detailed geotechnical, hydrological and hydraulic design that would be implemented prior to construction. The Cumbo Creek relocation corridor and bunds would be revegetated with native riparian vegetation. A Cumbo Creek Relocation Plan would be developed for the Project as described in Section 5.1.2.6.	Not commenced as mining is yet to effect Cumbo Creek	Not Triggered
Surface Water Flows			
4.3.2	Mitigation of the predicted reduction in average annual flows in Wilpinjong Creek would include designing the Project water management system to maximise the diversion of runoff from undisturbed areas around Project construction/development and operational areas, together with progressive rehabilitation to allow the free-draining of completed landforms. These measures would minimise the degree of catchment excision at any one time. Sections 2.9 and 4.3.1 present the design objectives of the Project water management system. Section 5.1.2.4 presents the scope and framework of the proposed SWMP. Section 5.2 presents the rehabilitation programme and concepts for the Project final rehabilitated landforms.	Surface Water specialist noted compliance. Results reported in AEMRs (Stream flow records)	Complies
4.3.2	Mitigation measures in the form of exclusion of livestock and the enhancement of riparian vegetation in sections of Wilpinjong Creek and Cumbo Creek are described in Sections 5.3 and 5.4. Approximately 10 km of creekline along Wilpinjong and Cumbo Creeks would be revegetated/enhanced by the Project within the Project ECAs or regeneration areas. Appendix HD and Section 4.9 further discuss the benefit of the enhancement works to stream health.	Surface Water specialist noted compliance. Results reported in AEMRs (Stream flow records)	Complies

Section	Requirement	IEA Evidence	Audit Finding
4.3.2	As described in Section 4.3.1, a Cumbo Creek Relocation Plan would be developed for the Project. The plan would include: design and specifications for creek relocation works; a construction programme for the creek relocation, describing how the work would be staged and progressively integrated with mining operations; design of the block bund foundation to provide for the diversion of any sub-surface flow associated with Cumbo Creek alluvium; water quality, ecological and geomorphic performance criteria for the creek relocation; and a programme to inspect and maintain the creek relocation and revegetation works until they stabilise.	Not commenced as mining is yet to effect Cumbo Creek	Not Triggered
Groundwater			
Existing Groundwater Users			
4.4.1	A groundwater monitoring programme to monitor the impact of mining on existing bores/wells is discussed in Section 5.1.3.7. As discussed above, only two existing groundwater bores not owned by WCPL are expected to be affected by the Project. If the data obtained from the groundwater monitoring programme indicates that the Project is having an adverse effect on existing groundwater users (i.e. reduced groundwater yield from existing bores), then the water supply would be re-instated by WCPL either by deepening the existing bore, construction of a new bore or by providing an alternate water supply.	This has not occurred during the audit period	Not Triggered
Groundwater Inflows to Creeks			
4.4.2	Mitigation of the predicted reduction in average annual flows in Wilpinjong Creek would include designing the Project water management system to maximise the diversion of runoff from undisturbed areas around Project construction/development and operational areas, together with progressive rehabilitation to allow the free-draining of completed landforms. These measures would minimise the degree of catchment excision at any one time. Sections 2.9 and 4.3.1 present the design objectives of the Project site water management system. Section 5.1.2.4 presents the scope and framework of the proposed SWMP. Section 5.2 presents the rehabilitation programme and concepts for the Project final rehabilitated landforms.	Water Management System is outlined in the MOP and verifies these conditions	Complies

Section	Requirement	IEA Evidence	Audit Finding
4.4.2	Mitigation measures in the form of exclusion of livestock and the enhancement of riparian vegetation in sections of Wilpinjong Creek and Cumbo Creek are described in Sections 5.3 and 5.4. Approximately 10 km of creekline along Wilpinjong and Cumbo Creeks would be revegetated/enhanced by the Project within the ECAs or regeneration areas. Appendix HD and Section 4.9 further discuss the benefit of the enhancement works to stream health.	rehabilitation of riparian vegetation of Wilpinjong and Cumbo Creeks will be conducted. Fencing of Wilpinjong Creek has occurred, panting has not yet occurred, Cumbo creek is to be mined through, it is assumed that rehabilitation will occur once the creek is re-established post mining	Complies
Acoustics			
4.5.2	During the noise impact assessment, a number of iterative steps were taken to develop noise mitigation measures for the Project, including: - preliminary noise modelling to identify areas of affectation; - further modelling incorporating various noise mitigation measures to assess their relative effectiveness; - consideration of various combinations of noise mitigation measures to minimise the potential noise affectation zone; and - adoption by WCPL of a range of noise mitigation measures that significantly reduce Project noise emissions.	AEMR and NMP confirm this condition	Complies
4.5.2	The noise mitigation and management measures included in the predictive modelling and which would be adopted for the Project, are described below.		noted
4.5.2	Fixed plant and mobile equipment would be commissioned and maintained to remain below the specified maximum operating LAeq sound power levels detailed in Appendix D.	Noise monitoring reports viewed by audit team and reviewed as part of the NMP assessment.	Complies

Section	Requirement	IEA Evidence	Audit Finding
4.5.2	Based on current mine planning and predictive noise modelling, some Project mobile equipment would be modified from Year 6 to meet more stringent maximum operating LAeq sound power levels to further reduce noise emissions as the open cut operations move towards the extremities of the Project area and closer to receptors. The timing of this would be confirmed based on noise monitoring data collected as the Project progresses.	Fixed plant and mobile equipment were maintained to remain below the specified maximum operating equivalent continuous noise level (LAeq) sound power levels. AEMR and NMP confirm this condition	Complies
4.5.2	As detailed in Table 4-6, the private dwellings where noise emissions are predicted to be above Project-specific noise assessment criteria can be divided into a noise management zone (1 to 5 dBA above Project-specific criteria) and a noise affectation zone (greater than 5 dBA above Project specific criteria). Proposed noise management procedures for these zones are detailed below.	Most noise affected properties are now mine owned and it is highly unlikely that any privately owned property fits into the greater than 5dBA above project criteria. Noted.	Not Triggered
Noise Management Zone			
4.5.2	Depending on the degree of exceedance of the Project-specific criteria, noise impacts in the noise management zone could range from negligible to moderate (in terms of the perceived noise level increase). In addition to the noise mitigation measures included in the predictive modelling, noise management procedures would include: - noise monitoring on-site and within the community; - prompt response to any community issues of concern; - refinement of on-site noise mitigation measures and mine operating procedures, where practicable; - discussions with relevant landowners to assess concerns; - consideration of acoustical mitigation at receptors; and - consideration of negotiated agreements with landowners.	These conditions are verified in the Noise Management plan and reported in the AEMRs	Complies
Noise Affectation Zone			
4.5.2	Exposure to noise levels greater than 5 dBA above Project-specific criteria may be considered unacceptable by some landowners. Management procedures for the noise affectation zone would include: - discussions with relevant landowners to assess concerns and develop practical mitigation; - implementation of acoustical mitigation at receptors (e.g. double glazing of windows); and - negotiated agreements with landowners.	Noise MP assessed as part of this audit. Correspondence sighted by the audit team.	Complies
Road Transportation			
4.5.5	WCPL and the rail service provider would liaise with the ARTC to establish appropriate timetabling with the objective of reducing night-time train movements, particularly in relation to the Gulgong- Sandy Hollow railway. In addition, as noted above, the noise emissions from the Gulgong-Sandy Hollow and Main Northern railways would continue to be regulated via ARTC's EPL 3142.		Noted

Section	Requirement	IEA Evidence	Audit Finding
Blast Impact Assessment			
4.5.6	The maximum predicted vibration velocities for blasts in proximity to the Aboriginal rock art sites (sites 72, 152 and 153) are predicted to be below the 80 mm/s geological damage criterion. A monitoring programme would be implemented for these sites (Section 5.1.3.4).	Blast results viewed by audit team and verify compliance. Blasting results also reported in the AMERs	Complies
4.5.6	Consideration of potential flyrock impacts would be incorporated into the blast design, particularly in regard to stemming length and bench spacing. Notwithstanding, given the proximity of the Close (14) dwelling, notification of the occupants of the Close (14) dwelling would be undertaken for blast events within 1,000 m of the dwelling.	Evidence was sighted by the audit team	Complies
4.5.6	Wollar Road, Ulan-Wollar Road and the Gulgong-Sandy Hollow railway would be temporarily closed during blast events within 500 m of the road or railway, as discussed in Sections 4.12.1 and 4.13.1.	Gulgong-Sandy Hollow railway - Conducted on site commencement not in audit period - this section is Not Triggered. Blasts in proximity to Ulan-Wollar and Wollar Road comply with Wilpinjong Coal Project Procedure Blast Traffic Management Plan TCN0820-HSE-PP012 which is in conjunction with RTA Traffic Control at Worksites Manual as well as AS 1742.3-2002	Complies
4.5.6	Given the location and nature of the rock art sites and surrounds, it is considered that the potential for flyrock damage occurring at these sites would be limited. Notwithstanding, for blasts within 500 m of these sites appropriate stemming length and burden spacing would be incorporated into the blast design in order to reduce the potential for flyrock (Appendix D).	Noted	Noted

Section	Requirement	IEA Evidence	Audit Finding
Air Quality			
4.6.2	The main controls for wind blown dust would include: - areas disturbed by active mining would be minimised as far as practicable; - topsoiling and rehabilitation of mine waste rock emplacements progressively and as soon as practicable; - maintaining coal-handling areas in a moist condition using water carts to minimise wind blown and traffic generated dust; and - maintaining water sprays on product coal stockpiles.	Dust suppression noted during site inspection. Note: heavy rainfall was evident during site inspection.	Complies
4.6.2	Controls for mine generated dust would include the following: - All active roads and traffic areas would be watered using water carts to minimise the generation of dust. - During Years 14 to 20, surface moisture levels along selected haul roads would be maintained at elevated levels and/or chemical treatments would be applied to achieve 80 to 90% dust suppression. - During Year 21, surface moisture levels on all haul roads would be maintained at elevated levels and chemical treatments would be applied to achieve 90% dust suppression. - The number of active haul roads would be minimised and haul roads would be clearly defined. - Development of minor roads would be limited and the locations of these would be clearly defined. - Minor roads used regularly for access would be constructed so as to minimise dust generation (e.g. by using well-compacted select material) and watered as required. - All obsolete roads would be rehabilitated. - Access tracks used by topsoil stripping equipment during their loading and unloading cycle would be watered. - A cover crop would be established over topsoil and subsoil stockpiles that are not to be used in less than six months to minimise potential dust emissions due to wind erosion. - Dust aprons would be lowered during drilling. - Drill rigs would be equipped with dust suppression equipment which would be operated whenever the potential for high levels of dust generation is identified. - Blast stemming would be designed to provide optimum confinement of the blast charge. - Automatic sprays or other dust control mechanisms would be used when tipping raw coal into the ROM dump hopper. - Spillage of CHPP materials would be promptly cleaned up to prevent dust. - Dust suppression systems would be fitted at transfer points to prevent high dust levels,	Noted	Noted

Section	Requirement	IEA Evidence	Audit Finding
Greenhouse Gas			
4.6.4	Minimising fuel usage by mobile plant (and associated greenhouse gas emissions) is an objective of mine planning and Project cost control systems. Additional controls on greenhouse gas emissions associated with the Project would include: - regular maintenance of plant and equipment to minimise fuel consumption and associated emissions; - consideration of energy efficiency in plant and equipment selection/purchase; and - establishment of significant areas of woodland vegetation over the Project life (Sections 5.2 and 5.3).		Not able to be Verified
	In addition, consideration would be given to the further usage of solar power for specific site applications. The existing Project meteorological station and stream gauging stations are solar powered.	No additional solar powered equipment noted in the site visit, note that the two items listed are extremely minor power users indicating the token nature of this commitment.	Not Triggered
Odour and Spontaneous Combustion			
4.6.5	A Spontaneous Combustion Management Plan would be developed for the Project (Section 5.1.2.11) and would include the following: - coal stockpile and emplacement management measures; - commitments to monitor potential causes of spontaneous combustion events; and - corrective action in the event of spontaneous combustion.	Spontaneous Combustion Management Plan confirms this	Complies
Flora			
4.7.2	Flora management strategies, including those listed below would be detailed in the Flora and Fauna Management Plan (FFMP) to be prepared for the Project prior to construction. Section 5.1.2.7 contains further detail regarding the contents of the FFMP.	No Flora and Fauna Management Plan was in place at the time of the audit. MOD 5 to DA 05-0021 (as modified) requires a Biodiversity Management Plan (WCPL, 2014) to be developed which was submitted to the DG in 2014 for approval. The Biodiversity Management Plan will contain Flora and Fauna management measures and monitoring requirements however was not approved at the time of the audit.	Not Compliant
4.7.2	Wherever practicable, existing native vegetation would be retained. As a component of the vegetation clearance protocol to be developed for the Project, vegetation adjoining proposed clearance areas would be delineated and clearly marked to prevent accidental damage. Vegetation clearance would be undertaken progressively.	these conditions are outlined in the VCP	complies

Section	Requirement	IEA Evidence	Audit Finding
4.7.2	In circumstances where vegetation removal is necessary, clearing operations would be managed to maximise the re-use of cleared vegetative material. This would include implementation of a seed collection programme for use in the rehabilitation programme and the re-use of cleared vegetation (e.g. provision of habitat for fauna associated with the rehabilitation programme and management of the ECAs, fence posts etc.), wherever practicable.	vegetation clearance procedures and clearing permit have been sighted by the audit team.	Complies
4.7.2	In areas of significant earthworks, topsoil resources would be identified, stripped and stockpiled. Soil resources would be stockpiled for short time periods, where practicable, and would be re-spread and seeded.	mining operations are generally conducted in this manner	Complies
4.7.2	A weed management programme would be implemented to limit the spread and colonisation of weeds on WCPL-owned land. A Weed and Animal Pest Control Plan (WAPCP) (Section 5.1.2.8) would be prepared for the Project prior to construction.	Weed and Animal Pest control is outlined in the AEMRs. Weed and Animal Pest Control is outlined in section 7.12 RMP	Complies

Section	Requirement	IEA Evidence	Audit Finding
4.7.2	An environmental education programme would be included in the employee and contractor inductions and would provide relevant training in the management of native flora.	Environment and community induction sighted and Flora and Fauna management is included	Complies
4.7.2	The EPP developed for the Project (described in Section 5) provides for environmental management of the Project area and surrounds, the rehabilitation of the Project disturbance areas (i.e. rehabilitation areas), the establishment of woodland vegetation (i.e. regeneration areas) and the enhancement and conservation of remnant vegetation (i.e. ECAs).	Covered in the RMP and MOP. As this condition is not a direction from the department and the requirements are dealt with in other plans this is compliant	Complies
4.7.2	Rehabilitation areas - rehabilitation and revegetation of areas disturbed by the Project would be undertaken progressively as mining proceeds, with coal removal and the formation of final (mine waste rock emplacements) landforms behind the advancing face of the open cut. Rehabilitation and revegetation of infrastructure areas would also be undertaken progressively as infrastructure is decommissioned. The revegetation programme for Project rehabilitation areas provides for a combination of woodland and pasture outcomes. Some 850 ha of the Project final landform would be revegetated with woodland vegetation and some 1,070 ha would be revegetated to mixed woodland/pasture. The revegetation programme would aim to establish floristic diversity within the woodland areas.	verified during site inspection	Complies

Section	Requirement	IEA Evidence	Audit Finding
4.7.2	Regeneration areas - regeneration areas would be established on areas of WCPL owned land situated proximal to Project disturbance/rehabilitation areas. The regeneration areas contain predominantly cleared agricultural land in which woodland vegetation (some 350 ha) would be established through natural regeneration/selective planting.	verified during site inspection	Complies
4.7.2	Enhancement and Conservation areas - three ECAs would be established by the Project on areas of WCPL-owned land containing remnant vegetation and proximal grazing land, as shown on Figure 4-1. The specific flora values of the ECAs are described in Table 4-13; associated vegetation mapping is shown on Figure 3-7. The ECAs comprise a variety of vegetation communities including those that would be disturbed by the Project. Some 295 ha of remnant vegetation would be conserved and enhanced by the ECAs, including more than 80 ha of the WBYBBRG EEC. Further, some 185 ha of woodland vegetation would be established in the ECAs through natural regeneration/selective planting, including some 50 ha of the WBYBBRG EEC. Enhancement of the ECAs would be achieved by the implementation of appropriate land management practices such as weed control, management of livestock access to encourage natural regeneration and selective planting. Conservation of the ECAs would be achieved through a rezoning application, as described in Section 5.	verified during site inspection	Complies
4.7.2	The revegetation programme for Project rehabilitation areas and the selective planting of woodland vegetation in the regeneration areas and ECAs would include endemic plant species including those characteristic of the vegetation communities to be disturbed by the Project.	Rehabilitation is outlined in the MOP, the management of the Regeneration areas and ECAs is outlined in the RMP	Complies
4.7.2	Revegetation in the rehabilitation areas and natural regeneration/selective planting in the regeneration areas and ECAs would include the establishment of native riparian vegetation. Riparian vegetation would be established along the permanent creek features formed within the rehabilitation areas and along Wilpinjong and Cumbo Creeks in the regeneration areas and ECAs. These initiatives would result in an increase in riparian vegetation along these watercourses and includes the enhancement of some 10 km of creekline along Wilpinjong and Cumbo Creeks.	The banks of Wilpinjong and Cumbo Creeks in the rehabilitation areas and regeneration areas will be revegetated to increase the quantity of riparian vegetation along these creeks. A revegetation programme using appropriate native riparian species consistent with works in the upstream regeneration areas will be included in the Cumbo Creek Relocation Plan.	Complies
4.7.2	While some 290 ha of remnant woodland would be removed by the Project, the Project EPP would result in an overall net increase in woodland vegetation of some 1,095 ha.	Covered in the RMP and MOP. As this condition is not a direction from the department and the requirements are dealt with in other plans this is compliant	Complies

Section	Requirement	IEA Evidence	Audit Finding
4.7.2	In recognition of the importance of vegetation corridors to regional biodiversity, the Project EPP aims to contribute to the continuity of woodland vegetation by establishing links between the rehabilitation areas, regeneration areas and existing remnant vegetation in Munghorn Gap Nature Reserve, Goulburn River National Park and the ECAs. Further, two of the three ECAs have been positioned on the margins of Goulburn River National Park or Munghorn Gap Nature Reserve, which is considered beneficial in terms of the strategic role of the ECAs in the region.	Covered in the RMP and MOP. As this condition is not a direction from the department and the requirements are dealt with in other plans this is compliant	Complies
4.7.2	A flora monitoring programme would be developed for the rehabilitation areas, regeneration areas and the ECAs to monitor the effectiveness of the revegetation or enhancement initiatives. The monitoring programme would be outlined in the FFMP. A description of the flora monitoring programme for the rehabilitation areas, regeneration areas and ECAs is provided in Sections 5.2, 5.3 and 5.4, respectively.	ECA and Flora Rehabilitation monitoring programme verifies this condition	Complies
4.7.2	Management of the rehabilitation areas would be detailed in the MOP, while the management of the regeneration areas and ECAs would be detailed in the FFMP.	Rehabilitation is outlined in the MOP, the management of the Regeneration areas and ECAs is outlined in the RMP	Complies
Fauna			
4.8.2	Fauna management strategies, including those listed below would be detailed in the FFMP to be prepared for the Project prior to construction.	No Flora and Fauna Management Plan was in place at the time of the audit. MOD 5 to DA 05-0021 (as modified) requires a Biodiversity Management Plan (WCPL, 2014) to be developed which was submitted to the DG in 2014 for approval. The Biodiversity Management Plan will contain Flora and Fauna management measures and monitoring requirements however was not approved at the time of the audit.	Not Compliant
4.8.2	The FFMP would include a vegetation clearance protocol to minimise the potential impacts of vegetation clearance on fauna. The Protocol would include the delineation of areas to be cleared of vegetation, a pre-clearance survey, identification of fauna management strategies and specific procedures for vegetation clearance.	VCP is outlined in the RMP and MOP	complies
4.8.2	The removal of native vegetation would be undertaken, where practicable, in consideration of seasonal factors to minimise disturbance to potential breeding and hibernation activities.	RMP and audit interview verifies this condition	complies
4.8.2	Fauna management strategies would be developed to minimise the impact of clearing activities on resident fauna in the short-term B219 and minimise the impact of loss of habitat in the long-term. Fauna management strategies would be implemented in accordance with the FFMP developed for the Project.	figure 8 & Section 7.6.3 RMP confirm this condition	complies
4.8.2	Where practicable, habitat features (e.g. Large hollows) would be salvaged during vegetation clearance activities and utilised in the rehabilitation areas, regeneration areas or ECAs.	7.6.4 RMP verifies this condition	complies

Section	Requirement	IEA Evidence	Audit Finding
4.8.2	A Threatened Species Management Protocol (TSMP) would be developed as a component of the FFMP to facilitate the implementation of threatened species management strategies to minimise potential impacts on threatened fauna species.	No threatened fauna species were recovered from the felled habitat trees and therefore implementation of the Threatened Species Management Protocol (TSMP) was not required.	Not Triggered
4.8.2	A clean, rubbish-free environment would be mandated to discourage scavenging and reduce the potential for colonisation of these areas by non-endemic fauna (e.g. introduced rodents, birds). An animal pest control programme would be implemented in accordance with the control strategies detailed in the WAPCP to be prepared for the Project prior to construction (Section 5.1.2.8).	clean free environment was verified during site inspection. Pest control programme is outlined in RMP	complies
4.8.2	Speed limits would be imposed on roads and tracks on WCPL-owned land to reduce the potential for vehicle strike on native fauna. Prior to the commencement of construction, WCPL would consult with the RTA, MWRC and the DEC regarding the installation of native fauna warning signs on Wollar Road through the Munghorn Gap Nature Reserve.	noted during site inspection	complies
4.8.2	An environmental education programme would be included in the employee and contractor inductions relevant to native fauna and would include an awareness of the potential to encounter native animals whilst commuting to and from the Project site and relevant actions to be taken in the event of an incident involving native fauna.	Environment and community induction sighted and Flora and Fauna management is included	complies
4.8.2	Domestic pets would be prohibited from the Project area and employees and contractors would not be permitted to encourage fauna through feeding.	confirmed during site inspection and interview with WCPL site personnel.	complies
4.8.2	As described in Section 4.7.2, the EPP developed for the Project provides for environmental management of the Project area and surrounds, the rehabilitation of the Project disturbance areas (i.e. rehabilitation areas), the establishment of woodland vegetation (i.e. regeneration areas) and the enhancement and conservation of remnant vegetation (i.e. ECAs). The Project EPP is detailed in Section 5.	Covered in the RMP and MOP. As this condition is not a direction from the department and the requirements are dealt with in other plans this is compliant	compliant

Section	Requirement	IEA Evidence	Audit Finding
4.8.2	Rehabilitation areas - rehabilitation of Project disturbance areas would be undertaken progressively as mining proceeds. The revegetation programme would establish significant areas (some 850 ha) of woodland vegetation.	RHP contains Revegetation programme	complies
4.8.2	Regeneration areas - the regeneration areas established on WCPL-owned land provide further opportunity to provide terrestrial fauna, including threatened species, with woodland habitat. Some 350 ha of woodland vegetation would be established in the regeneration areas through natural regeneration/selective planting.	section 7.4 RMP verifies this condition	complies
4.8.2	Enhancement and Conservation Areas - the ECAs would help conserve regional biodiversity, whilst enhancing the habitat available to flora and fauna (Figure 4-1). The fauna attributes of the three ECAs are summarised and presented in Table 4-14. Some 295 ha of remnant vegetation would be conserved and enhanced by the ECAs, including more than 80 ha of the WBYBBRG EEC. Further, some 185 ha of woodland vegetation would be established in the ECAs through natural regeneration/selective planting, including some 50 ha of the WBYBBRG EEC. Management measures to be implemented in the ECAs would be detailed in the FFMP. Management measures relevant to fauna would include the fencing of remnants to restrict livestock access and encourage natural regeneration of native species and the implementation of animal pest control measures.	RMP contains this condition. Section 7.2 details the management measures and woodland vegetation and WBYBBRG EEC, while section 7.3 contains protection measures for the ECAs	complies
4.8.2	While some 290 ha of remnant woodland would be removed by the Project, the Project EPP would result in an overall net increase in woodland vegetation of some 1,095 ha.	Covered in the RMP and MOP. As this condition is not a direction from the department and the requirements are dealt with in other plans this is compliant	compliant
4.8.2	Revegetation in the rehabilitation areas and selective planting in the regeneration areas and ECAs would include the use of native species characteristic of the Project area and surrounds, with the potential to offer habitat resources for native wildlife (e.g. breeding, roosting/nesting or foraging resources), including threatened fauna species. For example, the use of winter flowering eucalypts such as White Box (<i>E. albens</i>) for the Swift Parrot and Box, Ironbark and She-oak species for species such as the Regent Honeyeater, Brown Treecreeper, Black-chinned Honeyeater, Turquoise Parrot, Hooded Robin, Diamond Firetail, Speckled Warbler, Grey-crowned Babbler and Squirrel Glider.	RMP contains this condition.	complies

Section	Requirement	IEA Evidence	Audit Finding
4.8.2	Revegetation in the rehabilitation areas and natural regeneration/selective planting in the regeneration areas and ECAs would include the establishment of native riparian vegetation. Riparian vegetation would be established along the permanent creek features formed within the rehabilitation areas and along Wilpinjong and Cumbo Creeks in the regeneration areas and ECAs. These initiatives would increase the quantity of riparian vegetation along these watercourses and provide potential habitat for a number of fauna species (e.g. the Regent Honeyeater and Glossy Black-cockatoo).	RMP confirms this condition, Work on Cumbo Creek will commence once mining works effect the creek as of this audit period Cumbo Creek had not been effected by Mining works.	complies
4.8.2	A key objective of the Project EPP is to increase the continuity of woodland vegetation, thereby maximising opportunities for the creation of wildlife corridors. This would be achieved by establishing links between the rehabilitation areas, regeneration areas and existing remnant vegetation in Munghorn Gap Nature Reserve, Goulburn River National Park and the ECAs.	final rehab vegetation verifies this condition and is outlined in the MOP	complies
4.8.2	Conservation and enhancement of the ECAs would strengthen the linkages between the woodland rehabilitation areas, regeneration areas, Goulburn River National Park and Munghorn Gap Nature Reserve, as well as assist in the faunal recolonisation of Project rehabilitation areas and regeneration areas.	final rehab vegetation verifies this condition and is outlined in the MOP	complies
4.8.2	The quality of rehabilitation (i.e. woodland areas including riparian vegetation) and regeneration areas would be monitored using Ecosystem Function Analysis or a similar systems-based approach. Flora survey quadrats would also be utilised to obtain data on flora species diversity and abundance. Consideration would also be given to monitoring fauna species usage of the rehabilitation areas and regeneration areas.	Management plans and AEMR confirm this condition	complies
4.8.2	A flora and fauna monitoring programme would also be developed for the ECAs to assess the performance of the management measures in enhancing/improving habitats for flora and fauna. In areas of existing woodland vegetation, flora survey quadrats would be utilised to monitor flora species diversity and abundance. Terrestrial fauna surveys would also be conducted to monitor the usage of the ECAs by vertebrate fauna. Monitoring may include fauna species diversity and abundance, or alternatively, the use of indicator species to measure the effectiveness of the enhancement measures.	Wilpinjong ECA Flora and Rehabilitation monitoring Report 2010 was sighted by the audit team. Fauna surveys are outlined in the RMP	complies

Section	Requirement	IEA Evidence	Audit Finding
4.8.2	An overview of the flora and fauna monitoring programmes for the rehabilitation areas, regeneration areas and ECAs is provided in Sections 5.2, 5.3 and 5.4, respectively.	Noted.	
Aquatic Ecosystems			
4.9.2	Mitigation of the predicted reduction in average annual flows in Wilpinjong Creek would be in the form of designing the Project water management system to maximise the diversion of runoff from undisturbed areas around Project construction/development and operational areas, together with progressive rehabilitation to allow the free-draining of completed landforms. These measures would minimise the degree of catchment excision at any one time.	Noted	Noted
4.9.2	A number of measures would be implemented to minimise potential impacts on surface water quality and are described in Section 4.3.1. For example, surface water management structures would be utilised to control erosion and water runoff in accordance with the ESCP and to minimise the potential for Project activities to adversely affect downstream water quality. A water management system would be developed as a component of the Site Water Management Plan to minimise potential surface water quality impacts.	Noted	Noted
4.9.2	In order to minimise the length of time fish passage may be restricted during construction activities, construction of the floodway crossing across Cumbo Creek and burial of pipelines across Wilpinjong Creek would be scheduled during periods of no/low flow. Works associated with the relocation of Cumbo Creek would also be scheduled so as to minimise the interruption of flows and fish passage in Cumbo Creek.	Noted	Noted
4.9.2	Further to riparian revegetation in the rehabilitation areas, riparian vegetation would also be established along Wilpinjong and Cumbo Creeks in the regeneration areas and the ECAs through natural regeneration/ selective planting. These initiatives would increase the quantity of riparian vegetation along these watercourses and improve the condition of habitats available to aquatic biota. Some 10 km of creekline along Wilpinjong and Cumbo Creeks would be revegetated/enhanced by the Project. The Wilpinjong Creek and Cumbo Creek revegetation/enhancement initiatives in the regeneration areas and ECAs would be detailed in the FFMP.	Rehabilitation of Wilpinjong Creek has occurred and will begin at Cumbo Creek when Mining commences there.	complies

Section	Requirement	IEA Evidence	Audit Finding
4.9.2	The CCRP would also include a revegetation programme for the Cumbo Creek relocation corridor and would use native riparian species consistent with upstream regeneration works. The CCRP would also include: design and specifications for creek relocation works; a construction programme for the creek relocation, describing how the work would be staged and progressively integrated with mining operations; design of the block bund foundation to provide for the interception of sub-surface flow associated with Cumbo Creek alluvium; water quality, ecological and geomorphic performance criteria for the creek relocation; and a programme to inspect and maintain the creek relocation and revegetation works until they stabilise.	The Cumbo Creek relocation project has not commenced yet but the CCRP has been sighted and confirms this condition	complies
4.9.2	An aquatic monitoring programme would be developed to monitor the aquatic macroinvertebrate assemblages, in-situ water quality, characteristics and health of Wilpinjong and Cumbo Creeks. The ecological integrity of the Cumbo Creek relocation would also be monitored. Components of the aquatic monitoring programme would be detailed in either the FFMP or CCRP. Consideration would also be given to monitoring creek features established in the final landforms later in the Project life to assess their provision of habitat for aquatic biota. Surface and groundwater monitoring programmes would be developed for the Project to monitor Wilpinjong, Cumbo and Wollar Creeks, as described in Sections 5.1.3.6 and 5.1.3.7.	The Macroinvertebrate and Water Quality Monitoring for Wilpinjong and Cumbo Creek Program verifies this condition	Complies
Aboriginal and Cultural Heritage			
4.10.1	As Project development works would damage or destroy Aboriginal objects, appropriate approvals for all sites located within the Project disturbance area would be sought under sections 87/90 of the National Parks and Wildlife Act, 1979 (NPW Act).	Project Approval has been obtained under Part 3A of the Environmental Planning and assessment Act, 1979. Under a Part 3A Project Approval, a permit under Section 87 or a consent under Section 90 of the NPW Act is not required (and accordingly the provisions of the NPW Act that prohibit an activity without such an authority also do not apply).	Not Triggered
4.10.1	As part of the Project detailed design phase, the final alignment of some of the ancillary infrastructure (e.g. road re-alignments, relocation of the 11 kV electricity transmission line, the on-site temporary construction camp and water supply bores and associated pump and pipeline system) would be determined. In addition, during the life of the Project, various works such as fencing and selective tree planting would be conducted in rehabilitation areas, regeneration areas and the ECAs as described in Sections 5.2.5, 5.3 and 5.4.	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matters.	Complies
4.10.1	Prior to ancillary works occurring, pre-clearance Aboriginal heritage surveys would be conducted to identify Aboriginal objects located within the footprint of these works, and where practicable, Aboriginal objects would be avoided. Appropriate approvals would be sought under section 90 of the NPW Act for Aboriginal objects unable to be avoided by these Project components.	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matters.	Complies
4.10.1	WCPL would implement staff education programmes and would implement access restrictions to minimise the potential for inappropriate visitation of Aboriginal sites as described in Section 4.10.2.	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these	Complies

Section	Requirement	IEA Evidence	Audit Finding
4.10.2	An ACHMP would be developed in consultation with the Aboriginal community for management of Aboriginal cultural heritage at the Project and may be completed in stages as mine planning progresses. The ACHMP would be periodically updated over the Project life. Further detail on the content of the ACHMP is provided in Section 5.1.2.10.	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matters.	Complies
4.10.2	It is proposed that the Aboriginal community would continue to be involved in the management of Aboriginal cultural heritage over the life of the Project. Community involvement would be described in the ACHMP and would include:	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matters.	Complies
4.10.2	participation of local Aboriginal community representatives in Project Aboriginal cultural heritage salvage, monitoring and field management works (at a level of representation as defined in the ACHMP);	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matters.	Complies
4.10.2	establishment of an Aboriginal cultural heritage liaison committee for cultural heritage management and continuing Aboriginal involvement in the Project (Section 5.1);	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matters.	Complies
4.10.2	WCPL support for the nomination of an Aboriginal community representative to the Project CCC so that the Aboriginal community can be informed of on-going Project planning, environmental monitoring and management; and	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matters.	Complies
4.10.2	provision of site access protocols for Aboriginal people wishing to access Aboriginal cultural heritage sites located within the Project area and WCPL-owned lands to perform cultural practices or visit places of significance to them (these site access protocols would require compliance with applicable occupational health and safety and operational constraints).	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matters.	Complies
4.10.2	ACHMP would include the following activities:		
4.10.2	Prior to disturbance, selected Aboriginal objects located within the Project disturbance area would be collected and relocated to a "Keeping Place" where the objects would be documented and stored.	Section 4.3 of the Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matters.	Complies
4.10.2	Collected Aboriginal objects would be replaced onto completed landforms as part of the rehabilitation programme. This process may be undertaken progressively.	Section 4.4 of the Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matter	Complies

Section	Requirement	IEA Evidence	Audit Finding
4.10.2	Salvage excavation, analysis and reporting would occur for selected sites/areas prior to disturbance. This programme would be developed and described in the ACHMP in consultation with the Aboriginal community.	Section 4.2 and Attachment A of the Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matter	Complies
4.10.2	Selective salvage and further investigation would be undertaken into the age and origin of the scarred trees in the Project area and some examples would be re-placed onto rehabilitation areas.	Section 4.2 of the Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matter	Complies
4.10.2	Other potential impacts would be mitigated by the implementation of the following management measures:		
4.10.2	Pre-development baseline recording and blast vibration and dust monitoring at the rock shelters with rock art (Sites 72, 152, and 153) (Sections 5.1.3.2 and 5.1.3.4).	noted	Complies
4.10.2	Regular monitoring of rock art sites that are located in relative proximity to the Project disturbance area (Section 5.1.2.10) and the implementation of further mitigation measures if the potential for adverse impacts is identified.	Section 4.7 of the Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matter See ACHMP section of DA	Complies
4.10.2	Conduct of further archaeological survey on slopes up to and including the escarpments within 500 m of the open cut mining area to identify any additional sites that are outside of the Project disturbance areas. The survey programme would be conducted progressively prior to the commencement of mining adjacent to these areas. WCPL has committed to complete this survey work within two years of the commencement of Project mining activities.	Section 4.6 Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan confirms this	Complies
4.10.2	A programme of conservation management would also be implemented at selected sites in relative proximity to mining or infrastructure areas. This would include: - the installation of fencing with the aim of excluding livestock from rock art sites (72, 152 and 153); - the installation of an appropriate form of demarcation (e.g. temporary fencing or flagging) around sites which are located in close proximity to the Project disturbance area; and - the conduct of Aboriginal cultural awareness training as part of the induction of Project personnel which communicates the need for, and the various management strategies to be conducted for the management of Aboriginal cultural heritage.	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan	complies

Section	Requirement	IEA Evidence	Audit Finding
4.10.2	It is proposed to manage Aboriginal cultural heritage values of the ECAs according to measures to be outlined in the ACHMP including: - the restriction of livestock access to some areas; - integrating the management of the ECAs with the maintenance of Aboriginal archaeological sites; and - assessment of potential cultural heritage impacts prior to any works involving significant ground surface in the ECAs.	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan deals with these matters	Complies
Non Aboriginal Heritage			
4.11.2	The following mitigation measures (Appendix G) would be implemented for the non-Aboriginal heritage items identified within the Project disturbance area:		Noted
4.11.2	All the heritage sites that are considered to be of local heritage significance (Sites 1 to 9) have been recorded to an archival standard (written description, plans [where applicable] and detailed photographic record). These records will be provided to the Mudgee Historical Society.	This has not occurred during the audit period	Not Triggered
4.11.2	During the mine access road detailed design, Site 9 would be identified and avoided by a minor road deviation.	This has not occurred during the audit period	Not Triggered
4.11.2	When "Warrawong" and "Hillside" need to be demolished for mining, materials such as stone and wooden slabs would be offered to local landowners or the Mudgee Historical Society for conservation or re-use.	This has not occurred during the audit period	Not Triggered
Road Transport			
4.12.2	The existing traffic flows at the Ulan Road/Wollar Road intersection (Main Road 208) already requires an upgrade of the intersection geometry to provide a passing lane for traffic on Ulan Road (Appendix K). As the construction and operational phases of the Project would contribute additional traffic to this intersection the Road Transport Assessment (Appendix K) recommends upgrading of this intersection.	Intersection has been upgraded.	Complies
4.12.2	The mine access road geometry would be designed to comply with the Rural Road Design – Guide to Geometric Design of Rural Roads (Austroads, 1993). Alignment of the intersection of the mine access road with Wollar Road would be undertaken to improve visibility (from the current Wilpinjong Road intersection) and the intersection would be designed as a "Type B" (basic) intersection incorporating a "Type AUR" (auxiliary turn lane) right turn treatment from Wollar Road and a "Type BAL" (basic left turn treatment) from Wollar Road, in accordance with the Road Design Guide (RTA, 1996) (Appendix K).	The audit team does not have the expertise required to verify this condition against Aus Standards. No evidence of consultation from council was sighted.	Complies

Section	Requirement	IEA Evidence	Audit Finding
4.12.2	The detailed design of the intersection should accommodate turning manoeuvres of B-Doubles as defined by the Guide to Traffic Engineering Practice: Part 5 – Intersections at Grade (Austroads, 1988) with these vehicles turning without crossing the centrelines of the intersection approaches in Wollar Road. This would require the widening to be sealed and extended over a distance of about 190 m, subject to detailed design. Intersection pavement design would be prepared in accordance with A Guide to the Structural Design of Road Pavements (Austroads, 1992).	The audit team does not have the expertise required to verify this condition against Aus Standards. No evidence of consultation from council was sighted.	Complies
4.12.2	Approximately 100 m of the mine access road would be sealed on the approach to the intersection with Wollar Road to minimise transport of gravels onto the Wollar Road pavement.	More than 100m has been sealed and there was no evidence of transport of site materials onto Wollar Rd.	Complies
4.12.2	A TMP would be developed to address blasting related road closures on Wollar Road and Ulan-Wollar Road (when blasting is undertaken within 500 m of these roads) in consultation with the MWRC and RTA and in accordance with the RTA Traffic Control at Worksites Manual (RTA, 2003) (Section 5.1.2.9). Traffic Management Plans would also be completed to address any other roadworks on public roads (e.g. the re-alignment of Ulan-Wollar Road) in consultation with the MWRC and RTA prior to these works being undertaken.	Wilpinjong Coal Project Procedure Blast Traffic Management Plan TCN0820-HSE-PP012 provided and complies with RTA Traffic Control at Worksites Manual as well as 1742.3-2002	Complies
4.12.2	WCPL would encourage car pooling to minimise Project traffic generation during the life of the Project.	audit interview verifies compliance	Complies
4.12.2	WCPL would consult with the MWRC, RTA, Ulan Coal Mines and other mining interests in the Project area during the Project life to manage cumulative traffic issues, should they arise.	No evidence of cumulative impacts during time on-site.	Not Triggered
Rail Transport			
4.13	For blast events within 500 m of the Gulgong-Sandy Hollow railway, temporary closure of the railway for short periods (i.e. less than 15 minutes) would be required while blasting is undertaken and to allow for post-blasting inspections of the railway. These temporary closures would be conducted in consultation with the ARTC.	Conducted on site commencement not in audit period.	Not Triggered
4.13	The Hunter Valley Capacity Improvement Strategy (ARTC, 2005) five year plan for the Hunter Valley rail corridor makes specific reference to the Project with regard to the potential increase in train movements along the Gulgong-Sandy Hollow railway and the Main Northern railway. Specifically, this strategy identified that the train movements along the Gulgong-Sandy Hollow railway would increase from 14 (2005) to 29 (2009) (ibid.) and attributes this increase predominantly to the Project (ibid.).	Noted	Noted

Section	Requirement	IEA Evidence	Audit Finding
4.13	The Hunter Valley Capacity Improvement Strategy (ibid.) also describes additional train usage of the Main Northern railway. The strategy outlines the infrastructure improvements and the timing necessary to accommodate Project trains and additional demand from other projects in the region. Hence, the ARTC has considered the Project in its five year infrastructure improvements plan and it is understood that the relevant railways would have sufficient capacity to accommodate Project trains.	Noted	Noted
Community Infrastructure Assessment			
4.14.4	WCPL would consult with the MWRC and other government agencies during the construction and operational phases to manage any community infrastructure issues should they arise. WCPL will continue to consult with the MWRC in relation to a dedication or contribution for the provision, extension or augmentation of public services by the MWRC, having regard to the additional demand on these services that could potentially result from the Project (Section 1.3.5).	correspondence between WCPL and MWRC has been sighted by the audit team and verifies this condition	Complies
4.14.4	WCPL would develop a Mine Closure Plan (MCP) before mine closure. The MCP would be developed in consultation with regulatory agencies and would include consideration of the potential impacts of reductions in employment that would occur at the end of the Project life.	Noted	Not Triggered
4.14.4	Given the uncertainty of the timing or nature of any cumulative employment, population and housing demand in the local area (Section 4.14.3), WCPL would consult with the MWRC, DIPNR and other mine operators to plan for and manage any cumulative issues, should they arise.	Noted	Noted
Benefit Cost Analysis and Regional Economic Impact Assessment			
4.15.2	As described in Section 4.14.4, WCPL would develop a MCP before mine closure in consultation with regulatory agencies and would include consideration of the potential impacts of reductions in employment that would occur at the end of the Project life.	Not Triggered	Not Triggered
Hazard and Risk			
4.16.2	A number of hazard preventative and mitigative measures would be described in management plans for the Project, including the following: - Blast Management Plan; - Bushfire Management Plan (BMP); - SWMP; and - TMP. These plans are described in Section 5.1.2.	All these plans have been developed	Complies
4.16.2	In addition, the following hazard mitigation/preventative measures would be adopted for the Project:	Noted	Noted

Section	Requirement	IEA Evidence	Audit Finding
4.16.2	Maintenance – On-going and timely maintenance of all mobile and fixed plant and equipment in accordance with the recommended maintenance schedule, and consistent with the maintenance schemes required by legislation. Only vehicles permitted to carry dangerous goods would be used for explosives transport.	Sighted maintenance planning system, demonstrated by Maintenance Planner.	Complies
4.16.2	Staff Training – Operators and drivers would be trained and (where appropriate) appointed for their positions. Only those personnel appointed to undertake skilled and potentially hazardous work would be permitted to do so.	Confirmed during audit interview	Complies
4.16.2	Engineering Structures – Mining and civil engineering structures would be constructed in accordance with applicable codes, guidelines and Australian Standards. Where applicable, WCPL would obtain the necessary licences and permits for engineering structures.	Construction and Occupancy Certificates provided to audit team and verify compliance.	Complies
4.16.2	Blast Management – As reported in Appendix D, site specific management measures would be implemented to reduce the potential for off-site impacts of blast vibration and overpressure. Management measures in relation to flyrock impacts are described in Section 4.5.6.	BVMP verifies compliance	Complies
4.16.2	Contractor Management – All contractors employed by WCPL would be required to operate in accordance with the relevant Australian Standards, NSW legislation and WCPL contractor management plans.	Contractor arrangements not reviewed	Not able to be Verified
4.16.2	Water Management – As discussed in Section 2.9, water management structures would be constructed to separate runoff from undisturbed areas and disturbed areas. The collection drain and sediment dam system would be designed and constructed with capacity to contain potential spills or fire suppression water runoff within operational areas.		Noted
4.16.2	Coal Stockpile Management – Coal stockpiles would be managed to reduce the potential for spontaneous combustion.		Complies
4.16.2	CHPP Management – CHPP management procedures would be developed to reduce the potential for spillages of contaminated water.		Complies
4.16.2	Emergency Response – Emergency response procedures manuals and systems would be developed.		Complies
4.16.2	Storage Facilities – Storage and usage procedures for potentially hazardous materials (i.e. fuels and lubricants) would be developed.		Complies
Section One Volume Five - Environmental Protection Plan			
Environmental Management and Monitoring			
5.1	Environmental management would be the responsibility of all Project employees, with co-ordination provided by an environmental team. The environmental team would be lead by an Environmental Manager, who would report directly to the General Manager.	Structure at site appears to reflect this commitment, environmental responsibilities detailed in induction materials.	Complies

Section	Requirement	IEA Evidence	Audit Finding
5.1	A new CCC would be established for the construction and operation phase of the Project as an on-going channel for communication between the local community and WCPL. The new CCC would comprise a similar membership to the current CCC and would meet to discuss mine progress, rehabilitation activities, to review the general environmental performance of the Project and to discuss any issues raised by the community.	CCC established.	Complies
5.1	An Aboriginal Cultural Heritage Liaison Committee would also be formed in accordance with the Aboriginal Cultural Heritage Management Plan (Section 5.1.2.10). This committee would specifically address the management of relevant Aboriginal cultural heritage and the on-going involvement of the Aboriginal community in this regard.	ACHLC has been established	Complies
5.1	A community contact register would be established as a component of the community consultation programme. Community contacts would be primarily handled by the Environmental Manager. All contacts, and where appropriate WCPL's responses, would be recorded in the register. The register would detail the name of the contact, time, date, nature of the issue raised and any actions taken to address the issue where it was appropriate to do so.	The register is used to distribute the newsletters and provide a preblast notification service to those who request it.	Complies
5.1	Issues raised and any subsequent actions undertaken would be reported in the Annual Environmental Management Report (AEMR) (Section 5.1.1.2).	This is reported in the AEMRs	Complies
5.1	All Project employees and contractors would undertake an induction and environmental awareness programme prior to working independently on-site. As a component of this programme, employees would be given training in occupational health and safety requirements, an overview of the requirements of the EPP and an appreciation of the Aboriginal cultural heritage values of the Project area.	Induction sighted compliance verified.	Complies

Section	Requirement	IEA Evidence	Audit Finding
Mining Operations Plan			
5.1.1.1	The MOP would provide information in regard to mining, processing and rehabilitation operations, relevant lease and development consent conditions, licences and other approvals. The MOP would also describe: - area(s) proposed to be disturbed; - mining and rehabilitation method(s) to be used and their sequence; soil stripping, stockpiling and re-application, scheduling and management procedures; - existing and proposed surface infrastructure; - progressive rehabilitation design and schedules; - areas of particular environmental sensitivity; - relevant completion criteria; - land and water management systems; and - proposed resource recovery.	MOP developed to satisfaction of DTRIS DRE.	Complies
5.1.1.1	The MOP would be revised periodically as well as prior to any significant alteration to mining and rehabilitation operations.	Noted	Noted
Annual Environmental Management Report			
5.1.1.2	An AEMR would be prepared to address the status of approvals, leases, licences and environmental risk management and control strategies.	AEMRs sighted	Complies
5.1.1.2	For the preceding 12 month period, the AEMR would provide a summary of community consultation, mining operations as well as the progress of the rehabilitation areas, regeneration areas and the ECAs against completion criteria. Project environmental performance in relation to consent conditions, other approvals, lease conditions and relevant licences for the previous 12 month period would also be reported.	AEMR contains these commitments	Complies
5.1.1.2	The AEMR would also include a review and any proposed changes in relation to environmental monitoring and management systems, environmental performance and completion criteria and would specify environmental, rehabilitation, regeneration and ECA objectives to be achieved during the ensuing 12 month period.	AEMRs reports of further improvements needed for monitoring and management systems/.	Complies

Section	Requirement	IEA Evidence	Audit Finding
Environmental Management Strategy			
5.1.1.3	An Environmental Management Strategy (EMS) would be prepared for the Project describing: - operational procedures and environmental management plans to manage the environmental effects of the Project; - assignment of responsibilities; - verification and audit processes; - environmental monitoring programmes; - schedules for the development and implementation of environmental management plans and monitoring programmes; - training programs; - community consultation processes; - complaint handling mechanisms including site contacts; - strategies to use monitoring information to improve performance; - strategies to achieve acceptable environmental impacts (including remedial response strategies); and - measures to avoid and minimise the generation of wastes and promote waste reuse and recycling.	EMS sighted and reviewed.	Complies
Environmental Management Plans			
5.1.2	A number of environmental management plans would be developed for the Project. Management plans would be progressively prepared, prior to and/or during the development of the Project, so they can be implemented prior to a relevant action taking place.	Management Plans verified in audit.	Complies
Land Management Plan			
5.1.2.1	A Land Management Plan (LMP) would be prepared for the Project and would describe measures to manage WCPL-owned land in a manner consistent with EPP objectives. In addition, the LMP would address grazing management, access controls and any potential land degradation impacts.	LMP sighted and reviewed.	Complies
Erosion and Sediment Control Plan			
5.1.2.2	An Erosion and Sediment Control Plan (ESCP) would be developed for the Project detailing methods for the control of erosion and sediment in disturbed areas. The ESCP would be prepared in a progressive manner prior to the development of each Project component involving land disturbance. The measures presented in the ESCP would aim to control soil erosion and sediment generation proximal to the source and thereby minimise the potential for Project activities to adversely affect downstream water quality.	Wilpinjong Coal Project Erosion and Sediment Control Plan (WCPL, February 2006) has been implemented.	Complies
5.1.2.2	The ESCP would be prepared in general accordance with the manual Managing Urban Stormwater: Soils and Construction (Department of Housing, 1998) and the Draft Guidelines for the Design of Stable Drainage Lines on Rehabilitated Minesites in the Hunter Coalfields (DLWC, 2002b).	Confirmed section 3 ESCP	Complies

Section	Requirement	IEA Evidence	Audit Finding
5.1.2.2	The design capacity of erosion and sediment control structures would be determined in consultation with relevant authorities based on catchment area, soil types, design life and associated environmental risk. The ESCP would include: - identification of activities that have the potential to cause soil erosion and generate sediment; - description of the location, function and capacity of erosion and sediment control structures; - B326 description of measures to control soil erosion and the potential for the migration of sediments to downstream watercourses; - details of salinity management; and - a programme to monitor the effectiveness of erosion and sediment control measures. The ESCP would be revised as required in consultation with relevant authorities.	Wilpinjong Coal Project Erosion and Sediment Control Plan (WCPL, February 2006) has been implemented. These requirements are contained within the ESCP in sections 2,3,3,4, 5 & 7 respectively.	Complies
Bushfire Management Plan			
5.1.2.3	A Bushfire Management Plan (BMP) would be developed to: - identify bushfire management issues relevant to the local environment and WCPL-owned land; - assess bushfire risk; and - establish bushfire management measures (e.g. fire breaks and access tracks) and outline standard procedures to be followed in the event of a bushfire.	BFMP verifies these conditions	Complies
5.1.2.3	The Goulburn River National Park and Munghorn Gap Nature Reserve Fire Management Plan (DEC, 2004) indicates that co-operation with neighbouring landowners is required to achieve responsible fire management. WCPL would consult with DEC regarding fire management. WCPL would also consult with the MWRC and the Rural Fire Service in developing the BMP.	BFMP verifies these conditions	Complies
Site Water Management Plan			
5.1.2.4	A Site Water Management Plan (SWMP) would be developed for the Project in consultation with relevant authorities. The SWMP would describe the Project site water management system, including:	SWMP reviewed as part of this audit.	Complies
5.1.2.4	the predicted site water balance as well as details of the Project water supply system (e.g. water supply storage, pump and pipeline capacities and a Water Supply Borefield Plan [WSBP] – Section 5.1.2.5);	No WSBP is in place at WCM	Not Triggered
5.1.2.4	procedures that would be implemented to: - ameliorate potential surface water impacts; and - establish priority water use (Section 2.9.2);	SWMP Verifies these conditions	Complies
5.1.2.4	details of surface water management structures including the design of the Cumbo Creek relocation (Cumbo Creek Relocation Plan [CCRP] – Section 5.1.2.6);	The CCRP was developed in 2013 and is not included in the 2006 SWMP. The CCRP continued to be under development at the time of the audit. The Cumbo Creek relocation project has not commenced at the time of the audit.	Not Triggered

Section	Requirement	IEA Evidence	Audit Finding
5.1.2.4	location and design specifications for all clean water diversions, including channel design and stabilisation, sediment retention storages and other structures;	SWMP Verifies these conditions	Complies
5.1.2.4	details of internal drainage of the mine water circuit, including any bunding, drainage channels, dewatering pits, advance dewatering bores and storages;	SWMP Verifies these conditions	Complies
5.1.2.4	measures to manage waters that accumulate in mine workings, including the isolation and return of potential direct groundwater inflows from Wilpinjong Creek or Cumbo Creek alluvium (Section 2.4.8);	SWMP Verifies these conditions	Complies
5.1.2.4	surface water and groundwater monitoring programmes (Sections 5.1.3.6 and 5.1.3.7);	SWMP Verifies these conditions	Complies
5.1.2.4	investigation triggers and contingency/remediation plans for managing adverse impacts of the Project on surface water and groundwater including existing users; and	SWMP Verifies these conditions	Complies
5.1.2.4	details of strategies for the decommissioning of water management structures.	SWMP Verifies these conditions	Complies
5.1.2.4	The SWMP would be reviewed and revised as required in consultation with relevant authorities and would be periodically updated over the mine life.	SWMP Verifies these conditions	Complies
Water Supply Borefield Plan			
5.1.2.5	A Water Supply Borefield Plan (WSBP) would be developed for the Project in consultation with relevant authorities and incorporated in the SWMP. The WSBP would include: - details of borefield configuration and bore location; - management and monitoring programmes to be implemented during the operation of the borefield; - processes for validating measured groundwater drawdowns against those predicted to occur; - a schedule of on-going borefield performance reviews through the mine life; and - contingency measures to mitigate any adverse impacts on existing water supply bores, groundwater users or borefield users.	No WSBP is in place at WCM	Not Triggered

Section	Requirement	IEA Evidence	Audit Finding
Cumbo Creek Relocation Plan			
5.1.2.6	A Cumbo Creek Relocation Plan would be developed for the Project in consultation with relevant authorities and incorporated in the SWMP. The CCRP would include:	The CCRP was developed in 2013 and is not included in the 2006 SWMP. The CCRP continued to be under development at the time of the audit. The Cumbo Creek relocation project has not commenced at the time of the audit.	Not Triggered
5.1.2.6	design and specifications for creek relocation works;		Not Triggered
5.1.2.6	a construction programme for the creek relocation, describing how the work would be staged and progressively integrated with mining operations;		Not Triggered
5.1.2.6	a revegetation programme using appropriate native riparian species consistent with upstream regeneration works (Section 5.2.5);		Not Triggered
5.1.2.6	design of the block bund foundation to provide for the diversion of sub-surface flow associated with Cumbo Creek alluvium;		Not Triggered
5.1.2.6	water quality, ecological and geomorphic performance criteria for the creek relocation;		Not Triggered
5.1.2.6	a programme to monitor water quality and ecological and geomorphic integrity of the creek relocation; and		Not Triggered
5.1.2.6	a programme to inspect and maintain the creek relocation and revegetation works until they stabilise.		Not Triggered
Flora and Fauna Management Plan			
5.1.2.7	A Flora and Fauna Management Plan (FFMP) would be prepared to facilitate integration of flora and fauna management measures with Project construction and operation.	No Flora and Fauna Management Plan was in place at the time of the audit. MOD 5 to DA 05-0021 (as modified) requires a Biodiversity Management Plan (WCPL, 2014) to be developed which was submitted to the DG in 2014 for approval. The Biodiversity Management Plan will contain Flora and Fauna management measures and monitoring requirements however was not approved at the time of the audit.	Not Compliant
5.1.2.7	The FFMP would contain a number of management strategies to minimise the potential impacts of the Project on protected and threatened flora, fauna and their habitats. The FFMP would include a Vegetation Clearance Protocol (VCP) and a Threatened Species Management Protocol (TSMP), would describe management of the regeneration areas and the ECAs, and would include monitoring to assess the performance of the rehabilitation areas, regeneration areas and the ECAs, as discussed further below.	No threatened fauna species were recovered from the felled habitat trees and therefore implementation of the Threatened Species Management Protocol (TSMP) was not required. ECAs are detailed in the rehabilitation management plan. VCP has been sighted by audit team	Complies
5.1.2.7	A Vegetation Clearance Protocol would be developed to minimise the impact of Project vegetation clearance activities on flora and fauna. Key components of the VCP would include the delineation of areas to be cleared of remnant vegetation, a pre-clearance survey, identification of fauna management strategies and specific procedures for vegetation clearance.	VCP has been developed	Complies
5.1.2.7	Areas to be cleared of remnant vegetation would be clearly delineated to prevent accidental damage during vegetation clearance activities or construction works.	RMP and AEMR Confirm this condition	Complies

Section	Requirement	IEA Evidence	Audit Finding
5.1.2.7	Preclearance survey component of the VCP would involve an inspection of trees for features with the potential to provide roosting and/or nesting resources for birds, bats and arboreal mammals (e.g. hollows). Spotlighting for arboreal mammals and observations of hollows and nests for nesting bird species may also be undertaken. Where feasible, this stage would be conducted with consideration of seasonal and temporal factors	VCP confirms this condition	Complies
5.1.2.7	This part of the VCP would involve the identification of management strategies to minimise the impact of clearing activities on resident fauna in the short term and to minimise the loss of habitat in the longterm	VCP confirms this condition	Complies
5.1.2.7	Specific vegetation clearance procedures would be developed and would include: - implementation of fauna management strategies as above; - inspection of felled trees for the presence of fauna; - salvage of habitat features (e.g. hollows) and collection of seed for use in the rehabilitation areas, regeneration areas and/or in the ECAs; and - collection of harvestable timber for commercial purposes.	VCAs sighted and comply with this condition	Complies
5.1.2.7	A Threatened Species Management Protocol would be developed to facilitate implementation of threatened species management strategies to minimise potential impacts on threatened flora and fauna species. Key components of the TSMP would include site observations/surveys, threatened species management strategies and reporting.	No threatened fauna species were recovered from the felled habitat trees and therefore implementation of the Threatened Species Management Protocol (TSMP) was not required.	Not Triggered
5.1.2.7	Regeneration areas would be established on areas of WCPL-owned land situated proximal to the Project disturbance areas/rehabilitation areas, as described in Section 5.3. The regeneration areas predominantly comprise cleared agricultural land. Woodland vegetation would be established in the regeneration areas through natural regeneration and selective planting.	Regeneration areas have been identified, no planting has occurred as regeneration trials are still ongoing with outcomes (including recommendations for planting) not finalised.	Complies
5.1.2.7	Three ECAs would be established by the Project, as described in Section 5.4. The ECAs would be situated on areas of WCPL-owned land which contain both remnant vegetation and proximal grazing land. Management of the ECAs in relation to flora and fauna would be detailed in the FFMP.	Figure 3 of the Rehabilitation Management plan shows the position of the three ECAs at WCPL.	Complies
5.1.2.7	'Enhancement' of the ECAs would be achieved by the implementation of appropriate land management practices, as described below. 'Conservation' of the ECAs would be achieved through a rezoning application, as described in Section 5.4.	Fencing maintenance was undertaken to maintain stock exclusion from the ECAs during the 2008, 209 and 2010 reporting period (Sections 3.13.1 of AEMRs 2008 and 2009, and Section 3.12.1 of 2010 AEMR). Weed and feral animal control measures were implemented during the current auditing period, as confirmed in Section 3.14.1 of the AEMRs 2008 and 2009, and Section 3.13.1 of the AEMR 2010. No habitat hollows collected as yet. No nest boxes deployed. ECAs are detailed in the RMP	Complies

Section	Requirement	IEA Evidence	Audit Finding
5.1.2.7	A monitoring programme would be developed to assess the performance of the rehabilitation areas, regeneration areas and the ECAs. An overview of the proposed monitoring of the rehabilitation areas, regeneration areas and ECAs is provided in Sections 5.2, 5.3 and 5.4, respectively. As discussed in Section 5.1.3.8, an aquatic monitoring programme would also be developed to monitor the aquatic macroinvertebrate assemblages, in-situ water quality, characteristics and health of Wilpinjong and Cumbo Creeks.	Aquatic monitoring program sighted and complies with this condition	Complies
Weed and Animal Pest Control			
5.1.2.8	A Weed and Animal Pest Control Plan (WAPCP) would be developed for the Project for WCPL owned land. The WAPCP would include management strategies to control the potential adverse impacts of weeds and animal pests. Weeds would be controlled through mechanical removal and/or the application of approved herbicides. Animal pest control would be undertaken by a licensed contractor.	Weed and Animal Pest Control is reported in the AEMRs and is detailed in the RMP	Complies
Traffic Management Plan			
5.1.2.9	A Traffic Management Plan (TMP) would be prepared in consultation with the RTA and MWRC and would be updated when required (e.g. prior to the relocation of part of Ulan-Wollar Road, later in the mine life). The TMP would address: - management of roadworks on public roads (e.g. the mine access road intersection); and - temporary road closures on Wollar Road and Ulan-Wollar Road when blasting is undertaken within approximately 500 m of these roads.	Wilpinjong Coal Project Procedure Blast Traffic Management Plan TCN0820-HSE-PP012 provided and complies with RTA Traffic Control at Worksites Manual as well as AS 1742.3-2002	Complies
5.1.2.9	The TMP would be prepared in accordance with AS 1742.3-2002 Manual of Uniform Traffic control Devices – Traffic Control Devices for Works on Roads and/or the manual for Traffic Control at Work Sites (RTA, 2003) prior to commencement of works on the public road network, and would include: - design of roadworks to be performed; - an on-going programme of traffic flow monitoring to validate assessment and design assumptions; - traffic control measures to be adopted during B370roadworks; and - road closure management measures.	Wilpinjong Coal Project Procedure Blast Traffic Management Plan TCN0820-HSE-PP012 provided and complies with RTA Traffic Control at Worksites Manual as well as AS 1742.3-2002	Complies
5.1.2.9	Consultation with the RTA and MWRC would continue as necessary throughout the construction and operational phases of the Project. Consultation with the MWRC and ARTC would also be undertaken with respect to the appropriate design of the relocated rail crossings on Ulan-Wollar Road (Section 2.3.9).	Wilpinjong Coal Project Procedure Blast Traffic Management Plan TCN0820-HSE-PP012 provided and complies with RTA Traffic Control at Worksites Manual as well as AS 1742.3-2002	Complies
Aboriginal Cultural Heritage Management Plan			
5.1.2.10	An Aboriginal Cultural Heritage Management Plan (ACHMP) would be prepared and would describe management procedures for Aboriginal cultural heritage sites at the Project.	ACHMP reviewed as part of this audit. Refer compliance summary.	Complies
5.1.2.10	The ACHMP would include:	ACHMP reviewed as part of this audit. Refer compliance summary.	Complies

Section	Requirement	IEA Evidence	Audit Finding
5.1.2.10	A protocol for consultation with local Aboriginal groups including the establishment of an Aboriginal Cultural Heritage Liaison Committee and the participation of Aboriginal community representatives in cultural heritage salvage, monitoring and management works;	ACHMP reviewed as part of this audit. Refer compliance summary.	Complies
5.1.2.10	Details of statutory requirements to be met regarding the management of Aboriginal heritage under the NPW Act;	ACHMP reviewed as part of this audit. Refer compliance summary.	Complies
5.1.2.10	A salvage programme for the recovery of artefacts from disturbance areas, an excavation and recording programme for selected sites and a plan of management for scarred trees;	ACHMP reviewed as part of this audit. Refer compliance summary.	Complies
5.1.2.10	An artefact temporary storage and replacement programme (for retrieval of collected artefacts from a "keeping place" and then placement onto completed mine landforms as part of the rehabilitation programme);	ACHMP reviewed as part of this audit. Refer compliance summary.	Complies
5.1.2.10	A monitoring and management protocol that defines actions to be followed in the event that human skeletal remains are encountered during development within Project disturbance areas;	ACHMP reviewed as part of this audit. Refer compliance summary.	Complies
5.1.2.10	An access protocol so that Aboriginal people can access sites in the Project area in accordance with site occupational health and safety requirements;	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these	Complies
5.1.2.10	A schedule and design for a survey of the escarpments and associated debris slopes to the south-west of the Project disturbance area in the first two years of the Project operational phase;	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these	Complies
5.1.2.10	A monitoring programme for sensitive sites adjacent to the Project disturbance area, including pre-development baseline recording of sites 72, 152 and 153 (Figure 5-1);	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matters.	Complies
5.1.2.10	General land management measures to protect Aboriginal cultural heritage; and	Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008) (ACHMP) deal with these matters.	Complies
5.1.2.10	Aboriginal cultural heritage training for Project employees (e.g. through site inductions).	Noted during site induction.	Complies
Spontaneous Combustion Management Plan			

Section	Requirement	IEA Evidence	Audit Finding
5.1.2.11	A Spontaneous Combustion Management Plan would be developed for the Project in consultation with the DPI-MR and would include: - coal stockpile and emplacement management measures; - monitoring potential causes of spontaneous combustion events; and - actions that can be implemented in the event of spontaneous combustion.	SCMP verifies commitment	Complies
Blast Management Plan			
5.1.2.12	A Blast Management Plan would be developed for the Project and would include: - a blast monitoring programme (including ground vibration and airblast overpressure) to verify blast predictions and to assist future blast designs; - methods to reduce the potential for flyrock impacts; - details of temporary closures of Wollar Road, Ulan-Wollar Road and the Gulgong-Sandy Hollow railway when blasting is undertaken within 500 m of the road or railway; and - notification of occupants of the Close (14) dwelling when blasting is undertaken within 1,000 m of the dwelling.	Wilpinjong Coal Mine Blast Management Plan (WCPL, September 2011) developed and contains these requirements.	Complies
Meteorology			
5.1.3.1	A meteorological station would continue to be utilised for the life of the Project.		Noted
Air Quality			
5.1.3.2	The Project air quality monitoring programme would monitor dust deposition and concentrations of the PM10 proportion of suspended particulates utilising a network of dust deposition gauges and three highvolume samplers (measuring PM10). The monitoring programme would incorporate mechanisms for responding to dust-related complaints.	AQMP and AEMRs confirm this condition	Complies
5.1.3.2	The following dust deposition monitoring sites would be monitored on a monthly basis (Figure 5-1): - DG3 – Close dwelling; - DG4 – Robinson dwelling; - DG5 – St Laurence O’Toole Catholic Church; - DG7 – Helm dwelling; - DG8 – Ulan Coal Mines-owned dwelling; - DG9 – McKinna dwelling; - DG10 – Bailey dwelling; and - DG11 – Smith dwelling.	AEMR details the air quality monitoring sites and results for the report period. Table 12 AEMR 2010 Confirms this condition	Complies

Section	Requirement	IEA Evidence	Audit Finding
5.1.3.2	In addition, the Aboriginal Cultural Heritage Assessment (Appendix F) recommended that dust deposition monitoring be undertaken at three of the identified Aboriginal rock art sites. Accordingly, dust deposition gauges would be installed adjacent to Aboriginal rock art sites 72 (site DG12), 153 (site DG13) and 152 (site DG14) (Figure 5-1) and monitored monthly when mining operations are within 1 km of these sites.	AEMR confirms that 3 aboriginal rock art sites are monitored for dust deposition	Complies
5.1.3.2	The dust deposition gauges would be analysed for ash content and insoluble solids in accordance with AS 3580.10.1-1991 Methods for Sampling and Analysis of Ambient Air – Determination of Particulates – Deposited Matter – Gravimetric Method.	verified during Audit interview and AQMP	Complies
5.1.3.2	The existing high volume sampler at the St Laurence O'Toole Catholic Church (HV1) would be retained for monitoring (Figure 5-1). Two additional high volume samplers would be installed at the Smith and Close dwellings (HV2 and HV3a, respectively) (Figure 5-1). As the open cut progresses into Pit 5 during Year 13, the high volume sampler at HV3a would be relocated to the Helm dwelling (HV3b) (Figure 5-1) to maintain an appropriate offset distance from the dust source (i.e. to ensure that data obtained from this high volume sampler is representative of air quality to the west of the Project area).	verified during Audit interview	Complies
5.1.3.2	The high volume samplers would monitor PM10 over a six day continuous cycle in accordance with the Approved Methods for the Sampling and Analysis of Air Pollution in New South Wales (EPA, 2001).	AEMR Confirms this condition	Complies

Section	Requirement	IEA Evidence	Audit Finding
5.1.3.2	The results of the air quality monitoring programme would be used to manage dust emission controls, validate predictions made in the EIS and would be reported in the AEMR.	AEMR confirms this commitment	Complies
Noise			
5.1.3.3	The Project noise monitoring programme would comprise quarterly unattended and attended monitoring. Noise would be monitored at the following locations (Figure 5-1): - N6 – St Laurence O’Toole Catholic Church; - N7 – Smith dwelling; - N9 – Bailey dwelling; - N10 – Robinson dwelling; - N11 – Helm dwelling; - N12 – Ulan Coal Mines-owned dwelling; and - N13 – Close dwelling.	noise monitoring sites reviewed in audit interview. AEMS reports the noise monitoring results and locations.Noise monitoring is conducted in accordance with Schedule 3, Condition 2 of the DA and confirm this condition.	
5.1.3.3	Noise monitoring would be conducted in accordance with AS 1055-1997 Acoustics – Description and Measurement of Environmental Noise and the NSW INP (EPA, 2000).	This audit confirms that monitoring is being conducted in accordance with AS 1055-1997	Complies
5.1.3.3	The monitoring programme would incorporate mechanisms for responding to noise-related complaints. The results of the noise monitoring programme would be used to optimise noise emission controls, validate EIS predictions and would be reported in the AEMR.	Complaints investigations detailed within the AEMRs. Summary of Community Complaints Register provided within Appendix of the AEMRs.	Complies
Blasting			
5.1.3.4	Ground vibration and airblast overpressure would be monitored at the following sites (where relevant) for each blast event conducted within 3 km of the site (Figure 5-1): - BM1 – Robinson dwelling; - BM2 – Bailey dwelling; - BM3 – Smith dwelling; - BM4 – Close dwelling; and - BM5 – Helm dwelling.	Blast monitoring conducted in accordance with the DA and EPL requirements. Confirms this conditions compliance.	Complies
5.1.3.4	Vibrational peak particle velocity (mm/s) and air blast overpressure (dBL [Peak]) would be measured in accordance with AS 2187.2-1993 Explosives – Storage, Transport and Use – Use of Explosives. The monitoring programme would incorporate mechanisms for responding to blast-related complaints.	measured in accordance with (AS) 2187.2-2006 Explosives – Storage, Transport and Use – Use of Explosives (5.2 BMP)	Complies

Section	Requirement	IEA Evidence	Audit Finding
5.1.3.4	In addition, the Aboriginal Cultural Heritage Assessment (Appendix F) recommended that ground vibration monitoring be undertaken at three of the identified Aboriginal rock art sites. Accordingly, ground vibration monitoring would be undertaken adjacent to Aboriginal rock art sites 72 (site V1), 153 (site V2) and 152 (site V3) (Figure 5-1) for any blast that is conducted within 1 km of the site.	AEMRs confirms this commitment	Complies
Erosion and Sediment Controls			
5.1.3.5	WCPL would conduct monthly inspections of all operational erosion and sediment control structures. Inspections of erosion and sediment control structures would also be conducted following significant rainfall events (i.e. greater than 20 mm in 24 hours).	Erosion and Sediment Control Plan states that Routine (i.e. monthly) inspections of sediment control structures as well as inspections following rainfall events of 20 mm or more in a 24 hour period will be conducted by WCPL personnel. Noted during audit site inspection which included a rain fall event of >20mm. Protocol observed and verified compliance.	Complies
5.1.3.5	The structures would be assessed for structural stability and effectiveness in controlling erosion and sediment migration. Appropriate remedial works would be implemented as required.	ESCP confirms this commitment	Complies
Surface Water			
5.1.3.6	The surface water monitoring programme for the Project would include monthly sampling at a network of surface water quality monitoring sites on Wilpinjong Creek, Cumbo Creek and Wollar Creek. Creek water quality samples would be analysed for a range of parameters including pH, electrical conductivity (EC), total dissolved solids (TDS), total suspended solids (TSS) and sulphate (SO ₄). Significant rainfall events (i.e. greater than 20 mm in 24 hours) would also trigger surface water quality sampling of Wilpinjong, Cumbo and Wollar Creeks.	The Wilpinjong Coal Project Surface Water Management and Monitoring Plan (WCPL, March 2006) fulfils these requirements.	Complies
5.1.3.6	Monitoring of EC would also be conducted on a continuous basis at installed gauging stations on Wilpinjong and Cumbo Creeks (Figure 5-1).	The Wilpinjong Coal Project Surface Water Management and Monitoring Plan (WCPL, March 2006) fulfils these requirements.	Complies
5.1.3.6	The quality of drainage (pH and EC) from active tailings disposal areas (i.e. decant water) would also be monitored monthly.	The Wilpinjong Coal Project Surface Water Management and Monitoring Plan (WCPL, March 2006) fulfils these requirements.	Complies
5.1.3.6	B415 surface water flow rate (via water level) would be monitored continuously at installed gauging stations on Wilpinjong and Cumbo Creeks (Figure 5-1). Surface water flow from active tailings disposal areas (i.e. decant water) would also be monitored continuously.	The Wilpinjong Coal Project Surface Water Management and Monitoring Plan (WCPL, March 2006) fulfils these requirements.	Complies
5.1.3.6	The site water balance would be reviewed annually to optimise performance and validate reductions. These reviews would be linked to borefield performance reviews. The reviews would also facilitate the preparation of contingency/remediation plans for managing adverse impacts of the Project on surface water, where necessary (Section 5.1.2.4).	The Wilpinjong Coal Project Surface Water Management and Monitoring Plan (WCPL, March 2006) fulfils these requirements.	Complies
Groundwater			
5.1.3.7	The borefield monitoring programme would be developed and detailed in the WSBP (Section 5.1.2.5). Data collected by the programme would provide input to borefield performance reviews and enable verification and refinement (where necessary) of the groundwater modelling results (Appendix B).	NO extraction for borefield has occurred part from testing so no modelling has been conducted.	Not Triggered

Section	Requirement	IEA Evidence	Audit Finding
5.1.3.7	The following sites would be monitored by the programme (Figure 5-1): - four alluvium bores (and two coal measure bores) along Wilpinjong Creek (sites GWA1 to GWA4, GWC1 and GWC2); - two alluvium bores (and one coal measure bore) along Cumbo Creek (sites GWA5, GWA6 and GWC3); - one coal measure bore along Wollar Creek (site GWC4); - one alluvium bore (and one coal measure bore) in Wollar Village (sites GWA7 and GWC5); and - 19 water supply bores (sites GWS1 to GWS19).	NO extraction for borefield has occurred part from testing so no modelling has been conducted.	Not Triggered
5.1.3.7	Monitoring of water level, pH and EC would be conducted on a monthly basis at the alluvium, coal measure and water supply bores along Wilpinjong and Cumbo Creeks and quarterly at the alluvium and coal measure bores along Wollar Creek and in Wollar Village. The volume of water extracted from water supply bores GWS1 to GWS19 would also be monitored monthly. The following suite of groundwater quality parameters would be analysed bi-annually for the alluvium and coal measure bores shown on Figure 5-1: sodium (Na); magnesium (Mg); calcium (Ca); chloride (Cl); carbonate (HCO ₃); sulphate (SO ₄); and total iron (Fe).	NO extraction for borefield has occurred part from testing so no modelling has been conducted.	Not Triggered
5.1.3.7	In addition to the above, groundwater monitoring would be undertaken at selected existing bores surrounding the Project area, in consultation with relevant landowners.	AEMR Contains these commitments	Complies
5.1.3.7	Groundwater monitoring, water level measurements and sample collection, storage and transportation would be undertaken in accordance with the procedures outlined in the Murray Darling Basin Groundwater Quality Sampling Guidelines (Murray Darling Basin Commission, 1997). Bore licences would be obtained from DIPNR prior to the installation of any of the abovementioned monitoring bores that are not currently developed.	monitoring of existing bores is conducted upon the request of the landowner (AEMR 3.6.2)	Complies
Aquatic Biology			
5.1.3.8	An aquatic monitoring programme would be developed to monitor the aquatic macroinvertebrate assemblages, in-situ water quality, characteristics and health of Wilpinjong and Cumbo Creeks. The ecological integrity of the Cumbo Creek relocation would also be monitored. The components of the aquatic monitoring programme would be detailed in either the FFMP or CCRP.	The Macroinvertebrate and Water Quality Monitoring for Wilpinjong and Cumbo Creek Program confirms this condition	Complies
5.1.3.8	Consideration would also be given to monitoring creek features established in the final landforms later in the Project life to assess their provision of habitat for aquatic biota.	noted	Not able to be Verified
Weeds and Pests			
5.1.3.9	Regular inspections would be conducted of WCPL owned land to detect areas that require the implementation of weed or animal pest management strategies in accordance with the WAPCP (Section 5.1.2.8).	Weed and Animal Pest Control is reported in the AEMRs and is detailed in the RMP	Complies
Traffic Flows			
5.1.3.10	Periodic monitoring of traffic flows on Wollar Road and Ulan-Wollar Road would be undertaken during the Project life to assess the contribution of the Project to local traffic flows. The frequency and locations of traffic flow monitoring would be detailed in the TMP (Section 5.1.2.9).	TMP verifies this condition	Complies
Planning			

Section	Requirement	IEA Evidence	Audit Finding
5.2.3	Planning activities would encompass: - the production and periodic updating of rehabilitation plans as part of the MOP (Section 5.1.1.1); - the preparation and revision of goals and corresponding budgets by a site team that includes senior management representatives; - the development of implementation schedules and specific "domain" based rehabilitation plans to guide the execution of the rehabilitation works; and - annual reporting in the AEMR (Section 5.1.1.2).	2014 MOP developed to satisfaction of DTRIS DRE. Monitoring results are reported annually in the AEMRs. Verified in audit interview	Complies
Erosion and Sediment Controls			
5.2.3	As described in Section 5.1.2.2, an ESCP would be developed in consultation with relevant authorities prior to the commencement of vegetation clearance and soil stripping activities. The ESCP would address erosion and sediment control requirements for Project landforms until the landforms are stabilised.	ESCMP confirms this condition	Complies
Soil Removal, Handling and Replacement			
5.2.4	As described in Section 2.4.4, topsoil and subsoil resources would be identified, stripped and wherever practicable, spread directly onto areas prepared for rehabilitation. Where direct spreading is not practicable, the stripped soil would be stockpiled and seeded with grasses to maintain soil viability prior to being re-spread.	Rehab Management Plan confirms this condition	Complies
5.2.4	Details of soil management strategies and practices including the methodology and timing of implementation would be included in the MOP (Section 5.1.1.1) and would address the components listed in Table 5-4.	MOP contains this condition	Complies
5.2.4	Once completed mine landforms have been reprofiled, stripped subsoil and topsoil would then be spread to assist in vegetation establishment. If topsoil resources are unavailable or unsuitable, additional topsoil material would be stripped from disturbance areas where red podzolic soils occur (up to a further 30 cm – Appendix M) for use in rehabilitation works. Appropriate ameliorative measures (as described below) would also be applied where necessary.	Confirmed during audit interview	Complies
5.2.4	Following soil application, the rehabilitation area would be shallow ripped with a chisel plough or similar implement to encourage infiltration, increase the volume of soil readily accessible to plant roots and to bind the topsoil/subsoil to underlying mine waste rock material.	Confirmed during audit interview	Complies
5.2.4	WCPL would develop management strategies to ameliorate mine waste rock/soil materials used in rehabilitation where necessary. These ameliorative measures may include the use of lime, gypsum and/or fertiliser to improve the chemical and/or nutrient properties of the soil.	Confirmed during audit interview	Complies
Revegetation			
5.2.5	On completion of landform contouring, topsoiling and erosion and sediment control works, a vegetative cover would be applied as soon as practicable. Depending on the proposed postmining landuse, this would involve sowing cover pasture species and seeding and planting of selected shrub and tree species.	Sighted in site inspection	Complies

Section	Requirement	IEA Evidence	Audit Finding
5.2.5	Where rehabilitation areas are to be seeded, a suitable seedbed would be prepared using appropriate equipment to increase the chances for successful seedling establishment. Where necessary, pasture seed would be sowed with fertiliser. Areas seeded may be lightly scarified to assist shallow seed burial. Both seeding and direct planting techniques would be utilised for tree and shrub species. Seeding and planting activities would take into account seasonal factors and would be scheduled, where possible, prior to the expected onset of reliable rains.	Sighted in site inspection	Complies
5.2.5	Revegetation of Project disturbance areas would be conducted progressively as mining proceeds, with coal removal and the formation of final (i.e. completed mine waste rock emplacements) landforms behind the advancing face of the open cut. Rehabilitation and revegetation of infrastructure areas would also be undertaken progressively as infrastructure is decommissioned.	Sighted in site inspection	Complies
5.2.5	The revegetation programme for Project rehabilitation areas provides for a combination of woodland areas and mixed woodland/pasture areas, as described below and shown on Figure 5-2.	Sighted in site inspection	Complies
5.2.5	The revegetation programme for Project rehabilitation areas would establish some 850 ha of woodland vegetation over the long-term, and in association with the establishment of woodland vegetation in the regeneration areas (Section 5.3) and ECAs (Section 5.4), would contribute to an overall net increase in woodland vegetation of some 1,095 ha.	Noted	Noted
5.2.5	In recognition of the importance of vegetation corridors to regional biodiversity, the rehabilitation programme has been designed to link the revegetated woodland areas to the regeneration areas or existing remnant vegetation (Figure 5-2).	MOP and audit interview confirms this	Complies

Section	Requirement	IEA Evidence	Audit Finding
5.2.5	The revegetation programme would aim to establish floristic diversity within the woodland areas. The revegetation programme would include the use of endemic plant species, characteristic of the vegetation communities to be disturbed by the Project. A proposed list of species for the woodland areas is provided in Table 5-5. Revegetation of the woodland areas would include the planting of species characteristic of the WBYBBRG EEC (e.g. White Box [Eucalyptus albens], Yellow Box [E. melliodora] and Blakely's Red Gum [E. blakelyi]).	Reveg of corridors not yet commenced	Not Triggered
5.2.5	The areas proposed to contain a mixture of woodland and pasture (Figure 5-2) would be rehabilitated in a manner that results in patches of woodland within the pasture areas. Woodland vegetation would be revegetated with similar species to that described for the woodland areas above (Table 5-5).	Not Triggered	Not Triggered
5.2.5	The pasture areas would be revegetated using either native and/or improved pasture species. A proposed list of native grasses that could potentially be used in the revegetation of mixed woodland/pasture areas is provided in Table 5-5. Rehabilitation of the pasture areas would be conducted in consideration of guidelines such as those presented in the Rehabilitation of Open Cut Coal Mines using Native Grasses: Management Guidelines (DLWC, 2003) and of species which are commercially available.	Noted	Noted
5.2.5	The riparian zone of the permanent creek features formed within rehabilitation areas shown on Figure 4-1 would be revegetated. The revegetation programme would include the use of native flora species such as those included in Table 5-5 (e.g. C. cunninghamiana). Further detail on the revegetation of Cumbo Creek within Project disturbance areas is outlined in Section 5.1.2.6.	Cumbo Creek not yet disturbed	Not Triggered

Section	Requirement	IEA Evidence	Audit Finding
Replacement of Aboriginal Objects			
5.2.6	In accordance with the ACHMP (Section 5.1.2.10), Aboriginal objects collected and temporarily stored in the "Keeping Place" would be replaced within rehabilitation areas in consultation with local Aboriginal groups and the DEC.	Keeping place established, no replacement within the rehabilitated areas as yet.	Not Triggered
Studies and Trials			
5.2.7	On-going site specific trials and studies would be conducted to examine options and to optimise revegetation techniques.	Verified through assessment of the MOP and AMERs. Trials verified in audit interview.	Complies
5.2.7	Proposed trials and studies would be outlined in the MOP (Section 5.1.1.1) with results reported in the AEMR (Section 5.1.1.2) as part of the MREMP.	Verified through assessment of the MOP and AMERs. Trials verified in audit interview.	Complies
Final Landform Design			
5.2.8	Final landform concepts discussed in this section would be revised and refined throughout the Project life, utilising the outcomes of on-going consultation with relevant authorities, stakeholders and the results of trials.	No trials commenced	Not Triggered
5.2.8	Final landform design concepts would remain consistent with the objectives presented in Section 5.2.1.		Noted
5.2.8	Final landform levels and slope would approximate the pre-mining topography (Figure 4-1). Final landforms would be designed with an allowance for the long-term settlement of mine waste rock and tailings. A final void would be located at the northeastern extent of the final landform and another at the western extent.	Verified through assessment of the MOP	Complies
5.2.8	Final landform drainage would be designed to integrate with the surrounding catchment and would include some permanent creek features formed within rehabilitation areas in locations similar to current creek lines (e.g. Planters Creek). The progressive development of the final landform over the Project life is shown on Figures 2-4 to 2-11 and creek features are shown on Figure 4-1.	Verified through assessment of the MOP	Complies
Mine Waste Rock Emplacements			
5.2.8.1	Mine waste rock emplacements would cover an area of approximately 1,800 ha. Where long slopes are present, contour drains or deep staggered rips would be established to assist in initial surface stabilisation.	Noted, landform not developed enough at this point to verify.	Not able to be Verified
5.2.8.1	The surface of mine waste rock emplacements would be constructed to approximate (where practicable) the existing topographic form of the shallow valleys which drain the Project area. Mine waste rock emplacement surfaces would be formed to enhance rainfall absorption. Regular slopes and sharp transition angles would be varied and rounded to provide a more natural appearance.	Noted, landform not developed enough at this point to verify.	Not able to be Verified

Section	Requirement	IEA Evidence	Audit Finding
5.2.8.1	A pattern of creek features (flow paths) would be formed over the final landforms comparable to the pre-mine regime. These reconstructed creek features would convey upslope runoff across the Project area to Wilpinjong Creek.	Noted, landform not developed enough at this point to verify.	Not able to be Verified
Tailings Disposal Areas			
5.2.8.2	A description of tailings disposal methods is provided in Section 2.8.3. Completed tailings disposal areas would be decommissioned through a capping process in order to create a landform that is stable and can be rehabilitated and revegetated in the same manner as the mine waste rock emplacements described above.	This is occurring on the site.	Complies
5.2.8.2	Unless justified otherwise on the basis of tailings cover trials conducted during the life of the Project, a minimum 2 m cover layer would be used to restrict oxygen and water ingress to underlying tailings and prevent salts from rising to the soil surface.	This is occurring at the site and no trials have been conducted to revise the parameters. Verified in AEMR and audit interview.	Complies
5.2.8.2	The final cover design for the tailings disposal areas would be developed in consultation with the DPI. The cover design would consider site topography, prevailing climatic conditions and the availability of suitable fine textured material (e.g. highly weathered mine waste rock) as a cover material.	Tailings disposal areas design and approval by DTRIS DRE	Complies
Surface Infrastructure			
5.2.8.3	Infrastructure with no on-going beneficial use would be removed from the site at the completion of the Project. Foundation slabs of certain buildings may be retained for suitable end-use goals in agreement with relevant authorities and stakeholders. Alternatively, they would be excavated for disposal or buried in a void in an approved manner.	All surface infrastructure (mining) still in use.	Not Triggered
5.2.8.3	Process reagents and fuels unused at the completion of mining would be returned to the supplier in accordance with relevant safety and handling procedures.	Noted.	Noted.
5.2.8.3	Foundation soils would be chemically tested, contour ripped and chemically ameliorated, as required (in accordance with DEC requirements). Stockpiled soils would then be applied as necessary and stabilised. Revegetation would be undertaken with suitable native tree species or native/introduced pastures, consistent with the revegetation programme (Section 5.2.5).	Noted.	Noted.
5.2.8.3	Roads that have no specific post-mining use would be ripped, topsoiled and revegetated. Some access roads may be retained post-mining to enable access for use in bushfire and other land management activities.	Not yet required	Not Triggered
5.2.8.3	Water management structures and sediment control structures would either be retained as water sources or decommissioned and rehabilitated.	Noted.	Noted

Section	Requirement	IEA Evidence	Audit Finding
Final Voids			
5.2.8.2	At the completion of mining, the final landform would include two final voids (Figure 5-2).	Mining Not Competed and final void plans still conceptual.	Not Triggered
5.2.8.2	Mine planning would target minimising the size of the final voids. The final surface catchment of the final voids would also be minimised by the use of contour landforms.	Mining Not Competed and final void plans still conceptual.	Not Triggered
5.2.8.2	Perimeter bunding would be formed around the final voids in order to restrict access to steeper slopes. Any further final void access restrictions (e.g. fencing) for safety and exclusion of livestock would be designed and implemented in consultation with relevant authorities.	Mining Not Competed and final void plans still conceptual.	Not Triggered
5.2.8.2	As described in Section 5.1.2, a FVMP would be developed as a component of the MCP in advance of mine closure and decommissioning in consultation with relevant authorities. Further details are provided in Section 5.5.	Mining Not Competed and final void plans still conceptual.	Not Triggered
Monitoring, Maintenance and Reporting			
5.2.9	Rehabilitation areas would be fenced to prevent the uncontrolled entry of livestock and to minimise vehicular traffic during the initial establishment phase.	Rehabilitation specialist confirmed compliance during site inspection and subsequent interviews.	Complies
5.2.9	Monitoring of rehabilitation areas would be conducted on a regular basis to ensure that the rehabilitation objectives are being achieved and to identify areas requiring maintenance works in order to maintain rehabilitation progress.	Rehabilitation Management Plan verifies compliance, as assessed under this IEA.	Complies
5.2.9	Routine monitoring of rehabilitation areas would include: - checking soil erosion status and the effectiveness of erosion and sediment control measures (as part of erosion and sediment control monitoring – Section 5.1.3.5); - monitoring mine landform runoff water quality (as part of the surface water monitoring programme – Section 5.1.3.6); - monitoring establishment of vegetation; and - identification of the presence of weeds or animal pests (as part of the weed and animal pest monitoring – Section 5.1.3.9).	Rehabilitation Management Plan verifies compliance, as assessed under this IEA.	Complies
5.2.9	Monitoring and maintenance activities would be ongoing with the results assessed and utilised in the refinement of rehabilitation techniques. Rehabilitation maintenance activities and rehabilitation progress would be reported in the AEMR (Section 5.1.1.2).	Rehabilitation Management Plan verifies compliance, as assessed under this IEA.	Complies
5.2.9	As described above, visual monitoring of revegetation would be conducted on a regular basis to ensure vegetation is establishing and to determine the need for any maintenance and/or contingency measures (such as the requirement for supplementary plantings, erosion control and/or weed control).	Rehabilitation Management Plan verifies compliance, as assessed under this IEA.	Complies
5.2.9	The quality of rehabilitation (i.e. woodland areas including riparian vegetation) would be monitored using Ecosystem Function Analysis (EFA) or a similar systems-based approach. An overview of the EFA method is provided below as a general guide to the proposed approach to monitoring. EFA is a CSIRO developed method used to provide indicators of rehabilitation success and allows the assessment of ecosystem sustainability through the plotting of development trajectories. EFA aims to measure the progression of rehabilitation towards a self-sustaining ecosystem through the assessment of landscape function, vegetation dynamics and habitat complexity.	Rehabilitation Management Plan verifies compliance, as assessed under this IEA.	Complies

Section	Requirement	IEA Evidence	Audit Finding
5.2.9	A number of permanent transects would be established in the rehabilitation areas. Corresponding transects would also be established in reference/analogue sites. The reference/analogue sites would provide data on the long-term goal for the rehabilitation areas. The information obtained would be used to track the revegetation progress, predict self-sustainable values and compare the rehabilitation areas with the reference/analogue sites.	Rehabilitation Management Plan verifies compliance, as assessed under this IEA.	Complies
5.2.9	A number of flora survey quadrats would also be sampled to obtain additional flora data to that obtained by the Vegetation Dynamics component of EFA. The flora survey quadrats would be established in rehabilitation areas and at reference/analogue sites. The survey parameters would include flora species diversity and abundance. Consideration would also be given to monitoring fauna species usage of the rehabilitation areas.	Rehabilitation Management Plan verifies compliance, as assessed under this IEA.	Complies
5.2.9	The monitoring of revegetation performance in the rehabilitation areas would be detailed in the FFMP. Completion criteria for the rehabilitation areas are outlined in Section 5.5.2.	Rehabilitation Management Plan verifies compliance, as assessed under this IEA.	Complies
Regeneration Areas			
5.3	Regeneration areas would be established on areas of WCPL-owned land situated proximal to the Project disturbance areas/rehabilitation areas as shown on Figure 5-2. These areas contain predominantly cleared agricultural land. Woodland vegetation would be established in the regeneration areas through natural regeneration and selective planting.	These areas have been established and fenced/signposted. No other activities have (as yet) been conducted in the ECAs.	Complies
5.3	Some 350 ha of woodland vegetation would be established in the regeneration areas over the longterm, and in association with the revegetation of Project disturbance areas (Section 5.2) and the establishment of woodland vegetation in the ECAs (Section 5.4), would contribute to an overall net increase in woodland vegetation of some 1,095 ha. The regeneration areas have been positioned to adjoin areas of existing remnant vegetation (i.e. Munghorn Gap Nature Reserve, Goulburn River National Park and the ECAs) and woodland rehabilitation areas, in order to increase the continuity of woodland vegetation in the region.	Locations of ECAs match these requirements	Complies
5.3	The establishment of woodland vegetation in the regeneration areas would include the revegetation of banks of Wilpinjong and Cumbo Creeks. The revegetation of the creek banks would include native flora species such as <i>Casuarina cunninghamiana</i> and would increase the quantity of riparian vegetation along these creeks.	Revegetation not yet commenced	Not Triggered
5.3	The quality of the woodland areas (including riparian vegetation) established in the regeneration areas would be monitored using the techniques described in Section 5.2.9 for the rehabilitation areas, namely, visual inspections, EFA and flora survey quadrats. Consideration would be given to monitoring fauna usage of the regeneration areas.	No woodland areas established yet.	Not Triggered
5.3	Management and monitoring of the regeneration areas would be described in the FFMP. Completion criteria for the regeneration areas are outlined in Section 5.5.2.	detailed in the RMP and MOP	Complies
Enhancement and Conservation Areas			
5.4	Three ECAs would be established by the Project, namely, ECA-A, ECA-B and ECA-C (Figure 5-2). The ECAs cover a total area of approximately 480 ha. A portion of ECA-C includes WCPL-owned lands zoned as Zone 7(b) under the Mudjee LEP (Figure 5-2). Works within this area would be constrained to that permitted by the Mudjee LEP.	contained within the Rehabilitation Management Plan	Complies

Section	Requirement	IEA Evidence	Audit Finding
5.4	The establishment and management of the ECAs would be documented in the FFMP. Enhancement' of the ECAs would be achieved by the implementation of appropriate land management practices such as weed and animal pest control, management of livestock access to encourage natural regeneration, and selective planting, as described in Section 5.1.2.7.	contained within the Rehabilitation Management Plan	Complies
5.4	'Conservation' of the ECAs would be achieved through a rezoning application. WCPL would: - conserve and manage the land in the ECAs in accordance with the FFMP; - apply to rezone the land in the ECAs for the purpose of protecting the land or conservation; and - exclude future open cut mining in the ECAs, unless, in the opinion of the Minister for Infrastructure and Planning, WCPL has demonstrated that there is a clear justification for this on social, economic and/or environmental grounds.	contained within the Rehabilitation Management Plan	Complies
5.4	A flora and fauna monitoring programme would be developed for the ECAs to assess the performance of the management measures in enhancing/ improving habitats for flora and fauna. The monitoring programme would be detailed in the FFMP. An overview of the monitoring programme is provided below.	contained within the Rehabilitation Management Plan	Complies
5.4	Areas of woodland established in the ECAs would be monitored using the techniques described in Section 5.2.9 for the rehabilitation areas, namely, visual inspections, EFA and flora survey quadrats.	No woodland areas established yet.	Not Triggered
5.4	In areas of existing woodland vegetation, flora survey quadrats would be utilised to monitor flora species diversity and abundance. Terrestrial fauna surveys would also be conducted to monitor the usage of the ECAs by vertebrate fauna. Survey methodology and objectives would be detailed in the FFMP. Monitoring may include fauna species diversity and abundance, or alternatively, the use of indicator species to measure the effectiveness of the enhancement measures.	contained within the Rehabilitation Management Plan	Complies
Mine Closure Plan			
5.5.1	Prior to the completion of mining operations, a MCP would be developed in consultation with relevant authorities and the Project CCC. The MCP would document the final mine closure process, final rehabilitation works and post-closure maintenance and monitoring requirements appropriate to established completion criteria.	Not required to be completed at the time of this audit.	Not Triggered
5.5.1	The MCP would address long-term landuse for the site and would take into consideration: - management of the ECAs in accordance with relevant commitments; - experience and data obtained from progressive rehabilitation and revegetation activities; - results of monitoring programmes; - relevant regional planning strategies; - integration with surrounding landuses (e.g. Munghorn Gap Nature Reserve and Goulburn River National Park); and - performance against relevant completion criteria.	Not required to be completed at the time of this audit.	Not Triggered

Section	Requirement	IEA Evidence	Audit Finding
5.5.1	A FVMP would form a component of the MCP. Issues addressed by the FVMP would include: • assessment of the hydrological behaviour of the final voids (e.g. long-term water quality and water balance); - groundwater and surface water management (e.g. final landforming works to minimise surface water inflows to the voids); - long-term geotechnical stability of the voids (e.g. profiling requirements); - public safety; - access requirements; and - water quality monitoring requirements.	Not required to be completed at the time of this audit.	Not Triggered
5.5.1	During the development of the FVMP, options for the future beneficial use of the final voids would be investigated.	Not required to be completed at the time of this audit.	Not Triggered
5.5.1	WCPL would work with the MWRC to investigate the amelioration of adverse socio-economic effects that may occur due to the loss of Project employment at closure (Appendix I).	Not required to be completed at the time of this audit.	Not Triggered
Completion Criteria			
5.5.2	Completion criteria would be utilised to evidence achievement of EPP objectives including those relating to the rehabilitation areas, regeneration areas and the ECAs.	Completion Criteria not yet established.	Not Triggered

Appendix F

Audit Protocol - Environmental Assessment (2010)

Appendix F Audit Protocol - Environmental Assessment (2010)

Section	Requirement	Audit Evidence	Audit Finding
Wilpinjong Coal Project Mine Mining Rate modification Environmental Assessment (2010)			
3.1	Construction activities would be limited to the CHPP and associated materials handling area adjacent to the rail loop (Figure 5).	This has not occurred during the audit period.	Not Triggered
3.1.1	Subject to approval, construction of the CHPP/coal handling upgrades is expected to commence in January 2011 and would be completed over a period of approximately 9 months.	This has not occurred during the audit period.	Not Triggered
3.1.1	Construction works would be 24 hours, 7 days, however, construction heavy vehicle movements would be restricted to daytime hours. Construction activities would be restricted to the contained infrastructure area (i.e. near the centre of the Wilpinjong Coal Mine site).	This has not occurred during the audit period.	Not Triggered
3.2.4	The mining sequence and rate of mining would continue to be subject to review on the basis of market conditions and customer demand. Relevant changes to the mining sequence and mining activities would be approved by the NSW Department of Industry and Investment via revision of the MOP as required.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
3.2.6	With the proposed Modification the average number of train movements per day would increase from four to five, however, the peak number of trains would remain unchanged at six trains per day (Table 7).	This was noted during the audit, however a finding on this condition was not required to be made.	
3.2.7	Should future review of the site water balance indicate that a supplementary supply via the pipeline is required to meet WCPL reliability targets, environmental approvals for the pipeline and any associated modifications to the existing Project Approval for the Wilpinjong Coal Mine (Attachment 1) and the Development Consents/Project Approval for the Ulan Coal Mines would be subject to a separate assessment and approval process.	This has not occurred during the audit period.	Not Triggered
3.2.7	WCPL will continue to undertake regular reviews of the site water balance.	The operational water balance is updated weekly. The strategic water balance is currently under review and is updated at least once an annum as confirmed during audit interview.	Complies
4.2.2	In addition to the factory noise attenuated mobile fleet items to be progressively implemented from 2012 (see above) WCPL would continue to implement attended monitoring and real-time monitoring and response protocols under the Noise Monitoring Programme (WCPL, 2009).	verified during audit interview.	Complies
4.2.2	In consultation with DoP and DECCW, WCPL would also develop a suitable method for temperature inversion monitoring during attended monitoring for compliance purposes (this may include the use of temporary tethered meteorological balloons and suspended temperature sensors, or an alternative DoP agreed methodology). Once agreed, the inversion monitoring methodology would be included in future revisions of the Noise Monitoring Programme.	Meteorological station has the capacity to undertake temperature inversion monitoring.	Complies

Section	Requirement	Audit Evidence	Audit Finding
4.3.2	A range of management and mitigation measures will continue to be implemented by WCPL to minimise air quality impacts associated with wind blown dust from exposed areas and dust generated by mining activities in accordance with the existing Air Quality Monitoring Programme (WCPL, 2010b).	Air quality and meteorological monitoring techniques and locations were inspected by the audit team (PAEHolmes Photolog Pictures A4 - A5). Dust deposition, PM10 and meteorological monitoring were all undertaken during the auditing period (AEMRs 2011, 2012 and 2013)	Complies
4.3.2	WCPL is currently trialling a TEOM real-time trigger and response system for the management of PM10 emissions at the nearest private receivers. Once finalised, this real-time dust control system would be incorporated into a future revision of the Air Quality Monitoring Programme. WCPL would then utilise the real-time monitoring system to relocate, modify and/or stop mining operations if required to maintain compliance with relevant air quality criteria on privately owned land in accordance with Condition 22, Schedule 3 of the Project Approval (Attachment 1).	This has now been implemented, as per audit interviews with site personnel.	Complies
4.4.2	To minimise the potential impacts of Modification generated traffic, WCPL will continue to encourage car pooling by employees to minimise traffic movements.	There are financial incentives in place to implement this.	Complies
4.6	The proposed Modification does not significantly alter the consequences or likelihood of a hazardous event occurring at the Wilpinjong Coal Mine, as the operational activities on-site would be generally unchanged. Notwithstanding, environmental management plans and procedures would be updated to include the proposed Modification, where relevant (Section 5.2).	Environmental Management Plans are revised and updated if required following any modification to the conditions of the Project Approval.	Complies
5.2.3	It is anticipated that the DoP, MWRC and WCPL would review the Wilpinjong Coal Project Planning Agreement as a result of the Modification. No significant changes to the existing agreement are anticipated.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
5.2.4	Some management plans (e.g. the Noise Monitoring Programme and Air Quality Monitoring Programme) may require revision to reflect updated environmental management measures or changes to Project Approval conditions resulting from the Modification.	These have both been reviewed and approved by DP&I on 15 September 2011	Complies
5.2.5	The current MOP (WCPL, 2008) would require revision to reflect the revised annual ROM coal, product coal and waste rock production rates as a result of the Modification.	The current MOP (2014-2019) has been approved and accounts for all six modifications to project Approval DA 05-0021 (as modified)	Complies

Appendix G

Audit Protocol - Mining Lease

Appendix G Audit Protocol - Mining Lease

Condition	Requirement	Audit Evidence	Audit Finding
Notice to Landholders			
1	Within a period of three months from the date of grant/renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice	This has not occurred during the auditing period.	Not Triggered
1	If there are ten or more landholders affected, the leaseholder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.	This has not occurred during the auditing period.	Not Triggered
Subsidence Management			
4(a)	The leaseholder shall prepare a Subsidence Management Plan prior to commencing and underground mining operations which will potentially lead to subsidence of the land surface.	WCM is an open cut operation, and so this condition is not relevant.	Not Triggered
4(b)	Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or miniwalls, associated first workings (gateroads, installation roads and associated main headings, etc), and pillar extractions, and are otherwise defined by the Guideline for Applications for Subsidence Management Approvals.	WCM is an open cut operation, and so this condition is not relevant.	Not Triggered
4(c)	The leaseholder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-Genera, an approval under the Coal Mines Regulation Act 1982, or the document New Subsidence Management Plan Approval Process - Transitional Provisions	WCM is an open cut operation, and so this condition is not relevant.	Not Triggered
4(d)	Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals.	WCM is an open cut operation, and so this condition is not relevant.	Not Triggered
4(e)	Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document New Approval Process for Management of Coal Mining Subsidence - Policy.	WCM is an open cut operation, and so this condition is not relevant.	Not Triggered

Condition	Requirement	Audit Evidence	Audit Finding
Working Requirement			
5	The lease holder must:		
5(a)	Ensure that at least 114 competent people are efficiently employed on the lease area on each weekday except Saturday or any weekday that is a public holiday; or	Generally at least 120 people onsite during each weekday of mining operations.	Complies
5(b)	Expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$1,995,000 per annum whilst the lease is in force.	With approximately 500 full time employees at the WCM, this condition is satisfied.	Complies
5	The Minister may at any time or times, by instrument in writing served on the lease holder, increase or decrease the expenditure required or the number of people to be employed	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
Control of Operations			
6(a)	If an Environmental Officer of the Department believes that the leaseholder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the leaseholder to:	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered

Condition	Requirement	Audit Evidence	Audit Finding
6(a)(i)	Cease working the lease; or	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
6(a)(ii)	cease that part of the operation not complying with the Act or conditions	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
6(a)	until in the opinion of the Environmental Officer the situation is rectified.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
6(b)	The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered

Condition	Requirement	Audit Evidence	Audit Finding
6(c)	A direction referred to in this condition may be served on the Mine Manager.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
Reports			
7	The leaseholder must provide an exploration report, within a period of twenty-eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year. The report must be to the satisfaction of the Director-General and contain the following:	The past three years worth of exploration reports were viewed by the auditors during the site visit. Correspondence was also viewed confirming that these were all provided within the 28 day time period.	Complies
7(a)	Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;	An example of these reports was viewed by the auditors during the site visit and was confirmed to contain all of this information.	Complies
7(b)	Details of expenditure incurred in conducting that exploration;	An example of these reports was viewed by the auditors during the site visit and was confirmed to contain all of this information.	Complies
7(c)	A summary of all geological findings acquired through mining or development valuation activities	An example of these reports was viewed by the auditors during the site visit and was confirmed to contain all of this information.	Complies
7(d)	Particulars of exploration proposed to be conducted in the next twelve months period;	An example of these reports was viewed by the auditors during the site visit and was confirmed to contain all of this information.	Complies
7(e)	All plans, maps, sections and other data necessary to satisfactorily interpret the report.	An example of these reports was viewed by the auditors during the site visit and was confirmed to contain all of this information.	Complies
Licence to Use Reports			
8(a)	The lease holder grants the Minister, by way of a non-exclusive licence, the right to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered

Condition	Requirement	Audit Evidence	Audit Finding
8(b)	The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
Confidentiality			
9(a)	All exploration reports submitted in accordance with the conditions of this lease will be kept confidential while the lease is in force, except in cases where:	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
9(a)(i)	Where the lease holder has granted that specific reports may be made non-confidential.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
9(a)(ii)	Reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered

Condition	Requirement	Audit Evidence	Audit Finding
9(b)	Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title or any subsequent flow-on title, has terminated.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
9(c)	The Director-General may extend the period of confidentiality.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
Terms of the non-exclusive licence			
10	The terms of the non-exclusive copyright licence granted under condition 8(a) are:	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
10(a)	The Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered

Condition	Requirement	Audit Evidence	Audit Finding
10(b)	The Minister and any sub-licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
10(c)	The lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
10(d)	There is no royalty payable by the Minister for the licence.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
10(e)	If the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder, that licence is revocable on the giving of a period of not less than three months notice.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
Safety			

Condition	Requirement	Audit Evidence	Audit Finding
12	Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drillholes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General	Site Preparation Procedure was viewed by auditors during site visit which includes fencing to render this safe during operations. The Exploration Site Rehabilitation Procedure was also viewed by the auditors. This outlines how drill sites are surveyed before sealing. An agreement has also been made between mine and DRE regarding alternative borehole sealing requirements (e.g. grouted or alternative methods).	Complies
Exploratory Drilling			
15(1)	At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Planning regional hydrogeologist the intention to drill exploratory drill holes together with information on the location of the proposed holes	Auditors viewed a copy of one of these notifications from 9 December 2013. Interviews with site geologist confirmed that this is planned for in advance to capture the 28 day requirement.	Complies
15(2)	If the lease holder drills exploratory drill holes he must satisfy the Director- General that : -	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
15(2)(a)	All cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established;	Surveyor records all locations. Rehabilitation done in accordance with The Exploration Site Rehabilitation Procedure.	Complies

Condition	Requirement	Audit Evidence	Audit Finding
15(2)(b)	All holes cored or otherwise are sealed to prevent the collapse of the surrounding surface	Site Preparation Procedure was viewed by auditors during site visit which includes fencing to render this safe during operations. The Exploration Site Rehabilitation Procedure was also viewed by the auditors. This outlines how drill sites are surveyed before sealing. An agreement has also been made between mine and DRE regarding alternative borehole sealing requirements (e.g. grouted or alternative methods).	Complies
15(2)(c)	All drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters	Site Preparation Procedure was viewed by auditors during site visit which includes fencing to render this safe during operations. The Exploration Site Rehabilitation Procedure was also viewed by the auditors. This outlines how drill sites are surveyed before sealing. An agreement has also been made between mine and DRE regarding alternative borehole sealing requirements (e.g. grouted or alternative methods).	Complies
15(2)(d)	If any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape	This has not occurred during the auditing period.	Not Triggered
15(2)(e)	If any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers.	This has not occurred during the auditing period.	Not Triggered

Condition	Requirement	Audit Evidence	Audit Finding
15(2)(f)	Once any drill hole ceases to be used the hole must be sealed in accordance with Departmental guidelines. Alternatively, the hole must be sealed as instructed by the Director-General.	Site Preparation Procedure was viewed by auditors during site visit which includes fencing to render this safe during operations. The Exploration Site Rehabilitation Procedure was also viewed by the auditors. This outlines how drill sites are surveyed before sealing. An agreement has also been made between mine and DRE regarding alternative borehole sealing requirements (e.g. grouted or alternative methods).	Not Triggered
15(2)(g)	Once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition	Site Preparation Procedure was viewed by auditors during site visit which includes fencing to render this safe during operations. The Exploration Site Rehabilitation Procedure was also viewed by the auditors. This outlines how drill sites are surveyed before sealing. An agreement has also been made between mine and DRE regarding alternative borehole sealing requirements (e.g. grouted or alternative methods).	Not Triggered
Prevention of Soil Erosion and Pollution			
16	Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard	A number of exceedances of PM10 criteria listed in the Project Approval (05-0021) were noted during the audit period. In addition a fume incident occurred in relation to a blasting occurrence and a surface water runoff incident occurred which caused rainwater flow to breach the sedimentation fence at two points .	Not Compliant
Transmission lines, Communication lines and Pipelines			
17	Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions he may stipulate.	Operations in the ML have not impacted on any of these utilities during the auditing period. Dial Before You Dig is carried out before Excavation Permit is signed off on to ensure any such impacts do not occur.	Not Triggered

Condition	Requirement	Audit Evidence	Audit Finding
Fences, Gates			
18(a)	Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate.	All relevant land is owned by Peabody, and so landowner permission is not required.	Not Triggered
18(b)	Gates within the lease area must be closed or left open in accordance with the requirements of the landholder	All relevant land is owned by Peabody, and so landowner permission is not required.	Not Triggered
Roads and Tracks			
20	Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, topsoiled and revegetated as soon as possible after they are no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Planning	This is covered off on in the Exploration Site Preparation Procedure. Access tracks are kept to a minimum (maximum of 6m wide) and slashing undertaken to prevent bushfire risks. Any new track in other areas of the mine goes through a GDP process.	Complies
Resource Recovery			
23(a)	Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to recover such minerals	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
20(b)	The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered

Condition	Requirement	Audit Evidence	Audit Finding
20(c)	The lease holder must, when requested by the Director-General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
20(d)	The Director-General shall issue no such notice unless the matter has firstly been thoroughly discussed with and a report to the Director-General has incorporated the views of the lease holder	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
20(e)	The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a Warden for inquiry and report under Section 334 of the Mining Act, 1992	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
20(f)	After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered

Condition	Requirement	Audit Evidence	Audit Finding
Indemnity			
24	The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
Security			
25(a)	A security in the sum of \$3,560,000 must be given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under this lease. If the lease holder fails to fulfil any one or more of such obligations the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of this lease if the lease holder fails to comply with any condition or provision hereof, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder	Security Certificate dated 10-SEP-2010 sighted by the audit team	Complies
25(b)	The lease holder must provide the security required by sub-clause (a) in one of the following forms:	N/A	N/A
25(b)(i)	Cash	Security Certificate dated 10-SEP-2010 sighted by the audit team	Complies
25(b)(ii)	A security certificate in a form approved by the Minister and issued by an authorised deposit-taking institution.	Security Certificate dated 10-SEP-2010 sighted by the audit team	Complies
Environmental Management Conditions			
Environmental Harm			
26	The proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of the development	Following the audit the auditors have deemed that WCPL have implemented all practicable measures to prevent and minimise harm to the environment during the audit period.	Complies
Mining Operations Plan			

Condition	Requirement	Audit Evidence	Audit Finding
27(a)	Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General of the Department of Primary Industries - Mineral Resources	Current MOP was approved on 26/11/2014. Approval sighted by the audit team.	Complies
27(b)	The [MOP] must: - identify a areas that will be disturbed by mining operations; - detail the staging of specific mining operations; - identify how the mine will be managed to allow mine closure; - identify how mining operations will be carried out on site in order to prevent and or minimise harm to the environment; - reflect the conditions of approval under: (i) the Environmental Planning and Assessment Act 1979; (ii) the Protection of the Environment Operations Act 1997 (iii) and any other approvals relevant to the development including the conditions of this lease; and - have regard to any relevant guidelines adopted by the Director-General.	The WCPL Mining operations plan (2014-2019) verified this condition. (refer table 4, MOP 2014)	Complies
27(c)	The titleholder may apply to the DG to amend an approved MOP at any time.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered

Condition	Requirement	Audit Evidence	Audit Finding
27(d)	It is not a breach of this condition if:	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
27(d)(i)	The operations constituting the breach were necessary to comply with a lawful order or direction given under the Mining Act 1992, the Environmental Planning and Assessment Act 1979, Protection of the Environment Operations Act 1997 or the Occupational Health and Safety Act 2000; and	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
27(d)(ii)	The Director-General had been notified of the terms of the order or direction prior to the operations constituting the breach being carried out.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
27(d)	Note: The Director-General is deemed to be notified of the terms of an order or direction if the order or Direction was issued by the Department or a copy of the order or direction has been faxed to 02 4931 6790	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered

Condition	Requirement	Audit Evidence	Audit Finding
27(e)	A MOP ceases to have affect 7 years after date of approval or other such period as identified by the D-G. An approved amendment to the MOP under condition 29 does not constitute an approval for the purpose of this paragraph unless otherwise identified by the DG.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
Annual Environmental Management Reporting			
28	The lease holder must lodge Environmental Management Reports (EMR) with the Director-General annually or at dates otherwise directed by the DG.	The 2012 and 2013 AEMRs have been lodged during the audit period (January 2012 - December 2014). The audit was conducted in December 2014 hence the 2014 AEMR was being prepared at the time of the audit.	Complies
29	The EMR must: Report against compliance with the MOP; Report on progress in respect of rehabilitation completion criteria; the extent of compliance with regulatory requirements; and any relevant guidelines adopted by the D-G	- - - Report on - Have regard to The 2012 and 2013 AEMRs have been lodged during the audit period (January 2012 - December 2014). The audit was conducted in December 2014 hence the 2014 AEMR was being prepared at the time of the audit. Previous AEMRs verify this conditions compliance	Complies
30	Additional environmental reports may be required on specific surface disturbing operations or environmental incidents from time to time as directed in writing by the Director-General and must be lodged as instructed.	This has not been required during the auditing period.	Not Triggered
Rehabilitation			
31	Disturbed land must be rehabilitated to a sustainable/agreed land use to the satisfaction of the Director-General	The current Mining Operations Plan contains detailed rehabilitation phases (WCPL MOP, 2014).	Complies

Appendix H

Audit Protocol - Environmental Protection Licence 12425

Appendix H Audit Protocol - Environmental Protection Licence 12425

Section	Requirement	Audit Evidence	Audit Finding									
1 Administrative conditions												
A1 What licence authorises and regulates												
A1.1	This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation. Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition. <table><tr><th>Scheduled Activity</th><th>Fee Based Activity</th><th>Scale</th></tr><tr><td>Coal Works</td><td>Coal works</td><td>> 5000000 T handled</td></tr><tr><td>Mining for Coal</td><td>Mining for coal</td><td>> 5000000 T produced</td></tr></table>	Scheduled Activity	Fee Based Activity	Scale	Coal Works	Coal works	> 5000000 T handled	Mining for Coal	Mining for coal	> 5000000 T produced	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
Scheduled Activity	Fee Based Activity	Scale										
Coal Works	Coal works	> 5000000 T handled										
Mining for Coal	Mining for coal	> 5000000 T produced										
A2 Premises to which this licence applies												
A2.1	The licence applies to the following premises: <table><tr><th>Premises Details</th></tr><tr><td>WILPINJONG COAL PTY LTD</td></tr><tr><td>1434 ULAN-WOLLAR ROAD</td></tr><tr><td>WILPINJONG</td></tr><tr><td>NSW 2850</td></tr><tr><td> </td></tr><tr><td>THE LAND DESCRIBED IN 'APPENDIX 1 – SCHEDULE OF LAND' IN THE DEPARTMENT OF PLANNING AND INFRASTRUCTURE'S PROJECT APPROVAL 05-0021 DATED 1 FEBRUARY 2006.</td></tr></table>	Premises Details	WILPINJONG COAL PTY LTD	1434 ULAN-WOLLAR ROAD	WILPINJONG	NSW 2850		THE LAND DESCRIBED IN 'APPENDIX 1 – SCHEDULE OF LAND' IN THE DEPARTMENT OF PLANNING AND INFRASTRUCTURE'S PROJECT APPROVAL 05-0021 DATED 1 FEBRUARY 2006.	Verified as per Section 1.3 (AEMRs, 2011 and 2012) and Section 1.4 (AEMR, 2013).	Complies		
Premises Details												
WILPINJONG COAL PTY LTD												
1434 ULAN-WOLLAR ROAD												
WILPINJONG												
NSW 2850												
THE LAND DESCRIBED IN 'APPENDIX 1 – SCHEDULE OF LAND' IN THE DEPARTMENT OF PLANNING AND INFRASTRUCTURE'S PROJECT APPROVAL 05-0021 DATED 1 FEBRUARY 2006.												

Section	Requirement	Audit Evidence	Audit Finding			
A3 Other Activities						
A3.1	This licence applies to all other activities carried on at the premises, including: <table><tr><td>Ancillary Activity</td></tr><tr><td>Crushing, grinding or separating</td></tr><tr><td>Extractive activities</td></tr></table>	Ancillary Activity	Crushing, grinding or separating	Extractive activities	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
Ancillary Activity						
Crushing, grinding or separating						
Extractive activities						
A4 Information supplied to the EPA						
A4.1	Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence. In this condition the reference to "the licence application" includes a reference to: (a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and (b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered			

Section	Requirement	Audit Evidence	Audit Finding																																																
2 Discharges to air and water and applications to land																																																			
P1 Location of monitoring/discharge points and areas																																																			
P1.1	The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.		These locations were confirmed to be part of the monitoring programs at WCM during the audit interview.																																																
	<table><tr><th colspan="4">Air</th></tr><tr><th>EPA identi- fication no.</th><th>Type of Monitoring Point</th><th>Type of Discharge Point</th><th>Location Description</th></tr><tr><td>3</td><td>Dust Monitoring</td><td></td><td>DG4: Mine owned location - old Robinson's property approximately 2.5 km south east of CHPP, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12</td></tr><tr><td>4</td><td>Dust Monitoring</td><td></td><td>DG5: Wollar - adjacent to St Laurence O'Toole Catholic Church, as indicated on Figure 2 licence variation application additional information received by the EPA on 26.11.12</td></tr><tr><td>6</td><td>Dust Monitoring</td><td></td><td>DG8: Mine owned location - Mittaville Nth property boundary with Ulan Coal mine owned land as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12</td></tr><tr><td>9</td><td>Dust Monitoring</td><td></td><td>DG11: Mine owned location - adjacent to Wilpinjong Creek north east of mine project area, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12</td></tr><tr><td>10</td><td>Dust Monitoring</td><td></td><td>DG12: Mine owned location - Aboriginal rock art site 72, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12</td></tr><tr><td>11</td><td>Dust Monitoring</td><td></td><td>DG13: Mine owned location - Aboriginal rock art site 153, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12</td></tr><tr><td>12</td><td>Dust Monitoring</td><td></td><td>DG14: Mine owned location - Aboriginal rock art site 152, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12</td></tr><tr><td>13</td><td>Dust Monitoring</td><td></td><td>PM10 - HV1: Wollar - adjacent to St Laurence O'Toole Catholic Church as indicated in Figure 2 licence variation application additional information received by the EPA 26.11.12</td></tr><tr><td>20</td><td>Dust Monitoring</td><td></td><td>PM10 - HV4: Mine owned location - old Robinsons property approximately 2.5km south east of CHPP, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12</td></tr><tr><td>21</td><td>Meteorological weather</td><td></td><td>Meteorological weather station(s) indicated</td></tr></table>			Air				EPA identi- fication no.	Type of Monitoring Point	Type of Discharge Point	Location Description	3	Dust Monitoring		DG4: Mine owned location - old Robinson's property approximately 2.5 km south east of CHPP, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12	4	Dust Monitoring		DG5: Wollar - adjacent to St Laurence O'Toole Catholic Church, as indicated on Figure 2 licence variation application additional information received by the EPA on 26.11.12	6	Dust Monitoring		DG8: Mine owned location - Mittaville Nth property boundary with Ulan Coal mine owned land as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12	9	Dust Monitoring		DG11: Mine owned location - adjacent to Wilpinjong Creek north east of mine project area, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12	10	Dust Monitoring		DG12: Mine owned location - Aboriginal rock art site 72, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12	11	Dust Monitoring		DG13: Mine owned location - Aboriginal rock art site 153, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12	12	Dust Monitoring		DG14: Mine owned location - Aboriginal rock art site 152, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12	13	Dust Monitoring		PM10 - HV1: Wollar - adjacent to St Laurence O'Toole Catholic Church as indicated in Figure 2 licence variation application additional information received by the EPA 26.11.12	20	Dust Monitoring		PM10 - HV4: Mine owned location - old Robinsons property approximately 2.5km south east of CHPP, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12	21	Meteorological weather		Meteorological weather station(s) indicated
	Air																																																		
	EPA identi- fication no.	Type of Monitoring Point		Type of Discharge Point	Location Description																																														
	3	Dust Monitoring			DG4: Mine owned location - old Robinson's property approximately 2.5 km south east of CHPP, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12																																														
	4	Dust Monitoring			DG5: Wollar - adjacent to St Laurence O'Toole Catholic Church, as indicated on Figure 2 licence variation application additional information received by the EPA on 26.11.12																																														
	6	Dust Monitoring			DG8: Mine owned location - Mittaville Nth property boundary with Ulan Coal mine owned land as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12																																														
	9	Dust Monitoring			DG11: Mine owned location - adjacent to Wilpinjong Creek north east of mine project area, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12																																														
	10	Dust Monitoring			DG12: Mine owned location - Aboriginal rock art site 72, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12																																														
	11	Dust Monitoring			DG13: Mine owned location - Aboriginal rock art site 153, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12																																														
	12	Dust Monitoring			DG14: Mine owned location - Aboriginal rock art site 152, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12																																														
	13	Dust Monitoring			PM10 - HV1: Wollar - adjacent to St Laurence O'Toole Catholic Church as indicated in Figure 2 licence variation application additional information received by the EPA 26.11.12																																														
20	Dust Monitoring		PM10 - HV4: Mine owned location - old Robinsons property approximately 2.5km south east of CHPP, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12																																																
21	Meteorological weather		Meteorological weather station(s) indicated																																																

Section	Requirement			Audit Evidence	Audit Finding												
		monitoring	on Figure 2 licence variation application additional information received by the EPA 26.11.12														
	25	Dust monitoring	TEOM 3: Wollar - adjacent to St Laurence O'Toole Catholic Church, as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12														
	26	Dust monitoring	DG15: Mine owned location - adjacent to property number 1-30 (mine owned property) on Araluen Rd as indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12														
	27	Dust monitoring	PM10 - HV5: Araluen Rd - mine owned location adjacent to property number 1-30 (mine owned property) on Araluen Rd as indicated in Figure 2 licence variation application additional information received by the EPA 26.11.12														
	28	Dust monitoring	TEOM 4: Araluen Rd - Mine owned location - adjacent to property number 1-30 (mine owned property) on Araluen Rd as indicated on Figure 2 of the licence variation application additional information received by the EPA 26.11.12														
P1.2	The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.			These locations were confirmed to be part of the monitoring programs at WCM during the audit interview.	Complies												
P1.3	The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area. <table><tr><th colspan="4">Water and land</th></tr><tr><th>EPA Identification no.</th><th>Type of Monitoring Point</th><th>Type of Discharge Point</th><th>Location Description</th></tr><tr><td>24</td><td>Discharge to waters. Discharge water quality monitoring.</td><td>Discharge to waters. Discharge water quality monitoring.</td><td>Surface water discharge downstream of the outlet from the reverse osmosis plant located on Lot 234 DP723412.</td></tr></table>			Water and land				EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	24	Discharge to waters. Discharge water quality monitoring.	Discharge to waters. Discharge water quality monitoring.	Surface water discharge downstream of the outlet from the reverse osmosis plant located on Lot 234 DP723412.	These locations were confirmed to be part of the monitoring programs at WCM during the audit interview.	Complies
Water and land																	
EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description														
24	Discharge to waters. Discharge water quality monitoring.	Discharge to waters. Discharge water quality monitoring.	Surface water discharge downstream of the outlet from the reverse osmosis plant located on Lot 234 DP723412.														

Section	Requirement	Audit Evidence	Audit Finding
3 Limit conditions			
L1 Pollution of waters			
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	At approximately 18:00 on December 16, high rainfall occurred over the Pit 3 area and the subsequent rainwater flow breached the sedimentation fence at two points. Following the event WCPL engaged Dr Martin Denny to assess Cumbo Creek and to determine if the event had any impact on the Creek. Dr. Denny assessed Cumbo Creek on December 20. The assessment concluded that the rain storm event resulted in the movement of a small amount of sediment into Cumbo Creek, however no significant impact to the riparian habitat or aquatic ecosystem occurred. A report to the EPA was provided on the 24 December 2013. Remedial works included improve drainage design at the site.	Not Compliant
L2 Concentration limits			
L2.1	For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.	noted	noted

Section	Requirement	Audit Evidence	Audit Finding
L2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	pH readings were recorded outside of EPL limits in both the 2012 and 2013 reporting periods (Annual Return, 2012 and 2013). High pH readings in 2012 were due to lag time to close the divert valve. New probes were installed in 2013 after the divert valve returns off-spec water to site. The divert valve was also re designed in 2013 to close quicker.	Not Compliant
L2.3	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s. Note: Deposited matter is assessed as insoluble solids as defined by AS 3580.10.1-2003 (AM-19)	noted	noted

Section	Requirement	Audit Evidence	Audit Finding																														
L2.4	Water and/or Land Concentration Limits POINT 24 <table><tr><th>Pollutant</th><th>Units of Measure</th><th>50 percentile concentration limit</th><th>90 percentile concentration limit</th><th>3DGM concentration limit</th><th>100 percentile concentration limit</th></tr><tr><td>Conductivity</td><td>microsiemens per centimetre</td><td></td><td></td><td></td><td>500</td></tr><tr><td>Oil and Grease</td><td>milligrams per litre</td><td></td><td></td><td></td><td>10</td></tr><tr><td>pH</td><td>pH</td><td></td><td></td><td></td><td>6.5-8.5</td></tr><tr><td>Total suspended solids</td><td>milligrams per litre</td><td></td><td></td><td></td><td>50</td></tr></table> Note : All water discharged from the premises must have a flow regime which is variable and consistent with the ephemeral nature of the flows in Wilpinjong and Cumbo Creeks.	Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit	Conductivity	microsiemens per centimetre				500	Oil and Grease	milligrams per litre				10	pH	pH				6.5-8.5	Total suspended solids	milligrams per litre				50	2013: Conductivity and pH readings were recorded outside limits. As reported to the EPA in the 2013 Annual Return - New probes were installed after the divert valve (returns off-spec water to site). The divert valve was also re-designed to close quicker. Licence amended to relocate discharge point. 2012: The Electrical Cond., Oil & Grease & pH exceeded licence limits. As reported to EPA in the 2012 Annual Return - EC setting on RO plant not lowered to reflect new limit. O&G likely to be laboratory error; high pH readings due to lag time to close the divert valve. Unlikely any adverse effects. EPA reports appropriate action was taken by WCPL in both cases.	Not Compliant
Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit																												
Conductivity	microsiemens per centimetre				500																												
Oil and Grease	milligrams per litre				10																												
pH	pH				6.5-8.5																												
Total suspended solids	milligrams per litre				50																												
L3 Volume and mass limits																																	
L3.1	For each discharge point or utilisation area specified below (by a point number), the volume/mass of: (a) liquids discharged to water; or; (b) solids or liquids applied to the area; must not exceed the volume/mass limit specified for that discharge point or area. <table><tr><th>Point</th><th>Unit of measure</th><th>Volume/Mass Limit</th></tr><tr><td>24</td><td>megalitres per day</td><td>5</td></tr></table>	Point	Unit of measure	Volume/Mass Limit	24	megalitres per day	5	This has not been exceeded during the audit period.	Complies																								
Point	Unit of measure	Volume/Mass Limit																															
24	megalitres per day	5																															

Section	Requirement	Audit Evidence	Audit Finding																				
L4 Waste																							
L4.1	The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below. Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below. Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below. This condition does not limit any other conditions in this licence.		Approx. 350 tonnes of tyres are disposed off onsite. There is also some waste from Peabody construction projects. This will be subject to the new Waste Management Plan that is still sitting with DP&E.																				
	<table><tr><th>Code</th><th>Waste</th><th>Description</th><th>Activity</th><th>Other Limits</th></tr><tr><td>NA</td><td>General solid waste (non-putrescible)</td><td>The general solid waste disposed of on the premises must only be sourced from licensee owned properties in the district</td><td>Waste disposal (application to land)</td><td>Waste must be classified and disposed of in accordance with the statement of commitments summarised in Appendix 8 of Project Approval 05-0021 (Mod 5)</td></tr><tr><td>NA</td><td>Waste</td><td>Any waste received on site that is below licensing thresholds in Schedule 1 of the POEO Act, as in force from time to time</td><td>-</td><td>NA</td></tr><tr><td>T140</td><td>Tyres</td><td>As defined in Schedule 1 of the POEO Act, as in force from time to time</td><td>Waste disposal (application to land)</td><td>The total volume of tyres disposed of at the premises must not exceed 350 tonnes per annum</td></tr></table>			Code	Waste	Description	Activity	Other Limits	NA	General solid waste (non-putrescible)	The general solid waste disposed of on the premises must only be sourced from licensee owned properties in the district	Waste disposal (application to land)	Waste must be classified and disposed of in accordance with the statement of commitments summarised in Appendix 8 of Project Approval 05-0021 (Mod 5)	NA	Waste	Any waste received on site that is below licensing thresholds in Schedule 1 of the POEO Act, as in force from time to time	-	NA	T140	Tyres	As defined in Schedule 1 of the POEO Act, as in force from time to time	Waste disposal (application to land)	The total volume of tyres disposed of at the premises must not exceed 350 tonnes per annum
	Code	Waste		Description	Activity	Other Limits																	
	NA	General solid waste (non-putrescible)		The general solid waste disposed of on the premises must only be sourced from licensee owned properties in the district	Waste disposal (application to land)	Waste must be classified and disposed of in accordance with the statement of commitments summarised in Appendix 8 of Project Approval 05-0021 (Mod 5)																	
NA	Waste	Any waste received on site that is below licensing thresholds in Schedule 1 of the POEO Act, as in force from time to time	-	NA																			
T140	Tyres	As defined in Schedule 1 of the POEO Act, as in force from time to time	Waste disposal (application to land)	The total volume of tyres disposed of at the premises must not exceed 350 tonnes per annum																			
Note : The above noise limits do not apply at properties where the licensee has a written agreement with the landowner to exceed the noise limits.																							

Section	Requirement	Audit Evidence	Audit Finding																														
L5 Noise Limits																																	
L5.1	Noise generated at the premises must not exceed the noise limits presented in the table below. The locations referred to in the table below are indicated by the property identification numbers on Figure 4A Relevant Land Ownership Plan Wilpinjong Coal Mine Mining Rate Modification Environmental Assessment 17 May 2010. The property identification numbers are indicated on Figure 4B Relevant Land Ownership List Wilpinjong Coal Mine Mining Rate Modification Environmental Assessment 17 May 2010. <table><tr><th>Location</th><th>Day</th><th>Evening</th><th>Night</th><th>Night</th></tr><tr><td></td><td>LAeq(15 minute)</td><td>LAeq(15 minute)</td><td>LAeq(15 minute)</td><td>LA1(1 minute)</td></tr><tr><td>Wollar village</td><td>36</td><td>35</td><td>35</td><td>45</td></tr><tr><td>Goulburn River National Park</td><td>50</td><td>50</td><td>50</td><td>-</td></tr><tr><td>Munhorn Gap Nature Reserve</td><td>50</td><td>50</td><td>50</td><td>-</td></tr><tr><td>All other privately owned land (outside the village of Wollar)</td><td>35</td><td>35</td><td>35</td><td>45</td></tr></table>	Location	Day	Evening	Night	Night		LAeq(15 minute)	LAeq(15 minute)	LAeq(15 minute)	LA1(1 minute)	Wollar village	36	35	35	45	Goulburn River National Park	50	50	50	-	Munhorn Gap Nature Reserve	50	50	50	-	All other privately owned land (outside the village of Wollar)	35	35	35	45	No exceedances were noted during the reporting period.	Complies
Location	Day	Evening	Night	Night																													
	LAeq(15 minute)	LAeq(15 minute)	LAeq(15 minute)	LA1(1 minute)																													
Wollar village	36	35	35	45																													
Goulburn River National Park	50	50	50	-																													
Munhorn Gap Nature Reserve	50	50	50	-																													
All other privately owned land (outside the village of Wollar)	35	35	35	45																													
L5.2	For the purpose of condition L5.1; - Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holidays. - Evening is defined as the period 6pm to 10pm. - Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holidays.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered																														
L5.3	The noise limits set out in condition L5.1 apply under all meteorological conditions except for the following: a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or b) Temperature inversion conditions of up to 3oC/100m and wind speeds greater than 2 metres/second at 10 metres above the ground level; or c) Temperature inversion conditions greater than 3oC/100m.	Temperature probes at the inversion tower are at 60m, 10m and 2m. This also measures wind	Not Triggered																														
L5.4	For the purpose of condition L5.3: a) The meteorological data to be used for determining meteorological conditions is the data recorded by the meteorological weather station identified as EPA identification Point 21 in condition P1.1; and b) Temperature inversion conditions (vertical temperature gradient in degrees C) are to be determined by direct measurement over a minimum 50m height interval as referred to in Part E2 of Appendix E to the NSW Industrial Noise Policy.	Meteorological data sighted by audit team. Temperature inversion conditions direct measurement is >58m height internals.	Complies																														

Section	Requirement	Audit Evidence	Audit Finding
L5.5	To determine compliance: a) With the Leq(15 minute) noise limits in condition L5.1, the noise measurement equipment must be located: - approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or ☐ within 30 metres of a dwelling façade, but not closer than 3 metres where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable - within approximately 50 metres of the boundary of a National Park or Nature Reserve b) With the LA1(1 minute) noise limits in condition L5.1, the noise measurement equipment must be located within 1 metre of a dwelling façade. c) With the noise limits in condition L5.1, the noise measurement equipment must be located: - at the most affected point at a location where there is no dwelling at the location; or - at the most affected point within an area at a location prescribed by conditions L5.5(a) or L5.5(b).	Auditors viewed copies of noise monitoring reports which confirmed that this is the methodology followed. Noise criteria was not exceeded during the reporting period.	Complies
L5.6	A non-compliance of condition L5.1 will still occur where noise generated from the premises in excess of the appropriate limit is measured: - at a location other than an area prescribed by conditions L5.5(a) and L5.5(b); and/or - at a point other than the most affected point at a location.	Auditors viewed copies of noise monitoring reports which confirmed that this is the methodology followed. Noise criteria was not exceeded during the reporting period.	Complies
L5.7	For the purpose of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.	Auditors viewed copies of noise monitoring reports which confirmed that this is the methodology followed. Noise criteria was not exceeded during the reporting period.	Complies

Section	Requirement	Audit Evidence	Audit Finding
L7 Blasting			
L6.1	The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	Auditors observed the most recent blasting data since the previous AEMR was prepared, and there have been no exceedances in this time. No exceedances were recorded in the 2012 or 2013 reporting periods (AEMRs 2012 and 2013). Auditors viewed blasting results for 2014 (blast register) during the audit site inspection. No exceedances were identified in 2014 in relation to blasting criteria specified in Table 4 (Schedule 3, condition 6 DA 05-0021 (as modified)).	Complies
L6.2	The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	Auditors observed the most recent blasting data since the previous AEMR was prepared, and there have been no exceedances in this time. No exceedances were recorded in the 2012 or 2013 reporting periods (AEMRs 2012 and 2013). Auditors viewed blasting results for 2014 (blast register) during the audit site inspection. No exceedances were identified in 2014 in relation to blasting criteria specified in Table 4 (Schedule 3, condition 6 DA 05-0021 (as modified)).	Complies
L6.3	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	No exceedances of ground vibration occurred during the reporting period	Complies

Section	Requirement	Audit Evidence	Audit Finding
L6.4	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded. <i>Note: "Noise sensitive locations" includes buildings used as a residence, hospital, school, child care centre, place of public worship and nursing homes. A noise sensitive location includes the land within 30 metres of the building.</i>	No exceedances of ground vibration occurred during the reporting period	Complies
L6.5	Blasting operations at the premises may only take place between 9:00am – 5:00pm Monday to Saturday. Blasting outside the hours specified in this condition can only take place with the written approval of the EPA.	The audit team reviewed WCPLs blasting register and verified the blasting times.	Complies
L6.6	Blasting at the premises is limited to the following: a) a maximum of 2 blasts per day; and b) a maximum of 5 blasts per week, on average over a calendar year.	3 blasts with a MIC of over 400 kg occurred within a week during 2012 annual return reporting period. Annual Return reports that an oversight in how the blast checklist was completed occurred. No action could be taken. As a result of this occurrence the blast checklist has been changed to prevent a reoccurrence. EPA reports that appropriate action was taken by WCPL.	Not Compliant
4 Operating conditions			
O1 Activities must be carried out in a competent manner			
O1.1	Licensed activities must be carried out in a competent manner. This includes: (a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and (b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	Observed by the audit team during the audit site inspection.	Complies

Section	Requirement	Audit Evidence	Audit Finding
O2 Maintenance of plant and equipment			
O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: (a) must be maintained in a proper and efficient condition; and (b) must be operated in a proper and efficient manner.	The maintenance planning database used at WCM to keep track of equipment that has been and that requires servicing was sighted by the audit team during the site visit.	Complies
O3 Dust			
O3.1	All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.	Management of off-site odour and fume emissions is covered by under the Air Quality Management Plan and the Spontaneous Combustion Management Plan (Date 2006). The SponCom Management Plan has been updated (2014) and has been submitted to the DG for approval. WCPL ensures all practicable measures are in place to minimise off-site odour and fume emissions and greenhouse gas emissions from site. During the site inspection the auditors noted a number of dust and emission mitigating measures in place at WCPL which come under the dust suppression and air quality management system and included automatic dust suppression, real time equipment fed to the control room and active monitoring of air quality conditions. The audit team also viewed the onsite live online system which manages the data sharing agreement between Ulan and Moolarben Coal Mines with WCPL. Air Quality monitoring data was viewed by the audit team and verified on the WCPL website.	Complies

Section	Requirement	Audit Evidence	Audit Finding
O3.2	All trafficable areas, coal storage areas and vehicle manoeuvring areas in or on the premises must be maintained, at all times, in a condition that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.	Management of off-site odour and fume emissions is covered by under the Air Quality Management Plan and the Spontaneous Combustion Management Plan (Date 2006). The SponCom Management Plan has been updated (2014) and has been submitted to the DG for approval. WCPL ensures all practicable measures are in place to minimise off-site odour and fume emissions and greenhouse gas emissions from site. During the site inspection the auditors noted a number of dust and emission mitigating measures in place at WCPL which come under the dust suppression and air quality management system and included automatic dust suppression, real time equipment fed to the control room and active monitoring of air quality conditions. The audit team also viewed the onsite live online system which manages the data sharing agreement between Ulan and Moolarben Coal Mines with WCPL. Air Quality monitoring data was viewed by the audit team and verified on the WCPL website.	Complies
O4 Effluent application to land			
O4.1	The irrigation of treated waste water must be in accordance with the DECC's Environmental Guideline for the use of Effluent by Irrigation (2004).	Effluent to land irrigation. There is one major septic system that discharges to land. That system has a flow metre. It is checked monthly by a licensed plumber and chlorine tablets are added. Annual soil testing and water testing are also undertaken to ensure the treatment is adequate. the sprayers are rotated around each week to ensure an even distribution across the land.	Complies

Section	Requirement	Audit Evidence	Audit Finding
O4.2	Effluent application must not occur in a manner which causes surface runoff.	All systems are installed away from drainage and creeks. To ensure runoff does not escape from site.	Complies
O4.3	The quantity of effluent applied to the utilisation area(s) must not exceed the capacity of the utilisation area(s) to effectively utilise the effluent. For the purpose of this condition, "effectively utilise" includes the ability of the soil to absorb the nutrient, salt and hydraulic loads and the applied organic material without causing harm to the environment.	See notes above as per annual testing and flow data and weekly changing of the sprinklers.	Complies
5 Monitoring and recording conditions			
M1 Monitoring records			
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.		
M1.2	All records required to be kept by this licence must be: (a) in a legible form, or in a form that can readily be reduced to a legible form; (b) kept for at least 4 years after the monitoring or event to which they relate took place; and (c) produced in a legible form to any authorised officer of the EPA who asks to see them.	This was sited by the audit team during the site visit.	Complies
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: (a) the date(s) on which the sample was taken; (b) the time(s) at which the sample was collected; (c) the point at which the sample was taken; and (d) the name of the person who collected the sample.	Monitoring spreadsheets are completed with records going back to the initial operations at Wilpinjong, as sighted by the audit team during the site visit.	Complies
M2 Requirement to monitor concentration of pollutants discharged			
M2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Noted	Noted

Section	Requirement	Audit Evidence	Audit Finding																																
M2.2	Air Monitoring Requirements POINT 3,4,6,9,26 <table> <tr> <th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr> <tr> <td>Particulates - Deposited Matter</td><td>grams per square metre per month</td><td>Monthly</td><td>AM-19</td></tr> </table> POINT 12,10,11 <table> <tr> <th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr> <tr> <td>Particulates - Deposited Matter</td><td>milligrams per cubic metre</td><td>Special Frequency 1</td><td>AM-19</td></tr> </table> POINT 13,20,27 <table> <tr> <th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr> <tr> <td>PM10</td><td>micrograms per cubic metre</td><td>Every 6 days</td><td>AM-18</td></tr> </table> POINT 25,28 <table> <tr> <th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr> <tr> <td>PM10</td><td>milligrams per cubic metre</td><td>Continuous</td><td>AM-22</td></tr> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Monthly	AM-19	Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	milligrams per cubic metre	Special Frequency 1	AM-19	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Every 6 days	AM-18	Pollutant	Units of measure	Frequency	Sampling Method	PM10	milligrams per cubic metre	Continuous	AM-22	2013: Not all dust samples collected and analysed as required by condition M2.2. as reported to the EPA in the 2013 Annual Return - Issues included broken funnel for 1 dust deposition gauge and several faults detected with 3 high volume air samplers. No adverse effects from non-compliance. Equipment repaired/replaced. The EPA notes that appropriate action was taken by WCPL. 2012: Dust samples were not collected due to new equipment/calibration issues associated with installation of DDG 15, HV5, TEOM 3 & TEOM 4 as required by the licence variation. There were no adverse effects from the non-compliance as reported to the EPA in the 2012 Annual return. The EPA notes this as a administrative non-compliance.	Not Compliant
Pollutant	Units of measure	Frequency	Sampling Method																																
Particulates - Deposited Matter	grams per square metre per month	Monthly	AM-19																																
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Pollutant	Units of measure	Frequency	Sampling Method																																
PM10	milligrams per cubic metre	Continuous	AM-22																																
M2.3	For the purposes of the table(s) above Special Frequency 1 means the collection of samples continuous monitoring (monthly) when mining is within 1 kilometre of Aboriginal rock art sites.	Noted	Noted																																

Section	Requirement	Audit Evidence	Audit Finding																				
M2.4	Water and/or Land Monitoring Requiriements POINT 24 <table><thead><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr></thead><tbody><tr><td>Conductivity</td><td>micrograms per cubic metre</td><td>Continuous during discharge</td><td>Continuously</td></tr><tr><td>Oil and Grease</td><td>milligrams per litre</td><td>Weekly during any discharge</td><td>Grab sample</td></tr><tr><td>pH</td><td>pH</td><td>Continuous during discharge</td><td>Continuously</td></tr><tr><td>Total suspended solids</td><td>milligrams per litre</td><td>Weekly during any discharge</td><td>Grab sample</td></tr></tbody></table>	Pollutant	Units of measure	Frequency	Sampling Method	Conductivity	micrograms per cubic metre	Continuous during discharge	Continuously	Oil and Grease	milligrams per litre	Weekly during any discharge	Grab sample	pH	pH	Continuous during discharge	Continuously	Total suspended solids	milligrams per litre	Weekly during any discharge	Grab sample	2013: Samples for oil and grease and total suspended solids could not be collected due to the reverse osmosis plant being shut down (no discharge). As reported to the EPA in the 2013 Annual return - internal communications regarding proposed maintenance days have been improved. EPA notes that appropriate action was taken by WCPL. Samples were not collected for Oil & Grease & TSS. As reported to the EPA in the 2012 Annual Return (sighted) - Reverse osmosis plant stoppages prevented water samples from being taken. Power outages & modem failure resulted in missing records. No action taken as no adverse effects.	Not Compliant
Pollutant	Units of measure	Frequency	Sampling Method																				
Conductivity	micrograms per cubic metre	Continuous during discharge	Continuously																				
Oil and Grease	milligrams per litre	Weekly during any discharge	Grab sample																				
pH	pH	Continuous during discharge	Continuously																				
Total suspended solids	milligrams per litre	Weekly during any discharge	Grab sample																				
M3 Testing methods - concentration limits																							
M3.1	Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with: (a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or (b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or (c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.	Verified during audit interview and inspection	Complies																				
M3.2	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted. Note: The Protection of the Environment Operations (Clean Air) Regulation 2002 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".	Verified during audit interview and inspection	Complies																				

Section	Requirement	Audit Evidence	Audit Finding																																			
M4 Weather Monitoring																																						
M4.1	The meteorological weather station must be maintained so as to be capable of continuously monitoring the parameters specified in condition M4.2.	Meteorological data sighted by audit team. Maintenance regime sighted by the audit team and verified on site	Complies																																			
M4.2	For each monitoring point specified in the table below the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency specified opposite in the other columns. Point 21 <table><tr><th>Parameter</th><th>Unit of Measure</th><th>Frequency</th><th>Averaging Period</th><th>Sampling Method</th></tr><tr><td>Air temperature</td><td>Degress celsius</td><td>Continuous</td><td>1 hour</td><td>AM-4</td></tr><tr><td>Wind direction</td><td>Degrees</td><td>Continuous</td><td>15 minute</td><td>AM-2 & AM-4</td></tr><tr><td>Wind speed</td><td>m/s</td><td>Continuous</td><td>15 minute</td><td>AM-2 & AM-4</td></tr><tr><td>Temperature lapse rate</td><td>Degrees</td><td>Continuous</td><td>15 minute</td><td>Part E2 & E4 of the Nsw Industrial Noise Policy</td></tr><tr><td>Rainfall</td><td>mm</td><td>Continuous</td><td>24 hour</td><td>AM-4</td></tr><tr><td>Relative humidity</td><td>%</td><td>Continuous</td><td>1 hour</td><td>AM-4</td></tr></table>	Parameter	Unit of Measure	Frequency	Averaging Period	Sampling Method	Air temperature	Degress celsius	Continuous	1 hour	AM-4	Wind direction	Degrees	Continuous	15 minute	AM-2 & AM-4	Wind speed	m/s	Continuous	15 minute	AM-2 & AM-4	Temperature lapse rate	Degrees	Continuous	15 minute	Part E2 & E4 of the Nsw Industrial Noise Policy	Rainfall	mm	Continuous	24 hour	AM-4	Relative humidity	%	Continuous	1 hour	AM-4	2013: Continuous weather monitoring on site did not occur for up to 6% of the reporting period. As reported to the EPA in the 2013 Annual Return - Power outages & modem failure resulted in missing records. No action taken as there were no adverse effects from this non-compliance. 2012: Continuous monitoring for temperature lapse did not occur for 5% of the Reporting Period. As reported in the 2012 Annual Return to the EPA - Cause was power outages & modem failure resulted in missing records. No action was taken as there were no adverse effects. EPA reports that appropriate action was taken by WCPL.	Not Compliant
Parameter	Unit of Measure	Frequency	Averaging Period	Sampling Method																																		
Air temperature	Degress celsius	Continuous	1 hour	AM-4																																		
Wind direction	Degrees	Continuous	15 minute	AM-2 & AM-4																																		
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Rainfall	mm	Continuous	24 hour	AM-4																																		
Relative humidity	%	Continuous	1 hour	AM-4																																		
M5 Recording of pollution complaints																																						
M5.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.		Complies																																			

Section	Requirement	Audit Evidence	Audit Finding
M5.2	The record must include details of the following: (a) the date and time of the complaint; (b) the method by which the complaint was made; (c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; (d) the nature of the complaint; (e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and (f) if no action was taken by the licensee, the reasons why no action was taken.		Complies
M5.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	This was sighted by the audit team during the site visit.	Complies
M5.4	The record must be produced to any authorised officer of the EPA who asks to see them.		Complies
M6 Telephone complaints line			
M6.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	A dedicated telephone number (ph.: 1300 606 625) for the provision of comments or complaints is maintained by WCPL. In addition, a separate hotline for blasting information is also maintained by WCPL (ph.: 1800 649 783).	Complies
M6.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	The complaints lines are advertised in local newspapers quarterly, via the Wilpinjong Community Newsletter and on the Peabody website: (www.peabodyenergy.com)	Complies

Section	Requirement	Audit Evidence	Audit Finding						
M6.3	Conditions M5.1 and M5.2 do not apply until 3 months after: (a) the date of the issue of this licence or (b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.	noted	noted						
M7 Requirement to monitor volume or mass									
M7.1	For each discharge point or utilisation area specified below, the licensee must monitor: (a) the volume of liquids discharged to water or applied to the area; (b) the mass of solids applied to the area; (c) the mass of pollutants emitted to the air; at the frequency and using the method and units of measure, specified below. POINT 24 <table><thead><tr><th>Frequency</th><th>Unit of Measure</th><th>Sampling Method</th></tr></thead><tbody><tr><td>Continuous during discharge</td><td>megalitres per day</td><td>Flow meter and continuous logger</td></tr></tbody></table>	Frequency	Unit of Measure	Sampling Method	Continuous during discharge	megalitres per day	Flow meter and continuous logger	Discharge of water is via the RO plant as approved by the EPA. Water volume and concentration limits (including EC, oil and grease, pH and TSS) are continuously monitored (verified by audit team on site)	Complies
Frequency	Unit of Measure	Sampling Method							
Continuous during discharge	megalitres per day	Flow meter and continuous logger							
M8 Blasting									
M8.1	To determine compliance with condition(s) L6.1 to L6.4: a) Airblast overpressure and ground vibration levels experienced at the following noise sensitive locations must be measured and recorded for all blasts carried out on the premises; - approximately 50m west of the Wollar Primary School grounds - E 777403 N6416219 (MGA94, Zone 55) b) Instrumentation used to measure and record the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard AS 2187.2-2006. Note : A breach of the licence will still occur where airblast overpressure or ground vibration levels from the blasting operations at the premises exceeds the limit specified in conditions L6.1 to L6.4 at any “noise sensitive locations” other than the locations identified in the above condition.	Calibration certificates from Terrock comply with this (as viewed by auditors during site visit). The blasting data spreadsheet will also automatically highlight any non-compliances with these criteria. Open cut blasting is undertaken in accordance with Section L6 of EPL 12425 and Conditions 9 and 10, Schedule 3 of the PA05-0021 and AS 2187.2-2006. The blast management plan (2014) was submitted to the DG for approval during the audit period. The plan describes the blast management mitigation measures and monitoring tecuniques utilised at the mine.	Complies						

Section	Requirement	Audit Evidence	Audit Finding
6 Reporting Conditions			
R1 Annual return documents			
What documents must an Annual Return contain?			
R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: (a) a Statement of Compliance; and (b) a Monitoring and Complaints Summary. At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	The EPL returns for 2011, 2012 and 2013 were sighted by the audit team during the site visit. It was confirmed that the EPL returns contained this information.	Complies
Period covered by Annual Return			
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below. <i>Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.</i>		Complies
R1.3	Where this licence is transferred from the licensee to a new licensee: (a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and (b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period. <i>Note: An application to transfer a licence must be made in the approved form for this purpose.</i>	This has not been triggered during the audit period.	Not Triggered
R1.4	Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on: (a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or (b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.	The EPL has not been surrendered or revoked by the EPA during this auditing period.	Not Triggered
R1.5	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date')	Annual Return dates sighted.	Complies

Section	Requirement	Audit Evidence	Audit Finding
R1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	The 2012 and 2013 EPL return was sighted by the auditors during the site visit.	Complies
R1.7	Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	The EPL returns for 2012 and 2013 were sighted by the audit team during the site visit. These EPL returns were signed by the Company Director and Secretary.	Complies
R2 Notification of environmental harm			
	<i>Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.</i>	Wilpinjong Coal fired a blast which resulted in fume event assessed as "3C", as determined against the Australian Explosives Industry And Safety Group Inc. Code of Practice - PREVENTION AND MANAGEMENT OF BLAST GENERATED NOx GASES IN SURFACE BLASTING - Edition 2 - August 2011 – Appendix 2 (found on page 26). WCPL implemented its PIRMP and notified all relevant agencies including DP&E (sighted by audit team).	Complies
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.	Wilpinjong Coal fired a blast which resulted in fume event assessed as "3C", as determined against the Australian Explosives Industry And Safety Group Inc. Code of Practice - PREVENTION AND MANAGEMENT OF BLAST GENERATED NOx GASES IN SURFACE BLASTING - Edition 2 - August 2011 – Appendix 2 (found on page 26). WCPL implemented its PIRMP and notified all relevant agencies including	Complies

Section	Requirement	Audit Evidence	Audit Finding
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	Wilpinjong Coal fired a blast which resulted in fume event assessed as "3C", as determined against the Australian Explosives Industry And Safety Group Inc. Code of Practice - PREVENTION AND MANAGEMENT OF BLAST GENERATED NOx GASES IN SURFACE BLASTING - Edition 2 - August 2011 – Appendix 2 (found on page 26). WCPL implemented its PIRMP and notified all relevant agencies including DP&E (sighted by audit team).	Complies
R3 Written report			
R3.1	Where an authorised officer of the EPA suspects on reasonable grounds that: (a) where this licence applies to premises, an event has occurred at the premises; or (b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	Letter/Report to EPA sighted (15 Aug 2014) by audit team in relation to fume event caused by Blasting.	Complies
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	Letter/Report to EPA sighted (15 Aug 2014) by audit team in relation to fume event caused by Blasting.	Complies
R3.3	The request may require a report which includes any or all of the following information: (a) the cause, time and duration of the event; (b) the type, volume and concentration of every pollutant discharged as a result of the event; (c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; (d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; (e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; (f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and (g) any other relevant matters.	Letter/Report to EPA sighted (15 Aug 2014) by audit team in relation to fume event caused by Blasting.	Not Triggered

Section	Requirement	Audit Evidence	Audit Finding
R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
R4 Other reporting conditions			
R4.1	A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the second round of quarterly monitoring. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include: 1. an assessment of compliance with noise limits presented in Condition L6.1; and 2. an outline of any management actions taken within the monitoring period to address any exceedances of the limits contained in Condition L5.1.	This was not required during the current auditing period.	Not Triggered
7 General Conditions			
G1 Copy of licence kept at the premises			
G1.1	A copy of this licence must be kept at the premises to which the licence applies.		Complies
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.		Complies
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.		Complies
8 Pollution Studies and Reduction Programs			
U1 Particulate Matter Control Best Practice Implementation - Wheel Generated Dust			
U1.1	The Licensee must achieve and maintain a dust control efficiency of 80% or more on all active haul roads by 30 August 2013. Control efficiency is calculated as: $CE = \frac{E \text{ (uncontrolled)} - E \text{ (controlled)}}{E \text{ (uncontrolled)}} \times 100$ Where E = the emission rate of the activity	To satisfy the requirements of the EPL, a Monitoring Plan was developed for condition U1 which outlined the proposed monitoring method to determine the site wide haul road control efficiency (Pacific Environment, 2013). The 2014 report was viewed by audit team (Pacific Environment 2014) and verified control efficiency of 80% or higher.	Complies

Section	Requirement	Audit Evidence	Audit Finding
U1.2	To assess compliance with Condition U1.1, the Licensee must: - undertake an analysis of meteorological data to determine suitable periods for monitoring to capture the effects of meteorological variation on particulate matter control efficiency; - measure uncontrolled and controlled haul road emissions on at least 3 occasions using a Road Emissions Expert (REX) system; - continuously measure and record 'additional site data', including but not necessarily limited to: • vehicle movements, • meteorological conditions, and • water and suppressant application time, duration, rate and volume, - determine if a site specific relationship can be derived between the measured control efficiency and additional site data. The measurement of uncontrolled and controlled haul road PM10 emissions must be undertaken at times when analysis of meteorological data indicates that elevated levels of dust are most likely at the premises. <i>Note: The EPA acknowledges that in order to determine uncontrolled PM10 emissions, the section of haul road to be sampled will need to be left untreated for a period of up to 12 hours prior to the sampling taking place.</i>	The 2014 report was viewed by audit team (Pacific Environment 2014) and verifies this condition.	Complies
U1.3	The Licensee must submit a written report to the EPA which documents the results of the assessment undertake in accordance with condition U1.2. The report must include an assessment of: - the dust control effectiveness; - dust levels recorded; - any relationship established between control effectiveness and the additional site data; and - compliance with condition U1.1. The report must be submitted by the Licensee to the Environment Protection Authority Regional Manager Central West, at PO Box 1388 BATHURST NSW 2795 by 15 August 2014.	The 2014 report was viewed by audit team (Pacific Environment 2014) and verifies this condition.	Complies
U1.4	The report required by condition U1.3 must be made publicly available by the Licensee on the Licensee's website by (two weeks from the submission date nominated in condition U1.3).	Report made available on the WCPL website.	Complies
U2 Particulate Matter Control Best Practice Implementation - Disturbing and Handling Overburden in Adverse Weather Conditions			
U2.1	The licensee must alter or cease the use of equipment on overburden and the loading and dumping of overburden during adverse weather conditions to minimise the generation of particulate matter from 22 March 2013.	The Adverse weather conditions report was viewed by the audit team. This report was submitted to the EPA defining what adverse conditions are. These are contained in new draft of AQMP (2014). This also contains a letter from the EPA confirming that this has been undertaken.	Complies

Section	Requirement	Audit Evidence	Audit Finding
U2.2	To assess compliance with condition U2.1, the Licensee must: (a) determine the adverse weather (meteorological) conditions which lead to elevated and visual dust emissions; (b) develop a Trigger Action Response Plan (TARP) based on the adverse weather conditions determined in (a) above; (c) record changes to mining activities due to adverse weather conditions.	The TARP is included in the new version of the AQMP (2014).	Complies
U2.3	The Licensee must submit a written report to the EPA which documents the results of the actions taken in accordance with Condition U2.1. The report must detail the following: - weather conditions during which activities were ceased or altered; - changes made to operational activities as a result of adverse weather; and - resultant dust levels when activities were altered or ceased. The report must be submitted by the Licensee to the Environment Protection Authority Regional Manager Central West, at PO Box 1388 BATHURST NSW 2795 by 15 August 2014.	The Adverse weather conditions report was viewed by the audit team. This report was submitted to the EPA defining what adverse conditions are. These are contained in new draft of AQMP (2014). This also contains a letter from the EPA confirming that this has been undertaken.	Complies
U2.4	The report required by Condition U2.3 must be made publicly available by the Licensee on the Licensee's website by (two weeks from the submission date nominated in U2.3 above).	The report is publically available on the WCPL website.	Complies

Section	Requirement	Audit Evidence	Audit Finding
U3 Particulate Matter Control Best Practice - Trial of Best Practice Measures for Disturbing and Handling Overburden			
U3.1	The Licensee must submit a report documenting an investigation and trial of best practice measures for the control of particulate matter from the use of equipment on overburden and the loading and dumping of overburden. Best practice measures may include, but should not be limited to, the following: - the use of foggers; - the use of water sprays; and - reduction of drop heights. The report must document the investigation and trial of each best practice measure. It must quantify the particulate matter control effectiveness and discuss the practicability of each best practice measure. The report must be submitted by the Licensee to the Environment Protection Authority Regional Manager Central West, at PO Box 1388 BATHURST NSW 2795 by 14 April 2014.	This was submitted on time, and was done as a regional plan from Wambo and other nearby mines to capture cumulative impacts	Complies

Section	Requirement	Audit Evidence	Audit Finding
9 Special Conditions			
E1 Spontaneous Combustion Air Monitoring			
E1.1	The licensee must undertake continuous monitoring of the following pollutants at the Barigan Street, Wollar air monitoring unit: - Oxides of nitrogen; - Sulfur dioxide; - Hydrogen Sulfide; - Volatile organic compounds (VOCs) including, benzene, toluene and xylene; and - Polycyclic aromatic hydrocarbons (PAHs) Monitoring must be undertaken in accordance with the relevant methods outlined in the EPA publication "Approved Methods - for the Sampling and Analysis of Air Pollutants in NSW" (2007). This monitoring must be undertaken until 30 June 2014. This data must be used to update the report titled "Ambient Air Monitoring Report - Wilpinjong Coal" prepared by Pacific Environment Limited and dated 22 July 2013. Reference must be made in the report comparing ambient air monitoring monitoring results in Wollar to odour complaints received by the licensee and all known spontaneous events that occurred at the premises during the monitoring period. The updated report must be submitted to the Central West (Bathurst) office of the EPA by 29 August 2014.	Analysis of Odour complaints and ambient AQ in Wollar (Pacific Environment, 27 Aug 2014). This report was viewed by the audit team and verifies this condition. Report available on the WCPL website.	Complies
E1.2	The licensee must undertake near source air monitoring at appropriate locations adjacent to the 'Keylah' and 'Noise Bund' overburden stockpiles. The monitoring must be undertaken: - at least twice, from either stockpile, during the period up to 30 June 2014; - for a sufficient length of time in order to collect a representative sample; - at a time when a spontaneous combustion event is occurring from the respective stockpile; and - such that the samples are analysed for NOx, SO2, H2S, PAHs and VOCs. Monitoring must be undertaken in accordance with the relevant methods outlined in the EPA publication "Approved Methods - for the Sampling and Analysis of Air Pollutants in NSW" (2007). This data must be used to update the report titled "Ambient Air Monitoring Report - Wilpinjong Coal" prepared by Pacific Environment Limited and dated 22 July 2013. The updated report must be submitted to the Central West (Bathurst) office of the EPA by 29 August 2014.	Analysis of Odour complaints and ambient AQ in Wollar (Pacific Environment, 27 Aug 2014). This report was viewed by the audit team and verifies this condition. Report available on the WCPL website.	Complies

Section	Requirement	Audit Evidence	Audit Finding
E2 Keylah Dump Removal			
E2.1	Prior to the commencement of works associated with the removal of the Keylah dump at the premises, the licensee must develop a management plan which: - Is consistent with any recognised industry standards or guidelines; - Details how the removal will occur; - Defines the location of where material will be relocated to; - Provides a timeframe for the completion of the works; - Identifies mitigation measures for any risks identified during the risk assessment process; - Details the proactive measures that will be utilised to prevent to occurrence of spontaneous combustion during the works, including but not necessarily limited to: - o Temperature and oxygen monitoring; - o A weather Trigger Action Response Plan (TARP); and - o A spontaneous combustion determination and response TARP which includes air quality management triggers and defined response actions; - Details the contingency plans should additional resources be required; - Details air quality management trigger and define the actions performance indicators which will be utilised to minimise offsite impacts including odour and dust; and - Outlines the complaint response procedure including verification and follow up action.	The management plan was prepared and sighted by audit team.	Complies
E2.2	Prior to the commencement of works associated with the removal of the Keylah dump at the premises, the licensee must review and update the Pollution Incident Response Management Plan for the premises to include incidents which relate to the removal of the Keylah dump.	Auditors noted the revision date on this plan. last updated on 3 Nov 2014 to deal with this. Document control on plan shows this,	Complies

Appendix I

Audit Protocol - Other Management Plans

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Reference	Requirement	Evidence	Audit Finding																																																																																																																			
Wilpinjong Coal Mine Mining Operations Plan 30 April 2014 - 29 April 2019 (Wilpinjong Coal Pty Limited, November 2014)																																																																																																																						
2 PROPOSED MINING ACTIVITIES																																																																																																																						
2.3 Activities Over the MOP Term																																																																																																																						
2.3.1	WCPL will undertake exploration and prospecting activities across the Mine's tenement areas (Table 10) for the purposes of geotechnical, geological and hydrogeological investigations during the MOP term. Table 10 WCPL Proposed Exploration Program During the MOP Term <table><tr><th rowspan="2">Year</th><th rowspan="2">Exploration Interests</th><th colspan="4">Mining Tenements and Proposed Exploration Holes</th></tr><tr><th>ML1573</th><th>EL6169</th><th>EL7091</th><th>Total</th></tr><tr><td rowspan="4">2014</td><td>Coal Quality</td><td>6</td><td>1</td><td>2</td><td>9</td></tr><tr><td>Large Diameter</td><td>2</td><td>-</td><td>1</td><td>3</td></tr><tr><td>Igneous Definition</td><td>5</td><td>-</td><td>-</td><td>5</td></tr><tr><td>Palaeo Definition</td><td>84</td><td>-</td><td>-</td><td>84</td></tr><tr><td rowspan="4">2015</td><td>Coal Quality</td><td>4</td><td>1</td><td>2</td><td>7</td></tr><tr><td>Large Diameter</td><td>-</td><td>-</td><td>1</td><td>1</td></tr><tr><td>Igneous Definition</td><td>7</td><td>-</td><td>-</td><td>7</td></tr><tr><td>Palaeo Definition</td><td>27</td><td>-</td><td>-</td><td>27</td></tr><tr><td rowspan="4">2016</td><td>Coal Quality</td><td>3</td><td>9</td><td>5</td><td>17</td></tr><tr><td>Large Diameter</td><td>1</td><td>-</td><td>2</td><td>3</td></tr><tr><td>Igneous Definition</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>Palaeo Definition</td><td>32</td><td>-</td><td>-</td><td>32</td></tr><tr><td rowspan="4">2017</td><td>Coal Quality</td><td>2</td><td>3</td><td>4</td><td>9</td></tr><tr><td>Large Diameter</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>Igneous Definition</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>Palaeo Definition</td><td>64</td><td>-</td><td>-</td><td>64</td></tr><tr><td rowspan="4">2018</td><td>Coal Quality</td><td>3</td><td>2</td><td>4</td><td>9</td></tr><tr><td>Large Diameter</td><td>-</td><td>1</td><td>-</td><td>1</td></tr><tr><td>Igneous Definition</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>Palaeo Definition</td><td>23</td><td>-</td><td>-</td><td>23</td></tr></table>	Year	Exploration Interests	Mining Tenements and Proposed Exploration Holes				ML1573	EL6169	EL7091	Total	2014	Coal Quality	6	1	2	9	Large Diameter	2	-	1	3	Igneous Definition	5	-	-	5	Palaeo Definition	84	-	-	84	2015	Coal Quality	4	1	2	7	Large Diameter	-	-	1	1	Igneous Definition	7	-	-	7	Palaeo Definition	27	-	-	27	2016	Coal Quality	3	9	5	17	Large Diameter	1	-	2	3	Igneous Definition	-	-	-	-	Palaeo Definition	32	-	-	32	2017	Coal Quality	2	3	4	9	Large Diameter	-	-	-	-	Igneous Definition	-	-	-	-	Palaeo Definition	64	-	-	64	2018	Coal Quality	3	2	4	9	Large Diameter	-	1	-	1	Igneous Definition	-	-	-	-	Palaeo Definition	23	-	-	23	Confirmed in audit interview and AEMR results.	Complies
Year	Exploration Interests			Mining Tenements and Proposed Exploration Holes																																																																																																																		
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2.3.1	WCPL may be required to establish temporary access tracks, sumps and drill pads to carryout exploration activities. A review of the potential environmental and heritage issues are completed through the Ground Disturbance Permit (GDP) process. A fully completed GDP must be in place prior to any ground disturbance activities commencing.	Assessed against ML. Verified compliance.	Complies																																																																																																																			
2.3.1	Following the environmental review process as required by the GDP, the proposed disturbance footprint will be prepared using small earthmoving equipment to allow for the work to be undertaken safely and in a manner that minimises environmental impacts. These works will continue to comply with DRE Surface Disturbance Notice (SDN)17 requirements and/or other relevant guidelines	noted and verified during site inspection and audit interview.	Complies																																																																																																																			

Reference	Requirement	Evidence	Audit Finding
2.3.1	Following the completion of exploration and prospecting activities, bore holes will be decommissioned in accordance with DRE's relevant guidelines. All disturbed areas including access tracks, sumps and drill pads will be rehabilitated if future disturbance is not proposed. An exploration report will be provided to the DRE annually in accordance with ML 1573 and EL 6169 and EL 7091.	Assessed against ML. Verified compliance.	Complies
2.3.1	In accordance with the approved groundwater monitoring program and Groundwater Modelling and Monitoring Plan (GWMMP) required by the Exploration Licences, WCPL propose to expand its existing groundwater monitoring network by utilising specific exploration boreholes.	verified by audit Groundwater specialist. Confirmed during assessment absent groundwater monitoring program and groundwater response program.	Complies
2.3.2	Construction activities currently planned, within the MOP term (i.e. outside of the normal development activities associated with mining including progressive development of water management infrastructure and light vehicle access tracks) will include: • Augmentation of the Reverse Osmosis plant to a water treatment facility; • Subject to feasibility studies, construction of the belt press filter at the CHPP and its associated conveyors (and/or froth flotation recovery system); • Tailings storage facility (TD7); • Establishment of the light vehicle workshop facility (in an existing building off the mining lease); • Preliminary commencement on the Cumbo Creek realignment project; • Establishing a series of clean water diversion drains and flood bunds in accordance with the Erosion and Sediment Control Plan (ESCP) and flood studies; • Investigation of a crushing plant to produce material on site; • Ancillary infrastructure and augmentation of existing water management infrastructure (e.g. pipes and pumps); • Realignment of sections of the Ulan Wollar Road in regards to Pit 3 and Pit 6; and • Elevated Waste Dumps	This was noted, however the audit was not required to make a finding on this point.	Not Triggered
2.4 Mining Operations			
2.4.1 Mining Equipment Fleet			
2.4.1	Open cut mining at WCPL during the MOP term is to be carried out primarily with dozers, loaders, hydraulic excavators and trucks. The equipment is sized to provide maximum flexibility and minimise coal losses. The estimated number of each equipment type to be used during the MOP term is presented in Table 11; however this may vary during the term of the MOP based on production requirements	This was noted, however the audit was not required to make a finding on this point.	Not Triggered

Reference	Requirement	Evidence	Audit Finding																																					
2.4.2 Geotechnical Information Supporting Design Criteria																																								
2.4.2	The shallow nature of the coal reserve provides for safe and more easily managed highwall, endwall and low-wall batters. The low strip ratio (i.e. 2:1 – 4:1) means that the total average depth of pits is between approximately 20-35 m. The highwall and endwall batters will be battered to approximately 70 degrees. The low wall batters will be established using excavators and will be battered to 45 degrees from the toe of the coal seam. Where practicable the final coal seam will be excavated in retreat towards the coal haulage ramp to allow for safe extraction of the seam with minimal coal loss. Table 11 Open Cut Mining Fleet <table><tr><th>Mining Equipment Description</th><th>Make and Model</th><th>Number of Fleet</th></tr><tr><td rowspan="2">Excavator (overburden/coal)</td><td>R9350</td><td>4</td></tr><tr><td>R9400</td><td>2</td></tr><tr><td>Haul Trucks (overburden/coal)</td><td>CAT 789</td><td>30</td></tr><tr><td rowspan="2">Dozers (open cut pit/product stockpile)</td><td>Cat D10</td><td>7</td></tr><tr><td>Cat D11</td><td>12</td></tr><tr><td rowspan="2">Front End Loader</td><td>CAT 993K</td><td>1</td></tr><tr><td>CAT 994K</td><td>2</td></tr><tr><td>Grader</td><td>CAT 16M</td><td>5</td></tr><tr><td rowspan="2">Water Trucks</td><td>Haulmax 3900</td><td>4</td></tr><tr><td>Volvo Water Cart</td><td>2</td></tr><tr><td rowspan="2">Drill Rig</td><td>ROCD65</td><td>3</td></tr><tr><td>PitViper235</td><td>2</td></tr><tr><td>Tyre Handler</td><td>MHT10180T</td><td>2</td></tr></table>	Mining Equipment Description	Make and Model	Number of Fleet	Excavator (overburden/coal)	R9350	4	R9400	2	Haul Trucks (overburden/coal)	CAT 789	30	Dozers (open cut pit/product stockpile)	Cat D10	7	Cat D11	12	Front End Loader	CAT 993K	1	CAT 994K	2	Grader	CAT 16M	5	Water Trucks	Haulmax 3900	4	Volvo Water Cart	2	Drill Rig	ROCD65	3	PitViper235	2	Tyre Handler	MHT10180T	2	Interviews with site personnel confirmed that these quantities of equipment are generally in accordance with what is present onsite. Interviews with site personnel also confirmed that these geotechnical specifications are also still relevant.	Complies
Mining Equipment Description	Make and Model	Number of Fleet																																						
Excavator (overburden/coal)	R9350	4																																						
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2.4.3 Mining Sequence																																								
2.4.3	The indicative mining schedule and sequence of open cut mining operations will be undertaken in Pit 1, 2, 3, Pit 4, Pit 5 and Pit 6 during the MOP term. Open cut mining activities within the nominated open cut pits would generally follow: • Vegetation clearing and topsoil/subsoil stripping. Stripped topsoil and subsoil would be used directly in progressive rehabilitation where permissible or placed in temporary stockpiles. • Drilling and blasting of overburden, with some waste rock “throw blast” into the adjacent mined-out strip. Overburden removal by dozer pushing the blasted overburden into adjacent mined-out strip to expose the upper ply of the Ulan Seam. Interburden/parting material would then be ripped or blasted, pushed or excavated and hauled to expose the underlying working sections of the Ulan Seam. • Coal removal of the exposed coal would then be selectively mined and hauled by trucks to ROM hoppers and/or coal stockpiles. • Coarse reject and tailings from the CHPP selectively placed within mine voids and waste rock emplacement areas and approved tailing storage facilities. • Progressive rehabilitation of the mine waste rock emplacements	Interviews with site personnel also confirmed that this mining sequence is still relevant.	Complies																																					
2.4.4 Vegetation Clearance and Topsoil/Subsoil Stripping																																								

Reference	Requirement	Evidence	Audit Finding
2.4.4	Approximately 462 hectares (ha) of vegetation would be progressively cleared over the MOP term. The mitigation measures relevant to vegetation clearance activities as required by the RMP include the following: • Completion of Ground Disturbance Permits (GDP); • Wherever practicable, existing native vegetation will be retained and vegetation clearance avoided; • Archaeological clearance in accordance with ACHMP will be obtained from WCPL archaeologist prior to releasing the area for work; • Sedimentation controls are consistent with the ESCP; • A Vegetation Clearance Protocol (VCP) has been developed to minimise the impact of the Mine vegetation clearance activities on flora. As a component of the protocol, pre clearance surveys will be completed to identify habitat trees and threatened fauna species. the proposed clearance areas will be delineated to prevent accidental damage to adjoining vegetation; • Topsoil resources will be identified, stripped and stockpiled for later use in rehabilitation; and • Where vegetation clearance is undertaken, timber will be mulched and used as a soil conditioner or salvaged for habitat creation on rehabilitation areas where practicable. Recommended topsoil stripping depths range from 0 to 30 cm, depending on the soil type. Subsoils across the ML 1573 area would also be suitable for selective use as a topsoil substitute for plant growth. Trials of various surface treatments (including subsoil and topsoil depths) would be undertaken during the life of the Mine. Topsoil and subsoil stockpiles will be seeded with pastures species to maintain soil viability where direct placement onto rehabilitation areas is not possible.	GDP Verified by groundwater specialist. Rehabilitation specialist verified compliance of condition during site inspection and audit interview.	Complies
2.4.5 Drilling and Blasting			
2.4.5	Overburden material that cannot be ripped or excavated by mobile plant will be drilled, including material being “throw blast” into the adjacent mined-out strip. All blasts will comply with Australian Standards (AS) 2187.2:2006 Explosives – Storage and Use – Use of Explosives and the Blast Management Plan (BMP)19. Open cut blasting (i.e. overburden and coal blasts) are undertaken in accordance with the blast limits described in Conditions 9 and 10 of Schedule 3 of Project Approval 05-0021	Blast Plan verifies compliance against this condition.	Complies
2.4.5	Exceedance of the overpressure limit of 115 dB at the nearest sensitive receiver should be limited to a maximum of 5 percent (%) of the total number of blasts (over a period of 12 months), and should not exceed 120 dB at any time. Exceedance of the ground vibration limit of 5 mm/sec at the nearest sensitive receiver should also be limited to 5% of the total number of blasts, and should not exceed 10mm/sec at any time.	No exceedances were noted in the reporting period.	Not Triggered
2.4.8 Progressive Rehabilitation			

Reference	Requirement	Evidence	Audit Finding
2.4.8	To minimise the area of disturbance at any one time, rehabilitation occurs progressively at the Mine as ancillary disturbance areas and final mine landforms become available for revegetation, The mine waste rock emplacements behind the advancing open cut would be constructed to approximate the pre-mining topography or the final landform approved by PA 05-0021. Mine waste rock emplacements would be shaped by dozer prior to the commencement of rehabilitation activities i.e. re-profiling, reapplication of topsoil/subsoil and revegetation and soil amelioration activities	This was confirmed during site inspection and interview with site personnel.	Complies
2.4.9 Rock/Overburden Emplacement			
2.4.9	The coarse coal reject material from the CHPP is hauled back to the mining operation and deposited below the natural surface in the mined-out voids as close to the pit floor as practically possible. Coarse reject material is dispersed throughout the overburden within the mine waste rock emplacements to manage its geochemical characteristics	This was confirmed during site inspection and interview with site personnel.	Complies
2.4.9	Mine waste rock emplacements would cover an area of approximately 1,800 ha. Where long slopes are present, appropriate drainage control structures including contour drains for example, would be established to assist in initial surface stabilisation.	Final landform has not been defined yet as there are so many active pits currently.	Complies
2.4.9	The final landform levels and topography of the backfilled mine landforms are to generally approximate the pre-mining topography and are designed to be free draining with an allowance for the predicted long-term settlement of mine overburden and tailings.	This was not triggered during the audit period.	Not Triggered
2.4.9	A pattern of creek features (flow paths) would be formed over the final landforms comparable to the pre-mine regime	Map 4 of MOP provides evidence of proposed final landform and drainage patterns.	Complies

Reference	Requirement	Evidence	Audit Finding
2.4.9	To manage the expected waste rock material, an Elevated Waste Rock Emplacement will be constructed in Pit 2. This elevated emplacement would be constructed in two short campaigns in 2014 to approximately 450 m AHD, before being reshaped and lowered to approximately 430 m AHD at the end of the mine life as a component of finalising site landforms	The works were not completed during 2014. These are planned to commence in 2015. No recommendation made.	Not Compliant
2.4.9	To minimise the risk of spontaneous combustion occurring in the elevated waste rock emplacement prior to final rehabilitation, a number of additional measures would be employed, including: • The emplacement would be designed and constructed with designated carbonaceous material zones to avoid future exposure of the carbonaceous material (i.e. to maintain a minimum of 5 m of compacted inert material coverage over the carbonaceous material, including following final land forming). • The emplacement would be constructed with diversion drains, lined drains and armoured drop structures to minimise erosion that could expose carbonaceous materials prior to final land forming. • The emplacement outer batters would be temporarily rehabilitated (e.g. by aerial seeding) to minimise erosion prior to the emplacement being fully rehabilitated at the end of the mine life.	This has not occurred during the audit period.	Not Triggered
2.4.10 Processing Residues and Tailings			
2.4.10	As required by Condition 32(e1), Schedule 3 of PA056-0021, WCPL will develop a Life of Mine (LOM) tailings strategy during this MOP term to support the ongoing mining operations. The LOM tailings strategy will include design, operation, water balance, decommissioning and rehabilitation strategies.	This has been developed as part of Waste Management Plan (2014) which is awaiting final approval.	Not Triggered
2.4.10	Co-disposal of dewatered tailings material would be undertaken in accordance with the existing management measures for disposal of CHPP coarse reject material, where the material is placed below the natural surface in the mined-out voids with sufficient coverage by non-acid forming overburden to reduce oxygen movement through the rehabilitated profile. This would be consistent with the current practice of covering tailings with more than 2m of inert capping material prior to final profiling and rehabilitation.	This co-disposal has not yet commenced. Not triggered	Not Triggered

Reference	Requirement	Evidence	Audit Finding
2.4.10	Once tailings disposal areas are near-filled, they are progressively capped with inert overburden material to a minimum depth of cover of 2m, prior to final profiling and rehabilitation, to restrict oxygen and water ingress to the underlying tailings and prevent salts from rising to the soil surface. The engineered cover design would consider site topography, prevailing climatic conditions and the availability of suitable fine textures material (i.e. highly weathered mine water rock) as a cover material. Final rehabilitation of the tailings emplacement areas will occur when the dams are deemed to be suitably safe for rehabilitation to occur.	Provided survey diagram and data for TD1 and TD2 which shows depth of cover of at least 2m.	Complies
2.4.11 Waste Management			
2.4.11	WCPL will prepare and implemented a Waste Management Plan (WMP) as required by Condition 57, Schedule 3 of PA05-0021. A component of the WMP will include reject management and spontaneous combustion management strategies. The preparation and implementation of the WMP will satisfy other relevant regulatory requirements, including EPL12425 for waste management and disposal.	This Plan (2014) is currently awaiting final approval. Strategies for the management of spon com are referenced in section 5.9.	Complies
2.4.12 Hazardous Materials			
2.4.12	Hazardous reagents and explosives required for the Mine will be transported in accordance with the appropriate regulations under the NSW Dangerous Goods (Road and Rail Transport) Act, 2008.	Noted however outside of audit scope	Not Triggered
2.4.12	Explosives, including explosive precursors, will be managed in accordance with the NSW Explosives Act, 2003 including a Security Plan developed in consultation with the explosives contractor for the Mine.	Noted. And evidence provided during audit interview.	Complies
2.4.12	All persons working with or having access to explosives will be licensed in accordance with the Explosives Act, 2003. Detonators and boosters are stored on-site in a purpose built compliant facility. Bulk explosives will only be mixed using a Mobile Manufacturing Unit within the blasting hole.	Detonators and boosters are stored in a designated area as confirmed during site inspection. There is a purpose built facility for storage of explosives etc.	Complies
2.4.12	Bulk ammonium nitrate (AN) and emulsion are stored on-site during the loading process and mixed using mobile manufacturing plants before being delivered down the blast holes.	Noted	Complies
2.4.12	Bulk ammonium nitrate (AN) and emulsion are stored on-site during the loading process and mixed using mobile manufacturing plants before being delivered down the blast holes.	Noted	Complies
2.4.12	Waste hydrocarbons will be collected, stored and removed by licensed waste transporters. All waste streams are captured by the site's Total Waste Management System.	Monthly reports from waste transporters were observed on site.	Complies
2.4.12	No chemical or hazardous material will be permitted on-site unless a copy of the appropriate Material Safety Data Sheet (MSDS) is available. All chemicals brought on-site will be recorded in a register which will identify the type of product, dangerous goods class, liquid class, hazardous chemical class and the quantity held on-site. The inventory register will also identify the compatibility of materials and the emergency response procedures in the event of a spill	Auditors sighted this and verifies compliance	Complies

Reference	Requirement	Evidence	Audit Finding
2.4.12	Chemical storages will be provided within the workshop and storage buildings and will be separated according to chemical type and storage requirements. Notifications, placarding and preparation of safety plans will be in accordance with the WorkCover Guideline for Dangerous Goods.	Auditor noted that sign on storage container does not contain required information as required under WCPLs radiation licence. Main entrance does contain sign with required information.	Complies
2.4.13 Decommissioning and Demolition Activities			
2.4.13	However, over the next five years WCPL will be undertaking a range of renovating, building and demolition works of former residential and farm buildings located on Peabody Energy owned lands within Wilpinjong Coal Mine and general vicinity. As a component of this work a range of building and demolition waste materials would be produced that will require disposal. Subject to approvals being obtained, the inert portion of these wastes (up to approximately 2,000 cubic metres) would be disposed at depth in the Wilpinjong Coal Mine waste rock emplacements (e.g. at least 5 m below the final landform surface).	Materials still stored onsite awaiting disposal once Waste Management Plan (2014) approved.	Complies
2.4.13	Keelah waste rock emplacement areas will be rehandled, disposed in mined out voids and covered in inert material as part of ongoing progressive rehabilitation activities.	DP&E, EPA and DRE saw correspondence of update on relevant management plan discussing performance related to the Keelah waste rock emplacement.	Complies
2.4.14 Temporary Stabilisation			
2.4.14	Several waste rock emplacement areas have been identified by WCPL for stabilisation works during the MOP term including a portion of Duffy Dump and the proposed Elevated Waste Rock Emplacement area in Pit 2 . As required by the Project Approval, the Elevated Waste Rock Emplacement area will have the outer batters temporally rehabilitated (e.g. by aerial seeding) to minimise erosion prior to the emplacement being fully rehabilitated.	Earthworks are active on Duffy Dump prior to a trial with Bitumen as a surface sealant.	Complies
2.4.15 Progressive Rehabilitation & Completion			
2.4.15	Rehabilitation activities during the MOP term will primarily be undertaken in Domains 4, and 5. At the completion of the MOP term, a total of 409ha of waste rock emplacement areas will be rehabilitated.	These requirements are ongoing.	Complies
2.4.15	During the MOP term, WCPL are scheduled to rehabilitate waste rock emplacements areas located in Pit 4, Pit 5 and Pit 6.	This was noted, however the audit was not required to make a finding on this point.	Not Triggered
2.4.15	In addition, WCPL plan to rehabilitate former tailings facilities including TD3 and TD4, in accordance with the relevant Section 101 approval for discontinued use of a tailings emplacement area.	This was noted, however the audit was not required to make a finding on this point.	Not Triggered
2 ENVIRONMENTAL ISSUES MANAGEMENT			

Reference	Requirement	Evidence	Audit Finding
3.2 Environmental Risk Management			
3.2	An Environmental Management Strategy (EMS) has been developed in accordance with the Project Approval. Environmental management plans prepared in accordance with the Project Approval conditions detail monitoring programmes and control strategies for identified environmental and community risks. The Mine currently operates under a number of existing management plans and monitoring programmes including but not limited to: • Environmental Management Strategy (EMS) • Environmental Monitoring Programme (EMP) • Aboriginal Cultural Heritage Management Plan (ACHMP) • Blast Management Plan and Monitoring Programme (BMP) • Spontaneous Combustion Management Plan (SCMP)* • Air Quality and Greenhouse Gas Management Plan (AQGGMP) • Surface Water Management Plan (SWMP), including: - o Site Water Balance (SWB); - o Erosion and Sediment Control Plan (ESCP); - o Surface Water Management and Monitoring Programme (SWMMP); - o Groundwater Monitoring Programme (GMP); and - o Surface and Groundwater Response Plan (SGWRP). • Rehabilitation Management Plan (RMP) 24 ; and • Cumbo Creek Relocation Plan (CCRP to be developed during the MOP term). Note:* No longer required by PA05-0021 as a result of MOD 5.	Site Water Management Plan; • Site Water Balance; 2006 • Surface Water Management and Monitoring Programme; 2006 • Erosion and Sediment Control Plan; 2006 • Groundwater Monitoring Programme; 2006 • Surface and Groundwater Response Plan; 2006 • Environmental Monitoring Programme; 2006 • Air Quality Monitoring Programme; 2011 (2014 awaiting approval) • Noise Monitoring Programme; 2011 (2014 awaiting approval) • Aboriginal Cultural Heritage Management Plan. 2008 • Rehabilitation and Landscape Management Plan; 2006 • Rehabilitation Management Plan; 2011 • Cumbo Creek Relocation Plan (to be developed during period of MOP); The Cumbo Creek relocation project has not commenced yet but the CCRP is required 24 months after approval and has not yet been developed. • Blast Management Plan; 2011 (2014 awaiting approval) • Spontaneous Combustion Management Plan; 2006 (2014 awaiting approval) • Waste Management Plan (2014	Complies

Reference	Requirement	Evidence	Audit Finding
3.2	As a result of MOD 5, several monitoring programs and management plans have been removed and replaced with new management plan requirements. The new management plans for the project are to be submitted throughout 2014 to the satisfaction of the Director-General. WCPL are currently developing the following environmental management plans, for submission in 2014, in consultation with relevant authorities to address the modified (MOD 5) PA 05-0021 conditions, including a: • Waste Management Plan (WMP); • Biodiversity Management Plan (BMP); • Blast Management Plan (BMgtP); and • Noise Management Plan (NMP).	All required management plans were developed and submitted for approval during 2014. WCPL are awaiting approval from the DG.	Complies
3.2.1	A protocol for the management and reporting of complaints has been developed as a component of the Mine EMS. In accordance with Condition M6.1 of EPL 12425, WCPL maintain a dedicated telephone number (1300 606 625) for the provision of comments or complaints. In addition, a separate hotline for blasting information is also maintained by WCPL (1800 649 783). In accordance with Condition M6.2 of EPL 12425, these telephone lines are advertised in local newspapers quarterly, via the Wilpinjong Community Newsletter and on the Peabody website. WCPL records and responds to all complaints and maintains a complaints register on its website. The complaints are managed in accordance with the WCPL Complaints Management Procedure. The Complaints Management Procedure outlines WCPL reporting requirements as follows: • A summary of complaints received is reported monthly on the Peabody website. • A summary of complaints received and actions taken is presented to the WCPL CCC as part of the operational performance review. • A summary of complaints received and actions taken is included in the Project Approval Annual Review and the EPL Annual Return.	A dedicated telephone number (ph: 1300 606 625) for the provision of comments or complaints is maintained by WCPL. In addition, a separate hotline for blasting information is also maintained by WCPL (ph: 1800 649 783). The complaints lines are advertised in local newspapers quarterly, via the Wilpinjong Community Newsletter and on the Peabody website: (www.peabodyenergy.com)	Complies

Reference	Requirement	Evidence	Audit Finding
3.2.2	A Pollution Incident Response Management Plan (PIRMP) has been prepared by WCPL, as holder of Environment Protection Licence No.12425 (EPL 12425) in accordance with Part 5.7A of the Protection of the Environment Operations Act 1997 (POEO Act) and Part 3A of the Protection of the Environment Operations (General) Regulation 2009 (Regulation). The PIRMP has been implemented by WCPL, including education of employees and contractors, in the event of a pollution incident at WCPL. In particular the PIRMP provides information regarding procedures for: • The identification of a pollution incident; • Notification of pollution incidents in certain circumstances; and • Responses to pollution incidents by WCPL including all of its employees and contractors.	PIRMP sighted by auditors.	Complies
3.2.2	If a pollution incident occurs in the course of an activity at the premises so that material harm to the environment is caused or threatened (i.e. likely to be caused), Wilpinjong Coal will immediately implement this PIRMP. As required by the POEO Act and Condition 7, Schedule 5 of the PA 05-0021, a report to the Environment Protection Authority (EPA) and Director-General of DP&E must be prepared and submitted within 7 days of the incident.	This has not occurred during the audit period.	Not Triggered
3.3 Specific Risk Relating to Rehabilitation			

Reference	Requirement	Evidence	Audit Finding
3.3.3	There are no known Acid Mine Drainage (AMD) issues at WCPL, however the implementation of management strategies in regards to material with the capacity for acid generation includes: • Management of the acid generation potential of the coarse reject material; • Tailings management and the management of decommissioned tailings dams; • Coarse reject material would be dispersed throughout the overburden within the mine waste rock emplacements with the aim of producing a mix with a sulphur content that has an acid producing potential less than the acid neutralising capacity of the overburden: - o A blend ratio of at least 2:1 (overburden: coarse rejects) would be used. The total tonnage of coarse rejects produced over the life of the Mine would be approximately one-seventh of the total mine waste rock produced, therefore there would be scope to increase the blending ratio, if required. - o Where possible, coarse rejects would not be placed within 2m of the final landform surface so there is sufficient coverage by non-acid forming overburden to provide a barrier to oxygen movement through the rehabilitated profile. • Coarse reject material deposited below the natural surface in the mined-out voids and dispersed throughout to manage its geochemical characteristics (i.e. acid generation potential); • Coarse rejects are placed so there is sufficient coverage by non-acid forming overburden to reduce oxygen movement through the rehabilitated profile, which also assists to minimise spontaneous combustion potential within the rehabilitated waste rock emplacement landform; and • Once tailings disposal areas are near-filled, they are progressively capped with overburden material to a minimum depth of cover of 2m prior to final profiling and rehabilitation	Could not be verified	Unable to be verified - Recommendation made
3.3.4	WCPL have developed an Erosion and Sediment Control Plan (ESCP) which provides sediment and erosion control strategies, principles and design criteria to control the movement of sediment from areas disturbed by mining activities to maintain downstream water quality. The ESCP identifies activities that could potentially cause soil erosion and generate sediment as well as describing the location, function, and capacity of erosion and sediment control structures.	Document sited on mine website.	Complies

Reference	Requirement	Evidence	Audit Finding						
3.3.5	Table 15 outlines the soil resource strategies undertaken by the Mine <table><caption>Table 15 Soil Resource Management Strategies</caption><tr><th>Prior to Soil Stripping</th><th>During Soil Stripping and Stockpiling</th><th>Stockpiled Soil Awaiting use in Rehabilitation Works</th></tr><tr><td> - Quantification of soil resources. - Characterisation of the suitability of soil resources for rehabilitation works. - Topsoil will be stripped prior to any land disturbance. - Recommended stripping depths¹ as provided by the soil survey in the WCPL EIS: - Red Podzolic (150mm) - Yellow Podzolic (200mm) - Brown Earth (250mm) - Alluvial (300mm) - Topsoil will be placed directly onto reshaped areas where possible. Note:¹ Subject to quantification of soils </td><td> - Minimisation of vegetation clearance. - Mulching of vegetation prior to topsoil stripping, where possible, to provide additional organic matter. - Selective stockpiling of soil according to soil type and salinity. - Stockpiling of soils in a manner that does not compromise the long-term viability of the soil resource. - Maximum height for stockpiles will be 3 m. </td><td> - Implementation of measures to ensure long-term viability of soil resources and manage soil salinity, including: - Soil stockpiles to be located outside of active mining areas; - Stockpiles to be constructed with a rough surface to reduce erosion hazard, improve drainage and promote vegetation; - Stockpiles which are to be inactive for extended periods to be fertilised and seeded to maintain soil structure, organic matter, and microbial activity; - Silt fencing to be installed around soil stockpiles to control potential loss of soil where necessary; and - Soil stockpiles to be deep ripped to establish aerobic conditions, prior to re-application for rehabilitation. </td></tr></table>	Prior to Soil Stripping	During Soil Stripping and Stockpiling	Stockpiled Soil Awaiting use in Rehabilitation Works	- Quantification of soil resources. - Characterisation of the suitability of soil resources for rehabilitation works. - Topsoil will be stripped prior to any land disturbance. - Recommended stripping depths¹ as provided by the soil survey in the WCPL EIS: - Red Podzolic (150mm) - Yellow Podzolic (200mm) - Brown Earth (250mm) - Alluvial (300mm) - Topsoil will be placed directly onto reshaped areas where possible. Note:¹ Subject to quantification of soils	- Minimisation of vegetation clearance. - Mulching of vegetation prior to topsoil stripping, where possible, to provide additional organic matter. - Selective stockpiling of soil according to soil type and salinity. - Stockpiling of soils in a manner that does not compromise the long-term viability of the soil resource. - Maximum height for stockpiles will be 3 m.	- Implementation of measures to ensure long-term viability of soil resources and manage soil salinity, including: - Soil stockpiles to be located outside of active mining areas; - Stockpiles to be constructed with a rough surface to reduce erosion hazard, improve drainage and promote vegetation; - Stockpiles which are to be inactive for extended periods to be fertilised and seeded to maintain soil structure, organic matter, and microbial activity; - Silt fencing to be installed around soil stockpiles to control potential loss of soil where necessary; and - Soil stockpiles to be deep ripped to establish aerobic conditions, prior to re-application for rehabilitation.	There is no current assessment of soil in context of salinity. Also no silt fencing placed around stockpiles.	Non Compliant
Prior to Soil Stripping	During Soil Stripping and Stockpiling	Stockpiled Soil Awaiting use in Rehabilitation Works							
- Quantification of soil resources. - Characterisation of the suitability of soil resources for rehabilitation works. - Topsoil will be stripped prior to any land disturbance. - Recommended stripping depths¹ as provided by the soil survey in the WCPL EIS: - Red Podzolic (150mm) - Yellow Podzolic (200mm) - Brown Earth (250mm) - Alluvial (300mm) - Topsoil will be placed directly onto reshaped areas where possible. Note:¹ Subject to quantification of soils	- Minimisation of vegetation clearance. - Mulching of vegetation prior to topsoil stripping, where possible, to provide additional organic matter. - Selective stockpiling of soil according to soil type and salinity. - Stockpiling of soils in a manner that does not compromise the long-term viability of the soil resource. - Maximum height for stockpiles will be 3 m.	- Implementation of measures to ensure long-term viability of soil resources and manage soil salinity, including: - Soil stockpiles to be located outside of active mining areas; - Stockpiles to be constructed with a rough surface to reduce erosion hazard, improve drainage and promote vegetation; - Stockpiles which are to be inactive for extended periods to be fertilised and seeded to maintain soil structure, organic matter, and microbial activity; - Silt fencing to be installed around soil stockpiles to control potential loss of soil where necessary; and - Soil stockpiles to be deep ripped to establish aerobic conditions, prior to re-application for rehabilitation.							
3.3.5	Prior to soil stripping, soil resources will be quantified. Where a deficit of topsoil is identified, investigations will be undertaken to determine the viability of the use of subsoils and to identify the need for treatment measures (e.g. use of fertilisers) applied where there is a deficit of topsoil. Where direct spreading is not practicable, the stripped soil will be stockpiled and seeded with grasses to maintain soil viability prior to being re-spread.	soil stripping occurred during the reporting period. Results are reported in the AEMRs	Complies						
3.3.6	WCPL are currently preparing a Biodiversity Management Plan (BMP) to satisfy PA05-0021. The BMP will outline strategies for the management of flora and fauna, threatened species, rehabilitated areas, regeneration areas, biodiversity offset areas and the Enhancement and Conservation Areas (ECA's). The monitoring component of the BMP will assess the performance of WCPL management measures and will outline methodologies and ecological management strategies to minimise the Mine's impact on remnant vegetation and native fauna. The BMP will be developed to facilitate implementation of threatened species management strategies to minimise potential impacts on threatened flora and fauna species	Plan (2014) currently awaiting approval.	Complies						

Reference	Requirement	Evidence	Audit Finding
3.4 Other Environmental and Rehabilitation Risks			
3.4.1 Overburden Characterisations			
3.4.1	Rehabilitated areas will be monitored for pH, electrical conductivity (EC), major cations and organic matter to understand the soil ability to support vegetation goals and post mine land use. Soil samples will be taken to a minimum depth of 300 mm and samples taken from the 0 mm – 100 mm, 100 – 200 mm intervals and 200 – 300 mm. The samples will be taken at 10m intervals along the monitoring transect and sampled at a minimum of every three years. Additional testing may be undertaken annually at the recommendation of WCPL rehabilitation specialist for some areas.	Annual Rehab Inspection reports done each Sep by LandLine.	Complies
3.4.2 Slopes and Slope Management			
3.4.2	Rehabilitated slopes of the final landforms are to be constructed to no greater than 1:6 (10 degrees or 17%) across the entire MLA area. Graded banks will be constructed across the slope of rehabilitated areas to collect and direct water flowing from newly rehabilitated areas into rock waterways.	The rehabilitation program is in its infancy as a function of the mine / pit layout.	Not Triggered
3.4.3 Air Quality			
3.4.3	WCPL currently implements general dust mitigation measures (e.g. haul road watering) as part of operations to minimise potential dust emissions in accordance with the Wilpinjong Coal Mine Air Quality and Greenhouse Gas Management Plan30 (AQGGMP) and pollution reduction programme requirements under EPL 12425.	This was viewed by the auditors during the site visit.	Complies
3.4.4 Water Management			
3.4.4	The water management strategy for the Mine is based on the containment and re-use of mine water as well as the control of sediment that may be potentially carried with runoff from disturbed areas. The key components of the strategy are: • Separation of undisturbed and disturbed area runoff using upslope diversions. This includes both passive and pumping options to maintain clean water flow around disturbed areas. • Collection and re-use of surface runoff from disturbed areas. • Capture and on-site containment of mine water, comprising groundwater inflows and incident rainfall-runoff to operational areas. • Re-use of contained mine water for dust suppression over active surfaces (e.g. haul roads). • Recycling of mine water associated with the CHPP and tailings disposal areas. • Consumption of contained waters in the Mine water supply system. • Management of treated sewage effluent in accordance with the OEH's Environmental Guidelines for the Utilisation of Treated Effluent. • Discharge of treated water via a RO Plant for discharge to Wilpinjong Creek in accordance with EPL 12425	This condition is in accordance with the Surface and Groundwater Management Plans. Verified during audit interviews and site inspection by surface water and groundwater specialist.	Complies

Reference	Requirement	Evidence	Audit Finding
3.4.4	Surface water management works will include the construction of diversion drains (typically upslope of disturbance areas), which will only be constructed where they will significantly reduce the runoff catchment of disturbance areas in accordance with the ESCP. The construction of diversion structures upslope of the open cut mining area is consistent with the water management system concepts presented in the EIS 2005.	This condition is in accordance with the Surface and Groundwater Management Plans. Verified during audit interviews and site inspection by surface water and groundwater specialist.	Complies
3.4.4	A number of diversion banks and channels have been constructed to direct clean water around disturbed areas. While most of the structures will need to be progressively removed during mine development to facilitate coal extraction, they will be topsoiled and revegetated using suitable pasture species that will provide resistance to erosion and reduce the incidence of dust. Sediment retention structures will be included in rehabilitation design to prevent the movement of sediment off-site	This condition is in accordance with the Surface and Groundwater Management Plans. Verified during audit interviews and site inspection by surface water and groundwater specialist.	Complies
3.4.4	In accordance with MOD 4, to manage surplus water onsite, WCPL operates a reverse osmosis (RO) plant to treat mine water before it is discharged to Wilpinjong Creek in accordance with EPL 12425 to Wilpinjong Creek.	This condition is in accordance with the Surface and Groundwater Management Plans. Verified during audit interviews and site inspection by surface water and groundwater specialist.	Complies
3.4.4.1	Potable water would continue to be trucked to the site to supply drinking water and ablution facilities in the office and crib areas. Sewage treatment would continue to occur at a domestic sewage treatment facility located near the mine administration area and at the CHPP septic system. Treated effluent would continue to be irrigated in accordance with the EPL.	This condition is in accordance with the Surface and Groundwater Management Plans. Verified during audit interviews and site inspection by surface water and groundwater specialist.	Complies
3.4.4.2	Surface water monitoring and management is conducted in accordance with Surface Water Management and Monitoring Plan (SWMMP), a component of the Site Water Management Plan (SWMP).	Verified during audit.	Complies
3.4.5 Ground Water			
3.4.5	Groundwater monitoring and management at WCPL is conducted in accordance with Groundwater Monitoring Programme (GWMP), a component of the SWMP.	Verified during audit.	Complies
3.4.6 Hazardous Materials Storage			
3.4.6	Hydrocarbons used on-site include fuels (i.e. diesel and petrol), oils, greases, degreaser and kerosene. Two bunded 88,000 litre (L) and one 110,000 L diesel storage tanks are located on-site. Oil is stored in two 28,000 L self-bunded double-skinned oil storage tanks, and a 110,000 L self bunded multiple compartment hydrocarbon storage tank is also maintained for storage of coolant and oil. Two shipping containers are used for the storage of oil and grease pods. Flammable paints are stored on a containment pallet in a fenced compound, as well as in a locked cabinet inside the workshop.	noted and verified during site inspection and audit interview.	Complies
3.4.6	Hydrocarbon storage facilities are constructed and operated in accordance with Australian Standard (AS) 1940:2004 The Storage and Handling of Flammable and Combustible Liquids and the NSW Work Health and Safety Regulation, 2011.	noted and verified during site inspection and audit interview.	Complies

Reference	Requirement	Evidence	Audit Finding																
3.4.6	The workshop infrastructure includes waste oil extraction equipment. An oil/water separator is located downslope of the workshop area, and a manually operated oil/water separator is located at the vehicle washdown bay area. All waste hydrocarbons collected in the separators are disposed of by a licensed contractor	noted and verified during site inspection and audit interview.	Complies																
3.4.6	Explosives required for the Mine include initiating products and detonators, ammonium nitrate fuel oil and emulsion explosives. The explosives storage and blast reload facilities are currently located in the south-west of Pit 1. Explosives on-site are stored and used in accordance with AS 2187.2:2006 Explosives – Storage, Transport and Use – Use of Explosives. AS 2187.2:2006 details the requirements for the safe storage, handling and land transport of explosives, safe storage distances from other activities and bunding requirements.	noted and verified during site inspection and audit interview.	Complies																
3.4.7 Greenhouse Gases																			
3.4.7	Management of greenhouse gases at WCPL is in accordance with the AQGGMP	AQGGMP verifies this	Complies																
3.4.9 Blasting																			
3.4.9	WCPL are currently developing a Blast Management Plan (BMgtP) which describes the blast management and mitigation measures for the Mine. Open cut blasting is undertaken in accordance with Section L6 of EPL 12425 and Conditions 9 and 10, Schedule 3 of the PA05-0021 and AS 2187.2-2006.	Verified during audit.	Complies																
3.4.9	The results of the blast monitoring program are assessed against the airblast overpressure and ground vibration criteria identified in Table 20 and reported annually in the Annual Review and Environmental Management Report and updated regularly on the Peabody Energy website. Table 20 Blasting Impact Criteria³⁷ <table border="1"> <thead> <tr> <th>Location</th><th>Airblast overpressure (dB(Lin Peak))¹</th><th>Ground vibration (mm/s)²</th><th>Allowable exceedance</th></tr> </thead> <tbody> <tr> <td>Residence on privately owned land</td><td>115</td><td>5</td><td>5% of the total number of blasts over a period of 12 months</td></tr> <tr> <td></td><td>120</td><td>10</td><td>0%</td></tr> <tr> <td>All public infrastructure</td><td></td><td>50 (or a limit determined by the structural design methodology in AS2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Director-General)</td><td>0%</td></tr> </tbody> </table> Notes: ¹ dB(Lin Peak) = decibel linear in peak. ² mm/s = millimetres per second.	Location	Airblast overpressure (dB(Lin Peak)) ¹	Ground vibration (mm/s) ²	Allowable exceedance	Residence on privately owned land	115	5	5% of the total number of blasts over a period of 12 months		120	10	0%	All public infrastructure		50 (or a limit determined by the structural design methodology in AS2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Director-General)	0%	no exceedances of blast criteria were noted during the reporting period. Refer DA and Blast Management Plan assessment of compliance.	Complies
Location	Airblast overpressure (dB(Lin Peak)) ¹	Ground vibration (mm/s) ²	Allowable exceedance																
Residence on privately owned land	115	5	5% of the total number of blasts over a period of 12 months																
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All public infrastructure		50 (or a limit determined by the structural design methodology in AS2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Director-General)	0%																

Reference	Requirement	Evidence	Audit Finding
3.4.10 Noise			
3.4.10	Noise monitoring and management at the Wilpinjong Coal Mine is conducted in accordance with Noise Monitoring Program	NMP and AEMR results verify this	Complies
3.4.11 Visual and Lighting			
3.4.11	A vegetated bund that will serve as both a safety bund and visual bund is to be progressively constructed along Ulan-Wollar Road where required. The existing rail embankment on the southern side of the Ulan-Wollar Road will provide a visual barrier for some of the mining areas in the short-term.	This was viewed by the auditors during the site visit.	Complies
	Night-lighting effects will be minimised through the implementation of management measures and control structures designed to minimise light spillage.	Lighting procedure has not been submitted to the Director General and is a safety based document, not focussed on community impacts. A lighting audit has been commissioned for the site, and was commenced during the site component of this IEA. No lighting complaints in this audit period.	Complies
	WCPL propose to temporarily rehabilitate the elevated waste rock emplacement following construction with aerial seeding. Visual impacts associated with the elevated waste rock emplacement would progressively reduce once the vegetative cover begins to establish.	This emplacement area is still being dumped on, and as a result cannot be temporary rehabilitated.	Complies
	Reshaping and rehabilitation of the landform would also be a component of closure and final rehabilitation works. Final revegetation would utilise native plant species	This has not been required during the audit period.	Not Triggered
	in 2014 WCPL would progress the establishment of additional native vegetation along the east-west section of Wollar Road in the vicinity of ECA-A that would limit potential views of the Wilpinjong Coal Mine from Wollar Road.	Evidence as per MOP Area ripped and planted but not established, as outlined in AEMRs.	Complies
3.4.12 Aboriginal and European Heritage			
3.4.12	Aboriginal and European heritage management at the Wilpinjong Coal Mine is carried out in accordance with the Aboriginal Cultural Heritage Management Plan (ACHMP). The ACHMP also includes an Archaeological Salvage Program. The ACHMP is currently under review as required by PA05-0021.	No technical non compliances were noted against the ACHMP during the audit (with the exception of one non compliance identified in relation to review requirements).	Complies
	Aboriginal artefacts salvaged from areas to be disturbed will continue to be collected and relocated to a "keeping place" where the artefacts are analysed, documented and stored. Aboriginal artefacts will be replaced back into the landscape once final rehabilitation works are completed.	No technical non compliances were noted against the ACHMP during the audit (with the exception of one non compliance identified in relation to review requirements).	Complies

Reference	Requirement	Evidence	Audit Finding
	To mitigate any potential mining effects upon non-Aboriginal heritage items in the Mine area, all heritage sites found to be of local heritage significance have been recorded to an archival standard, in accordance with the PA05-0021 conditions. To mitigate any potential mining effects upon non-Aboriginal heritage items in the Mine area, all heritage sites found to be of local heritage significance have been recorded to an archival standard, in accordance with the PA05-0021 conditions.	No technical non compliances were noted against the ACHMP during the audit (with the exception of one non compliance identified in relation to review requirements).	Complies
	Heritage construction materials will be conserved for use by local landholders and the Mudgee Historical Society where practicable. Management measures such as the realignment of the Mine Access Road will be implemented to minimise Mine related impacts upon heritage items, such as the "stone wall"	No technical non compliances were noted against the ACHMP during the audit (with the exception of one non compliance identified in relation to review requirements).	Complies
3.4.13 Spontaneous Combustion			
3.4.13	WCPL have prepared and implemented the Spontaneous Combustion Management Plan (SCMP), describing the management measures that will be used to minimise the occurrence of spontaneous combustion through the monitoring of potential causes of spontaneous combustion events. Once approved, the Waste Management Plan (WMP) will supersede the SCMP	SponCom Management Plan assessed as part of the audit. SponCom specialist verifies compliance.	Complies
3.4.14 Bushfire			
3.4.14	Bushfire management at the Mine will be carried out in accordance with the BMP. The BMP will outline strategies for the objectives of bushfire management is to minimise the risk of bushfires on WCPL-owned land and rapidly control any bushfires, in order to minimise potential impacts to people, property and the environment.	This is an attachment to the new Biodiversity Management Plan which is currently awaiting approval. (2014)	Complies
	Bushfire prevention and control measures currently implemented on WCPL-owned land will include: • The training of WCPL employees and contractors in general fire awareness and response procedures; • The provision and maintenance of on-site fire fighting equipment; • Appropriate management of dangerous goods; • Regular inspections of WCPL-owned land to assess the adequacy of the fire control measures and to identify areas requiring bushfire control measures to be implemented; • Fuel management by means other than burning such as grazing and slashing; • Fuel management by burning where conventional fuel management strategies are inappropriate, impracticable or not successful (undertaken in consultation with relevant authorities and with relevant permits); • Maintenance of designated firebreaks (which can act as control lines for low-intensity fires, and assist with safer access and egress for high-intensity fires, as well as providing for a defence line for back burnings) by a combination of slashing, grading or spraying; and • On-going consultation with the NSW Rural Fire Service.	Fuel management not required during 2013-14 due to unseasonal conditions. Access tracks in place and maintained for bushfire risks. Copies of minutes with RFS were viewed by auditors.	Complies

Reference	Requirement	Evidence	Audit Finding
3.4.15 Exploration			
3.4.15	the exploration drilling program will continue during the MOP term to update gas and coal quality data for WCPL. Mitigation measures relevant to exploration and land clearing activities at WCPL include the following: • Drilling sites and access will be located to avoid areas of remnant vegetation, other sensitive areas and minimise the requirement for vegetation clearance. • A vegetation clearance protocol and a Ground Disturbance Permit (GDP) procedure and checklist have been developed. The GDP requires the approval of WCPL Environmental Manager prior to any land clearing activities taking place. The vegetation clearance protocol and GDP aims to minimise environmental impacts, including minimising the area required for disturbance for drill sites and access tracks, identify environmental issues such as Aboriginal and European heritage sites, identify sensitive flora and fauna communities, outline erosion and sediment control measures, provide topsoil management and limiting soil disturbance measures, avoiding threatened species, and the identification of any seed or timber resources that can be salvaged. In accordance with GDP process, follow up inspections are completed by WCPL's Environmental Department to ensure the GDP is carried out and each drill site is rehabilitated to the appropriate standard. Please refer to Attachment 6 for a copy of a GDP. • Additionally, an Exploration Site Preparation Procedure has been established to detail the standards required when completing exploration site preparation (Attachment 6). An Exploration Site Rehabilitation Procedure which details the standards required when completing exploration site rehabilitation at WCPL has also been developed. The standards apply to both exploration on Mining Leases and Exploration Licences.	VCP and GDP sighted. Exploration Site Preparation procedure sighted. Rehabilitation phases have not been triggered.	Complies
3.4.16 Construction			
3.4.16	Mitigation measures relevant to construction activities outside approved open cut disturbance area will include the following: • Infrastructure will be located to avoid areas of remnant vegetation, ECA's and regeneration areas. Vegetation clearance will be kept to a minimum where practicable and in accordance with Project Approval conditions; • Implementing WCPL vegetation clearance protocol and Ground Disturbance Permit (GDP) procedure; • Topsoil resources will be identified, stripped and stockpiled for later use in rehabilitation; and • Where vegetation clearance is undertaken, timber will be cleared, mulched, salvaged and windrowed. Windrowed timber, where practicable, will then be used in rehabilitation.	This has not been required during the audit period.	Not Triggered

Reference	Requirement	Evidence	Audit Finding
3.4.17 Public Safety			
3.4.17	All efforts will be made to ensure the safety of the public, both as visitors to the site and off the site. Measures to be implemented by WCPL to minimise risks to public safety include: • Induction programmes for employees, contractors and visitors; • Signage and communication protocols for visitors and suppliers; • Identification systems for visitor access to the site; • First aid training requirements for employees and contractors; • Maintenance of fire trails and fire management measures in accordance with the bush fire management plan; • Fence lines maintained in an operational condition; • Right of way accesses to neighbours are maintained; • A vegetated bund that will serve as both a safety bund and visual bund is to be progressively constructed along Ulan-Wollar Road where required. The existing rail embankment on the southern side of the Ulan-Wollar Road will provide a barrier for some of the mining areas in the short-term; • Speed control signs have been installed on roads throughout WCPL-owned land; and • Maintenance of locked gates around the site for security purposes.	This was evidenced through documentation and the site visit conducted by the auditors.	Complies
4 POST MINING LAND USE			
4.2.1	Final landform levels and slope would approximate the pre-mining topography (EIS 2005). Final landforms are designed in accordance with Wilpinjong Landform Standards and Technical Specifications which are designed with an allowance for the predicted long-term settlement of mine waste rock and tailings. A final void would be located at the north-eastern extent of the final landform and another at the western extent. A final void management plan is currently under review.	This has not been required during the audit period.	Not Triggered
	Final landform drainage would be designed to integrate with the surrounding catchment (i.e. in a generally north to south direction) and some permanent creek features formed within rehabilitation areas in locations similar to current creek lines (e.g. Planters Creek). Catchment surface flow will be reinstated from the base of the Munghorn Gap Nature Reserve area north to Wilpinjong Creek and onto the Goulburn River as shown in the proposed final landform design.	This has not been required during the audit period.	Not Triggered
	The final landform is to drain in a generally south to north direction. Drainage lines with greater than 3% fall will need to be armoured to reduce scouring and erosion. Sediment control dams are to be constructed along major drainage lines in rehabilitated landforms to reduce suspended solids in surface flow from the site. Sediment dams will be placed along the main drainage lines as close as practical to the northern edge of the mining lease	This has not been required during the audit period.	Not Triggered

Reference	Requirement	Evidence	Audit Finding																																			
7 REHABILITATION IMPLEMENTATION																																						
7.2	Table 32 summarises the forecast disturbance and where rehabilitation activities during the MOP period will be undertaken Table 32 Rehabilitation and Disturbance Progression during the term of the MOP <table><tr><th>Year</th><th>Total Disturbances</th><th>Total Rehabilitation</th><th>Cumulative Rehabilitation</th><th>Comments</th></tr><tr><td>2014</td><td>103.7</td><td>40</td><td>40</td><td>Rehabilitation of overburden emplacement areas in Pit 5</td></tr><tr><td>2015</td><td>94.7</td><td>39</td><td>79</td><td>Rehabilitation of overburden emplacement areas in Pit 5, Rehabilitation of Tailings Facility TD3</td></tr><tr><td>2016</td><td>99.2</td><td>70</td><td>149</td><td>Rehabilitation of overburden emplacement areas in Pit 3 and Pit 5, Rehabilitation of Tailings Facility TD4</td></tr><tr><td>2017</td><td>97.7</td><td>165</td><td>314</td><td>Rehabilitation of overburden emplacement areas in Pit 3, Pit 4 and Pit 5</td></tr><tr><td>2018</td><td>146.6</td><td>150</td><td>464</td><td>Rehabilitation of overburden emplacement areas in Pit 1, Pit 3, Pit 4 and Pit 5.</td></tr><tr><td>At end of MOP</td><td>541.9</td><td>464</td><td>464</td><td></td></tr></table>	Year	Total Disturbances	Total Rehabilitation	Cumulative Rehabilitation	Comments	2014	103.7	40	40	Rehabilitation of overburden emplacement areas in Pit 5	2015	94.7	39	79	Rehabilitation of overburden emplacement areas in Pit 5, Rehabilitation of Tailings Facility TD3	2016	99.2	70	149	Rehabilitation of overburden emplacement areas in Pit 3 and Pit 5, Rehabilitation of Tailings Facility TD4	2017	97.7	165	314	Rehabilitation of overburden emplacement areas in Pit 3, Pit 4 and Pit 5	2018	146.6	150	464	Rehabilitation of overburden emplacement areas in Pit 1, Pit 3, Pit 4 and Pit 5.	At end of MOP	541.9	464	464		These 2014 targets were in accordance with Mop Plan 3a, and as per survey data provided to auditors.	Complies
Year	Total Disturbances	Total Rehabilitation	Cumulative Rehabilitation	Comments																																		
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At end of MOP	541.9	464	464																																			
	Revegetation will be progressive, commencing soon after the completion of landform shaping. Species to be planted in the rehabilitated landforms will be a mixture of native and introduced locally successful tree, grass and legume species. Locally collected tree and shrub seed will be used where practical.	As per site inspection and documentation provided.	Complies																																			
7.2.1	Domain 1 – Constrained Infrastructure Area No rehabilitation activities are scheduled for this domain during the MOP term.	Not triggered	Not Triggered																																			
7.2.2	Domain 2 – Mine Infrastructure No rehabilitation activities are scheduled for this domain during the MOP term.	Not triggered	Not Triggered																																			
7.2.3	Domain 3 – Coal Handling Preparation Plant No rehabilitation activities are scheduled for this domain during the MOP term.	Not triggered	Not Triggered																																			

Reference	Requirement	Evidence	Audit Finding
7.2.4	Domain 4 – Mine Water Dams No rehabilitation activities are scheduled for this domain during the MOP term.	Not triggered	Not Triggered
7.2.5	Domain 5 – Overburden Emplacement Areas At the end of 2013 earthworks were underway to redesign, shape and place additional inert material at Duffy Dump (Pit 2). Completion of earthworks at Duffy Dump is scheduled mid 2014. On completion of these activities a temporary vegetative cover will be applied to assist in stabilising a section of the dump. Keylah Dump (Pit 5) is scheduled for rehandling and mining by the end of 2015, to remove the overburden material to allow access to the coal resource. This overburden emplacement area will transfer to active mining areas during the MOP term. The Noise Bund was rehandled during February 2014, with material prone to spontaneous combustion placed on the floor of Pit 4 and the remaining overburden material placed in the footprint of the Elevated Waste Emplacement Area (Pit 2). As required by the Project Approval, the Elevated Waste Rock Emplacement Area will have the outer batters temporarily rehabilitated (e.g. by aerial seeding) to minimise erosion and assist in stability. Portions of overburden emplacement areas associated with Pit 1, 3, 4 and 5 are scheduled for progressive rehabilitation during the MOP term. Overburden emplacement areas progressively rehabilitated during the MOP term will transfer to rehabilitated areas.	Earthworks on Duffy Dump have been completed due to works still being. Drainage and vegetation cover have not been applied as at the site inspection. This is evidenced by significant erosion on the northern face of Duffy Dump. Keylah Dump - not triggered Noise bund rehandling has been completed. The Elevated Waste Rock Emplacement Area is still being actively worked and consequently revegetation works have not been undertaken. Overburden emplacement areas associated with Pit 1, 3, 4, and 5 are scheduled for rehab.	Not Triggered
7.2.6	Domain 6 – Tailings Storage Areas Several former tailings facilities are scheduled for progressive rehabilitation. Commencement of rehabilitation activities for TD3, TD4 and TD5 during the MOP term will be subject to further site investigations and in accordance with the requirements of Section 101 approvals. Tailings facilities progressively rehabilitated during the MOP term will transfer to rehabilitated areas.	Not triggered	Not Triggered
7.2.7	Domain 7 – Active Mining Areas No rehabilitation activities are scheduled for this domain during the MOP term. Some areas of the active mining area will transfer to overburden emplacement areas during the MOP term. Some 462 ha of vegetation would be progressively cleared over the MOP term. A review of the potential environmental and heritage issues will be completed through the Ground Disturbance Permit (GDP) process. A fully completed GDP must be in place prior to any ground disturbance activities commencing.	GDP process is in place as evidenced during site inspection and documentation provided.	Complies

Reference	Requirement	Evidence	Audit Finding
7.2.8	Domain 8 – Rehabilitated Areas Rehabilitation activities within this domain during the MOP term will primarily be associated with Ecosystem Development, including the following rehabilitation maintenance activities: • Controlling weeds and pests; • Repairing landforms; • Revegetation (i.e. replanting and/or reseeding); and • Application of maintenance fertilisers as required. The requirement of these rehabilitation maintenance activities will be based on the annual rehabilitation monitoring program and opportunistic inspections of rehabilitated areas.	Annual rehab monitoring program took place in 2012 and 2013, however this has not occurred in 2014 due to change in methodology. This methodology has been communicated to OEH and DPE and is currently awaiting approval by DPE.	Complies
7.2.9	Domain 9 – Environmental Conservation Area & Regeneration Areas Rehabilitation activities within this domain during the MOP term will primarily be associated with Ecosystem Development to include rehabilitation maintenance activities for controlling weeds and pests. The requirement of these activities will be based on the annual monitoring program, opportunistic inspections and as required by the Biodiversity Management Plan.	Annual rehab monitoring program took place in 2012 and 2013 (as evidenced in Appendix E in 2013 AEMR). Monitoring program for 2014 is awaiting confirmation of change of methodology. Opportunistic inspections have occurred although not documented.	Complies
7.2.10	Domain 10 – Future Mining Areas No rehabilitation activities are scheduled for this domain during the MOP term, however some areas of the future mining area will transfer to active mining areas during the MOP term.	Not triggered	Not Triggered
7.2.11	Domain A – Rehabilitation Area (Woodland Area) Rehabilitation activities within this domain during the MOP term will primarily be associated with Ecosystem Development, including the following rehabilitation maintenance activities: • Controlling weeds and pests; • Repairing landforms; • Revegetation (i.e. replanting and/or reseeding); and • Application of maintenance fertilisers as required. The requirement of these rehabilitation maintenance activities will be based on the annual rehabilitation monitoring program and opportunistic inspections of rehabilitated areas.	Annual rehab monitoring program took place in 2012 and 2013 (as evidenced in Appendix E in 2013 AEMR). Monitoring program for 2014 is awaiting confirmation of change of methodology. Opportunistic inspections have occurred although not documented.	Complies

Reference	Requirement	Evidence	Audit Finding
7.2.12	Domain B – Rehabilitation Area (Mixed Woodland and Pasture Area) Rehabilitation activities within this domain during the MOP term will primarily be associated with Ecosystem Development, including the following rehabilitation maintenance activities: • Controlling weeds and pests; • Repairing landforms; • Revegetation (i.e. replanting and/or reseeding); and • Application of maintenance fertilisers as required. The requirement of these rehabilitation maintenance activities will be based on the annual rehabilitation monitoring program and opportunistic inspections of rehabilitated areas.	Annual rehab monitoring program took place in 2012 and 2013 (as evidenced in Appendix E in 2013 AEMR). Monitoring program for 2014 is awaiting confirmation of change of methodology. Opportunistic inspections have occurred although not documented.	Complies
7.2.13	Domain C – Final Void There will be no final voids in the landform at the end of MOP term as identified by the EIS 2005. However, there are two final voids proposed in the final landform at mine closure. A Final Void Management Plan (FVMP) a component of the Mine Closure Plan will be prepared in advanced of mine closure.	Not triggered	Not Triggered
7.2.14	Domain D – Cumbo Creek Realignment No rehabilitation activities are scheduled for this domain during the MOP term. During this MOP term, mining activities will continue along the proposed alignment path (Plans 3A – 3E). Backfilling and reinstating the new alignment path will be in accordance with the CCRP as part of the mining operations. The CCRP is subject to approval by the DP&E and other relevant agencies prior to the commencement of these activities.	Not triggered	Not Triggered
7.2.15	Domain E – Environmental Conservation Area and Regeneration Areas Rehabilitation activities within this domain during the MOP term will primarily be associated with Ecosystem Development activities to include rehabilitation maintenance for controlling weeds and pests. The requirement of these activities will be based on the annual monitoring program, opportunistic inspections and as required by the Biodiversity Management Plan.	Annual rehab monitoring program took place in 2012 and 2013 (as evidenced in Appendix E in 2013 AEMR). Monitoring program for 2014 is awaiting confirmation of change of methodology. Opportunistic inspections have occurred although not documented.	Complies
7.2.16	Domain F – Infrastructure (Environmental Monitoring) No rehabilitation activities are scheduled for this domain during the MOP term. There will be a number of environmental monitoring sites (Plan 4) remaining at the end of mine life to monitor the performance of the post mining landform.	Not triggered	Not Triggered

Reference	Requirement	Evidence	Audit Finding																																																																																																																																																									
7.3	Table 33 outlines the proposed rehabilitation activities within Primary Domains during the MOP term.	Noted																																																																																																																																																										
	Table 33 Summary of Rehabilitation Proposed during the MOP Period <table> <tr> <th>Primary Domain</th><th>Rehabilitation Phase</th><th>Area (ha) at start of MOP</th><th>Area (ha) at end of MOP</th></tr> <tr> <td rowspan="8">Constrained Infrastructure Area (1)</td><td>Active</td><td>76.4</td><td>76.4</td></tr> <tr> <td>Decommissioning</td><td></td><td></td></tr> <tr> <td>Landform Establishment</td><td></td><td></td></tr> <tr> <td>Growth Medium Development</td><td></td><td></td></tr> <tr> <td>Ecosystem Establishment</td><td></td><td></td></tr> <tr> <td>Ecosystem Development</td><td></td><td></td></tr> <tr> <td>Relinquished Lands</td><td></td><td></td></tr> <tr> <td>TOTAL</td><td></td><td></td></tr> <tr> <td rowspan="8">Mine Infrastructure (2)</td><td>Active</td><td>182.2</td><td>513.0</td></tr> <tr> <td>Decommissioning</td><td></td><td></td></tr> <tr> <td>Landform Establishment</td><td></td><td></td></tr> <tr> <td>Growth Medium Development</td><td></td><td></td></tr> <tr> <td>Ecosystem Establishment</td><td></td><td></td></tr> <tr> <td>Ecosystem Development</td><td></td><td></td></tr> <tr> <td>Relinquished Lands</td><td></td><td></td></tr> <tr> <td>TOTAL</td><td></td><td></td></tr> <tr> <td rowspan="8">Coal Handling/Preparation Plant (3)</td><td>Active</td><td>63.6</td><td>63.6</td></tr> <tr> <td>Decommissioning</td><td></td><td></td></tr> <tr> <td>Landform Establishment</td><td></td><td></td></tr> <tr> <td>Growth Medium Development</td><td></td><td></td></tr> <tr> <td>Ecosystem Establishment</td><td></td><td></td></tr> <tr> <td>Ecosystem Development</td><td></td><td></td></tr> <tr> <td>Relinquished Lands</td><td></td><td></td></tr> <tr> <td>TOTAL</td><td></td><td></td></tr> <tr> <td rowspan="8">Mine Water Dams (4)</td><td>Active</td><td>39.4</td><td>39.4</td></tr> <tr> <td>Decommissioning</td><td></td><td></td></tr> <tr> <td>Landform Establishment</td><td></td><td></td></tr> <tr> <td>Growth Medium Development</td><td></td><td></td></tr> <tr> <td>Ecosystem Establishment</td><td></td><td></td></tr> <tr> <td>Ecosystem Development</td><td></td><td></td></tr> <tr> <td>Relinquished Lands</td><td></td><td></td></tr> <tr> <td>TOTAL</td><td></td><td></td></tr> <tr> <td rowspan="8">Overburden Emplacement Area (5)</td><td>Active</td><td>92.9</td><td>164.9</td></tr> <tr> <td>Decommissioning</td><td></td><td></td></tr> <tr> <td>Landform Establishment</td><td></td><td></td></tr> <tr> <td>Growth Medium Development</td><td></td><td></td></tr> <tr> <td>Ecosystem Establishment</td><td></td><td></td></tr> <tr> <td>Ecosystem Development</td><td></td><td></td></tr> <tr> <td>Relinquished Lands</td><td></td><td></td></tr> <tr> <td>TOTAL</td><td></td><td></td></tr> <tr> <td rowspan="8">Tailings Emplacement Areas (6)</td><td>Active</td><td>39.4</td><td>14.7</td></tr> <tr> <td>Decommissioning</td><td></td><td></td></tr> <tr> <td>Landform Establishment</td><td></td><td></td></tr> <tr> <td>Growth Medium Development</td><td></td><td></td></tr> <tr> <td>Ecosystem Establishment</td><td></td><td></td></tr> <tr> <td>Ecosystem Development</td><td></td><td></td></tr> <tr> <td>Relinquished Lands</td><td></td><td></td></tr> <tr> <td>TOTAL</td><td></td><td></td></tr> </table>	Primary Domain	Rehabilitation Phase	Area (ha) at start of MOP	Area (ha) at end of MOP	Constrained Infrastructure Area (1)	Active	76.4	76.4	Decommissioning			Landform Establishment			Growth Medium Development			Ecosystem Establishment			Ecosystem Development			Relinquished Lands			TOTAL			Mine Infrastructure (2)	Active	182.2	513.0	Decommissioning			Landform Establishment			Growth Medium Development			Ecosystem Establishment			Ecosystem Development			Relinquished Lands			TOTAL			Coal Handling/Preparation Plant (3)	Active	63.6	63.6	Decommissioning			Landform Establishment			Growth Medium Development			Ecosystem Establishment			Ecosystem Development			Relinquished Lands			TOTAL			Mine Water Dams (4)	Active	39.4	39.4	Decommissioning			Landform Establishment			Growth Medium Development			Ecosystem Establishment			Ecosystem Development			Relinquished Lands			TOTAL			Overburden Emplacement Area (5)	Active	92.9	164.9	Decommissioning			Landform Establishment			Growth Medium Development			Ecosystem Establishment			Ecosystem Development			Relinquished Lands			TOTAL			Tailings Emplacement Areas (6)	Active	39.4	14.7	Decommissioning			Landform Establishment			Growth Medium Development			Ecosystem Establishment			Ecosystem Development			Relinquished Lands			TOTAL			
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Reference	Requirement	Evidence	Audit Finding
8 REHABILITATION MONITORING AND RESEARCH			
8.3.1	Rehabilitation trials proposed to be undertaken during the MOP term include: • Trialling cattle grazing on established rehabilitated areas to evaluate the capacity of the rehabilitated land to sustain livestock grazing. The trial will include assessment of soil structure and the incorporation of vegetation matter into the soil; • Trialling various topsoil depths to determine optimum growth medium conditions for seeding of pasture grasses and target tree species; and • Trials to evaluate suitable seed mix volumes that reduce the competition of pasture grass species and promote target species growth. Results of these trials will be used as a guide for progressively rehabilitating disturbed areas across the mining operation and for closure planning and will continue to be reported in the AEMR. Further rehabilitation research will be conducted as required and potentially involve participation in ACARP projects, university programmes and campaigns conducted by specialised consultants during the MOP term. Information regarding new research and rehabilitation trials will be reported annually in the AEMR.	Trial cattle grazing - not triggered due to lack of suitable areas. Topsoil depths - assessment conducted however no controlled trials undertaken. Seed mix volumes - not triggered within audit period. Research aligned with UQ has been completed within the audit period to compare rehab activities with other regional mines.	Complies - Recommendation Made
10 REPORTING AND REVIEW			
10.1	WCPL is required to prepare and submit an Annual Environmental Management Report (AEMR) in accordance with the NSW Trade & Investment – Division of Resources and Energy (DRE), Guidelines to the Mining, Rehabilitation and Environmental Management Process (Guidelines No. EDG03). The AEMR provides an annual review of monitoring results, performance measures/criteria, relevant predictions in the EA, identifies non-compliances and corrective actions, provides rehabilitation progress and disturbance area report, rehabilitated areas and areas undergoing rehabilitation to demonstrate that progressive rehabilitation objectives are being achieved. The preparation of the AEMR, also satisfies the Annual Review (AR) requirements under Development Applications Project Approval 05-0021. The AEMR also satisfies the reporting requirements for Environment Protection Licence (EPL).	AEMR (2011, 2012 and 2013) Satisfies these commitments	Complies

Reference	Requirement	Audit Evidence	Audit Finding
Wilpinjong Coal Project Environmental Management Strategy February 2006 (Wilpinjong Coal Pty Limited)			
Authorisation, Revision and Distribution Control			
1.2	As a minimum, revision of the Strategy shall be undertaken within 3 months of the completion of the Independent Environmental Audit (Condition 2, Schedule 5 of Application 05-0021). Revision of the Strategy shall be undertaken by the Environmental Coordinator and approved by the WCPL General Manager and the WCP Operations Manager.	The audit team viewed the WCPL Controlled Documents Register however could not verify that the updates had been conducted to the Environmental Management Strategy (EMS). The EMS does not contain revision or version history to verify updates of the plan.	Not Compliant
1.2	The control of documentation associated with the Strategy is to be undertaken in accordance with the EMS.	The EMS does not accurately track revisions or document review. It is noted that the new draft managements plans include revision details and version control.	Not compliant - Recommendation made
Regulatory Authorities and Requirements			
3.4	It is the responsibility of the Environmental Co-ordinator and the Environmental Representative to be aware of changes to relevant legislation, policy and guidelines, and to notify the Operations Manager and General Manager of changes that may significantly affect WCP.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
3.4	Should a change in legislation be identified that has the potential to impact on the operations of the WCP, the Change Management process will be followed to ensure the appropriate review and changes to the sites operations are communicated and undertaken.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
3.4	This information includes the holder, date of approval, date of renewal, reporting requirements, last reporting date and next reporting date for each approval held by for the WCP. Dependent on the holder of the relevant approval, WCPL or Thiess, it is the responsibility of the WCPL Environmental Co-ordinator or the Thiess Environmental Representative to ensure that these approvals are renewed, as required, and that reporting requirements are met.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
3.4	It is the responsibility of the Operations Manager to ensure that the WCP meets its obligations under these approvals and the relevant legislation.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered

Reference	Requirement	Audit Evidence	Audit Finding
3.4	It is the responsibility of the Environmental Representative to advise the Operations Manager of his/her obligations under these approvals, and to prepare the necessary documentation to demonstrate compliance with the requirements of regulatory authorities.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
Wilpinjong Coal Environmental and Community Policy			
5.1	The WCP Environment and Community Policy is currently under development and will define the environmental and community commitments and principles of WCPL & Thiess and the direction for improvements in environmental performance.	This Policy has not been finalised at the time of the audit.	Not Triggered
5.1	The policy will be reviewed following any major operational or legislative changes and as a minimum annually as part of the Environmental Management Plan Review.	This Policy has not been finalised at the time of the audit.	Not Triggered
5.1	All WCP personnel will be inducted in relation to the policy. The policy will be displayed prominently in all site offices and workforce amenities and distributed to the public on request. A copy of the Environment and Community Policy will be included in the Annual Environmental Management Plan Report.	This Policy has not been finalised at the time of the audit.	Not Triggered
Contractual Commitments			
5.2	A contractual relationship exists between WCPL as owner of WCP and Thiess as principal constructor and mining operator. This contract requires Thiess to comply with all environmental and planning legislation and all Approvals, Licences, etc. pertaining to the Project. Both WCPL and its Contractors and Thiess and its Contractors will work under the site EMS. Environmental management will be a consideration to the award of any contract let on the WCP.	WCPL is owned by WCPL, a wholly owned subsidiary of Peabody Pacific Pty Ltd (Peabody Energy). The Mine is operated by WCPL not Thiess anymore.	Not Triggered
Environmental Objectives and Targets			
7	Environmental objectives and targets are reviewed and updated on an annual basis for continual improvement. They form an integral part of the WCP EMS and are contained within an Objectives and Targets register contained within the EMS. The Objectives and Targets will reflect the commitment to continual improvement embedded in ISO14001 compliant environmental management systems.	These objectives and targets were reviewed annually within the AEMRs during this auditing period (AEMRs 2011, 2012 and 2013)	Complies
Structure and Responsibility			
7.2	Management at all levels and supervisory personnel are to lead by example and set the highest standards for environmental management.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
Position Responsibilities			
7.4	A mutually agreed matrix of environmental responsibility assigning tasks between the owner and the operator is to be maintained within the EMS.	Management of the WCM is shared between WCPL and Thiess Pty Limited, as confirmed during the audit interview.	Complies
7.4	No personnel are permitted to undertake a task unless they have undertaken the required training, are competent and confident that the task can be conducted in an environmentally safe manner, with minimal impact on the community.	This was confirmed during the audit interview. Copies of site induction training were also sighted by the audit team.	Complies
Resources and Operational Control			

Reference	Requirement	Audit Evidence	Audit Finding
8	Controls on activities conducted at the WCP are to be undertaken in accordance with WCP environmental procedures and environmental management plans and programs. Responsibility is to be delegated to the most effective level of supervision to ensure compliance.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
8	Site work procedures will be reviewed regularly to ensure all significant aspects of the WCP operation are appropriately controlled within the standard site operating procedures. A register of procedures is maintained as required by the WCP Management System. Procedures are communicated to all relevant personnel and are reviewed at least every two years and updated as required.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
Incident and Emergency Preparedness			
Emergency Response			
9.1	During the conduct of the catastrophic risk reviews, identification of all potential emergency situations that could result in significant environmental impacts is undertaken. A list of potential high risk catastrophic environmental incidents is maintained in the site risk register. Emergency responses to these potential situations are to be incorporated into subsequent reviews and updates of all emergency procedures.	A broad brush environmental risk assessment was undertaken in 2012 and reviewed/updated in July 2013. This is incorporated in the current MOP. Broader site risk assessments incorporate environmental risks and emergency responses are incorporated into site emergency procedures. No high risk catastrophic environmental incidents have been identified and therefore this condition is not triggered.	Not Triggered
9.1	The site maintains a dedicated emergency response team who undergo regular training and operational drills involving identified high risk activities. Relevant managers are to consider emergency preparedness drills for such events.	A dedicated emergency response team is maintained at the WCM. These personnel undergo regular training, as confirmed during the audit interview.	Complies
9.1	Any changes to emergency procedures are to be documented and communicated to all personnel.	HS&E Committee meetings review these new procedures before they are rolled out to other mine personnel.	Complies
Incidents			
9.2	The WCP will maintain an Incident management procedure within the management system. In the event of an environmental incident, the cause of the incident is to be identified and the incident recorded in accordance with site procedures. The definition of an incident is to include a "near hit". Reporting will be in accordance with Legislative and Corporate requirements.	An Emergency Procedures Manual is held on site. Environmental incidents are addressed in this manual and also under the site PIRMP.	Complies

Reference	Requirement	Audit Evidence	Audit Finding
9.2	Incident recording forms are located across the site and completed forms are to be forwarded to the Environmental Representative and the Environmental Co-ordinator. Completed forms are to be filed in and retained for a period of at least four years. The Environmental Representative is to conduct an investigation into each environmental incident, which shall include reporting requirements and recommendations for corrective or preventative action. All actions arising from the investigation are to be signed off by the nominated management representative within the timeframe specified.	Incident report forms are managed through PIMS and examples of completed incident reports were sighted. These forms are electronically based and maintained within the PIMS. A Fume incident caused by a blast event was identified as part of the audit interview - auditors requested incident forms and correspondence with regulatory bodies to verify compliance with the PIMS. WCPL were in compliance with the procedures outlined in the PIMS.	Complies
9.2	A review of the effectiveness of the corrective or preventative action is to be undertaken within one month of the occurrence of the incident and the relevant procedures are to be updated as required.	Remedial actions were sighted by the audit team during the site visit for the Fume incident on the 14 July 2014. This remedial actions response was prepared and sighted by audit team.	Complies
9.2	Any changes to procedures as a result of these reviews are to be documented as per the sites Change Management Procedures and communicated to all personnel.	n/a	Not Triggered
9.2	The WCP Environmental Representative in consultation with the Environmental Co-ordinator undertakes the identification of environmental training needs of personnel and the delivery method, including source material as appropriate. Allocation of resources to provide these training needs shall be incorporated into the environmental management programs and the training needs matrix.	Email sighted from training coordinator, identifying the training needs of relevant WCPL personnel.	Complies
9.2	Training module documentation and records of all training provided shall be maintained in the WCP Environmental filing system. The effectiveness of training modules and sessions shall be periodically reviewed and the training modules updated as required.	verified during site inspection	Complies
Communication			
Internal Communication			
11.1	Internal communication is to be conducted in accordance with the site's communication procedure, which is incorporated in the Operations Management System. This procedure is periodically reviewed and updated as required.	Noted and viewed by audit team.	Complies
External Communication			
11.2	All external reporting of environmental matters associated with WCP, including Incident and Complaints reporting and the Annual Environmental Management Report (AEMR), shall be undertaken by the Environmental Co-ordinator.	Signatures of Environmental Manager verified by Audit team.	Complies

Reference	Requirement	Audit Evidence	Audit Finding
11.2	WCP will produce a newsletter, which will be distributed to all identified internal and external stakeholders. This newsletter details current operational, environmental and community issues, initiatives and site activities.	Verified on WCPL website	Complies
11.2	A blasting hotline will also be operated to provide up to date information on blasting at the WCP to the community.	WCPL maintains a register of people who receive phone calls before blasting. A blasting hotline is also maintained (AEMRs 2012 and 2013). Blasting times and location are also available on the WCPL website.	Complies
11.2	The WCP website will be maintained as part of the site's Project Approval requirements. The website will provide the wider community with access to the sites monitoring results, details of current activities, proposed blast times, policies, environmental management plans and monitoring programs and any other information in relation to the site operation that may be considered of interest to the community. It is the responsibility of the Environmental Co-ordinator to maintain the Website.	The WCPL website has been updated following the last IEA and currently meets the requirements of this condition.	Complies
Community Consultative Committee			
11.2.1	A community consultative committee (CCC) is to be established for the WCP in accordance with the sites Approval conditions. This will replace the Project Development CCC which has been in existence during the assessment phase of the project.	The CCC is in place and has been meeting regularly throughout the life of the mine (AEMR 2012 and 2013). Meeting minutes are placed on the WCPL webpage and viewed by the audit team.	Complies
11.2.1	The CCC comprises at least two community members, a representative from Council and an independent chairperson. The CCC shall meet at least twice per year.	The CCC is in place and has been meeting regularly throughout the life of the mine (twice a year, AEMR 2012 and 2013). Meeting minutes are placed on the WCPL webpage and viewed by the audit team.	Complies
Complaints Management			
11.2.2	The WCP will maintain a telephone line for receiving complaints. The site Environmental Co-ordinator is responsible for ensuring that the currency and effectiveness of the service is maintained.	Telephone line advertised in newspaper, community newsletters and on internet (WCPL webpage).	Complies
11.2.2	Notifications of complaints received are to be provided as soon as possible to the site Environmental Co-ordinator and the WCP Production Supervisor on-shift. The General Manager, Operations Manager and Environmental Representative are to be advised on the next business day.	All of these personnel would either be telephoned or would receive a text message from the call centre service when a complaint is received.	Complies
11.2.2	Any complaint or enquiry relating to environmental management or performance is to be relayed to the Environmental Co-ordinator as soon as practical.	As per the Complaints handling procedure all complaints are communicated with the Environmental Coordinator.	Complies

Reference	Requirement	Audit Evidence	Audit Finding
11.2.2	WCPL reporting requirements as detailed in the WCPL Complaints Management Procedure shall also be complied with. This includes: A summary of complaints received is reported in the Monthly Operations Report. - A summary of complaints received and actions taken is presented to the WCP CCC as part of the operational performance review. - A summary of complaints received and actions taken is included in the AEMR and in the Annual Return to DEC	Complaints updated to website monthly. CCC are directed to website for monitoring reports. Annual complaints are reported in the AEMRs along with any justification for complaint and actions taken. (AEMR 2012 and 2013)	Complies
Dispute Resolution			
Community			
11.3.1	In the event of a disagreement between the WCP and a member of the community, the Environmental Co-ordinator and, as necessary, the WCPL General Manager, will undertake the necessary liaison to reach a resolution. This could will involve an offer for a one on one meeting with the resident to discuss the issue. Where relevant, negotiations will be initiated in accordance with the Project Approval conditions.	This has not occurred in the audit period.	Not Triggered
11.3.1	In relation to a dispute over acquisition of a property, if the matter cannot be resolved between the company and the resident, the matter is to be referred to the Director-General of DoP for resolution, in accordance with the Approval Conditions.	This has not occurred in the audit period.	Not Triggered
Measurement and Evaluation			
Environmental Monitoring			
12.1	Environmental monitoring to determine conformance of WCP with the EMS, including Licences and Approvals, is to be managed by the WCP Environmental Co-ordinator.	Confirmed during audit interview and inspection of environmental monitoring plans (approved by the WCPL environmental manager).	Complies
12.1	All monitoring results are to be filed by the Environmental Co-ordinator within the document control system and maintained on site for at least four years.	Monitoring spreadsheets are completed with records going back to the initial operations at Wilpinjong, as sighted by the audit team during the site visit.	Complies
12.1	In the event of a non-conformance the Environmental Co-ordinator is to investigate the cause of the non-conformance and recommend corrective and/or preventative action. The effectiveness of the corrective and/or preventative action is to be assessed by analysis of the next available monitoring results and during the next monthly site inspection.	Auditors confirmed this condition during audit interview. Procedures followed during fume incident which occurred in 2014.	Complies
12.1	Any changes to work procedures as a result of the corrective or preventative action are to be documented and communicated as per the sites change management procedure. Modifications to operations arising from monitoring results, either short or long term, are to be reported in the AEMR.	verified during audit interview and in AEMRs.	Complies
12.1	Calibration records are kept of the monitoring equipment used. Calibration will be undertaken in accordance with the equipment manufacturer's recommendations. Where monitoring is outsourced, the consulting body is responsible for maintaining calibration and supplying the relevant documentation. WCP is responsible for verifying the calibration is conducted.	Calibration records are maintained with monitoring data records, as observed by the audit team during the site visit.	Complies
Inspections			

Reference	Requirement	Audit Evidence	Audit Finding
12.1.1	Regular environmental inspections of WCP operations are conducted. Any non-conformances are to be recorded on the inspection form and the cause of the non-conformance investigated by the Environmental Representative. Corrective and/or preventative action is to be recommended by the Environmental Representative and the effectiveness of the corrective and/or preventative action assessed at the next inspection. Serious non-conformances are to be corrected as a matter of urgency.	These inspections are undertaken fortnightly, and records of these checks were sighted by the audit team during the site visit.	Complies
Corrective and Preventative Action			
12.2	On receipt of an incident/complaint reporting form, site inspection form, hazard report or monitoring result that indicates a potential or actual non-conformance of the WCP with the EMS, the Environmental Representative is to undertake an investigation and recommend corrective or preventative action.	Incident management procedure and incident reports were sighted by the audit team and verify this condition	Complies
12.2	Details of the required action(s) are to be communicated to the relevant supervisor of the specific operations area and a copy of the communications kept with the investigation report. The effectiveness of the requested action is to be assessed within one month of the non-conformance.	Incident management procedure and incident reports were sighted by the audit team and verify this condition	Complies
EMS Records and Information Management			
12.3	The EMS is to be reviewed for relevance and effectiveness annually and updated, as required. Changes resulting from revised risk identification or legislative change are to be made as soon as practical.	The audit team viewed the WCPL Controlled Documents Register however could not verify that the updates had been conducted to the Environmental Management Strategy (EMS). The EMS does not contain revision or version history to verify updates of the plan. Previous IEA made the same observation and recommended that the EMS be updated for ease of reference to ensure that management plans are reviewed and updated as necessary.	Not Compliant
Audits			
Internal Audits			
12.4.1	Internal EMS audits will be undertaken to assess whether the EMS has been properly implemented and maintained and conforms to the environmental policy, objectives and targets of WCP. These internal audits are to be conducted in accordance with the Thiess Management System procedures and the WCPL's Auditing standard. The results are communicated to senior management in accordance with these procedures.	Internal audits occur from the Peabody head office, as confirmed during the audit interview.	Complies

Reference	Requirement	Audit Evidence	Audit Finding
12.4.1	Internal auditors are to be selected on the basis of their understanding of environmental management principles and mining operations. Internal auditors shall be suitably qualified and experienced and be capable of impartially and objectively auditing the WCP EMS.	Internal Peabody Energy Audits are led by the Director of Compliance and include specialists in the appropriate field. Lead Auditor has confirmed this and states that he is present at the internal sessions and is a qualified EMS Auditor.	Complies
External Audits			
12.4.3	Other external environmental audits of the WCP may be conducted as required by WCPL, Excel or Thiess. External auditors are to be selected on the basis of their understanding of environmental management principles and mining operations. External auditors shall be suitably qualified and experienced and be capable of impartially and objectively auditing the WCP.	External auditors are selected by WCPL and approved by the regulating authority based on their independence, experience and qualifications suitable to perform the audit. DG approval letters viewed by the audit team.	Complies
12.4.3	The selection of external auditors will be the responsibility of the Environmental Coordinator. The audit findings are to be reported to senior management for review. Internally initiated external audits may be conducted under legal privilege.	Noted. Audit findings presented to senior management as verified by audit team.	Complies
Review and Improvement			
Management Review			
13.1	Periodic review and revision of the EMS is to be undertaken by senior management. The EMS review will include: - review of audit findings; - results of monitoring programs; - achievement of objectives and targets; - relevance of the Policy, objectives and targets to current and future conditions; and - information and concerns of stakeholders.	EMS does not contain revision history to verify this condition. Previous IEA made the same comment and recommended that the EMS be updated for ease of reference to ensure that management plans are reviewed and updated as necessary.	Not compliant -

Reference	Requirement	Audit Evidence	Audit Finding
13.1	Reviews will be undertaken annually and may be incorporated into the WCP Operations Management System Review Process. The General Manager and Operations Manager should both participate in this review.	Remedial actions were sighted by the audit team during the site visit for the Fume incident on the 14 July 2014. This remedial actions response was prepared and sighted by audit team.	Not compliant - Recommendation made

Reference	Requirement		Audit Finding
Wilpinjong Coal Project Erosion and Sediment Control Plan (Wilpinjong Coal Pty Limited, February 2006)			
Introduction			
1	This ESCP will be revised on a progressive basis, prior to land disturbance in areas that have not already been addressed in this ESCP.	Need to see evidence that this has been reviewed. Current plan online is from 2006 with no revision history available.	Not Compliant
Principles			
3.1	The above principles take into account the general recommendations for site drainage works presented in "Managing Urban Stormwater – Soils and Construction Volume 1" (Landcom, 2004) and the "Draft Guidelines for the Design of Stable Drainage Lines on Rehabilitated Mine sites in the Hunter Coalfields" (DLWC, 2002). In addition to these principles, development activities will generally occur in the following order:	N/A	N/A
3.1	Construction of diversion drains (typically upslope of disturbance areas) – these will only be constructed where they will significantly reduce the runoff catchment of disturbance areas.	Diversion drains were in place (clean water management system and dirty water management system (verified by auditors). Prior to the final rehabilitation the waste rock emplacement would be designed and constructed with diversion drains to minimise erosion.	Complies
3.1	Construction of sediment dams where required to provide for temporary retention of runoff from disturbance areas. Where practicable, existing farm dams will be preferentially utilised for this purpose.	Sediment dams observed in numerous locations on site, with all 'dirty water' discharge directed to on site in-pit (approx total storage volume of 4600ML.	Complies
3.1	Construction of collection drains (downslope of disturbance areas) where required to convey runoff to sediment dams or other mine water storages.	Collection drains noted along roads/haul roads and around spoil dumps etc. - generally all drain to in-pit storage.	Complies

3.1	Construction of sediment fences (downslope of disturbance and stockpile areas) where required.	Sediment fences are installed downslope of disturbance areas that pose a reasonable risk of water flowing off site (AEMR, 2013). Verified during audit site inspection.	Complies
3.1	General construction/mining works will then take place once erosion and sediment control measures are in place.	Runoff from all disturbed catchments ultimately contained on site and directed to mine water storage.	Complies
3.1	Sediment dams will generally be dewatered to well-grassed areas where sufficient grassed buffer exists to prevent the migration of sediments to watercourses. Sediment dam waters will only be released if the suspended sediments content meets the relevant criteria (i.e. 50 mg/L) in accordance with Landcom (2004). Flocculent addition will be used if required to meet the relevant release criteria. Where a suitable dewatering area is not available, sediment dams will be dewatered to mine water storages or will be directly re-used as part of initial development activities, such as dust suppression and moisture conditioning of earthworks. Sediment dam batters will be covered with topsoil and/or seeded with a cover crop to assist with minimising the potential for erosion of the dam batters.	Sediment dams improved since last audit. Rehabilitation specialist verified during site inspection.	Complies
Salinity Management			
4	The principles for the approach to erosion and sediment controls for the Project as described in Section 3.1, will also apply to manage salinity viz.:	N/A	N/A
4	In order to minimise the potential for exposure of saline soils, the areas disturbed by the Project components will be minimised and access will be restricted to non-disturbed areas.	Limited access to non-disturbed areas noted during site inspection.	Complies
4	Rehabilitation will be undertaken progressively. The revegetation programme for Project rehabilitation areas will establish some 850 ha of woodland vegetation over the long-term, and in association with the establishment of woodland vegetation in regeneration areas and Enhancement and Conservation Areas (ECAs), will contribute to an overall net increase in woodland vegetation of some 1,095 ha.	Revegetation areas noted during site inspection - long-term program not triggered	Complies
4	Potential saline surface water runoff will be managed and contained through the construction of surface drains reporting to sediment dams and mine water storages.	Construction of the RO plant was completed in June 2012, and approved water releases on 16 June 2012. All surface drains to the in-pit mine water storage.	Complies

Saline Soil Identification Procedure			
4.1	During vegetation clearance, soil stripping and earthwork activities, the salinity of soil resources will be assessed. This assessment will include visual inspection of soils to determine the Great Soil Group classification. The delineated areas where each Great Soil Group occurs within the Project area are shown on Figure 2. Table 2 provides the characteristic level of salinity of each Great Soil Group which will be used to determine site specific salinity management measures (Section 4.2).	verified during site inspection.	Complies
4.1	Representative samples from identified areas of saline soils will be tested to validate the assumed level of salinity using the standard 1:5 soil/water extract method (Rayment and Higginson, 1992). Routine (i.e. monthly) testing of soil stockpiles will be also conducted to verify the level of salinity in each soil stockpile.	verified during site inspection.	Complies
Salinity Management Measures			
4.2	If saline soils are exposed, soil resources will be managed to minimise the effects of soil salinity. Measures that will be adopted to manage the potentially saline soils will focus on the segregation of soils according to salt content. Topsoils and subsoils that are to be used for rehabilitation activities will be separated from saline soils and stockpiled in accordance with the Mining Operations Plan. Segregation will prevent the stockpiling of saline soil resources and assist the maintenance of a viable soil resource for rehabilitation activities. Gypsum will be applied at an appropriate rate to stockpiles of dispersive soil types when necessary.	Confirmed in site inspection and contained within Landscape management plan (Rehabilitation Management Plan)	Complies
4.2	Saline soils will be placed within the mine waste rock emplacements beneath the rehabilitated final landform topsoil/subsoil layer.	confirmed in site inspection and contained within Landscape management plan (Rehabilitation Management Plan)	Complies
Erosion and Sediment Control Monitoring Program			
5	Routine (i.e. monthly) inspections of sediment control structures as well as inspections following rainfall events of 20 mm or more in a 24 hour period will be conducted by WCPL personnel. During these inspections, sediment control structures will be inspected for capacity, structural integrity and effectiveness.	Routine inspections of sediment control structures as well as inspections following rainfall events of 20 mm or more in a 24 hour period are conducted by Mine personnel. During these inspections, sediment control structures are inspected for capacity, structural integrity and effectiveness.	Complies

Reporting the Effectiveness and Performance of the Sediment and Erosion Control System			
6	In addition, to the matters that must be included in the AEMR in relation to the ESCP, the AEMR will report on the following erosion and sediment control related issues: - construction, monitoring and maintenance of erosion and sediment control structures; and - proposed improvements to erosion and sediment control systems when monitoring indicates the need.	Information provided in the 2012 and 2013 AEMRs	Complies
Erosion and Sediment Control Plan Revisions			
7	The ESCP will be reviewed, and if necessary, updated by the Environmental Manager: - on an annual basis; - where there is an incident on site relating to failure of erosion and sediment control; - in response to an Independent Environmental Audit; - when there are changes to Project Approval or licence conditions relating to aspects of this ESCP; or - in response to a relevant change in technology or legislation.	The AMER reports that review of the ECSP was conducted however no revisions or version history is present on the plan itself.	Not Compliant
7	In addition, this ESCP will be revised on a progressive basis, prior to land disturbance in areas that have not already been addressed in this ESCP.	The AMER reports that review of the ECSP was conducted however no revisions or version history is present on the plan itself.	Not Compliant

Reference	Requirement	Evidence	Audit Finding
Wilpinjong Coal Project Rehabilitation and Landscape Management Plan (Wilpinjong Coal Pty Limited, July 2006)			
Rehabilitation and Landscape Management Plan Revisions			
4	The RLMP (and its appendices) will be reviewed, and if necessary updated, by the Environmental Manager: - where there is a significant change in the Project; - when there are changes to Project Approval or licence conditions relating to aspects of this RLMP; or - in response to a relevant change in technology or legislation.	The AEMR reports that review of the RLMP was conducted however no revision or version history is present on the plan itself. Updated plan was submitted to the DP&E for approval during the audit period. Recommendation Made.	Complies
4	In addition, the RLMP will be reviewed within six months of an Independent Environmental Audit in accordance with Condition 36, Schedule 3 of the Project Approval.	The AEMR reports that review of the RLMP was conducted however no revision or version history is present on the plan itself. Updated plan was submitted to the DP&E for approval during the audit period. Recommendation Made.	Complies
Wilpinjong Coal Mine Rehabilitation Management Plan (Wilpinjong Coal, September 2011)			
RMP Review and Update			
2	In addition, the RMP will be revised to the satisfaction of the Director-General of the NSW Department of Planning and Infrastructure (DP&I) if necessary, to ensure the plan is updated on a regular basis and to incorporate any recommended measures to improve environmental performance.	Review history available on RMP quality page.	Complies
2	The RMP will also be reviewed within three months of approval of any modification to the Project Approval and if necessary, revised to the satisfaction of the DP&I.	Review history available on RMP quality page.	Complies
Licences, Permits and Leases			
3.2	In addition to the Project Approval, all activities at or in association with the Wilpinjong Coal Mine will be conducted in accordance with the following licences, permits and leases which have been issued or are pending issue. - The conditions of Mining Lease (ML) 1573 issued under the NSW Mining Act, 1992. - A Department of Trade, Investment, Regional Infrastructure and Services (DTIRIS NSW) approved Mining Operations Plan (MOP). - The conditions of Environment Protection Licence (EPL) No. 12425 issued under the NSW Protection of the Environment Operations Act, 1997. - Water extraction licences issued under the NSW Water Act, 1912. - Mining and occupational health and safety related approvals granted by I&I NSW and WorkCover NSW.	Noted	Noted

Rehabilitation Objectives			
Rehabilitation Areas			
5	Rehabilitation areas include areas disturbed by the Wilpinjong Coal Mine which will be rehabilitated and revegetated. Rehabilitation and revegetation would be undertaken progressively as mining proceeds. Section 7.1 describes the proposed management and implementation of rehabilitation works in areas disturbed by mining, including progressive rehabilitation and revegetation.	Extensive Rehabilitation proposed in MOP (Section 4, table 9). Verified in inspection	Complies
5	Specific rehabilitation objectives for the rehabilitation areas are as follows:		
5	To create safe, stable, adequately drained post-mining landforms that are consistent with the local surrounding landscape. Landforms would be monitored to ensure early identification of potential problems with landform development.	MOP States that rehab will contain the creation of post-mining landforms that complement the amenity of the local landscape and contribute to local and regional habitat corridors (Section 5.3.1) landform monitoring evidence	Complies
5	To produce a net increase in woodland vegetation relative to the landscape described in the EIS (WCPL, 2005).	Documentation incorporated in the MOP	Complies
5	To increase the continuity of woodland vegetation by establishing links between woodland vegetation in the rehabilitation areas, regeneration areas and existing remnant vegetation in the Munghorn Gap Nature Reserve, Goulburn River National Park and the ECAs.	Documentation incorporated in the MOP	Complies
5	To preserve the existing beneficial use of water resources.	Documentation incorporated in the MOP	Complies
5	Future landuse options for the rehabilitation areas include grazing activities of varying intensity and establishment of woodland habitat.	Documentation incorporated in the MOP and site inspection	Noted
Regeneration Areas			
5	Regeneration areas, which predominantly comprise cleared agricultural land, will be established on areas of WCPL-owned land situated proximal to the Wilpinjong Coal Mine rehabilitation areas (Figure 5). WCPL will establish woodland vegetation in the Regeneration Areas through natural regeneration and selective planting if monitoring demonstrates lack of regeneration.	Regeneration areas are established. Woodland has not been completely re-established yet as these communities require more time to be established properly. To date, restoration has consisted of natural regeneration without assistance by planting and seeding, reviews will drive any changes to this regime.	Complies
5	Specific rehabilitation objectives for the Regeneration Areas include:		
5	To establish woodland vegetation in the Regeneration Areas (including the banks of Wilpinjong and Cumbo Creeks) through natural regeneration and selective planting if required (i.e. in areas where natural regeneration is unsuccessful).	Documentation incorporated in the MOP	Complies
5	To increase the continuity of woodland vegetation in the region. This will be done by providing woodland corridors between Goulburn River National Park and the remnant to the east as well as between an ECA and remnant vegetation adjoining the Munghorn Gap Nature Reserve (Figure 5).	Documentation incorporated in the MOP	Noted
Enhancement and Conservation Areas			
5	The ECAs have been established on areas of WCPL-owned land containing remnant vegetation and grazing land (Figure 5). Rehabilitation objectives for the ECAs include:		

5	Enhancement through the implementation of the land management practices such as the exclusion of livestock to encourage natural regeneration and selective planting if required (Section 7.2); and	Documentation incorporated in the MOP and as per site inspection	Complies
5	Conservation through voluntary conservation agreement which has rezoned the land in the ECAs for the purpose of protecting the land for conservation (Section 7.3).	Documentation incorporated in the MOP and as per site inspection	Complies
Landform Design			
6	The final landform for the project including location and site drainage has been designed to complement the natural landforms in and around the site. Catchment surface flow will be reinstated from the base of the Munghorn Gap Nature Reserve area north to Wilpinjong Creek and onto the Goulburn River as shown in the proposed final landform design (Figure 6).	Documentation incorporated in the MOP	Complies
6	The final landform is to drain in a generally south to north direction. Drainage lines with greater than 3% fall will need to be armoured to reduce scouring and erosion.	Documentation incorporated in the MOP	Complies
6	Sediment control dams are to be constructed along major drainage lines in rehabilitated landforms to reduce suspended solids in surface flow from the site. Sediment dams will be placed along the main drainage lines as close as practical to the northern edge of the mining lease.	Documentation incorporated in the MOP	Complies
Rehabilitation Management Measures			
7	The rehabilitation management measures to be implemented for the Wilpinjong Coal Mine (including measures applicable to site rehabilitation, the ECAs and management of remnant vegetation and habitat) are outlined below and include: - progressive site rehabilitation; - revegetation and regeneration within the ECAs; - protecting the ECAs; - creek rehabilitation; - a VCP (including pre-clearance surveys and managing impacts on fauna); - a TSMP; - landscaping within the Wilpinjong Coal Mine area to minimise visual impacts; - conservation and re-use of topsoil; - collection and propagation of seed for rehabilitation works; - salvage and re-use of material from the Wilpinjong Coal Mine area for habitat enhancement; - weed and animal pest control; - restrictions on site access; - bushfire management; and - Aboriginal community consultation.	Documentation incorporated in the MOP	Complies

7

The rehabilitation management measures comprise short, medium and long-term measures to be implemented over the life of the Wilpinjong Coal Mine. The expected timing (i.e. commencement and frequency) of the rehabilitation management measures required during the operational phase of the Wilpinjong Coal Mine is summarised in Table 7.

Table 7
Timing of Rehabilitation Management Measures

Management Measure	Commencement	Frequency
General Management of Remnant Vegetation/Habitat		
Seed collection	2008	On a progressive basis
Salvage of materials for use in habitat creation	2008	On a progressive basis
Weed surveys of disturbance areas and ECAs	February 2011	Annually over life of mine
Weed control of disturbance areas and ECAs	During pre-clearance survey for vegetation clearance	On-going over the life of the mine
Pest surveys of disturbance areas and ECAs	During pre-clearance survey for vegetation clearance	Triennially
Pest control of disturbance areas and ECAs	During pre-clearance survey for vegetation clearance	Annually
Fencing of ECAs and rehabilitation areas	2008	Repairs as required
Bushfire management	September 2007	Annually in September
Regeneration Areas		
Selective planting if required	September 2011	As required
Rehabilitation Areas		
Fencing	Disturbance sites have been stock proof fenced in 2008	Repairs as required over the life of the mine
Revegetation	Within 12 months of rehabilitation land becoming available. First parcel of land rehabilitated in October 2008	On a progressive basis over the life of the mine, as land becomes available
ECAs		
Fencing	February 2008	Repairs as required over the life of the mine
Weed survey	September 2010	Annual over the life of the mine
Weed control	February 2008	Ongoing/as required over the life of the mine
Pest survey	February 2008	Annual over the life of the mine
Pest control	February 2008	Ongoing/as required over the life of the mine
Selective planting if required	October 2011	As required over the life of the mine
Provision of roosting/nesting resources	2015, if monitoring shows action required	As required over the life of the mine
Rezoning application	Within 2 years of Project Approval	Not applicable
Bushfire management	February 2008	Ongoing over the life of the mine

Weed and feral animal surveys reported in the AEMR. Audit Rehabilitation specialist reviewed this condition and verifies compliance.

Complies

Progressive Site Rehabilitation

7.1	Revegetation of mine disturbance areas (rehabilitation areas) will be conducted progressively as mining proceeds with consideration of tailings dams and areas required for stockpiling pre-strip material. A Tailings Management Strategy will be developed for the Wilpinjong Coal Mine. WCPL will implement several management measures during progressive site rehabilitation.	Water and Tailings Storage Strategy sighted by audit team.	Complies
7.1	On completion of landform contouring, topsoiling and erosion and sediment control works, a vegetative cover will be established as soon as practicable. Depending on the proposed post-mining landuse proposed for areas of rehabilitation land, a decision will be made, based on vegetation monitoring results, to boost rehabilitation performance. Remedial action will involve direct seeding or planting of appropriate woody species.	Verified during site inspection	Complies
7.1	Topsoil conditioning involving the addition of lime, gypsum or fertiliser will be used where required, based on an assessment of soil fertility. Seeding and planting activities will take into account seasonal factors and will be scheduled, where possible, prior to the expected onset of seasonal rains in September/October. Revegetation of rehabilitation areas will result in a combination of woodland areas, pasture areas and mixed woodland/pasture areas.	Soil testing results sighted by audit team. Site inspection verifies compliance.	Complies
7.1	The aim of revegetation in woodland areas is to establish floristic diversity. Revegetation will include the use of endemic plant species characteristic of the vegetation communities to be disturbed by the mine. A provisional list of species for the woodland areas is provided in Attachment C. Revegetation of the woodland areas would include seeding or planting of species characteristic of the WBYBBRG EEC (e.g. White Box [<i>Eucalyptus albens</i>], Yellow Box [<i>E. melliodora</i>] and Blakely's Red Gum [<i>E. blakelyi</i>]).	Seeding mixes reviewed by rehabilitation specialist and verifies compliance.	Complies
7.1	Pasture areas would be revegetated using either native and/or improved pasture species. A proposed list of native grasses that could potentially be used in the revegetation of mixed woodland/pasture areas is provided in Attachment C.	Seeding mixes reviewed by rehabilitation specialist and verifies compliance.	Complies
7.1	Rehabilitation of the pasture areas will be conducted in consideration of guidelines such as those presented in the Rehabilitation of Open Cut Coal Mines using Native Grasses: Management Guidelines (DLWC, 2003) and use species which are commercially available.	Noted	Noted
7.1	Rehabilitation areas will be fenced to prevent the uncontrolled entry of livestock and to minimise vehicular traffic during the establishment phase.	Noted during site inspection	Complies
Progressive Rehabilitation Specifications			
7.1.1	The following technical standards will be implemented during construction of the final landform at Wilpinjong Coal Mine.	Noted	Noted
Inert Cover Depth			
7.1.1	Inert cover will be placed on top of the rehabilitated final landform surface to provide a benign barrier between any overburden that has not completely equilibrated with surface geochemical conditions.	Audit Rehabilitation specialist reviewed this condition and verifies compliance. AEMR also confirms this condition.	Complies

7.1.1	The final landform surface will be reshaped using spoil from the mining operation. The landform surface will then be capped with at least 2 m of semi-consolidated inert cover. Semi-consolidated means inert material that has been paddock dumped and then partially consolidated by the reshaping and grading of the inert material.	Audit Rehabilitation specialist reviewed this condition and verifies compliance.	Complies
Coarse Reject Disposal			
7.1.1	Coarse reject is produced as part of the coal washing process. Some of the coarse reject may have either spontaneous combustion or acid generating potential which needs to be managed. For this reason coarse reject is to be disposed of in mined out final voids as close to the pit floor as practically possible. The reject will be covered with overburden material and then at least 2 m of inert cover when creating the final landform surface.	Audit Rehabilitation specialist reviewed this condition and verifies compliance. Coarse rejects disposed of in pit (confirmed by WCPL Environmental Manager during audit interview). AEMR reports >2mm of inert cover.	Complies
Drainage Control			
7.1.1	The natural pre-mining drainage direction at Wilpinjong Coal Mine is from south to north. Water drains from the base of the Munghorn Gap Nature Reserve area north to Wilpinjong Creek and onto the Goulburn River. This drainage pattern will be reinstated during construction of the final landform and completion of rehabilitation works.	This is confirmed in the AERMs	Complies
7.1.1	The final landform is to drain in a generally south to north direction. Drainage lines with greater than 3% fall will need to be armoured to reduce scouring and erosion. Specifications for graded banks and rock waterways are set out below should they be required.	This is confirmed in the AERMs	Complies
Sediment Control Structures			
7.1.1	Sediment control dams are to be constructed along major drainage lines in rehabilitated landforms to reduce suspended solids in water flowing from site. The dams need to be spaced to control sediment transfer from site with the final dam on the northern end of the mining operation used as the final control point. The dams should be sized to contain rainfall events in accordance with the Wilpinjong Coal Mine Erosion and Sediment Control Plan (ESCP).	observed to occur on site.	Complies
7.1.1	All other sediment control works are to be consistent with the Wilpinjong Coal Mine ESCP.	ESCP review confirms this condition	Complies
Topsoil Placement			
7.1.1	Topsoil is to be placed on top of the final landform to act as germination medium for vegetation and as a seed source from the natural seed bank present at the time of topsoil stripping.	Verified during site inspection	Complies
7.1.1	Topsoil placement shall only proceed once the final landform and major drainage works (i.e. graded banks, drainage channels and rock waterways if required) have been completed. Topsoil is to be applied at a minimum of 200 mm thickness and maximum of 300 mm in all areas. Statistical methods will not be used to average thickness. The specified minimum depth refers to each and every square metre of applied topsoil.	AEMR confirms this condition. Topsoil inspection reports sighted by audit team.	Complies

7.1.1	Topsoiling must be undertaken from the top of slopes or top of sub drainage catchment to minimise erosion damage created by storm runoff from bare upslope areas. Care should be taken to minimise the travel over previously spread topsoil by running on bare spoil and turning onto the spreading run. Topsoiling must be conducted along the general run of the contour. Topsoil is not to be placed in down slope bands as this increases the incidence of erosion. No topsoil is to be placed in the invert of drainage lines or drainage works.	No topsoiling was undertaken during the site audit, and so this condition was not able to be verified.	Not Able to be Verified
7.1.1	Topsoil will not be required where vegetation trials have demonstrated that inert cover can be used as a suitable substitute.	These trials have not been undertaken during the current auditing period.	Not Triggered
Slope Angles			
7.1.1	Rehabilitated slopes are to be constructed to no greater than 1:6 (10 degrees or 17%) across the entire ML area.	This is assessed by the mining contractor and a report is provided to Peabody staff.	Complies
Vegetation Species Selection			
7.1.1	Species to be planted in the rehabilitated landforms will be a mixture of native and introduced locally successful tree, grass and legume species. Locally collected tree and shrub seed will be used where practical. Ripping, seeding and fertilising will be undertaken between September and December to take advantage of the growing season to optimise germination and vegetation establishment.	Annual ecology report and AEMR verify compliance	Complies
Graded Banks			
7.1.1	All graded banks shall be constructed at 1% longitudinal grade to the contour of the slope. Cross-fall from the outside edge of the bank to the invert will be between 2% to 3%. Construction of the graded banks is to be programmed to ensure there is no breaching or trafficking over constructed banks.	Rehabilitation specialist reviewed this condition and verified compliance. Graded bank observed in completed rehabilitated area (sighted in previous audit). Rehabilitation is well stabilised.	Complies
7.1.1	These structures will most likely only be required when rehabilitating out of pit dumps with 1:6 slopes. Graded banks will generally be constructed at 50 m intervals down a slope i.e. the first graded bank will be constructed at 1% to the contour 50 m from the top of the slope, the second bank at 100 m, etc.	Rehabilitation specialist reviewed this condition and verified compliance. Graded bank observed in completed rehabilitated area (sighted in previous audit). Rehabilitation is well stabilised.	Complies
Rock Waterways			
7.1.1	Rock waterways are to be excavated following the completion of landform reshaping. Geo-textile will be laid and secured in the excavated structure followed by the placement of suitably sized rock. The base of all major rock waterways is to be constructed with a concave finish which allows for an average maximum cross fall to the centre line of 5%. Base width is measured on top of the rock floor of the waterway and not across the excavated earth base. The base width of all major waterways shall be 2 m.	This has not occurred during the current auditing period.	Not Triggered
7.1.1	Rock lined wo-boys will be constructed every 10 m along the rock water ways to act as energy dissipation structures. The crest of wo-boys will be concave rather than convex. This is to encourage flow to the centre of the waterway rather than to the outside where erosive forces may cause damage to the sides of the waterway.	This has not occurred during the current auditing period.	Not Triggered

Contour Ripping, Seeding and Fertilising			
7.1.1	Ripping, seeding and fertilizing will be undertaken following the placement of topsoil and construction of drainage structures on the reshaped final landform. Ripping will be carried out to a depth of 300 mm to 500 mm on the contour and undertaken with survey control. Full and continuous ripping is to be undertaken between surveyed rip lines. The maximum permissible distance between any two rip lines and or rip sets is 1.5 m. Mould boards or equivalent will be used in conjunction with ripping so that rip lines remain open for erosion control and to encourage infiltration of water.	Rehabilitation specialist reviewed this condition and verified compliance. Previously this practise was as described, there is currently some trialling of changes in rip depth and spacing to assist with the removal of rock from the final surface. Observed in the site inspection as rip marks in established and partially established rehab..	Complies
7.1.1	Seeding and fertilising should be undertaken contemporaneously with contour ripping.	This practice was observed to be used at site.	Complies
Enhancement and Conservation Areas			
Fencing			
7.2	The perimeter of the ECAs will be fenced to allow for the exclusion of livestock which will assist with natural regeneration in these areas.	As per site inspection	Complies
Weed and Animal Pest Control			
7.2	Weed and animal pest control will be implemented for the ECAs. Further information on weed and animal pest control is provided in Section 7.12.	As per site inspection and MOP review.	Complies
Selective Planting of Native Vegetation			
7.2	Selective planting of native vegetation will be undertaken to enlarge the WBYBBRG EEC remnants and to link existing remnant vegetation, if monitoring shows lack of revegetation progress. Areas will be revegetated with native species, especially those found in the Wilpinjong Coal Mine area such as E. blakelyi and Angophora floribunda.	No planting conducted yet as the monitoring of the regeneration of the vegetation has not reached any conclusion with regard to the need for supplementary plantings.	Not Triggered
7.2	Native vegetation will also be selectively planted along Wilpinjong and Cumbo Creeks where required. Further detail on creek rehabilitation is provided in Section 7.5.	No planting conducted yet as the monitoring of the regeneration of the vegetation has not reached any conclusion with regard to the need for supplementary plantings.	Not Triggered
7.2	Seed collection and propagation activities will contribute to revegetation associated with the ECAs (Section 7.10).	Currently use local nursery to grow endemic species which are planted across the site	Complies

Roosting/Nesting Resources			
7.2	Where practicable, habitat features (e.g. large hollows) would be salvaged during vegetation clearance activities and utilised in the rehabilitation areas, regeneration areas and ECAs (Section 7.11). In addition, artificial roosting/nesting boxes for fauna, particularly threatened fauna, may be used in the rehabilitation areas, regeneration areas and ECAs to provide short-term habitat resources.	large woody debris has been harvested and stockpiled though none has been reintroduced to rehab or ECA sites	Complies - Recommendation Made
Bushfire Management			
7.2	Bushfire management will be implemented for the ECAs. Further detail on bushfire management is provided in Section 7.14.	Bushfire management plan was sighted by the audit team during the site visit. Map shows locations of firebreaks and is provided to Rural Fire Services. Moolarben and Ulan have commissioned same consulting firm to create similar maps for consistency.	Complies
7.2	Details of the rehabilitation management measures undertaken within the ECAs will be reported in the Annual Review (Section 12).	AEMR March 2013 does not discuss bushfire management	Not Compliant
Protecting the ECAS			
7.3	WCPL will implement a range of management measures in order to protect the ECAs, including those listed below: - conserve and manage the land in the ECAs in accordance with the RMP; - exclude all stock grazing; - rezone the land in the ECAs for the purpose of protecting the land for conservation; and - exclude future open cut mining in the ECAs, unless, in the opinion of the Minister for Planning and Infrastructure, WCPL has demonstrated that there is a clear justification for this on social, economic and/or environmental grounds.	ECA Fence line inspection and audit plan reviewed by audit team. Disturbances have been stock proof fenced in 2008 with repairs conducted as required. A new security fence is to be installed in 2015 where it abuts the Wollar-Ulan road.	Complies
7.3	WCPL will provide the Federal Department of Sustainability, Environment, Water, Population and Communities (DSEWPoC) with a copy of the rezoning documents, once finalised.	ECA Fence line inspection and audit plan reviewed by audit team. Verified during audit interview.	Complies
Regeneration Areas			
7.4	As discussed in Section 5, regeneration areas will be established on WCPL-owned land, creating a corridor between the surrounding protected areas of Goulburn River National Park and Munghorn Gap Nature Reserve, the ECAs and rehabilitated woodlands. Approximately 350 ha of woodland vegetation will be established through natural regeneration and selective planting where required. The regeneration areas will also encompass the revegetation of riparian sections of Wilpinjong Creek and a relocated Cumbo Creek. Apart from property covered by grazing licences prior to March 2009, stock grazing and cultivation will be excluded on WCPL-owned land on the northern side of the Gulgong Sandy Hollow railway line to further assist with local regeneration of these areas.	As per MOP though not all lands were inspected during the site inspection. AEMR confirms these requirements. Revegetation occurred within 12 months of rehabilitated land becoming available. First parcel of land rehabilitation occurred in October 2008.	Complies

7.4	Regeneration areas were established following extensive consultation with the then DIPNR and DEC during development of the WCPL EIS. Regeneration areas will be established on cleared agricultural land. Agricultural land in the Wollar Ulan area is considered to be low value and low productivity grazing land.	Noted. Regeneration areas are as described.	Complies
7.4	Protection from browsing animals is essential for early development of regeneration areas. Stock must be excluded from regeneration areas as they will eat seedlings saplings and damage stems in the first 10 years of planting. Fencing of regeneration areas will assist with excluding stock and other problematic grazing animals. In summary, the steps to be undertaken to establish the Wilpinjong regeneration areas include:	ECA Fence line inspection and audit plan reviewed by audit team. Disturbances have been stock proof fenced in 2008 with repairs conducted as required. A new security fence is to be installed in 2015 where it abuts the Wollar-Ulan road.	Complies
7.4	Fencing to exclude stock and implement rabbit control measures. Stock should be excluded for an initial 10 year period to allow trees to establish to a stage where they are able to with stand the impacts of stock grazing	ECA Fence line inspection and audit plan reviewed by audit team. Disturbances have been stock proof fenced in 2008 with repairs conducted as required. A new security fence is to be installed in 2015 where it abuts the Wollar-Ulan road. Fencing was reviewed by the audit team during the site inspection. Rabbit baiting occurred during the audit period although the auditors noted that rabbit control was not effective. Rabbits observed to affect rehabilitation efforts.	Complies
7.4	Monitor regeneration areas to determine natural regeneration processes and to identify areas that may need assistance with the regeneration process	Annual Rehabilitation Review 2013	Complies
7.4	Undertake a tree planting and seeding program to assist with regeneration. Tree planting and seeding will be introduced where monitoring shows sluggish establishment of tree species	Monitoring has not advanced enough to trigger planting	Not Triggered
7.4	Continue to monitor regeneration areas with the aim of achieving a 30% canopy cover for the long term	Noted, long term objective.	Not Triggered
7.4	rezone the land in the regeneration areas for the purpose of protecting the land for conservation (similar to the arrangements for ECA areas) to the satisfaction of the Director General prior to the introduction of any agricultural activities in these areas.	Land not rezoned, VCA has been established which accomplishes the same end.	Complies
Creek Rehabilitation			
7.5	WCPL will implement several management measures in order to rehabilitate the creeks in the Wilpinjong Coal Mine area. As discussed in Section 7.1, the riparian zone of the permanent creek features formed within the rehabilitation areas will be revegetated where required. Revegetation will include the use of native flora species such as those listed in Attachment C. This will include the exclusion of stock as set out in Section 7.4 above.	ECA Fence line inspection and audit plan reviewed by audit team. Disturbances have been stock proof fenced in 2008 with repairs conducted as required. A new security fence is to be installed in 2015 where it abuts the Wollar-Ulan road. Auditors viewed revegetation during the audit and verified this condition during the audit interview.	Complies

7.5	The banks of Wilpinjong and Cumbo Creeks in the rehabilitation areas and regeneration areas will be revegetated to increase the quantity of riparian vegetation along these creeks.	Auditors viewed revegetation during the audit and verified this condition during the audit interview	Complies
7.5	A revegetation programme using appropriate native riparian species consistent with works in the upstream regeneration areas will be included in the Cumbo Creek Relocation Plan.	Auditors viewed revegetation during the audit and verified this condition during the audit interview	Complies
Vegetation Clearance Protocol			
7.6	A VCP will be implemented to minimise impacts on threatened flora and fauna (as listed under the TSC Act or EPBC Act) (Figure 7). The key components of the VCP are outlined below and include: - delineation of areas to be cleared of remnant vegetation; - pre-clearance surveys; - managing impacts on fauna; and - vegetation clearance procedures including restrictions on clearing times for fauna breeding seasons.	VCP viewed by audit team.	Complies
Delineation of Disturbance Areas			
7.6.1	This component involves the delineation of areas that are to be cleared of remnant vegetation. Vegetation adjoining the proposed clearance areas will be clearly marked to prevent accidental damage during vegetation clearance activities or Wilpinjong Coal Mine works.	As per site inspection	Complies
Pre-Clearance Surveys			
7.6.2	Trees containing features with the potential to provide resources for birds, bats and/or arboreal mammals are referred to as potential habitat trees and will be retained wherever practicable (i.e. when outside of the Wilpinjong Coal Mine disturbance area). Following the identification of potential habitat trees, preliminary and secondary habitat assessments will be undertaken to determine appropriate fauna management strategies.	Ground Disturbance Permit - example reviewed during audit	Complies
7.6.2	Habitat features such as large hollows identified during the pre-clearance surveys will be salvaged and relocated to existing areas of remnant vegetation or rehabilitation areas where practical.	large woody debris has been harvested and stockpiled though none has been reintroduced to rehab or ECA sites	Complies
7.6.2	In addition to the above, wombat burrows in the proposed disturbance area will be identified prior to disturbance. A visual inspection of all identified burrows will be undertaken to determine those burrows most likely to contain wombats. The visual inspection may involve raking the dirt at the entrance to each burrow and checking if wombat tracks, scratch marks or scats appear around the burrow over a period of a few days.	Certified personnel are responsible for this work, and complies with this condition. No wombats relocated in this audit period.	Complies
7.6.2	Any wombat burrows considered likely to contain wombats after visual inspection will be targeted during trapping (Section 7.6.3). The burrows with larger entrance holes will be particularly targeted during trapping because they are more likely to be occupied than smaller burrows (Triggs, 1996).	Certified personnel are responsible for this work, and complies with this condition. No wombats relocated in this audit period.	Complies
7.6.2	In the event that any threatened flora or fauna species are observed during the habitat assessment for the pre-clearance surveys, the TSMP (Section 7.7) will be initiated.	Documentation reviewed during audit	Complies

7.6.2	Weed infestations adjacent to or within the proposed disturbance area will be identified during pre-clearance surveys. The following weed control measures have been developed to minimise the potential for weed invasion and competition with native flora during the vegetation clearance activities. Weed control measures will include:	Ground Disturbance Permit - example reviewed during audit	Complies
7.6.2	identification of weed infestations adjacent to or within the proposed disturbance area during pre-clearance surveys;	Ground Disturbance Permit - example reviewed during audit	Complies
7.6.2	implementation of weed management measures such as mechanical removal and application of approved herbicides in authorised areas when conditions are favourable (i.e. when light winds and dry weather prevail); and	Is conducted, sighted in site inspection	Complies
7.6.2	follow-up inspections to assess the effectiveness of the weed management measures implemented and the requirement for any additional management measures.	The VCP contains this information	Complies
7.6.2	Following pre-clearance surveys and assessment of potential habitat trees, fauna management strategies (Section 7.6.3) will be implemented if necessary, or vegetation clearance procedures (Section 7.6.4) will commence.	Noted, not triggered	Not Triggered
Managing Impacts on Fauna			
7.6.3	Appropriate licences for the implementation of fauna management strategies will be obtained in consultation with the NSW Office of Environment and Heritage (OEH).	Licences sighted by audit team. Contractors licences.	Complies
Fauna Management Strategies			
7.6.3	The general fauna management strategies to be implemented during the life of the Wilpinjong Coal Mine will include:		
7.6.3	timing of vegetation clearance to avoid nesting/breeding activities. Clearing of identified habitat trees will only be undertaken at times when arboreal fauna and birds are unlikely to be raising young. Clearing of identified habitat trees will therefore be restricted to times between March and July inclusive; and	As per MOP , vegetation Clearing Protocol and Ground Disturbance permit process	Complies
7.6.3	when fauna (particularly bats) are identified in the habitat tree, the following will be utilised selectively to minimise the potential for injury to fauna: – fell surrounding non-habitat trees to encourage the colony/individuals in the habitat tree to move to an alternative location; – cause sufficient physical disturbance to the tree (i.e. shake tree with a dozer) to encourage fauna to relocate; – as gently as possible, fell the tree using an excavator and inspect on felling; – capture existing fauna for later release at a suitable time; – relocate the habitat feature to adjacent remnant vegetation; or – block the entrance to habitat features to prevent re-entry prior to felling.	As per MOP , vegetation Clearing Protocol and Ground Disturbance permit process	Complies
7.6.3	Specific fauna management strategies to minimise Wilpinjong Coal Mine impacts on the Common Wombat (Vombatus ursinus) will be implemented. The key components of these strategies, where practical, will include use of a deterrent, trapping, and sealing the burrow to prevent wombats from returning.	Specialist is responsible for this work, and complies with this condition. No wombats relocated in this audit period.	Not Triggered

7.6.3	The method of trapping to be implemented will be dependent on the number of burrows present at the time and the nature of the burrow. However, the most likely methods of trapping to be used are:	Specialist is responsible for this work, and complies with this condition. No wombats relocated in this audit period.	Not Triggered
7.6.3	Traps inserted into burrow entrances so that any wombats leaving the burrow are automatically trapped (Skerratt et al., 2004). These traps would be set for a period of no more than four nights and checked regularly. When a wombat is caught, it would be removed and the trap re-set. These methods would prevent the same wombat (or other wombats) from re-entering the burrow while the trap is in place.	Specialist is responsible for this work, and complies with this condition. No wombats relocated in this audit period.	Not Triggered
7.6.3	Large wire cage traps containing vegetarian bait placed near the entrance of the wombat burrow and left overnight.	Specialist is responsible for this work, and complies with this condition. No wombats relocated in this audit period.	Not Triggered
7.6.3	All captured wombats will be removed from the traps and released into proximal suitable habitat away from the disturbance area on WCPL-owned land.	Specialist is responsible for this work, and complies with this condition. No wombats relocated in this audit period.	Not Triggered
Vegetation Clearance Procedures			
7.6.4	Following implementation of the relevant fauna management strategies (Section 7.6.3), vegetation clearance will proceed in accordance with the following vegetation clearance procedures:	As per MOP , vegetation Clearing Protocol and Ground Disturbance permit process	Complies
7.6.4	Clear delineation of disturbance areas prior to clearance commencing in each area of works.	As per MOP , vegetation Clearing Protocol and Ground Disturbance permit process	Complies
7.6.4	In areas of significant earthworks, topsoil resources will be identified, stripped and stockpiled (Section 7.9).	As per MOP , vegetation Clearing Protocol and Ground Disturbance permit process	Complies
7.6.4	Trees may be examined for their provision of seed prior to vegetation clearance (Section 7.10).	As per MOP , vegetation Clearing Protocol and Ground Disturbance permit process	Complies
7.6.4	Habitat trees are to be felled as soon as practicable after a negative survey result.	As per MOP , vegetation Clearing Protocol and Ground Disturbance permit process	Complies
7.6.4	Those features identified for use in rehabilitation programs (e.g. hollow branches) are to be salvaged (Section 7.11).	As per MOP , vegetation Clearing Protocol and Ground Disturbance permit process	Complies

7.6.4	Collection of harvestable timber for commercial purposes. Where practicable, trees identified for clearing will be classified as suitable for firewood or commercial milling prior to clearing. This timber will then be salvaged for firewood or milled to optimise the use of this natural resource.	As per MOP , vegetation Clearing Protocol and Ground Disturbance permit process	Complies
7.6.4	Collection of viable seed from felled trees (Section 7.10).	As per MOP , vegetation Clearing Protocol and Ground Disturbance permit process	Complies
Threatened Species Management Protocol			
Site Observations/Surveys			
7.7.1	In the event a threatened species listed under the TSC Act or the EPBC Act is identified in the Wilpinjong Coal Mine area or immediate surrounds (for example, during the preliminary or secondary habitat assessments), the Threatened Species Management Strategies phase (Section 7.7.2) of the TSMP will be initiated.	No such threatened species have been identified in the area.	Not Triggered
Threatened Species Management Strategies			
7.7.2	Management strategies will include threat abatement measures, capture and release, relocation and provision of habitat resources. The management strategies will be determined on a case-by-case basis. Some examples of possible management strategies are provided below (Threat Abatement, Capture and Release and Relocation).	No such threatened species have been identified in the area. Threatened Species Management Plan is in place (sighted by audit team).	Complies
Visual Impacts			
7.8	Revegetation will be progressive, commencing soon after the completion of landform shaping. Visual impacts associated with unvegetated mine landforms is expected to progressively reduce once the vegetative cover begins to establish. Revegetation in woodland areas will utilise native tree/shrub species, as well as grasses, characteristic of the area for consistency of colour and visual texture such as those listed in Attachment C.	As per MOP and site inspection	Complies
Topsoil Management			
7.9	In areas of significant earthworks, topsoil and subsoil resources will be identified, stripped and, wherever practicable, spread directly onto areas prepared for rehabilitation to make use of the potential seed bank. Prior to soil stripping, soil resources will be quantified. Where a deficit of topsoil is identified, investigations will be undertaken to determine the viability of the use of subsoils and to identify the need for treatment measures (e.g. use of fertilisers) applied where there is a deficit of topsoil. Where direct spreading is not practicable, the stripped soil will be stockpiled and seeded with grasses to maintain soil viability prior to being re-spread (Table 8).	As per MOP and site inspection	Complies
7.9	Spoil areas will be reshaped following mining to construct a post mining landform. Appropriate drainage works will be constructed, topsoil applied and the areas will then be ripped and seeded using direct seeding techniques.	As per MOP and site inspection	Complies

7.9	WCPL will use measures to ameliorate mine waste rock/soil materials used in rehabilitation where necessary (e.g. the use of lime, gypsum and/or fertiliser to improve the chemical and/or nutrient properties of the soil).	As per MOP and site inspection	Complies
Seed Collection and Propagation			
7.10	Seed collection and propagation activities where practical, will contribute to revegetation associated with the rehabilitation of Wilpinjong Coal Mine disturbance areas. Seed collection and propagation activities will include:		
7.10	Examination of trees for their provision of seed prior to vegetation clearance.		
7.10	Collation of relevant information on target species (e.g. from past ecological studies, nurseries, local landholders, Landcare groups and/or members of the Aboriginal community).	Nursery in Wollar stores seed for WCPL.	Complies
7.10	Progressive collection of native seed from the local area to augment revegetation resources.	Nursery in Wollar stores seed for WCPL.	Complies
7.10	The use of collection methods such as the manual removal of plant cuttings and stripping of seed pods, fruiting cones or berries directly off the plant into collection bags for transfer to drying rooms.	Nursery in Wollar stores seed for WCPL.	Complies
7.10	Seed extraction methods such as sun drying, oven-baking, light firing, high heat drying rooms and/or water soaking.	Nursery in Wollar stores seed for WCPL.	Complies
7.10	The storage of seed in paper and/or calico bags in temperature controlled rooms.	Nursery in Wollar stores seed for WCPL.	Complies
7.10	The labelling of seed collection bags with the species collected, collection location, harvest date and dry weight details.	Nursery in Wollar stores seed for WCPL.	Complies
7.10	The maintenance of a seed inventory which will record the amount of seed collected, species type and treatment and propagation specifications.	Nursery in Wollar stores seed for WCPL.	Complies
Habitat Salvage			
7.11	Clearing operations will be managed to maximise the re-use of cleared vegetative material. Cleared vegetation will be re-used for a number of purposes including habitat for fauna and fence posts where practical. Habitat features such as logs, fallen limbs and hollows will be collected/salvaged where practicable to provide habitat features for fauna in rehabilitation areas, regeneration areas and ECAs.	As per MOP , vegetation Clearing Protocol and Ground Disturbance permit process	Complies
Weed and Feral Animal Control			
Weed Control			
7.12	A weed control program will be implemented to limit the spread and colonisation of noxious and environmental weeds on WCPL-owned land and will include:		
7.12	Regular inspections of WCPL-owned lands to identify areas requiring the implementation of weed management measures;	See above	Complies

7.12	The implementation of weed management measures including mechanical removal and application of approved herbicides in authorised areas when conditions are favourable (i.e. When light winds and dry weather prevail);	See above	Complies
7.12	Control of noxious weeds identified on WCPL-owned land in accordance with the relevant DTIRIS NSW control category and the relevant regional weed management plan;	See above	Complies
7.12	Follow-up inspections to assess the effectiveness of the weed management measures implemented and the requirement for any additional management measures;	See above	Complies
7.12	Minimisation of the potential for the establishment of new weeds on ECAs by minimising the transport of weed species to and from ECAs (e.g. limiting vehicle access and minimising stock access); and	See above	Complies
7.12	On-going consultation with relevant agencies such as DTIRIS NSW and/or the Mid-Western Regional Council regarding weed occurrence and management technologies.	CCC Minutes and evidence of MWRC weeds offices visit sighted.	Complies
7.12	In addition, WCPL personnel and contractors will be requested as part of the site induction process to report any observations of noxious and environmental weeds.	sighted during site inspection.	Complies
7.12	In regard to weed management measures, physical removal and chemical application are the main weed control methods available. However, the implementation of measures that favour the restoration of healthy native vegetation is also considered an effective method of weed management.	Weed spraying records sighted (Castle Rock and Cumbo Shed report, 06/06/2014).	Complies
7.12	Chemicals to be used in the chemical control of weed species will be evaluated with their Material Safety Data Sheet and chemical label to determine their registration for control of target species and the handling and safety requirements prior to spraying.	SDS database sighted. Weed control reports sighted.	Complies
Feral Animal Control			
7.12	A feral animal control program will be implemented to control the occurrence of animal pests. The feral animal control program will include the following:	Verified on site and in AEMRs	Complies
7.12	Implementation of pest control measures (e.g. the destruction of rabbit burrows, feral cat trapping and baiting of foxes and wild dogs);	Verified on site and in AEMRs	Complies

7.12	Maintenance of a clean, rubbish-free environment, particularly around administration and contractor areas in order to discourage scavenging and reduce the potential for colonisation of these areas by non-endemic fauna (e.g. rodents);	Verified on site and in AEMRs	Complies
7.12	Mandatory pest control for any declared pests (i.e. rabbits, pigs and wild dogs) known to occur on WCPL-owned land;	Verified on site and in AEMRs	Complies
7.12	No domestic pets such as cats or dogs will be permitted to be brought onto the site; and	Verified on site and in AEMRs	Complies
7.12	Pest control in accordance with any Pest Control Orders issued under the Rural Lands Protection Act, 1998.	Verified on site and in AEMRs	Not Triggered
7.12	In addition to the above, WCPL personnel and contractors will be requested as part of the site induction process to report any observations of animal pests.	verified during site inspection.	Complies
Restrictions on Area Access			
7.13	Damage by vehicles can result in the compaction of soil (which can reduce the infiltration of water into the soil and restrict root growth, and consequently reduce natural regeneration), the spread of weeds and disturbance to vegetation. In order to reduce the degree of disturbance to the rehabilitation areas and ECAs, these areas will be fenced and signposted to limit access to authorised personnel only. Authorisation for vehicular entry into the ECAs will be determined by the Environmental Advisor at the time of request.	No Go areas noted during site inspection	Complies
Bushfire Management			
7.14	Bushfire prevention and control measures implemented on WCPL-owned land will include:		
7.14	The training of WCPL employees and contractors in general fire awareness and response procedures.	as above	Complies
7.14	The provision and maintenance of on-site fire fighting equipment.	as above	Complies
7.14	Appropriate management of dangerous goods.	Site inspection. Blasting materials in the magazine are stored appropriately with dangerous goods licence and diesel storage. Radiation material is stored appropriately.	Complies

7.14	Regular inspections of WCPL-owned land to assess the adequacy of the fire control measures and to identify areas requiring bushfire control measures to be implemented.	Bushfire Management Plan verifies compliance.	Complies
7.14	Fuel management by means other than burning such as grazing and slashing.	Bushfire Management Plan verifies compliance.	Complies
7.14	Fuel management by burning where conventional fuel management strategies are inappropriate, impracticable or not successful (undertaken in consultation with relevant authorities and with relevant permits).	Bushfire Management Plan verifies compliance.	Complies
7.14	Maintenance of designated firebreaks (which can act as control lines for low-intensity fires, and assist with safer access and egress for high-intensity fires, as well as providing for a defence line for back burnings) by a combination of slashing, grading or spraying.	Bushfire Management Plan verifies compliance.	Complies
7.14	On-going consultation with the NSW Rural Fire Service.	Sighted.	Complies
7.14	In the event that bushfire management requires the clearance of vegetation (e.g. for firebreaks), the VCP will be implemented (Section 7.6).	Bushfire Management Plan	Complies
Aboriginal Community Consultation			
7.15	Meetings of the Cultural Heritage Liaison Sub-committee (CHLSC) will be held to discuss Wilpinjong Coal Mine activities that pertain to matters of Aboriginal cultural heritage management. Members of the Aboriginal community will be encouraged to raise any concerns regarding the rehabilitation of the mine and any potential effects rehabilitation has on Aboriginal cultural heritage.	Minutes from meetings sighted by audit team.	Complies
Rehabilitation Monitoring Program			
8	Rehabilitation performance will be monitored to ensure vegetation is establishing and to determine the need for any maintenance and/or contingency measures.	Rehabilitation Review Report 2013 verifies compliance.	Complies
8	In the event that a threatened species listed under the TSC Act or EPBC Act is identified in the mine area or immediate surrounds during the implementation of the Rehabilitation Monitoring Program, the Threatened Species Management Strategies phase of the TSMP will be initiated (Section 7.7.2).	Rehabilitation Review Report 2013 verifies compliance.	Complies
Monitoring of Rehabilitation, ECA and Regeneration Areas			
Visual Monitoring			
8.1.1	Visual monitoring of revegetation will be conducted as part of other routine environmental activities to ensure vegetation is establishing and to determine the need for any maintenance and/or contingency measures (such as the requirement for supplementary plantings, erosion control and weed and animal pest control). Visual assessments allow for the rapid application of remedial actions where necessary.	regular inspections are conducted of revegetation areas (audit interview).	Complies

Flora and Soil Surveys for Rehabilitation Areas, ECA and Regeneration Areas			
8.1.2	A series of monitoring locations have been set up in the ECAs to monitor regeneration of vegetation in September 2007 (Attachment E). A similar program was established in the first rehabilitation areas on the Wilpinjong Coal Mine site in September 2009 following commencement of rehabilitation work in October 2008. Regeneration monitoring sites will be established in the final quarter of 2010.	Reviewed in previous IEA.	Not Triggered
8.1.2	Reference sites in the undisturbed woodland will be also be established in the final quarter of 2010 to develop suitable completion criteria against which rehabilitation/regeneration performance can be assessed.	Reviewed in previous IEA.	Not Triggered
8.1.2	Sites will be monitored annually to record changes in vegetation progress. At each site a 50 m transect is established and the following measurements carried out: - tree and shrub density; - tree height; - tree species and health rating; - groundcover; - biomass; - species composition; and - rating soil erosion.	ECA and Flora Rehabilitation Monitoring report confirms this condition	Complies
8.12	Trees and shrubs are counted and identified within a 3 m band along each transect and height and health assessed. Measurements of groundcover, biomass and species composition are also taken in a 0.25 square metre (m2) quadrat placed at 5 m intervals along the transect. The tree health rating ranges from 0 (dead) to 5 (live, healthy, well-structured woody plant). A photograph is taken along each transect as a long term visual record of vegetation performance.	ECA and Flora Rehabilitation Monitoring report confirms this condition	Complies
8.12	An estimate of erosion is also made at 5 m intervals along each transect, with ratings of 0 (no erosion), 1 (erosion rills < 0.1 m), 2 (erosion rills > 0.1 m), 3 (erosion gullies > 0.2 m deep), 4 (erosion gullies > 0.3 m deep) and 5 (erosion gullies > 0.5 m deep).	Annual Report verifies compliant, verified during audit interview.	Complies

8.12	The parameters, methodology and units of measures used during flora sampling are outlined in Table 9. <table><tr><th colspan="3">Table 9 Parameters, Methodology and Units of Measure for Vegetation Monitoring</th></tr><tr><th>Parameter</th><th>Survey Method</th><th>Units of Measure</th></tr><tr><td>Flora species diversity</td><td> - Each transect will be systematically monitored to compile a list of vascular plant species (i.e. trees, shrubs, grasses and herbs) observed. </td><td> - Total number of flora species. - Number and percent of native flora species. - Number and percent of introduced flora species. </td></tr><tr><td>Cover</td><td> - A count will be made of the number of individuals of each tree and shrub species on each transect. - Groundcover percentage is rated along the transect. </td><td> - Total number of each tree species. - Total number of each shrub species. - Groundcover percentage for each species. </td></tr><tr><td>Vegetation height</td><td> - The height of each tree or shrub is recorded. </td><td> - Height of woody species. </td></tr><tr><td>Vegetation progress</td><td> - Photographs along each transect are taken as a visual record of long term changes in vegetation performance. </td><td> - At least 1 photo of each transect. </td></tr></table>	Table 9 Parameters, Methodology and Units of Measure for Vegetation Monitoring			Parameter	Survey Method	Units of Measure	Flora species diversity	Each transect will be systematically monitored to compile a list of vascular plant species (i.e. trees, shrubs, grasses and herbs) observed.	- Total number of flora species. - Number and percent of native flora species. - Number and percent of introduced flora species.	Cover	- A count will be made of the number of individuals of each tree and shrub species on each transect. - Groundcover percentage is rated along the transect.	- Total number of each tree species. - Total number of each shrub species. - Groundcover percentage for each species.	Vegetation height	The height of each tree or shrub is recorded.	Height of woody species.	Vegetation progress	Photographs along each transect are taken as a visual record of long term changes in vegetation performance.	At least 1 photo of each transect.	This methodology was confirmed as per annual ecology report.	Complies
Table 9 Parameters, Methodology and Units of Measure for Vegetation Monitoring																					
Parameter	Survey Method	Units of Measure																			
Flora species diversity	Each transect will be systematically monitored to compile a list of vascular plant species (i.e. trees, shrubs, grasses and herbs) observed.	- Total number of flora species. - Number and percent of native flora species. - Number and percent of introduced flora species.																			
Cover	- A count will be made of the number of individuals of each tree and shrub species on each transect. - Groundcover percentage is rated along the transect.	- Total number of each tree species. - Total number of each shrub species. - Groundcover percentage for each species.																			
Vegetation height	The height of each tree or shrub is recorded.	Height of woody species.																			
Vegetation progress	Photographs along each transect are taken as a visual record of long term changes in vegetation performance.	At least 1 photo of each transect.																			
Geochemical Monitoring																					
8.1.3	Rehabilitated spoil areas will be monitored for spoil pH, electrical conductivity (EC) and major cations to determine whether the vegetation substrate is approaching conditions similar to those found in the reference sites. These data will be used to identify potential spoil deficiencies over time and assist with the development of maintenance programs if under-performing areas are identified during visual and other monitoring. This will also assist with determining/demonstrating whether the spoil is suitable as a long term substrate for sustainable rehabilitation.	Soil testing was conducted during the audit period, AEMRs and audit interview confirm compliance.	Complies																		
8.1.3	Spoil samples will be taken to a minimum depth of 300 mm and samples taken from the 0 mm – 100 mm, 100 – 200 mm intervals and 200 – 300 mm. The samples will be taken at 10 m intervals along the monitoring transect described in Section 8.1.2 and sampled every three years.	Soil testing was conducted during the audit period, AEMRs and audit interview confirm compliance.	Complies																		
Terrestrial Fauna Surveys																					
8.1.4	Terrestrial fauna surveys will be conducted to sample fauna species diversity and abundance in the rehabilitation areas, ECAs and regeneration areas. Systematic survey sites will be established to monitor amphibians, reptiles, birds and mammals. At least one survey site will be established in each major habitat type present within each ECA where practical (Figure 5), viz.: - creek line and riparian habitats; - woodland/open forest; and - predominantly cleared land previously used for grazing.	The development of the Biodiversity Management Plan (BMP) will trigger reviews of WCPL existing terrestrial fauna surveys, vegetation surveys, weeds and feral animal control programs (AEMR 2013). The BMP was awaiting approval by the DG during the time of this audit. Existing terrestrial surveys were sighted by the audit team.	Complies																		

8.1.4	Corresponding survey sites will also be established in areas of equivalent habitat type adjacent to the rehabilitation areas, ECAs and regeneration areas to provide analogue sites. These analogue sites will provide comparative data so that the long term progress of the ECAs can be determined.	The development of the Biodiversity Management Plan (BMP) will trigger reviews of WCPL existing terrestrial fauna surveys, vegetation surveys, weeds and feral animal control programs (AEMR 2013). The BMP was awaiting approval by the DG during the time of this audit. Existing terrestrial surveys were sighted by the audit team.	Complies																										
8.1.4	The above terrestrial fauna surveys will be undertaken approximately every five years commencing five years after Project Approval. The terrestrial fauna survey methods that may be used for the flora surveys are outlined in Table 10. Table 10 Overview of Fauna Survey Methods <table><tr><th>Survey Technique</th><th>Description</th></tr><tr><td>Elliott Trapping</td><td>Small and large Elliott traps will be baited with a mixture of peanut butter and oatmeal (or similar mix) and placed at regular intervals along a transect at the survey site. In addition, small Elliott traps will be baited and mounted on trees to sample small arboreal mammals.</td></tr><tr><td>Cage Traps</td><td>Cage traps will be utilised to target medium sized terrestrial and arboreal mammals. The cage traps will be baited with a combination of vegetarian and meat baits.</td></tr><tr><td>Hair Tubes</td><td>Small and large hair tubes will be baited with a combination of vegetarian and meat baits and placed in pairs at regular intervals on the ground. In addition, large hair tubes will be baited with a combination of vegetarian and meat baits and placed in trees to survey arboreal mammals.</td></tr><tr><td>Pitfall Traps</td><td>Pitfall traps with drift fences (at least 5 m either side of each trap) will be established at the survey site.</td></tr><tr><td>Spotlighting</td><td>Spotlighting will involve two observers traversing each sampling site and immediate surrounds on foot.</td></tr><tr><td>Anabat Detection</td><td>Anabat™ echolocation call detector systems, each controlled by a call-activated switching device will be utilised to survey bat fauna. This will allow automatic operation of each detector from dusk to dawn.</td></tr><tr><td>Herpetological Searches</td><td>Systematic searches will be conducted for reptiles and amphibians. Active searching will be conducted of potential sites such as logs, leaf litter, flaking bark and rocks.</td></tr><tr><td>Bird Surveys</td><td>Diurnal bird censuses will be undertaken within each survey site on two separate days. The census will survey avifauna species diversity, abundance and behaviour (e.g. breeding/nesting activities). The abundance data obtained for each species by the surveys will enable an estimate to be made of the size of the population.</td></tr><tr><td>Call Broadcasting</td><td>Standard call playback procedures will be utilised for a range of vertebrate fauna species.</td></tr><tr><td>Opportunistic Observations</td><td>Opportunistic observations for vertebrate fauna, including scats and tracks, will be noted during the survey.</td></tr><tr><td>Tracks and Traces</td><td>Searches for tracks and traces (e.g. animal droppings, diggings and scratch marks) will be combined with other activities during the survey.</td></tr><tr><td>Estimation of Relative Abundance</td><td>The number of individuals observed/captured will be recorded during the survey, from which an estimate of the relative abundance of each species will be made.</td></tr></table>	Survey Technique	Description	Elliott Trapping	Small and large Elliott traps will be baited with a mixture of peanut butter and oatmeal (or similar mix) and placed at regular intervals along a transect at the survey site. 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This will allow automatic operation of each detector from dusk to dawn.	Herpetological Searches	Systematic searches will be conducted for reptiles and amphibians. Active searching will be conducted of potential sites such as logs, leaf litter, flaking bark and rocks.	Bird Surveys	Diurnal bird censuses will be undertaken within each survey site on two separate days. The census will survey avifauna species diversity, abundance and behaviour (e.g. breeding/nesting activities). The abundance data obtained for each species by the surveys will enable an estimate to be made of the size of the population.	Call Broadcasting	Standard call playback procedures will be utilised for a range of vertebrate fauna species.	Opportunistic Observations	Opportunistic observations for vertebrate fauna, including scats and tracks, will be noted during the survey.	Tracks and Traces	Searches for tracks and traces (e.g. animal droppings, diggings and scratch marks) will be combined with other activities during the survey.	Estimation of Relative Abundance	The number of individuals observed/captured will be recorded during the survey, from which an estimate of the relative abundance of each species will be made.	The development of the Biodiversity Management Plan (BMP) will trigger reviews of WCPL existing terrestrial fauna surveys, vegetation surveys, weeds and feral animal control programs (AEMR 2013). The BMP was awaiting approval by the DG during the time of this audit. Existing terrestrial surveys were sighted by the audit team.	Complies
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Estimation of Relative Abundance	The number of individuals observed/captured will be recorded during the survey, from which an estimate of the relative abundance of each species will be made.																												

Monitoring for Specific Enhancement Initiatives															
8.1.5	The enhancement strategies for the ECAs (Section 7.2) will be visually monitored for their effectiveness. These enhancement strategies include fencing, selective planting, weed and pest control, and the provision of nesting/roosting boxes where necessary.	inspection reports sighted. Fencing maintained and report on in AEMR.	Complies												
Completion Criteria															
9	Completion criteria would be used to evidence achievement of the objectives of the rehabilitation areas, regeneration areas and the ECAs.	As the Wilpinjong mine is not near to closure yet, these completion criteria are not able to be assessed yet. Verified in Mining Operations Plan	Complies												
	Key completion criteria for Wilpinjong Coal Mine components are proposed in Table 11. The quantitative criteria outlined in Table 12 are tentative in 2010, and will be verified following monitoring and analysis of the analogue sites between 2010 and 2012. Analogue sites will be established in the final quarter of 2010. Table 11 Key Completion Criteria for Wilpinjong Coal Mine Components <table><tr><th>Mine Component</th><th>Key Completion Criteria</th></tr><tr><td>Rehabilitation Areas</td><td> - Woodland/riparian areas on trajectory toward self-sustaining ecosystem. - Woodland/riparian areas contain flora species characteristic of native vegetation communities. </td></tr><tr><td>Regeneration Areas</td><td> - Woodland/riparian areas on trajectory toward self-sustaining ecosystem. - Woodland/riparian areas contain flora species characteristic of native vegetation communities. </td></tr><tr><td>Enhancement and Conservation Areas – Enhancement of existing remnant vegetation (including the WBYBBRG EEC*).</td><td> - Habitats available to flora and fauna are enhanced/improved. </td></tr><tr><td>– Establishment of woodland vegetation (excluding the WBYBBRG EEC).</td><td> - Woodland (including riparian areas) on trajectory toward self-sustaining ecosystem. - Woodland (including riparian areas) contain flora species characteristic of native vegetation communities. </td></tr><tr><td>– Establishment of the WBYBBRG EEC.</td><td> - EEC establishment areas on trajectory toward self-sustaining ecosystem. </td></tr></table> * White Box, Yellow Box and Blakey's Red Gum Woodland Endangered Ecological Community.	Mine Component	Key Completion Criteria	Rehabilitation Areas	- Woodland/riparian areas on trajectory toward self-sustaining ecosystem. - Woodland/riparian areas contain flora species characteristic of native vegetation communities.	Regeneration Areas	- Woodland/riparian areas on trajectory toward self-sustaining ecosystem. - Woodland/riparian areas contain flora species characteristic of native vegetation communities.	Enhancement and Conservation Areas – Enhancement of existing remnant vegetation (including the WBYBBRG EEC*).	Habitats available to flora and fauna are enhanced/improved.	– Establishment of woodland vegetation (excluding the WBYBBRG EEC).	- Woodland (including riparian areas) on trajectory toward self-sustaining ecosystem. - Woodland (including riparian areas) contain flora species characteristic of native vegetation communities.	– Establishment of the WBYBBRG EEC.	EEC establishment areas on trajectory toward self-sustaining ecosystem.	As the Wilpinjong mine is not near to closure yet, these completion criteria are not able to be assessed yet.	
Mine Component	Key Completion Criteria														
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Table 12
Quantitative Completion Criteria for Wilpinjong Coal Mine Components

Mine Component	Quantitative Completion Criteria		
	Year 1	Year 5	Year 15
Rehabilitation Areas	- Groundcover > 60% - Groundcover species > 3 - Stem density of woody plants > 3000 stems/ha - Woody plant diversity > 3 upper storey species and > 3 under storey species	- Groundcover > 60% - Groundcover species > 3 - Stem density of woody plants > 1000 stems/ha - Woody plant diversity > 3 upper storey species and > 3 under storey species - Erosion less than score 3	- Groundcover > 60% - Groundcover species > 3 - Stem density of woody plants > 800 stems/ha or similar to that in analogue site - Woody plant diversity > 3 upper storey species and > 3 under storey species - Natural regeneration woody species > 10 stem/ha - Erosion less than score 3 - Soil chemistry parameters similar to those on analogue sites
Regeneration Areas	- Groundcover > 60% - Groundcover species > 3 - Stem density of woody plants > 1000 stems/ha - Woody plant diversity > 3 upper storey species and > 3 under storey species	- Groundcover > 60% - Groundcover species > 3 - Stem density of woody plants > 1000 stems/ha - Woody plant diversity > 3 upper storey species and > 3 under storey species	- Groundcover > 60% - Groundcover species > 3 - Stem density of woody plants > 800 stems/ha or similar to that in analogue site - Woody plant diversity > 3 upper storey species and > 3 under storey species - Natural regeneration woody species > 10 stem/ha - Similar species occurrence to adjacent reference sites
Enhancement and Conservation Areas -Enhancement of existing remnant vegetation (including the WBYBBRG EEC).	- Groundcover > 60% - Groundcover species > 4 - Stem density of woody plants > 500 stems/ha - Woody plant diversity > 3 upper storey species and > 3 under storey species	- Groundcover > 60% - Groundcover species > 4 - Stem density of woody plants > 500 stems/ha - Woody plant diversity > 3 upper storey species and > 3 under storey species	- Groundcover > 60% - Groundcover species > 4 - Stem density of woody plants > 800 stems/ha - Woody plant diversity > 3 upper storey species and > 3 under storey species - Natural regeneration woody species > 10 stem/ha - Similar species occurrence to adjacent reference sites
- Establishment of woodland vegetation (excluding the WBYBBRG EEC).	- Groundcover > 60% - Groundcover species > 3 - Stem density of woody plants > 500 stems/ha - Woody plant diversity > 3 upper storey species and > 3 under storey species	- Groundcover > 60% - Groundcover species > 3 - Stem density of woody plants > 500 stems/ha - Woody plant diversity > 3 upper storey species and > 3 under storey species	- Groundcover > 60% - Groundcover species > 3 - Stem density of woody plants > 800 stems/ha - Woody plant diversity > 3 upper storey species and > 3 under storey species - Natural regeneration woody species > 10 stem/ha - Similar species occurrence to adjacent reference sites

Not Triggered

Table 12 (Continued)
Quantitative Completion Criteria for Wilpinjong Coal Mine Components

Mine Component	Quantitative Completion Criteria		
	Year 1	Year 5	Year 15
Enhancement and Conservation Areas (Continued) – Establishment of the WBYBBRG EEC.	• Groundcover > 60% • Groundcover species > 4 • Stem density of woody plants > 500 stems/ha • Woody plant diversity > 3 upper storey species and > 3 under storey species	• Groundcover > 60% • Groundcover species > 4 • Stem density of woody plants > 500 stems/ha • Woody plant diversity > 3 upper storey species and > 3 under storey species	• Groundcover > 60% • Groundcover species > 4 • Stem density of woody plants > 800 stems/ha • Woody plant diversity > 3 upper storey species and > 3 under storey species • Natural regeneration woody species > 10 stem/ha • Similar species occurrence to adjacent reference sites

Contingency Plan

10	In the event that completion criteria detailed in Section 9 are not being achieved, WCPL will implement the following Contingency Plan:	Outlined in the WCPL Mining Operations Plan however as the Wilpinjong mine is not near to closure yet, these completion criteria are not able to be assessed yet.	Not Triggered
10	Completion criteria that are not being achieved will be reported to the Peabody Environment and Community Manager and/or the Peabody Environmental Advisor within 24 hours of assessment completion.	Outlined in the WCPL Mining Operations Plan however as the Wilpinjong mine is not near to closure yet, these completion criteria are not able to be assessed yet.	Not Triggered
10	The Peabody Environment and Community Manager or the Peabody Environmental Advisor will report any completion criteria that are not being achieved to the General Manager as soon as practicable after becoming aware of the assessment results.	Outlined in the WCPL Mining Operations Plan however as the Wilpinjong mine is not near to closure yet, these completion criteria are not able to be assessed yet.	Not Triggered
10	WCPL will report the performance of rehabilitation/regeneration in relation to the completion criteria in the Annual Review and the MOP to DTIRIS NSW and DP&I (Section 12), including any completion criteria that are not being achieved.	Outlined in the WCPL Mining Operations Plan however as the Wilpinjong mine is not near to closure yet, these completion criteria are not able to be assessed yet.	Not Triggered
10	WCPL will identify an appropriate course of action with respect to achieving the identified completion criteria, in consultation with specialists and DTIRIS NSW, as necessary. For example: – proposed contingency measures; and – a program to review the effectiveness of the contingency measures.	Outlined in the WCPL Mining Operations Plan however as the Wilpinjong mine is not near to closure yet, these completion criteria are not able to be assessed yet.	Not Triggered

10	Contingency measures will be developed in consideration of the specific circumstances of the rehabilitation/regeneration area and the assessment of environmental consequences. Potential contingency measures include the management measures described in Section 10.1 of this RMP.	Outlined in the WCPL Mining Operations Plan however as the Wilpinjong mine is not near to closure yet, these completion criteria are not able to be assessed yet.	Not Triggered
10	WCPL will submit the proposed course of action and the program to review the effectiveness of the contingency measures to DTIRIS NSW and DP&I in the Annual Review and the MOP for approval.	Outlined in the WCPL Mining Operations Plan however as the Wilpinjong mine is not near to closure yet, these completion criteria are not able to be assessed yet.	Not Triggered
10	WCPL will implement the approved course of action to the satisfaction of the DTIRIS NSW and DP&I.	Outlined in the WCPL Mining Operations Plan however as the Wilpinjong mine is not near to closure yet, these completion criteria are not able to be assessed yet.	Not Triggered
Potential Contingency Measures			
10.1	Potential contingency measures will be reviewed during revisions of this RMP.	As per MOP Section 16	Complies
Annual Review and Improvement of Environmental Performance			
12	In accordance with Condition 3, Schedule 5 of the Project Approval, WCPL will conduct an Annual Review of the environmental performance of the Project by the end of December 2011, and annually thereafter.	Annual Rehabilitation Review -2013 and AEMR	Complies
12	The Annual Review will specifically address the performance of the RMP and will:	not triggered during audit period.	Not Triggered
12	describe the works carried out in the past year, and the works proposed to be carried out over the next year;	verified in audit interview and AEMRs.	Complies

12	include a comprehensive review of the monitoring results and complaints records for the Wilpinjong Coal Mine over the past year, including a comparison of these results against the: - relevant statutory requirements, limits or performance measures/criteria; - monitoring results of previous years; and - relevant predictions in the EA;	verified in audit interview and AEMRs.	Complies
12	identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;	verified in audit interview and AEMRs.	Complies
12	identify any trends in the monitoring data over the life of the Wilpinjong Coal Mine;	verified in audit interview and AEMRs.	Complies
12	identify any discrepancies between the predicted and actual impacts of the Wilpinjong Coal Mine, and analyse the potential cause of any significant discrepancies; and	verified in audit interview and AEMRs.	Complies
12	describe what measures will be implemented over the next year to improve the environmental performance of the Wilpinjong Coal Mine.	verified in audit interview and AEMRs.	Complies

Reference	Requirement	Audit Finding									
Wilpinjong Coal Project Blast Management Plan (Wilpinjong Coal Pty Limited, September 2011)											
3. Statutory Requirements											
Licences, Permits and Leases											
3.2	In addition to the Project Approval, all activities at or in association with the Wilpinjong Coal Mine will be conducted in accordance with the following licences, permits and leases which have been issued or are pending issue. • The conditions of Mining Lease 1573 issued by the NSW Minister for Mineral Resources, under the NSW Mining Act, 1992. • The current Mining Operations Plan approved by Department of Trade, Investment, Regional Infrastructure and Service NSW (DTIRIS NSW). • The conditions of Environment Protection Licence (EPL) No. 12425 issued by the NSW Office of Environment and Heritage (OEH) under the NSW Protection of the Environment Operations Act, 1997. • Water extraction licences issued by the NSW Office of Water under the NSW Water Act, 1912. • Mining and occupational health and safety related approvals granted by DTIRIS NSW and WorkCover NSW.	Noted	Noted								
5. Blast Criteria and Performance Indicators											
Other Blast Criteria											
5.2	In the absence of Project Approval criteria for surrounding infrastructure and Aboriginal cultural heritage sites, appropriate alternative impact assessment criteria have been sourced. The damage criteria adopted in accordance with AS 2187.2-2006 is 10 mm/s for all dwellings. Damage criteria for public infrastructure are summarised in Table 2. Table 2 Peak Particle Velocity Damage Criteria – Public Infrastructure <table><tr><th>Infrastructure</th><th>Peak Particle Vibration Limit (mm/s)</th></tr><tr><td>Concrete power poles¹</td><td>50</td></tr><tr><td>Railway culverts/bridges²</td><td>80</td></tr><tr><td>Railway lines³</td><td>200</td></tr></table> ¹ Criteria adopted from other Hunter Valley coal mines. ² Blast design vibration damage control limit (Heggles Australia, 2006a). ³ Blast design vibration damage control limit (Heggles Australia, 2006b).	Infrastructure	Peak Particle Vibration Limit (mm/s)	Concrete power poles ¹	50	Railway culverts/bridges ²	80	Railway lines ³	200	Sites are monitored for all blasts. Data feeds back into a live online system through Terrock. Interviews with blast management personnel onsite confirmed that these criteria are still followed. Auditors viewed relevant blasting data onsite.	Complies
Infrastructure	Peak Particle Vibration Limit (mm/s)										
Concrete power poles ¹	50										
Railway culverts/bridges ²	80										
Railway lines ³	200										

Reference	Requirement		Audit Finding														
5.2	There are no regulatory criteria nominated in Australia for the assessment of damage to archaeological/geological structures from vibration. The results of research by the US Army Corp of Engineers indicated that intermittent rock fall or observable damage did not occur until vibration levels exceeded 460 mm/s. The German Standard DIN 4150-3 includes a vibration velocity guideline of 80 mm/s for evaluating the effects of “short-term” vibration on buried clay and concrete pipework. The application of this criterion to geological structures is considered conservative and introduces a five-fold safety factor by comparison to the observed damage value of 460 mm/s (as described above).	Site 152 and 153 are permanently monitored. Blast data is maintained using the Terok online system.	Noted														
5.2	There are no regulatory criteria nominated in Australia for the assessment of damage to roadways or concrete pavements. Research by Heggies (2010) indicated that the adoption of roadway/pavement damage criterion of 125 mm/s would be very conservative.	This was noted however the audit did not require a finding to be made on this point.	Noted														
5.2	The above criteria will be considered for the monitoring and reporting of blast activities carried out at the Wilpinjong Coal Mine.	Interviews with blast management personnel onsite confirmed that these criteria are still followed. Auditors viewed relevant blasting data onsite	Noted														
Blast Performance Indicators																	
5.3.1	The blast monitoring program (Section 7) will include blast performance indicators which will be used to guide operations at the Wilpinjong Coal Mine to prevent exceedances of Project Approval blast impact assessment criteria (Section 5.1.1). The blast performance indicators will be set at 110 dB(Lin Peak) and 3 mm/s for airblast overpressure and ground vibration monitoring respectively at all residences on privately-owned land. Where blast monitoring is conducted near public infrastructure listed in Table 2, dwellings, roadways or concrete pavement, archaeological structures, the performance indicators will be as described in Table 3. Table 3 Public Infrastructure Blast Performance Indicators <table><tr><th>Infrastructure</th><th>Blast Performance Indicator (mm/s)</th></tr><tr><td>Dwellings</td><td>10</td></tr><tr><td>Concrete power poles</td><td>50</td></tr><tr><td>Railway culverts/bridges</td><td>80</td></tr><tr><td>Railway lines</td><td>200</td></tr><tr><td>Archaeological structures</td><td>460</td></tr><tr><td>Roadways or concrete pavement</td><td>125</td></tr></table>	Infrastructure	Blast Performance Indicator (mm/s)	Dwellings	10	Concrete power poles	50	Railway culverts/bridges	80	Railway lines	200	Archaeological structures	460	Roadways or concrete pavement	125	Interviews with blast management personnel onsite confirmed that these criteria are still followed. Auditors viewed relevant blasting data onsite. The railway culverts and bridges criterion has been changed to 100 in the new version of the plan (2014 version).	Noted
Infrastructure	Blast Performance Indicator (mm/s)																
Dwellings	10																
Concrete power poles	50																
Railway culverts/bridges	80																
Railway lines	200																
Archaeological structures	460																
Roadways or concrete pavement	125																

Reference	Requirement		Audit Finding
Operating Conditions			
5.3.2	WCPL will review operational compliance with Conditions 13 and 14, Schedule 3 of the Project Approval during mining operations.	WCPL maintains a register of people who receive phone calls before blasting. A blasting hotline is also maintained (AEMRs 2012 and 2013). The Wilpinjong Coal Mine Blast Management Plan was updated during the reporting period and is currently with DP&E for approvals. The auditors note that the BMP fulfils these requirements. The new Fume Management Strategy was also prepared during the audit period and is with DP&E for final approval (as part of requirements for Mod 5). During the site visit the auditors also viewed correspondence and comments from DP&E on the progress of the new Blast Management Plan and Fume Management Strategy, evidencing the satisfaction of the DP&E. WCPL maintain the Wilpinjong Coal Webpage with up to date information regarding planned blasts. No new deeds have been required to be entered into during the current audit period. Letters were sighted by the audit team during the site visit to Mid Western Regional Council and the ARTC (dated 26 May 2006) advising that such blasting will occur, seeking blanket approval for such blasting, and advising that WCPL will provide notification of each relevant blast.	Complies
7. Blast Monitoring Program			
General Requirements			
7.1	A blast monitoring program has been developed for the Wilpinjong Coal Mine, which includes monitoring of airblast overpressure and ground vibration for all blasts at privately-owned residences within 3 km of the blast and select public infrastructure and Aboriginal heritage sites (Figure 3).	This was noted, however the audit did not require a finding to be made on this point.	Not Triggered
7.1	Ground vibration monitoring will be conducted when blasting is within (Figure 3): • 350 m of concrete power poles; • 350 m of railway culverts/bridges; • 100 m of railway lines; and • 1 km of Aboriginal rock art sites 72, 152 and 153 in accordance with the Aboriginal Cultural Heritage Management Plan and North Eastern Wiradjuri Cultural Heritage Management Plan.	Interviews with blast management personnel onsite confirmed that these criteria are still followed. Auditors viewed relevant blasting data onsite. These criteria will remain the same in the updated version of the blast plan (2014).	Complies

Reference	Requirement		Audit Finding
7.1	The monitoring equipment will display the due date of upcoming calibration. Calibration of the monitoring units will be undertaken by an off-site specialist.	Calibration sheets were viewed by the auditors during the site visit.	Complies
7.1	The blast monitoring program will be reviewed and where necessary revised over the life of the Wilpinjong Coal Mine, according to physical changes in mining operations, following the acquisition of privately-owned land by WCPL, or as a result of complaints.	During the site visit the auditors viewed a copy of blast monitoring program that was undertaken in response to private landowner complaints.	Complies
Assessment Against Blast Criteria and Performance Indicators			
7.3	The monitoring results will be used to assess the Wilpinjong Coal Mine against the performance indicators and performance criteria detailed in Table 4. If data analysis indicates a performance indicator has been exceeded or is likely to be exceeded, an assessment will be made against the performance criteria. If the data analysis indicates that the performance indicator is likely to be exceeded if management measures are not implemented, WCPL will implement suitable management measures (Section 8) and continue to monitor. If any blast criteria are considered likely to have been exceeded or are likely to be exceeded, the Contingency Plan will be implemented (Section 9). WCPL will implement suitable contingency measures (Section 9) and continue to monitor (Section 7).	No overpressure exceedances have occurred during this audit period, and the need for the Contingency Plan to be implemented was never triggered. Additional monitoring and management measures have been triggered by complaints rather than exceedances.	Complies
8. Management Measures			
Public Notification			
8.1	Any private landholder within 2 km of the Wilpinjong Coal Mine that registers an interest in being informed of the blasting schedule shall be notified via either telephone or e-mail, or as otherwise agreed between the parties. Initiation of misfires will be separately advised if more than one hour has elapsed since the blast that resulted in the misfire, or the misfire is more than 30% of the original blast.	There are no private landowners within 2km of the mine.	Not Triggered

Reference	Requirement		Audit Finding
8.1	In order to keep the local community informed of the blasting activities at the Wilpinjong Coal Mine, a free-call Blasting Hotline will operate to provide information on the daily and proposed weekly blasting schedule. The Blasting Hotline is updated as soon as any change to the program becomes known.	WCPL maintains a register of people who receive phone calls before blasting. A blasting hotline is also maintained (AEMRs 2012 and 2013). The Wilpinjong Coal Mine Blast Management Plan was updated during the reporting period and is currently with DP&E for approvals. The auditors note that the BMP fulfils these requirements. The new Fume Management Strategy was also prepared during the audit period and is with DP&E for final approval (as part of requirements for Mod 5). During the site visit the auditors also viewed correspondence and comments from DP&E on the progress of the new Blast Management Plan and Fume Management Strategy, evidencing the satisfaction of the DP&E. WCPL maintain the Wilpinjong Coal Webpage with up to date information regarding planned blasts.	Complies
8.1	The Blasting Hotline will operate for the life of the Wilpinjong Coal Mine and the contact number will be advertised in local newspapers at least quarterly, via the Wilpinjong Community Newsletter and on the Wilpinjong Coal Mine website. The Blasting Hotline number is 1800 649 783.	This blasting hotline continues to be maintained.	Complies
8.1	Road closure notification boards will be maintained on the Ulan-Wollar Road and will reflect the most current blasting program. Every effort will be made to give at least three days warning of impending road closures although short-term blasting demands may limit the notification period.	These were viewed by the auditors while travelling to site.	Complies
Blasting Adjacent to Railway Lines			
8.4	WCPL will only undertake blasting operations with and subject to the conditions imposed by ARTC's consent to such blasting operations as provided for and in strict accordance with the terms of the Blasting Deed between ARTC and WCPL.	Email correspondence from ARTC confirms that blasting complies with conditions of deed. Conditions of deed are reflected within management plan.	Complies
Within 500 m but greater than 200 m of the Gulgong-Sandy Hollow Railway Line			
8.4.1	Four hours immediately prior to the intended blast time the area Controller / Signaller at the nearest manned station shall be notified and train timetables obtained to ensure that the track is clear for a minimum of 2 km in either direction of the blast area at the time of the blast.	There is no manned station anymore. A track certifier comes in from John Holland to take possession of rail line and then to give all clear before possession ceases. All these conversations are recorded with ARTC.	Complies

Reference	Requirement		Audit Finding
8.4.1	If it is observed that flyrock had landed on or near the track or ground vibration limits (described in Section 5.2) have been exceeded, the track and any associated structures shall be inspected to ensure there is no flyrock on the track and to ensure that no damage to the track or associated structures has occurred. The nearest manned signal box shall be notified immediately. The track will be inspected and certified as fit for traffic by a certified track examiner.	This has not actually occurred during the audit period. However the John Holland track certifier is contracted to check for this before ceasing possession of the track.	Complies
Within 200 m but greater than 100 m of the Gulgong-Sandy Hollow Railway Line			
8.4.2	Short notice possessions will be arranged in consultation with the appropriate ARTC Possessions/Logistics Coordinator. At least 16 days notice will be given of any blasting within 200 m but greater than 100 m of the Gulgong-Sandy Hollow Railway Line. If any approved or programmed blast cannot be performed as scheduled the coordinator is to be notified as soon as possible to allow rescheduling of operations. The relevant ARTC team member will be again notified at least seven days and 12 hours prior to the intention to blast.	Same arrangement as above to take possession. However in the walk through post blasting, the track certifier takes a more thorough possession. This notification is provided. Auditors viewed copies of email correspondence during site visit.	Complies
8.4.2	The notice must specify: • the proposed days, dates and times for the blast; • the proximity to any ARTC infrastructure; • the type of blasting (for example pre-strip or highwall); • the number of bank cubic metres; • the extent of area from which the blast will be visible; and • the area to which the effects of blasting are likely to be observed by the train drivers and passengers including but not limited to flyrock, vibration and airblast.	The blast notification forms do not contain the information required in this condition. Not all of this information is provided to ARTC in the form.	Not Compliant Recommendation Made
8.4.2	The area Controller/Signaller at the nearest manned station will be notified 12 hours prior to blasting and timetables for scheduled services will be provided. Blasting times will then be scheduled to avoid services, in consultation with the area Controller/Signaller. A minimum of 30 minutes is required to allow for the shot to be fired and inspection of the track made, if required.	No manned stations anymore.	Not Triggered
8.4.2	Two hours and immediately prior to a blast, the Drill and Blast Supervisor will check with the nearest manned signal box to ascertain whether the line is clear, and the period of time for which the line will be clear, for 2 km in either direction of the blast area.	No manned stations nearby anymore.	Not Triggered Recommendation Made
8.4.2	WCPL will take possession of the track by way of a suitably qualified and ARTC recognised Protection Officer (at least a PO2 qualified) prior to blasting. WCPL will ensure vibration and blasting monitoring points are setup as per clause 4.6.4 of the Blasting Deed.	During the site visit the auditors viewed online system managing blast monitoring locations.	Complies

Reference	Requirement		Audit Finding
8.4.2	After Blasting Blast monitoring points shall be monitored and all results are to be reviewed and advised/provided to ARTC within seven days of the blast. If it is observed that flyrock had landed on or near the track or vibration limits (outlined in Section 5.2) have been exceeded, the track and any associated structures will be inspected to ensure there is no flyrock on the track and to ensure that no damage to the track or associated structures has occurred. The nearest manned signal box will be notified immediately. The track will be inspected and certified as fit for traffic by a certified track examiner.	This is undertaken, usually on the same day as the blast. Auditors viewed a copy of this monitoring data and email providing this to ARTC on the same day.	Complies Recommendation Made
Within 100 m of the Gulgong-Sandy Hollow Railway Line			
8.4.3	For all blasting operations that are less than 100 m from ARTC infrastructure the following will be carried out after blasting.	Same procedure as outlined above for 200m blasts is undertaken.	Complies
8.4.3	The railway will be inspected and the track certified as fit for traffic by a certified track examiner such as the ARTC recognised PW52/53 qualified person. This (infrastructure hand back) will happen prior to the Protection Officer fulfilling the short notice possession (traffic hand back).	Same procedure as outlined above for 200m blasts is undertaken. Track certification undertaken by John Holland directly with ARTC as outlined above.	Complies
8.4.3	Any changes/damage to ARTC infrastructure or safety incidences will be reported immediately to the relevant ARTC Team Manager (including instance where flyrock lands in the rail corridor). The team manager or his/her nominated person will be responsible for managing repairs to ARTC infrastructure (in consultation with WCPL) with costs associated with the repairs to be borne by WCPL.	Same procedure as outlined above for 200m blasts is undertaken. No damage to ARTC infrastructure has occurred during the audit period.	Complies
8.4.3	Each individual blast will be analysed on its own merits, taking into account the predicted and measured effects of ground vibration, air blast and the possibility of flyrock affecting the track and other structures. The above procedures may then be modified to the satisfaction of the local ARTC staff after consultation with WCPL.	Same procedure as outlined above for 200m blasts is undertaken. There are semi-permanent locations. For blasts close to rail line the ARTC personnel place the monitors in. There are semi permanent monitors near to culverts.	Complies
Blasting Adjacent to Roads			
Temporary Road Closures			
8.5.1	Ulan-Wollar Road will be temporarily closed whenever blasting is carried out within 500 m of the road as a precautionary measure to ensure public safety. These closures are typically for a period of less than 15 minutes. Designated Wilpinjong Coal Mine personnel who have received Roads Traffic Authority (RTA) approved traffic controller training will manage traffic flow during these closures.	A contractor provides these personnel.	Complies

Reference	Requirement		Audit Finding
8.5.1	Traffic control signs will be set up in accordance with the RTA/Mid-Western Regional Council (MWRC) guidelines. Adequate training will also be provided on "Introduction to Traffic Control at Roadworks" for the purpose of setting up and removing traffic control and controlling any on-site hazards. All temporary road closures will be scheduled, where practicable, for outside peak traffic flow periods. In particular, school bus times will be avoided. Roads will be closed to traffic by qualified traffic controllers approximately five minutes prior to any blast. Traffic controllers will remain in radio contact with the Wilpinjong Coal Mine throughout the closure period, to enable cessation of the blast in the case of emergency.	Same contractors put out the relevant signs, apart from the blast notification sign which is maintained by Wilpinjong.	Complies
Notification of Road Closures			
8.5.2	Notification of temporary road closures will be co-ordinated with the MWRC, as necessary, to meet their requirements. Notice of temporary road closures will be provided via the posting of signs on the relevant roads at least three days prior to blasting and notifying the MWRC one day prior to the blast.	A phone register is used to provide this information to MWRC and other stakeholders. Auditors viewed this register onsite during the site visit.	Complies
8.5.2	It is not practical to notify all relevant emergency services of temporary road closures well in advance of scheduled blasts as it is necessary to consider weather conditions when determining when to blast. All relevant emergency services will be contacted by telephone and informed of the Wilpinjong Coal Mine's temporary road closure procedures. They will be advised that, if requested, they can be notified by telephone or email within two hours of a planned blast time.	A phone register is used to provide this information to MWRC and other stakeholders. Auditors viewed this register onsite during the site visit.	Complies
8.5.2	Advice of road closures will also be provided on the blasting hotline (Section 8.1).	This hotline continues to be maintained. Every third blast or so site personnel check that this hotline is working.	Complies
Flyrock Removal and Road Maintenance			
8.5.3	All blasts will be visually inspected and monitored to determine whether any flyrock is generated. If it appears possible that flyrock may have landed on the road after a blast event, then prior to re-opening roads, the traffic controllers will undertake a visual inspection of the roads to ensure that it is safe for traffic to proceed. In the event that flyrock has impacted upon public roads, traffic controllers will immediately notify the Mining Manager who will initiate a clean-up and repair response with hand removal of any rock. Traffic controllers will continue to keep roads closed and monitor road traffic until authorised to re-open the road by the Mining Manager. In addition, WCPL will engage a suitably qualified contractor approved by MWRC to undertake any road repair works, resulting from blast related activities, if required. Notification will also be made to the relevant agencies.	Interviews with blast management personnel onsite confirmed that visual inspection is undertaken by them before road access is reopened. No damage caused by flyrock during the audit period. Video recording of blasts also continues.	Complies

Reference	Requirement		Audit Finding
Other Public Infrastructure			
8.6	Power transmission lines and a fibre optic telephone cable are located within the potential impact zone of some blasts. The infrastructure will be accurately located prior to any blasting in the vicinity and the infrastructure owners consulted on the most appropriate management strategies. Internal supply facilities will be monitored and managed in consultation with Country Energy. A telecom service is located near the road-rail corridor. While there are no known specific vibration limits on the line, a hierarchy of vibration controls will be implemented. Including; trying to minimise blasting in the vicinity, use of electronic detonators to control vibration levels, and possibly a temporary or permanent relocation of the line. The final strategy will be developed in conjunction with Telstra.	These towers are located but are not currently impacted on. The new management plan (2014) outlines how these infrastructure owners will be consulted re potential future impacts as mining ops changed.	Complies
Cumulative Impacts			
8.7	Blasting times and locations will be communicated via blast notifications emails between the relevant mines.	During the site visit the auditors viewed copies of this correspondence with neighbouring mines regarding blasts.	Complies
Blast Protocol			
8.8	The Wilpinjong Coal Mine has a blasting protocol in place which is consistent with the relevant legislation.	This Blast Management Plan continues to be implemented.	Complies
8.8.1	Safety The safety focus of this protocol is to ensure the safety of people, property, livestock and infrastructure. Key features of this protocol are: • a minimum blasting exclusion zone of 500 m applies for persons; • use of electronic blasting technology for improved control in vibration sensitive areas where deemed appropriate; • pre-blast inspections are undertaken to ensure that no persons, property or livestock are at risk from blasting; • sentries are posted on all access points to ensure that there is no possible access to the blasting exclusion zone; • no blasting will occur within 500 m of privately-owned property without consultation with relevant landholders to satisfaction of DP&I; • prior to carrying out any blasting within 500 m of a public road or railway, WCPL will obtain approval from Council (in respect of Ulan-Wollar Road) and ARTC (in respect of the Gulgong-Sandy Hollow railway); • notification of blasting times provided to closest private residences on request; • manage misfires in a safe manner and in accordance with this BMP; and • visual monitoring of all of blasts with video records of significant blasts.	Explosives Procedure Manual (Oct 2014). Section 9 deals with misfires. The remaining points have already been covered off. April 2013 and then 2011 were the previous versions of this manual.	Complies

Reference	Requirement		Audit Finding
8.8.2	Blasting Controls In order to minimise the potential for exceedance of the relevant criteria (outlined in Section 5), blast management procedures will be implemented, including: • training all relevant personnel on environmental obligations and safe handling of explosives; • inspections and preparation of proposed blast areas to ensure all soft, loose or blast damaged material is removed prior to drilling; • designing blasts to ensure that ground vibration and airblast overpressure limits are met, and there is no damage to life or property from flyrock, including consideration of wind speed, direction and other meteorological factors prior to blasting to minimise impacts on neighbours; • notification of blasting times to private residents within 2 km of the Wilpinjong Coal Mine on request and maintenance of a free-call Blasting Hotline; • use of adequate stemming, a delay detonation system, and careful drilling and hole loading to ensure that the required blast design is implemented;	Explosives Procedure Manual (Oct 2014) covers off on these issues. April 2013 and then 2011 were the previous versions of this manual.	Complies
8.8.2	• assessment of wind speed and direction immediately prior to each blast to minimise the potential for dust emissions from blasting to adversely impact on neighbouring private residencies; • monitoring of blasts at the closest private residences to determine whether airblast and ground vibration limits are met; • completion of the Blast Controller Checklist (Appendix B); • review of monitoring results and modification of the blast design, if necessary; • documentation of the date and time of the blast, location of blast holes and quantity of explosive used in each blast; and • practices to evaluate performance and identify responsive action, if required.	Pre-blast checklist covers off on these requirements, as viewed by auditors during site visit.	Complies
8.8.3	Meteorological Assessment A protocol will be established to ensure that blasts are postponed during adverse weather conditions, which have the potential to exacerbate dust, fume and overpressure impacts on nearby residents (e.g. inversions, wind direction etc.). The need for such an exclusion arc will be based on experience gained from early blasts and understanding of local weather patterns.	Pre-blast checklist covers off on these requirements, as viewed by auditors during site visit.	Complies
8.8.3	A "blasting exclusion" arc would be calculated on the basis of: • wind direction; • wind speed; • surface; • size of the blast; • blast loading design; and • rock strength and competency.	500m is default minimum exclusion zone. This will be updated in the new plan (and new Fume Strategy which will form part of new Blast plan (2014) guides how this distance may need to be increased in certain conditions.	Complies

Reference	Requirement		Audit Finding
8.8.3	The meteorological assessment system would be developed and updated over the life of the operation to reflect site observations, physical changes to mining operations, acquisition of properties by WCPL, or where necessary, following validated complaints from nearby residents. A copy of any current meteorological assessment protocol will be reported in the Annual Review and provided to residents on request.	As evidenced by new Fume Strategy which will form part of new Blast plan (2014).	Complies
9. Contingency Plan			
9	In the event that the blast criteria detailed in Section 5 is considered to have been exceeded, WCPL will implement the following Contingency Plan:	This was not triggered during the audit period	Not Triggered
9	The exceedance of the blast criteria will be reported to the Peabody Environment and Community Manager or Peabody Environmental Advisor within 24 hours of assessment completion.	This was not triggered during the audit period	Not Triggered
9	The Peabody Environment and Community Manager or Peabody Environmental Advisor will report the likely exceedance to the General Manager as soon as practicable after becoming aware of the exceedance.	This was not triggered during the audit period	Not Triggered
9	WCPL will report the exceedance of the blast criteria to OEHL and DP&I as soon as practicable after WCPL becomes aware of the exceedance.	This was not triggered during the audit period	Not Triggered
9	WCPL will identify an appropriate course of action with respect to the identified impact(s), in consultation with specialists and OEHL, as necessary. For example: • proposed contingency measures; and • a program to review the effectiveness of the contingency measures. Contingency measures will be developed in consideration of the specific circumstances of the exceedance and the assessment of environmental consequences. Potential contingency measures include the management measures described in Section 9.1 of this BMP.	This was not triggered during the audit period	Not Triggered
9	WCPL will, on request, submit the proposed course of action to DP&I for approval.	This was not triggered during the audit period	Not Triggered
9	WCPL will implement the approved course of action to the satisfaction of the DP&I.	This was not triggered during the audit period	Not Triggered

Reference	Requirement		Audit Finding
Potential Contingency Measures			
9.2	Potential contingency measures will be reviewed during revisions of this BMP.	The new Blast plan (2014) evidences updates of plans. Auditors reviewed procedures followed after Fume incident occurred as a result of blasting events. Verifies this conditions compliance	Complies
10. Annual Review and Improvement of Environmental Performance			
10	WCPL will conduct an Annual Review of the environmental performance of the Project by the end of December 2011, and annually thereafter. The Annual Review will specifically address the environmental performance of the BMP.	AEMRs 2011, 2012 and 2013 address the environmental performance of the BMP	Complies
10	As described in Section 2, this BMP will be reviewed within three months of the submission of an Annual Review, and revised where appropriate.	No evidence to support that review of the BMP took place.	Not Compliant
11. Reporting Incidents			
11.1	The reporting of incidents will be conducted in accordance with Condition 7, Schedule 5 of the Project Approval. Notification reporting will also be made to DTIRIS NSW in accordance with clause 16(1)(j) of the Coal Mines (Open Cut) Regulation, 1999 for flyrock incidents and the Coal Health and Safety Act, 2006 for misfires.	The new Blast plan (2014) includes Table 11, clarifying E&C Manager's responsibility to notify authorities if required.	Complies
Complaints			
11.2	The objective of the Complaint Response Protocol is to reply to community concerns that relate to blasting. The Protocol will be the responsibility of the Peabody Environment and Community Manager (or delegate). The response to a blasting complaint will include: • The detail of the complaint will be recorded in the complaints register. • Preliminary investigations will commence within 24 hours of the complaint receipt to determine likely causes of the complaint using information regarding prevailing meteorological conditions, the nature of mining activities taking place and recent blast monitoring results. • Blast control measures will be determined following an investigation into the complaint, if required. Those mitigation measures developed as a result of the assessment will be implemented by the relevant mining operations supervisor (e.g. Open Cut Examiner). • Following implementation of blast control measures (if required), monitoring will assess the effectiveness of the additional blast control measures.	Complaints register viewed by auditors. Complaints procedure verified by auditors on site.	Complies

Reference	Requirement		Audit Finding
11.2	In the event of a complaint where airblast overpressure or vibration levels are demonstrated to be below the relevant criteria (Section 6), the resolution process will involve discussion between the complainant and the Peabody Environment and Community Manager (or delegate). The complainant will be made fully aware of the monitoring and reporting procedures used at the Wilpinjong Coal Mine. Every effort will be made to ensure that concerns are addressed in a manner that results in a mutually acceptable outcome.	Complaints register viewed by auditors. Actions taken for overpressure and vibration complaints include - Investigation into complaint source. Where overpressure and vibration levels are below EPL limits WCPL staff have phoned the complainant and in some cases have visited the complainant and monitored a blast event, in compliance with the BMP.	Complies
Non-Compliances with Statutory Requirements			
11.3	Compliance with all approvals, plans and procedures will be the responsibility of all personnel (staff and contractors) employed on or in association with the Wilpinjong Coal Mine, and will be developed through promotion of Wilpinjong Coal Mine ownership under the direction of the General Manager.	noted	Noted
11.3	The Peabody Environmental Advisor will undertake regular inspections, internal audits and initiate directions identifying any remediation/rectification work required, and areas of actual or potential non-compliance.	Internal generic environmental inspection is undertaken once a fortnight, as confirmed during audit interview with Kieren.	Complies
11.3	As described in Section 11.1, WCPL will notify the Director-General of the DP&I and any other relevant agencies of any incident associated with the Wilpinjong Coal Mine as soon as practicable after WCPL becomes aware of the incident. Within seven days of the date of the incident, WCPL will provide the Director-General of the DP&I and any relevant agencies with a detailed report on the incident.	Auditors observed the most recent blasting data since the previous AEMR was prepared, and there have been no exceedances or environmental incidents in relation to blasting in this time. No exceedances were recorded in the 2012 or 2013 reporting periods (AEMRs 2012 and 2013). Auditors viewed blasting results for 2014 (blast register) during the audit site inspection. No exceedances were identified in 2014 in relation to blasting criteria specified in Table 4 (Schedule 3, condition 6 DA 05-0021 (as modified)).	Not Triggered
11.3	A review of WCPL's compliance with all conditions of the Project Approval, mining leases and all other approvals and licences will be conducted prior to (and included within) each Annual Review. The Annual Review will be made publicly available on the Peabody website.	Not Triggered	Not Triggered

Reference	Requirement		Audit Finding
Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008)			
Aboriginal Representation on Project Committees			
2.4	WCPL will support an application for an Aboriginal community representative to the Project Community Consultative Committee (CCC) - so the Aboriginal community can be informed of on-going Project planning and environmental monitoring via the CCC process.	No such applications were made during the auditing period.	Not Triggered
Protocol for Consultation with Aboriginal Groups			
2.5	The process for consultation with the Native Title Party is determined by the requirements of the Native Title Agreement. The following consultation protocol outlines the method of maintaining communication with the other Aboriginal groups with an interest in the Project Area:	Native Title Implementation Committee deals with this	
2.5	The CHLSC will offer to form a memorandum of understanding (MOU) or consultation protocol with Aboriginal groups that have participated in the EIS heritage surveys. An initial meeting will be held with the secretary and chairperson of the relevant Aboriginal community groups to explain the role of the CHLSC and the proposed consultation protocol.	Initial meeting would have been held before the current auditing period. Ongoing meetings as above	Not Triggered
2.5	An offer to form a MOU or consultation protocol between the CHLSC and the Aboriginal organizations will be made. The consultation process described in the MOU or protocol will include: – The provision of a six monthly presentation or brief summary report to update the Aboriginal organisation on Wilpinjong site cultural heritage works. – Providing copies of relevant completed heritage management reports (if applicable) and Annual Environmental Management Report (AEMR) to the organisation for their information. – Avenues for participation in site salvage and monitoring works on a voluntary basis at the discretion of WCPL and in accordance with Occupational Health and Safety (OH&S) requirements as detailed in the Site Safety Management Plan.	minutes from Cultural Heritage Liaison Sub-Committee meetings verify this condition. AEMR findings provide further verification of compliance.	Complies
Management of Aboriginal Cultural Heritage at the Project			
4	In accordance with the Project EIS commitments and the Native Title Agreement the Aboriginal community will be involved in the management of Aboriginal cultural heritage over the life of the Project.	The Aboriginal community have continued to be involved in the management of cultural heritage at the WCM during the auditing period. Specifically the salvage work including test excavations (AEMR 213).	Complies
Obligations under the Project Approval			
4.1	WCPL will apply the following general protocol for management of Aboriginal cultural heritage in these ancillary disturbance areas.		

Reference	Requirement		Audit Finding
4.1	Ancillary Disturbance Area Protocol: 1. Pre-clearance archaeological survey (conducted with the assistance of Aboriginal representatives). This survey would include consideration of the archaeological and cultural heritage values associated with the site and the potential value of conducting subsurface salvage. 2. Avoidance of the identified Aboriginal object/sites by realigning or adjusting infrastructure/disturbance area if practicable.	A number of surface salvage programs took place during the audit period. The primary area of focus was in Pit 5 and pit 3. Items are maintained in a keeping place. Includes scarred trees	Complies
4.1	If the object/site cannot be avoided: 3. Consider surface salvage (advice from Aboriginal representatives and/or an archaeologist will be sought). 4. If relevant, consider the archaeological and cultural heritage values associated with the site and the potential value of conducting subsurface salvage (advice from Aboriginal representatives and/or an archaeologist will be sought). 5. Conduct surface salvage (and subsurface salvage if necessary) with the assistance of Aboriginal representatives and/or an archaeologist. 6. Store salvaged artefacts in the "Keeping Place". 7. Post-rehabilitation, replace artefacts onto the rehabilitated landform.	A number of surface salvage programs took place during the audit period. The primary area of focus was in Pit 5 and pit 3. Items are maintained in a keeping place. Includes scarred trees	Complies
4.1	The practice of avoidance of disturbance will be considered as the primary management measure. In cases where identified sites are located close to Project disturbance areas, general protection measures (e.g. fencing, signposting or temporary flagging) will be implemented where necessary to minimise the risk of accidental site disturbance.	The ACHMP details various management measures that are implemented at the Mine to manage the impacts of mining operations on items of Aboriginal heritage (AEMR 2013). This includes fencing and flagging of archaeological areas (observed).	Complies
4.1	It is anticipated that additional artefacts not identified during the Project EIS Aboriginal heritage survey will be identified during the implementation of this ACHMP. Additional sites and artefacts identified during the implementation of this plan will be managed in accordance with management measures for similar site/artefact types identified in the previous surveys.	Section 3.11 of AEMR confirms this commitment.	Complies
Archaeological Salvage Program			
4.2	The salvage program will allow the recovery of a sample of surface and subsurface artefactual material in selected areas for the purpose of either re-placing the artefacts onto the rehabilitated post-mining landscape in the future, or otherwise providing for their long-term curation.	Verified during audit interview and in AEMRs.	Complies
4.2	The salvage program will incorporate the following components: - salvage of select surface artefacts; - detailed recording of recovered artefacts; - select subsurface excavation/salvage; - select scarred tree salvage; - analysis of select recovered artefacts; and - temporary storage of recovered materials in a Keeping Place (Section 4.3) prior to replacement onto rehabilitated landforms.	Verified during audit interview and in AEMRs.	Complies

Reference	Requirement		Audit Finding
4.2	The salvage program will be led by an archaeologist in consultation with attending representatives from the Aboriginal community.	Verified during audit interview and in AEMRs.	Complies
4.2	GPS co-ordinates of salvaged sites will be recorded for future use in the artefact replacement programme (Section 4.4).	Verified during audit interview and in AEMRs.	Complies
Surface Salvage			
4.2.1	Surface salvage will involve the systematic recovery of all evident surface artefacts from a representative sample of open artefact scatters and from selected isolated finds at known sites within the Project disturbance area. Surface collections will occur on a progressive basis prior to the commencement of ground surface disturbance works within an area.	Verified during audit interview and in AEMRs.	Complies
4.2.1	A basic level of recording will be conducted on all recovered artefactual surface material including location, technological traits, and stone type. A small number of artefacts will be selected for more detailed description and analysis, which will include: - wear; - residual analysis; and - microscopic inspection.	Verified during audit interview and in AEMRs.	Complies
4.2.1	This analysis will be conducted by a qualified lithic specialist.	Verified during audit interview and in AEMRs.	Complies
Subsurface Salvage			
4.2.2	During surface salvage operations for the collection of artefacts, consideration will be given to conducting subsurface salvage excavation. The requirement for or scope of subsurface salvage will be determined in the field by the archaeologist in consultation with the Aboriginal community representatives and will be based on the geomorphology, horizontal and vertical distribution of artefacts and the cultural significance of each site.	Verified during audit interview and in AEMRs.	Complies
4.2.2	The methodologies to be implemented during the subsurface salvage program include: - pit excavations conducted by backhoe or excavator; - grader scrape excavations; and - excavations conducted by hand.	Verified during audit interview and in AEMRs.	Noted
4.2.2	A range of sites with up to 50 estimated surface artefacts were also identified during the Project EIS survey within the Project disturbance area (Table 2) and a selection of these sites will also be considered for subsurface salvage.	Verified during audit interview and in AEMRs.	Noted
Scarred Trees Salvage and Analysis			
4.2.3	Salvage of select probable Aboriginal scarred trees will be conducted based upon an assessment of its Aboriginal cultural heritage value, age, and origin. Any salvaged Aboriginal scarred trees will be stored in a Keeping Place and will then be re-placed onto rehabilitated landforms. The scarred tree salvage methodology is provided in Attachment C.	Two scarred trees were salvaged from Pit 3 and P4 and are currently being stored in compliance with ACHMP in the approved keeping place off site - Verified during audit interview and in AEMRs.	Complies
Salvage/Inspection Time Frames			

Reference	Requirement		Audit Finding
4.2.4	Following advice from WCPL and the mining contractor that includes a diagram illustrating an area that requires heritage inspection or salvage and a proposed timeframe for works in this area: - The CHLSC will identify suitable Aboriginal community representatives (Native Title Party representatives to identify) and an archaeologist (WCPL representatives to identify) to conduct the salvage/inspection work and advise WCPL within one week of availability and personnel. - If possible site inspection/salvage work should commence within two weeks of notification.	Noted	Noted
4.2.4	All parties will use their best endeavours to meet the timing requirements of WCPL to minimise delays to mining operations.	Noted	Noted
Process for Designation of Areas as 'Cleared for Site Disturbance'			
4.2.5	Following site inspection/salvage of an area, the field archaeologist in consultation with the attending Aboriginal community representatives will sign a release form that the area has been cleared for ground disturbance works. The release form will have Global Positioning System (GPS) coordinates recorded for the approximate boundary of the cleared area.	Signed clearance form was provided and signed by archaeologist and representatives from aboriginal community.	Complies
4.2.5	WCPL will maintain a map on site that identifies areas that have been cleared for site disturbance. The current map will be provided to the CHLSC members for their review at each CHLSC meeting.	Map provided and verifies compliance	Complies
Keeping Place			
4.3	WCPL will provide an appropriate Keeping Place for salvaged Aboriginal artefacts that will be located at the Wilpinjong Coal Project administrative complex. For the majority of artefacts this will comprise a locked cabinet. Select salvaged scar trees will be stored in area suitable to minimise deterioration.	Keeping place is maintained. Location is approved by the department as reported in the AEMRs.	Complies
4.3	The artefacts in the Keeping Place will be accessible to the Aboriginal community and will be available for viewing upon appointment at times agreed by WCPL. Artefacts will be stored in the Keeping Place until the completion of all rehabilitation works relevant to the area in which they were collected. If rehabilitation works are completed in an area, the relevant artefacts may be returned to the landscape in accordance with the artefact replacement programme and the wishes of the Aboriginal Community (Section 4.4).	Can be viewed by appointment	Complies
Artefact Replacement Programme			
4.4	Following the completion of rehabilitation, collected artefacts that are stored in the keeping place will be replaced back onto the rehabilitated landform if that is the wish of the Aboriginal community.	Rehabilitation has not been completed, and so this requirement has not been triggered yet.	Not Triggered

Reference	Requirement		Audit Finding
4.4	Artefact replacement onto rehabilitated landforms will be undertaken in accordance with the following general guidelines: - general rehabilitation works utilising mobile machinery (including tree planting) should be complete; - consideration will be given to future mining proposals to minimise the risk that an alteration to the mine plan will result in a need to re-collect the replaced artefacts for construction of additional infrastructure; - the artefacts will be located where risk of damage to the replaced artefacts during rehabilitation maintenance activities will be low; - the Aboriginal community will replace the artefacts to approximately the same location and/or aspect of the site prior to mining; and - the location of replaced artefacts will be recorded by GPS and mapped for future reference.	Rehabilitation has not been completed, and so this requirement has not been triggered yet.	Not Triggered
4.4	<i>Note: The Aboriginal Community may elect not to replace the artefacts onto the rehabilitated landform and instead remove the artefacts for an off-site educational display.</i>	This was noted during the audit, however a finding on this requirement was not required to be made.	Not Triggered
Human Skeletal Remains - Monitoring and Management Protocol			
4.5	Three sand and gravel deposits and some limited areas of deep alluvial sediments in the Project area have some potential to contain Aboriginal burial sites. Some earthworks within these selected areas (Figure 4) will be monitored for the presence of burial sites. The boundaries of any areas that require on-site monitoring will be identified in the field by the archaeologist in consultation with Aboriginal representatives. Suitably experienced Aboriginal community representatives will monitor stripping and excavation works in sandy material in the identified areas.	This has not occurred during the current auditing period.	Not Triggered
4.5	The following steps will be carried out in the event that human skeletal material is exposed within the Project area: - ground disturbance works in the immediate vicinity of the skeletal material will cease; - the Department of Planning (DoP), DECC, NSW police and Aboriginal stakeholder groups will be informed as soon as practicable; and - the identified skeletal remains will not be disturbed until the NSW police and DECC have inspected the remains and authorised their disturbance.	This has not occurred during the current auditing period.	Not Triggered
4.5	Any activities regarding identified skeletal remains will be conducted in accordance with the recommendations of The Skeleton Manual – A Handbook for the Identification of Aboriginal Skeletal Remains (NPWS, 1986). It is understood that the DECC are currently developing a Manual for the Identification of Aboriginal Remains which will superseded the 1986 skeletal manual. This ACHMP will be revised and updated to reflect the requirements of the Manual for the Identification of Aboriginal Remains upon its completion. In addition, any activities regarding identified skeletal remains will be conducted in accordance with the new guidelines recommendations.	This has not occurred during the current auditing period.	Not Triggered

Reference	Requirement		Audit Finding
Additional Escarpment Area Surveys			
4.6	A further detailed archaeological survey will be conducted on the debris slopes up to, and including the escarpments, within 500 m of the open cut pits. This survey aims to identify Aboriginal sites (e.g. rock art sites) which may be vulnerable to potential indirect mining impacts (e.g. blasting vibration). The survey program will: - be conducted progressively within two years of the commencement of Project mining activities; - not include areas already surveyed (Figure 2); and - be completed in any particular area prior to the commencement of mining adjacent to those areas (e.g. within 500 m of mining areas).	This survey was completed prior to current auditing period.	Not Triggered
4.6	Rock shelters occur to the West, South and East of the Project disturbance area as seen on Figure 5. Where not already surveyed (Figure 2), portions of these areas located within 500 m of the open cut pits will be subject to an additional archaeological survey to determine if any sites potentially sensitive to indirect impacts from mining are present. These additional archaeological surveys will be conducted by an archaeologist with the assistance of Aboriginal community representatives and will be subject to similar methodologies of the Project EIS surveys in this landform.	This survey was completed prior to current auditing period.	Not Triggered
4.6	The methodology includes: - Targeted and systematic survey on foot using formal and opportunistic traverses to identify sites that may potentially be vulnerable to indirect impacts associated with the mine including blast vibration and dust deposition (e.g. rock art sites) on the debris slopes and the escarpments. - The surveys will focus on examining all rock shelters for the presence of rock art and any large rock platforms for rock engravings. - If new artefacts or sites are located in the additional survey, the recording of site number, location, significance and recording category will be consistent with the previous assessment (Attachment B).	This survey was completed prior to current auditing period.	Not Triggered
4.7	In order to address these issues, rock shelter sites with rock art that are assessed as being vulnerable (in consultation with the Aboriginal Community) to potential indirect impacts of the Project will be the subject of a monitoring program. This monitoring program will include:	This survey was completed prior to current auditing period.	Not Triggered

Reference	Requirement		Audit Finding
4.7	Completion of a 'base-line' recording of the site and its rock art prior to mining within 1 km of those sites. The baseline recording will involve systematic photographic coverage of all of the rock art, development of a floor plan of the rock shelter and completion of a condition report (e.g. the state of the rock surfaces, presence of existing damage, dust, graffiti, plant or animal damage).	In accordance with the ACHMP, detailed monitoring and management of three rock art sites (WCP 72, 152 and 153) is required. As such, a consultant was engaged to undertake an assessment of the rock art sites, to present recommendations for implementation of continuing conservation and management measures. Sites WCP 72, 152 and 153 were inspected over several days during February and March 2013, with consideration given to the nature and volume of any impacts since the baseline recording of Navin Officer (2006).	Complies
4.7	Ground vibration levels will be monitored at rock art sites 72, 152, and 153 for blasting activities conducted within 1 km of these sites.	Additional monitoring points were established in shelters WCP152 and 153 to monitor for changes in cracks and horizontal and vertical bedding planes as well as the installation of permanent vibration and air pressure monitoring equipment. Also covered in Blast Management Plan (2011)	Complies
4.7	Dust deposition levels will be monitored at rock art sites 72, 152, and 153 (dust deposition gauges to be installed adjacent to each site). Dust gauges will be monitored monthly when mining operations are conducted within 1 km of these sites.	These are monitored on a monthly basis	Complies
4.7	Fencing will be installed with the aim of excluding stock animals from the rock art sites 72, 152 and 153. Fencing will be designed to include an appropriate buffer zone to minimize the potential for disturbance of any in-situ deposits.	Noted	Noted
4.7	If required, some of the above listed management measures will also be implemented for any additional rock art sites if they are identified during the additional survey of proximal escarpment areas (Section 4.6).	No additional sites identified	Not Triggered

Reference	Requirement		Audit Finding
4.7	If dust deposition rates or ground vibration levels are found to be in exceedance of those set out in the Project Air Quality Monitoring Programme (AQMP) and the Project Blast Management Plan and Monitoring Programme (BMP), the following procedure will be implemented: - the location and type of exceedance will be recorded; - the Environmental Manager, in consultation with an archaeologist and Aboriginal community representatives will determine if the exceedance has been caused by WCPL's operations; - the archaeologist in consultation with Aboriginal representatives will examine the rock shelter to determine if any damage has occurred; - the Environmental Manager, in consultation with an archaeologist and Aboriginal community representatives will determine if additional mitigation measures are required to minimise the risk of additional exceedances or damage (mitigation measures may include modification to operational activities such as blasting); - the relevant monitoring program (dust, ground vibration) will continue to identify whether any adopted mitigation measures have been successful; and - if required, regular inspection of the art site will be initiated in consultation with the Aboriginal community.	This has not occurred during the current auditing period.	Not Triggered
4.7	In the event of a monitoring exceedance or actual damage to a rock art site, a summary of the issue, including any mitigation measures applied will be reported in the AEMR for distribution to government stakeholders, Aboriginal stakeholder groups and other interested persons (Section 5).	This has not occurred during the current auditing period.	Not Triggered
4.7	Further to the above, if ground vibration levels are found to be in exceedance of those set out in the BMP or actual damage to a rock art site is identified, the DoP and DECC will be notified within 24 hours of the exceedance.	This has not occurred during the current auditing period.	Not Triggered
General Land Management Measures to Protect Aboriginal Cultural Heritage			
4.8	WCPL will implement a number of general land management measures that will minimise the potential for damage to Aboriginal cultural heritage in the Project area. These include:		
4.8	Restricting public access to the ML area and ECAs in accordance with occupational health and safety requirements. This will make it difficult for members of the public to access Aboriginal cultural heritage sites that are potentially vulnerable to inappropriate visitation or vandalism.	Verified during audit interview and in AEMRs.	Complies
4.8	Education of employees and contractors regarding the potential for incidental damage to Aboriginal cultural heritage sites during land disturbance activities and to minimise disturbance areas as part of the Cultural Heritage Employee and Contractor Training Programme (Section 4.10).	Verified during audit interview and in AEMRs.	Complies

Reference	Requirement		Audit Finding
4.8	Exclusion of domestic stock from parts of the ECAs and regeneration areas (stock can cause significant damage to surface artefact scatters via trampling).	Verified during audit interview and in AEMRs.	Complies
4.8	Management of dryland salinity, exclusion of stock, regeneration and planting of riparian rehabilitation to stabilise erosion which can cause the destruction of sites in gullies and creeklines.	Verified during audit interview and in AEMRs.	Complies
4.8	Implementation of the ancillary disturbance area protocol (Section 4.1) to minimise impacts associated with the construction of ancillary infrastructure.	Verified during audit interview and in AEMRs.	Not Triggered
4.8	Restricting mobile vehicles to existing access tracks where practicable.	Verified during audit interview and in AEMRs.	Complies
Aboriginal Community Access to the Project Area			
4.9	WCPL will provide reasonable opportunity for the conduct of Aboriginal cultural ceremonies in the Project area. Those wishing to visit sites on WCPL-owned land will be required to:	This has not occurred during the current auditing period.	Not Triggered
4.9	request access in writing, stating which site(s) or areas they intend to visit; – The request should identify whether the Aboriginal people are North Eastern Wiradjuri people and be addressed to the Mine Manager or Environmental Manager. – The Native Title Party should be informed of the request to determine if the activities are culturally appropriate. – The Native Title Party should advise the Mine Manager or Environmental Manager whether the activities are appropriate within seven days. – The Mine Manager or Environmental Manager will then respond appropriately to the initial request for access to the site.	This has not occurred during the current auditing period.	Not Triggered
4.9	be accompanied by a WCPL employee while on-site to ensure they do not unintentionally expose themselves to hazardous operations such as blasting; and	This has not occurred during the current auditing period.	Not Triggered
4.9	site access will be subject to the current occupational health and safety requirements and operational procedures at the mine.	This has not occurred during the current auditing period.	Not Triggered

Reference	Requirement		Audit Finding
Cultural Heritage Employee and Contractor Training			
4.1	As part of the site induction process, WCPL employees and contractors will be educated by an Aboriginal representative of Aboriginal cultural heritage management at the Project, including: - an overview of the cultural heritage management programme; - ways to minimise unintentional impacts on Aboriginal heritage associated with the use of vehicles and mobile plant; - an overview of the artefact salvage programme; - an overview of the management and monitoring at rock art sites; - simple criteria and procedures for artefact and human bone recognition; - actions to follow if human skeletal material is encountered (Section 4.5); and - personnel to contact for more information or assistance.	Verified during audit interview. Evidence sighted on site	Complies
Cultural Heritage Reporting			
5	With respect to Aboriginal cultural heritage, the AEMR will include: - the results of any additional surveys; - a description of any salvage and/or excavation activities conducted; - a summary of consultation undertaken; and - reporting of rock art site dust monitoring and ground vibration monitoring.	Verified during audit interview and in AEMRs.	Complies
5	The AEMR will be distributed to Aboriginal stakeholder groups and other interested persons.	Committee minutes sighted by the audit team and verify this condition	Complies
5	Quarterly meetings of the Cultural Heritage Committee will be held to discuss Project activities that pertain to matters of Aboriginal cultural heritage management.	Consultation with the Aboriginal community regarding the MOD5 was conducted in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Department of Environment, Climate Change and Water [DECCW], 2010a).	Complies

Reference	Requirement		Audit Finding
Provision of Cultural Heritage Reports to the CHLSC			
5.1	Any cultural heritage reports generated by inspection/salvage operations in the Project area will be provided to the CHLSC for their comment/information following review by WCPL.		Complies
Aboriginal Cultural Heritage Management Plan Review			
6	The ACHMP will be reviewed, and if necessary updated, by the Environmental Manager: - on an annual basis; - in consultation with the CHLSC; - where there is an incident on site relating to Aboriginal cultural heritage management; - as an outcome of any Independent Environmental Audit; - when there are changes to Project Approval or licence conditions relating to aspects of this ACHMP; or - in response to a relevant change in technology or legislation.	AEMR reports that the ACHMP was reviewed however the plan itself contains no revision or version history for the auditors to verify review was conducted.	Not Compliant

Reference	Requirement	Audit Evidence	Audit Finding
Wilpinjong Coal Project Spontaneous Combustion Management Plan (Wilpinjong Coal Pty Limited, May 2006)			
Material Classification			
Assessment of Carbonaceous Material			
6.2.1	However, based on experience of a nearby coal mine that is currently mining the same coal seam, spontaneous combustion is a likely occurrence. For this reason there will be ongoing assessments of carbonaceous materials on the Project. The assessments will include the ongoing collection of carbonaceous material samples to be analysed for its propensity to spontaneously combust. In-situ temperature probes may also be used on reject stockpiles and overburden dumps to analyse the long term propensity of the carbonaceous material to spontaneously combust.	A well established Spontaneous Combustion Plan and practice is in place including time based export/turnover of stockpiles, visual inspections per shift and monitoring as required. Sampling is undertaken by an external provider. Thermal imaging is utilise and an update of this system using an on-site drone is under development to improve data collection and review	Complies
Identification of Inert Material			
6.2.2	The OCE/Mining Engineer and the Mining Superintendent will be responsible for identifying inert materials that are suitable for use as capping materials of oxidised/combustible material. Overburden will be examined by the Mining Superintendent and OCE/Mining Engineer when it is first removed. The material will then be classified as suitable or unsuitable inert material. A register of suitable inert material will then be maintained by the Mine Surveyor and considered when building the final landforms.	Suitability of inert material is not determined by testing. Assessment is based on visual inspection and absence of carbonaceous materials	Complies
Prevention and Maintenance of Spontaneous Combustion			
6.3	Efforts for managing spontaneous combustion will be focussed on prevention of outbreaks rather than management of outbreaks. The focus of spontaneous combustion management will be on reducing the risk of an outbreak. All employees will be educated in the basic identification of smoke and heat associated with spontaneous combustion and all employees will effectively be responsible for detecting spontaneous combustion and reporting any visible signs of smoke to the Mining Superintendent or OCE/Mining Engineer immediately.	Spon Com is listed under specific hazards in the induction process.	Complies
Monitoring for Spontaneous Combustion			
6.3.1	All coal stockpiles will undergo regular visual inspections for the presence of spontaneous combustion. The OCE/Mining will conduct a visual inspection of the coal stockpiles for evidence of the presence of spontaneous combustion every eight hours. The inspection will involve observing the stockpiles for any visible signs of smoke or any other obvious signs of heat production within the stockpiles.	This is checked at the start of every OCE shift change each 12 hours. There are staff travelling around site near these stockpiles constantly. Any anomalies are reported immediately. (This was confirmed in OCE Inspection report with specific comments and actions undertaken recorded - including handover references 10 - 16 sheets December 2014 as sighted by the audit team during the site visit).	Complies
6.3.1	The high wall and the pit will be visually inspected once a day for evidence of spontaneous combustion within the exposed coal seams. The OCE/Mining Engineer will observe the exposed coal seams for smoke or evidence of heat generation.	Highwall meeting is conducted once per day. The highwall is visually inspected for spontaneous combustion at this time (as confirmed during audit interview).	Complies

Reference	Requirement	Audit Evidence	Audit Finding
6.3.1	Spoil dumps will be inspected by the OCE/Mining Engineer every day for visual evidence of spontaneous combustion. The OCE/Mining and the Environmental Advisor will also conduct regular visual inspections of the rehabilitated landforms for evidence of spontaneous combustion.	This is checked on every shift. There are staff travelling around site near these stockpiles constantly. Any anomalies are reported immediately (This was confirmed in OCE Inspection report with specific comments and actions undertaken recorded - including handover references 10 - 16 sheets December 2014 as sighted by the audit team during the site visit).	Complies
6.3.1	Heat probes will be used to monitor long term coal stockpiles as required. The probes will be managed by the OCE/Mining Engineer. The monitoring stockpiles will be compacted to minimise the potential of oxygen and moisture infiltration into the stockpiles and the results will be used to verify or predict the likelihood of spontaneous combustion occurring in long term dumps.	Heat probes not used, however age based traffic light system used to review stockpile age, visual inspections conducted daily and heat assessments carried out as required (gun) to elevate status of stockpile in Spon com management plan	Not Triggered
Preventing Spontaneous Combustion			
6.3.2	The risk of spontaneous combustion occurring in the spoil and rejects emplacements and coal stockpiles will be quantified during the early stages of mining and coal preparation using an experienced consulting body (e.g. Simtar). Appropriate control practices will be implemented to reduce the risk where necessary. The strategy will involve: - Inspection of Pit stratigraphy for likely spontaneous combustion potential horizons and suitable inert material - Designing sampling and testing programs - Providing guidelines for in-pit identification of high risk materials - Developing recommendations for capping depth and compaction requirements - Conducting annual review and inspection of the process and emplacement areas.	SCMP in place and operating as intended, monitoring practices assessed during audit, as evidenced by operational practices for both ROM and stockpile management and the Keylah dump Management Plan. The audit team confirmed by visual inspection, site reports and monitoring data and operations and management confirmation during site audit.	Not Triggered
6.3.2	A spoil balance of material of high spontaneous combustion propensity, and suitable inert material, will be maintained and an appropriate dumping strategy implemented. This will be progressively reviewed based on guidelines developed.	All materials that have the propensity to spontaneously combust are selectively handled to reduce risks. This is undertaken via age related stockpile management, daily visual inspection and hear assessments. Inert material is either stockpiled in a separate location, or used for rehabilitation as soon as practicable.	Complies
6.3.2	Pending the development of the strategy, the Mining Superintendent or the OCE/Mining Engineer will inspect excavation areas for evidence of oxidation. Oxidised coal or carbonaceous shale will be distributed toward the bottom of the overburden dump in such a manner as to minimise an outbreak of spontaneous combustion. Oxidised coal will be placed in overburden dumps that are track rolled to form low angle batters and covered with inert material as soon as practicable. Low angle batters and compacted oxidised coal has been shown to reduce airflow through the batters and accelerate the air over the top of the batters. The final approved landform is at or near current surface levels and does not include extensive exposed batters.	No change	Not Triggered

Reference	Requirement	Audit Evidence	Audit Finding
6.3.2	Spoil identified as oxidised coal or carbonaceous shale will also be handled in a way that will maintain a larger particle size, with aggressive blasting avoided where practical. Smaller particle sizes increase the surface area of the oxidised coal which leads to increased reactivity and a greater risk of a spontaneous combustion outbreak.	This item is covered under the keylah dump management plan which forms a part of the waste management plan. Some actions have been undertaken as evidenced by visual inspection and management confirmation during audit	Not Compliant
6.3.2	Where carbonaceous material is placed in overburden dumps the Mining Engineer will ensure through appropriate planning that there is sufficient inert material available to use as a capping material and that this material is managed to maximise its benefits. This will minimise the risk of future spontaneous combustion outbreaks in the final landforms. Inert material will be identified on the basis of properties that inhibit ingress of air and moisture to the carbonaceous material. Carbonaceous material will also be confined to discrete cells confined by inert material so any outbreak cannot progress unchecked.	Suitability of inert material is not determined by testing. Assessment is based on visual inspection and absence of carbonaceous materials. Carbonaceous materials not placed in overburden dumps	Complies
6.3.2	In the pit, carbonaceous material will not be placed against the high wall unless shown to not pose a risk of future spontaneous combustion. Carbonaceous material in the low wall will be exposed for the minimum period practical, and where exposed will be visually monitored daily.	No change	Complies
6.3.2	Coal stockpiles will be managed to ensure that they are stockpiled for the minimum period possible. Records of the age of the coal stockpiles will be maintained by the OCE/Mining Engineer/CHPP manager to ensure that the first coal produced is the first coal to leave the site, as reasonably practicable. By reducing the age of the product coal stockpiles the potential for the heating rate to exceed the cooling rate is reduced. A Stockpile Management Procedure, including management for spontaneous combustion control, will be developed and implemented. This procedure will cover both prevention and control practices.	A well established Spontaneous Combustion Plan and practice is in place including time based export/turnover of stockpiles, shiftly visual inspection and monitoring as required.	Complies
6.3.2	An objective of the operation of the CHPP is to minimise the amount of carbonaceous material, in particular coal, in the coarse reject and tailings streams. Regular testing of both streams for carbon content and spontaneous combustion propensity will be carried out as part of the coal quality assurance program.	The SCMP is both understood, and implemented on site by all operational and management personnel. Stockpile management is well developed and controlled to reduce the potential for spon com events.	Complies
6.3.2	Coarse reject from the Coal Preparation Plant (CHPP) will be placed below the rooting zone of the rehabilitated landform within the waste rock/overburden, unless shown not to represent a spontaneous combustion risk. A placement depth will be determined by expert advice and confirmed through a process of site monitoring. As a general rule overburden will be blended with the coarse reject at a ratio of 2:1 to reduce the potential of spontaneous combustion. The waste material will then be track rolled for compaction which will reduce the rate of oxygen and moisture infiltrating the reject. The reject will then be capped with a layer of inert material. The capped material will be visually monitored on a regular basis for signs of spontaneous combustion.	Coarse reject is usually disposed of deep in pit as confirmed during audit interview.	Complies

Reference	Requirement	Audit Evidence	Audit Finding
6.3.2	Tailings will be placed in an approved emplacement area. The risk of spontaneous combustion on active tailings emplacements is negligible but increases following decommissioning and desiccation. When the emplacement area is decommissioned the surface of the tailings will be compacted, if safe to do so, and capped with inert material to a nominal depth of 2m. The actual depth will be determined based on the properties of the tailings. The capped material will then be monitored on a regular basis for signs of spontaneous combustion for the life of the Mine. The spontaneous combustion propensity of the tailings will not be clear until the CHPP is fully operational and has processed an adequate sample from the seams represented. Carbon content and spontaneous combustion propensity, along with other properties, will be identified as soon as practical and this information will be used to develop the decommissioning plan for the emplacement.	This procedure is followed on site and was evidenced by the photo detailing the completion of coverage of TD1 and 2 with greater than 2m coverage.	Complies
6.3.2	Deep rooting vegetation will not be planted on areas capped to minimise the potential for breaching of the cap and thereby reducing the risk of spontaneous combustion.	Rehabilitation has not reached a point where this can be audited. The material that shows a propensity to spontaneously combust is not washed, and therefore materials with carbonaceous properties are generally not part of the tailings mix.	Not Triggered
6.3.2	A rigorous inspection program of stockpiles and emplacement areas will be implemented as soon as spoil emplacements and coal stockpiles are developed. While this will initially be based on visual and odour assessment, targeting cool moist periods when signs will be most visible, it could include temperature probes or heat sensing in the future. The need for a more sophisticated program will be determined on the basis of the detailed assessment program.	This is checked on every shift. There are staff travelling around site near these stockpiles constantly. Any anomalies are reported immediately (This was confirmed in OCE Inspection report with specific comments and actions undertaken recorded - including handover references 10 - 16 sheets December 2014 as sighted by the audit team during the site visit).	Complies
Management of Spontaneous Combustion Outbreaks			
6.3.3	When smoke or other visible evidence of spontaneous combustion is identified in coal stockpiles (with the exception of flames), the stockpiles will be reshaped using a fleet of dozers. During the process of reshaping the stockpiles, heated coal will be exposed to air and cooled more readily. In addition the reshaping process may also aid in the track rolling the coal which will also reduce the risk of potential spontaneous combustion outbreaks through the slight compaction. Shaped stockpiles have less of a tendency to spontaneously combust as the penetration of oxygen into the stockpiles is reduced.	This is checked on every shift. There are staff travelling around site near these stockpiles constantly. Any anomalies are reported immediately (This was confirmed in OCE Inspection report with specific comments and actions undertaken recorded - including handover references 10 - 16 sheets December 2014 as sighted by the audit team during the site visit). In addition there is daily visual inspection of angle of battering to reduce the propensity for Spon Com.	Complies

Reference	Requirement	Audit Evidence	Audit Finding
6.3.3	In the overburden dumps, when smoke or other visible evidence of spontaneous combustion is identified (with the exception of flames) the angle of the batters will be reduced and the batters track rolled to accelerate airflow over the top of the compacted batters. Additionally, appropriate inert material will be placed over the top of the oxidised coal.	This is checked on every shift. There are staff travelling around site near these stockpiles constantly. Any anomalies are reported immediately (This was confirmed in OCE Inspection report with specific comments and actions undertaken recorded - including handover references 10 - 16 sheets December 2014 as sighted by the audit team during the site visit). In addition there is daily visual inspection of angle of battering to reduce the propensity for Spon Com.	Complies
6.3.3	The use of water to prevent an outbreak of spontaneous combustion actually aides and accelerates the process of spontaneous combustion. Water will only be used on open flames. Where there is an outbreak of spontaneous combustion and open flames are identified the area will be saturated in water to put out the flames and cool the combustible material. The Emergency Response Procedure will be initiated in the event of the identification of any open flames.	This is the procedure followed onsite, as confirmed during site inspection and audit interviews.	Complies
Reporting			
7	Spontaneous combustion is a reportable incident to the DPI-MR. the Mine Manager will be responsible for reporting any outbreaks of spontaneous combustion to the DPI-MR and to WCPL as soon as practicable. The Mining Superintendent and OCE/Mining Engineer will assist the Mine Manager in the collection of any relevant information associated with the spontaneous combustion outbreak.	The DTIRIS does not require manageable incidences of spontaneous combustion to be reported. Relevant spontaneous combustion incidents are outlined in the AEMR which is provided to DTIRIS.	Complies
7	Spontaneous combustion events will be reported in the Annual Environmental Management Report (AEMR) on an annual basis.	As evidenced in review of publicly available documentation on-line - AEMR page 81.	Complies
Auditing and Review			
8	The SCMP is to be reviewed at least every three years or as otherwise directed by the Director-General of DPI-MR. The review process is to reflect changes in environmental legislation and guidelines, and changes in technology or operational procedures.	Current draft viewed, under development at present for submission. Review during audit showed updates in areas of monitoring, management and practices undertaken on-site including treatment of existing overburden dumps.	Complies

Reference	Requirement	Audit Evidence	Audit Finding
Wilpinjong Coal Project Noise Management Plan (Wilpinjong Coal Pty Limited, September 2011)			
3. Statutory Requirements			
Data Exclusion Rules			
3.4	WCPL will use the following data exclusion rules to exclude extraneous noise sources. The rules are applied to the data and exclude data as a result of: 1. The LAeq(15 minute), (low frequency) exceeds the L90 by more than 5 dBA. 2. The LAeq(15 minute), (low frequency) is greater than the L10. 3. The LAeq(15 minute), (low frequency) exceeds the previous LAeq(15 minute), (low frequency) by more than 7 dBA and is followed by a rapid decrease in noise level. 4. Rainfall events.	Auditors viewed noise monitoring data and have verified the data in condition 3.4 is being appropriately excluded.	Complies
3.4	A review of the data exclusion rules will be undertaken by WCPL if considered that the extraneous noise sources have been significantly over or under predicted. The data exclusion rules will be reviewed and validated annually in consultation with government agencies to ensure that they remain relevant to the Mine and related noise signature. The validation process will involve analysis of audio recordings from the noise monitors to determine noise sources and will be consistent with section 11.1.2 of the INP.	Auditors viewed noise monitoring data and have verified the data in condition 3.4 is being appropriately excluded. Audio capture is being conducted at continuous noise monitoring sites (as per auditors review of Sentinex System)	Complies
5. Monitoring and Interpretation			
Attended Noise Monitoring			
5.1.1	Results from the attended monitoring programme will be used to verify data collected from the real-time noise monitors. This will be undertaken where attended monitoring is conducted directly adjacent to real-time monitors. The attended monitoring data will also be used to determine whether there is a consistent relationship between real-time continuous noise levels and long-term attended monitoring data. This will be done annually to complement the regular maintenance and calibration of the real-time monitors.	While the real time data is not collected for the purposes of compliance monitoring, the data is analysed (subject to the limitations of unattended data) and used to assess performance. Verified in site interview and AEMRs	Complies
5.1.3	Attended noise monitoring will be carried out by an independent expert (i.e. not by mine staff) and will be conducted every 2 months. Monitoring will be conducted in accordance with Australian Standard (AS) 1055:1997 Acoustics – Description and Measurement of Environmental Noise and the INP (EPA, 2000). These operator-attended noise measurements will be conducted during normal operations to quantify the intrusive noise emissions from the Mine as well as the overall level of ambient noise.	While the real time data is not collected for the purposes of compliance monitoring, the data is analysed (subject to the limitations of unattended data) and used to assess performance. Verified in site interview and AEMRs	Complies
5.1.3	Following the completion of the attended noise monitoring by the independent expert, the two monthly monitoring reports will be submitted to OEH and DP&I and will be made publically available on the Peabody website (Section 8.2).	While quarterly monitoring reports do not appear to be on the Peabody website, summary of Attended Monitoring provided within AEMRs	Complies

5.1.3	Attended noise monitoring will be conducted for 15 minute periods day, evening and night. Day is defined as between 7am and 6pm, evening is described as being between 6pm and 10pm and night is between 10pm and 7am.	Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.	Complies
5.1.3	The monitoring will be carried out on two consecutive nights resulting in 2 x 15 minute samples for each location every two months.	Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.	Complies
5.1.3	Acoustic instrumentation used in attended monitoring will comply with AS 1259.2:1990 Sound Level Meters.	Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.	Complies
5.1.3	The intrusive noise level (L _{Amax} , L _{A1} , L _{A10} and L _{Aeq}) contribution from mine operation activities will be quantified over a 15 minute measurement period. In addition, the overall levels of ambient noise (i.e. L _{Amax} , L _{A1} , L _{A10} , L _{A50} , L _{A90} , L _{Amin} and L _{Aeq}) over the 15 minute period will be quantified and characterised.	Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.	Complies
5.1.3	The L _{A1} measurement should be undertaken at 1 m from the dwelling façade and the L _{Aeq} measurement within 30 m of the dwelling. However, the direct measurement of noise at 1 m from the façade is not always practical. In most cases monitoring near the residence is impractical due to barking dogs or issues with obtaining access. In these cases measurements are undertaken at a suitable and representative location as close to the dwelling as practicable. Modifying factors from section 4 of the INP are used where applicable. Tonality and low frequency are assessed by analysis of the measured L _{Aeq} spectrum.	Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.	Complies
5.1.3	During attended monitoring, the following information will be recorded: • operator's name; • locations of attended and unattended noise instruments; • recording intervals; • meteorological conditions (i.e. temperature, humidity, cloud cover, and wind speed and direction); • statistical noise level descriptors together with notes identifying the principle noise sources; and • instrument calibration details.	Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.	Complies
5.1.3	The meteorological conditions listed above will be recorded local to the noise measurement as well as on-site at the Mine Automatic Weather Station (AWS) (Section 5.3). Prevailing weather conditions determined from the AWS (in the first instance) to be outside of the meteorological constraints stipulated in the Project Approval will be excluded from further analysis. Additional information (such as general mobile and fixed plant locations) will be collected at the time of (or soon after) monitoring to enable correlation between Mine noise, meteorological conditions, general plant locations, plant operating conditions and topography.	Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.	Complies
5.1.4	As discussed in Section 5.1.1, the results of attended noise monitoring will be compared against the relevant noise criteria set out in Section 3.3 of this NMP. The comparison will be undertaken following the exclusion of data using meteorological conditions described as part of Table 2 as well as observations of non-Mine noise by the person undertaking the attended noise monitoring programme.	Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.	Complies

5.1.4	In the event of an exceedance of the noise criteria, an assessment will be conducted to determine: • Timing of the exceedance. • Location of the exceedance. • Exclusion of non-mine related noise and noise from non-WCPL mining activities (e.g. can the exceedance be attributed directly to the Mine). This will include consideration of: – the methods and type of equipment being used by WCPL at the time of the exceedance and proximity to the locations at which the exceedance was recorded; and – the location of non-WCPL mining activities or agricultural activities and proximity to the locations at which the exceedance was recorded. • Meteorological conditions at the time of the exceedance – including confirmation that meteorological conditions are in accordance with Condition 2, Schedule 3 of the Project Approval.	Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.	Complies
5.1.4	If the above assessment determines that an exceedance is due to Mine noise then management strategies detailed in Sections 6 and 7 to help prevent recurrence will be implemented in an effort to reduce noise levels below those set out in Table 2.	Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.	Complies
Real-Time Noise Monitoring			
5.2.2	Monitors will be located at the Maher dwelling[N9], the Williams dwelling (Araluen Lane) and Wollar (mine owned land)1.	Noise monitoring techniques and locations were inspected by the audit team (PAEHolmes Photolog Picture A1 - A3).	Complies
5.2.2	The location of these monitors may be changed in response to changes in the mining operation or the purchase of land by the Mine. Locational changes will be conducted in consultation with relevant government agencies, and will consider: • occupational health and safety (OHS); • reliable power supplies; • security of the monitoring equipment; • access to the monitoring equipment for installation, maintenance and recovery; and • representation of the location for noise management.	Noise monitoring locations were inspected by the audit team	Complies
5.2.3	The real-time noise monitors will include the following general specifications: • Records 15 minute statistical noise data. • Records real-time audio (MP3) files continuously. • Records meteorological monitoring data (including wind speed, direction, temperature, humidity and rainfall). • Produces daily reports, including: -15 minute statistical data (LA10, LA90); - LAeq(15 minute) and LAeq(period) noise levels; - LAeq(15 minute) in 1/3 octave; - LAeq(15 minute) in the 12.5 to 630 Hertz (Hz) range; and - wind direction, wind speed, temperature, humidity and rainfall.	Noise monitoring techniques and locations were inspected by the audit team	Complies

5.2.3	Noise data will be processed to exclude those meteorological conditions that do not apply to noise criteria in the Project Approval (i.e. wind speed of greater than 3 metres per second (m/s) and G class temperature inversion stability events) (Table 2), and the data exclusion rules contained in Section 3.4. The Mine meteorological station will be used to determine these conditions, with the meteorological data on the real-time monitors used as a back-up.	Exclusion of data is appropriate to verify compliance for this condition (as verified in site interview)	Complies
5.2.3	Noise investigation triggers will be set at a minimum of 2 dBA below the Project Approval criterion (Section 3.3). Noise investigation triggers will be used at night between 8pm and 10am to allow for proactive noise management. Noise investigation triggers are not used during the period from 10am to 8pm.	Exceedances recorded by the sentinex system sends email and text message alerts. Responsibility then goes to Open Cut Examiner to manage operations to minimise impacts. Control Room Operators notes were sighted by the audit team during the site visit. This confirmed that this procedure is followed.	Complies
5.2.3	An SMS message is sent to the mobile phone of the Open Cut Examiner if a noise trigger is activated. A protocol for responding to situations where the triggers are exceeded is described in Section 5.3.4	Exceedances recorded by the sentinex system sends email and text message alerts. Responsibility then goes to Open Cut Examiner to manage operations to minimise impacts. Control Room Operators notes were sighted by the audit team during the site visit. This confirmed that this procedure is followed.	Complies
Operational Performance Assessment			
5.2.4	The implementation of the real-time noise monitoring protocol will be the responsibility of the Peabody Environment and Community Manager (or delegate).	Exceedances recorded by the sentinex system sends email and text message alerts. Responsibility then goes to Open Cut Examiner to manage operations to minimise impacts. Control Room Operators notes were sighted by the audit team during the site visit. This confirmed that this procedure is followed.	Complies
5.2.4	An important component of the protocol is the review of noise monitoring results, noise control and management measures. These will be assessed by daily graphical analysis by the Peabody Environment and Community Manager (or delegate), incorporating all meteorological exclusions and review of recorded audio files, where necessary.	Exceedances recorded by the sentinex system sends email and text message alerts . Sentinex system interrogated to view graphical outputs of noise monitoring	Complies

5.2.4	The protocol for responding to noise investigation triggers will include: • Examination by the Open Cut Examiner or assistant of the noise levels in real-time and the audio to determine whether the noise is Mine related, following notification of the activation of a noise investigation trigger. The Open Cut Examiner or assistant will aim to respond to the trigger within 1 hour, with the response time depending on examination of audio file information.	Exceedances recorded by the sentinex system sends email and text message alerts. Responsibility then goes to Open Cut Examiner to manage operations to minimise impacts. Control Room Operators notes were sighted by the audit team during the site visit. This confirmed that this procedure is followed. Sentinex system interrogated to establish that audio files are logged and are readily downloadable.	Complies
5.2.4	• Determination of appropriate noise control and management measures that will be used to minimise noise emissions based on the results of the source identification stage. An example of the current trigger response management strategy at the Mine is outlined below for indicative purposes only (i.e. future responses may be different from those outlined below in consideration of the location of mining operations and the noise monitoring location) (Figure 4): 1. Temporary stoppage of mobile equipment closest to the noise receptor. 2. If the real-time noise monitor is still indicating that noise levels are higher than the relevant trigger following step 1 other mobile equipment will be systematically shut down until noise levels drop below the trigger. 3. Mobile equipment will be systematically restarted once noise levels have dropped below the relevant trigger and the situation will be monitored. If noise levels rise above the trigger levels then steps 1 and 2 will be reactivated until the noise levels remain below the trigger level.	Exceedances recorded by the sentinex system sends email and text message alerts. Responsibility then goes to Open Cut Examiner to manage operations to minimise impacts. Control Room Operators notes were sighted by the audit team during the site visit. This confirmed that this procedure is followed. Sentinex system interrogated to establish that audio files are logged and are readily downloadable.	Complies
5.2.4	• Implementation of the noise control and management measures chosen in the management strategy process. The relevant mining operations personnel (e.g. Open Cut Examiner) will be responsible for the timely implementation of the selected measures.	Control Room Operators notes were sighted by the audit team during the site visit. This confirmed that this procedure is followed.	Complies
5.2.4	• Recording by WCPL personnel of management strategies for noise investigation triggers. The records will include details of the investigation, the type of response and the real-time noise monitor's response (i.e. whether the management strategy results in a discernable reduction of noise as indicated by the real-time monitor).	Control Room Operators notes were sighted by the audit team during the site visit. This confirmed that this procedure is followed.	Complies
5.2.4	• Review of real-time monitoring data by the Peabody Environment and Community Manager (or delegate) to check the effectiveness of response to noise investigation triggers.	Exceedances recorded by the sentinex system sends email and text message alerts . Sentinex system interrogated to view graphical outputs of noise monitoring.	Complies
6. Corrective Action			
Complaints Management			
6.1	The objective of the Complaint Response Protocol is to reply to community concerns that relate to noise. The Protocol will be the responsibility of the Peabody Environment and Community Manager (or delegate) and is outlined in Figure 5.	Complaints investigations detailed within the AEMRs. Summary of Community Complaints Register provided as appendix to the AEMRs.	Complies

6.1	Response to a noise complaint will include: • The detail of the complaint will be recorded. • Preliminary investigations will commence within 24 hours of the complaint receipt to determine likely causes of the complaint using information regarding prevailing meteorological conditions, the nature of mining activities taking place and recent noise monitoring results. • Noise control measures will be determined following an investigation into the complaint, if required. Those mitigation measures developed as a result of the assessment will be implemented by the relevant mining operations supervisor (e.g. Open Cut Examiner). • Following implementation of noise control measures (if required), monitoring (e.g. attended/unattended monitoring) will assess the effectiveness of the additional noise control measures.	Complaints investigations detailed within the AEMRs. Summary of Community Complaints Register provided as appendix to the AEMRs.	Complies
6.1	In the event of a complaint where noise levels are demonstrated to be below the relevant criteria (Section 3.3), the resolution process will involve discussion between the complainant and the Peabody Environment and Community Manager (or delegate). The complainant will be made fully aware of the monitoring and reporting procedures used for the Mine. Every effort will be made to ensure that concerns are addressed in a manner that results in a mutually acceptable outcome.	Complaints investigations detailed within the AEMRs. Summary of Community Complaints Register provided as appendix to the AEMRs.	Complies
7. Continuous Improvement			
7.2	A continuous noise improvement programme will be implemented involving an acoustical design, procurement, construction and commissioning process for future significant upgrades and replacement of mobile and fixed plant, including consideration of the following, where necessary: • noise limits and acoustical specification in the procurement of equipment; • desktop design validation and supplier shop testing; • equipment suppliers will demonstrate acoustical conformance during tender phase; • environmental and OHS acoustical shop testing during procurement phase; • in-situ acceptance testing; • re-fitting and or replacement in the event of non-compliance; • acoustical modelling of installed plant using actual achieved sound power levels; • noise emission monitoring and reporting; and • on-site and off-site operator-attended noise surveillance measurements of acoustically significant plant.	Verified during site interview.	Complies
7.3	WCPL will adopt a range of noise control and management measures to reduce the Mine noise emissions during mine operations. Noise control and management measures may include, but will not necessarily be limited to:	Verified during site interview (reference to "quacker" alarms make for reversing of light vehicles)	Complies
7.3	• During operational activities, fixed plant and mobile equipment will be commissioned and maintained in a manner that is consistent with manufacturer's recommendations.	Verified during site interview.	Complies

7.3	Based on current mine planning and predictive noise modelling (Richard Heggie Associates, 2005), some Mine mobile equipment will be noise attenuated to meet more stringent maximum operating LAeq sound power levels to further reduce noise emissions as the open cut operations move towards the extremities of the Mine area and closer to receptors. The timing of this will be confirmed based on noise monitoring data collected as the Mine progresses. Attenuated mobile machinery will be introduced for mining in the Pit 3 and 4 mining areas on the eastern side of the mining operation. However, non noise attenuated machinery may be used if noise modelling demonstrates that noise levels are acceptable at the nearest non mine owned residence. This will be done in consultation with Department of Planning.	Verified during site interview. Pits 3 and 4 were in operation during the audit period.	Complies
7.3	- Additional noise management measures that may be implemented following an exceedance of criteria or receipt of a complaint are as follows: - timely response to any community issues of concern; - discussions with relevant landowners to assess concerns; - refinement of on-site noise management measures and mine operating procedures; and - consideration of acoustical mitigation at receivers (e.g. double glazing of windows).	Complaints investigations detailed within the AEMRs. Summary of Community Complaints Register provided as appendix to the AEMRs.	Complies
8. Reporting and Review			
8.3	WCPL will prepare an Annual Review by the end of December 2011, and annually thereafter. This NMP will be reviewed, and if necessary updated, by the Peabody Environment and Community Manager within 3 months of submission of an annual review, an incident report, an audit or any modification to the conditions of the Project Approval.	The Noise management plan was reviewed and updated in 2014 and is currently awaiting approval by the DG. AEMR reports that NMP is updated in compliance with this condition however no revision table is evident in the audit report.	Not Compliant

Reference	Requirement	Evidence	Audit Finding
Wilpinjong Coal Mine Air Quality and Greenhouse Gas Management Plan, September 2011, Wilpinjong Coal Pty Limited			
Licences, Permits and Leases			
3.2	In addition to the Project Approval, all activities at or in association with the Wilpinjong Coal Mine will be conducted in accordance with the following licences, permits and leases which have been issued or are pending issue. - The conditions of Mining Lease 1573 issued by the NSW Minister for Mineral Resources, under the NSW Mining Act, 1992. - The current Mining Operations Plan approved by Department of Trade and Investment, Regional Infrastructure and Services NSW (DTIRIS NSW). - The conditions of Environment Protection Licence (EPL) No. 12425 issued by the NSW Office of Environment and Heritage (OEH) under the NSW Protection of the Environment Operations Act, 1997. - Water extraction licences issued by the NSW Office of Water under the NSW Water Act, 1912. - Mining and occupational health and safety related approvals granted by DTIRIS NSW and WorkCover NSW.	These approvals and licences are currently held by WCPL, and this IEA has identified that the WCM is generally operating in compliance with these requirements.	Complies
Operating Conditions			
6.3	WCPL will review operational compliance with Condition 20, Schedule 3 of the Project Approval during mining operations.	These downtime stats were viewed by the auditors during the site visit. The Wilpinjong Coal Mine Air Quality and Greenhouse Gas Management Plan (WCPL, September 2011) and the Spontaneous Combustion Management Plan fulfil these requirements.	Complies

Performance Indicators																						
6.4	In addition to the statutory air quality criteria, WCPL will also assess the Wilpinjong Coal Mine against internal performance indicators (Table 2). Table 2 Internal Performance Indicators <table border="1"> <thead> <tr> <th>Pollutant</th><th>Monitoring Point</th><th>Averaging Period</th><th>Performance Indicator¹</th></tr> </thead> <tbody> <tr> <td rowspan="4">PM₁₀</td><td rowspan="2">HV1, HV2, HV2, HV4²</td><td>24 hour</td><td>37.5 µg/m³</td></tr> <tr> <td>Annual</td><td>25 µg/m³</td></tr> <tr> <td rowspan="2">TEOM 1, TEOM 2³</td><td>5 minute instantaneous reading</td><td>150 µg/m³</td></tr> <tr> <td>Rolling 24 hour average</td><td>37.5 µg/m³</td></tr> <tr> <td>Deposited Dust</td><td>Dust deposition gauges excluding DG12, DG13 and DG14⁴</td><td>Annual</td><td>3 g/m²/month</td></tr> </tbody> </table> ¹ Indicative performance indicators only - to be reviewed and updated with ongoing monitoring results and operational experience. ² HV = High Volume Sampler (Section 8.2). ³ TEOM = Tapered Element Oscillating Microbalance (Section 8.2). ⁴ DG = Dust Deposition Gauge (Section 8.2).	Pollutant	Monitoring Point	Averaging Period	Performance Indicator ¹	PM ₁₀	HV1, HV2, HV2, HV4 ²	24 hour	37.5 µg/m ³	Annual	25 µg/m ³	TEOM 1, TEOM 2 ³	5 minute instantaneous reading	150 µg/m ³	Rolling 24 hour average	37.5 µg/m ³	Deposited Dust	Dust deposition gauges excluding DG12, DG13 and DG14 ⁴	Annual	3 g/m ² /month	Air Quality monitoring techniques and locations were verified by the audit team in the audit interview. However it should be noted that HV2 was decommissioned as was TEOM 1 and 2 which are now TEOM 3, 4 and 5.	Complies
Pollutant	Monitoring Point	Averaging Period	Performance Indicator ¹																			
PM ₁₀	HV1, HV2, HV2, HV4 ²	24 hour	37.5 µg/m ³																			
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Air Quality Monitoring Program																						
8	The following air quality monitoring program has been developed to quantify potential air quality impacts and to facilitate the evaluation of air quality control measures. The monitoring program will involve regular dust deposition and PM10 monitoring at a number of sampling sites. Meteorological monitoring will also be conducted as described in Section 8.4.	Air quality and meteorological monitoring techniques and locations were inspected by the audit team. Monitoring results and AEMRs verify this condition.	Complies																			
TEOMs and Real Time Air Quality Management Systems																						
8.2	In addition to the high volume samplers, two TEOM analysers have been installed to monitor real-time PM10 concentrations at the Maher dwelling (TEOM 1) and on WCPL-owned land within the western boundary of the mining lease (TEOM 2) (Figure 3). The TEOMs are used to monitor PM10 concentrations in accordance with AS 3580.9.8-2008 Determination of suspended particulate matter – PM10 continuous direct mass method using a tapered element oscillating microbalance analyser. Data from the TEOMs will be used as an operational air quality management tool (i.e. not for compliance purposes) with performance indicators (Section 6.4) used to notify relevant personnel of when dust levels are approaching the relevant impact assessment criteria (Section 6.1).	No relevant exceedances were recorded during the audit period. Monitoring Results sighted by audit team.	Complies																			

8.2	The TEOMs record five minute instantaneous (i.e. real-time) PM10 concentrations and rolling 24 hour average PM10 concentrations. The TEOMs will send out an alert SMS message and/or email if the real-time PM10 concentrations reach the relevant performance indicators described in Section 6.4.B114 The PM10 performance indicators are subject to change and will be reviewed and updated with ongoing monitoring results and operational experience.	TEOM4 exceedances noted during the reporting period (AEMR 2013 and information provided in audit interview). This procedure was followed.	Complies
8.2	If an alert is received from a TEOM, the Standard Protocol described in Section 9.1 will be implemented to determine the source of the dust and implement management measures to ensure compliance with the relevant impact assessment criteria (Section 6.1).	Control Room Operators notes were sighted by the audit team during the site visit. This confirmed that this procedure is followed.	Complies
8.2	WCPL will continue to consult with the Ulan and Moolarben coal mines regarding the monitoring and management of potential cumulative dust emissions in the region.	Draft Data Sharing Deed was sighted by the audit team during the site visit.	Complies
TSP			
8.3	TSP concentration will be calculated from PM10 results. A correlation between PM10 and TSP will be used to allow the reliable calculation of TSP from existing PM10 measurements. B122 Monitoring data from areas in the Hunter Valley where co-located TSP and PM10 monitors have been operated for reasonably long periods of time indicate that long-term average PM10 concentrations are approximately 40% of the corresponding long-term TSP concentration (NSW Minerals Council, 2000). Therefore, this correlation will be adopted to allow the calculation of TSP.	Air quality monitoring techniques and locations were inspected by the audit team.	Compliant Recommendation made
Data Handling Procedure			
8.5	The results of the dust deposition, particulate matter and meteorological monitoring will continue to be maintained in a database for examination and assessment. This data will be used to investigate relationships between short-term variations in dust levels, the number and distribution of dust-related complaints and exceedances.	Air Quality monitoring database sighted by audit team. AEMRs also reviewed by audit team and demonstrate that data is being collated and used appropriately.	Complies

8.5	Data from the air quality monitoring stations will be handled as described in Table 3. <table><tr><th colspan="2">Table 3 Data Handling Methodology</th></tr><tr><th>Monitoring Parameter</th><th>Data Handling Method</th></tr><tr><td>Dust Deposition</td><td> • Samples retrieved from the monitoring instrumentation on a monthly basis. • Samples sent to a laboratory for analysis. • Data entered into an electronic database (or similar) for comparison with relevant air quality criteria. • Data compared with relevant criteria and any exceedances noted. </td></tr><tr><td>PM₁₀</td><td> • Samples retrieved from the monitoring instrumentation on a six day cycle. • Samples sent to a laboratory for analysis. • Data entered into an electronic database (or similar) for comparison with relevant air quality criteria. • Data compared with relevant criteria and any exceedances noted. </td></tr><tr><td>TSP</td><td> • PM₁₀ data converted to TSP using appropriate correlation. • Data entered into an electronic database (or similar) for comparison with relevant air quality criteria. • Data compared with relevant criteria and any exceedances noted. </td></tr></table>	Table 3 Data Handling Methodology		Monitoring Parameter	Data Handling Method	Dust Deposition	• Samples retrieved from the monitoring instrumentation on a monthly basis. • Samples sent to a laboratory for analysis. • Data entered into an electronic database (or similar) for comparison with relevant air quality criteria. • Data compared with relevant criteria and any exceedances noted.	PM ₁₀	• Samples retrieved from the monitoring instrumentation on a six day cycle. • Samples sent to a laboratory for analysis. • Data entered into an electronic database (or similar) for comparison with relevant air quality criteria. • Data compared with relevant criteria and any exceedances noted.	TSP	• PM₁₀ data converted to TSP using appropriate correlation. • Data entered into an electronic database (or similar) for comparison with relevant air quality criteria. • Data compared with relevant criteria and any exceedances noted.	This use of database to show manipulation of air quality data was viewed by the auditors during the site visit.	Complies
Table 3 Data Handling Methodology													
Monitoring Parameter	Data Handling Method												
Dust Deposition	• Samples retrieved from the monitoring instrumentation on a monthly basis. • Samples sent to a laboratory for analysis. • Data entered into an electronic database (or similar) for comparison with relevant air quality criteria. • Data compared with relevant criteria and any exceedances noted.												
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TSP	• PM₁₀ data converted to TSP using appropriate correlation. • Data entered into an electronic database (or similar) for comparison with relevant air quality criteria. • Data compared with relevant criteria and any exceedances noted.												
8.5	In the event that exceedances of the impact assessment criteria are noted, the steps outlined in the Exceedances Monitoring Protocol (Section 9.2) will be invoked. In addition, exceedances of air quality criteria attributable to the Wilpinjong Coal Mine will be reported as described in Section 15.3.	Exceedances occurred but these did not result in non-compliances as they were attributed to regional events.	Complies										
Assessment Against Air Quality Criteria and Performance Indicators													
8.6	The monitoring results will be used to assess the Wilpinjong Coal Mine against the performance indicators and performance criteria detailed in Table 4.	Verified in the AEMR and ongoing AQMP	Complies										

8.6	If data analysis indicates a performance indicator has been exceeded, an assessment will be made against the performance criteria. If the data analysis indicates that the performance criteria is likely to be exceeded if management measures are not implemented, WCPL will implement suitable management measures (Section 12) and continue to monitor. If any impact assessment criteria are considered likely to have been exceeded, the Exceedances Monitoring Protocol and Contingency Plan will be implemented (Section 9.2). WCPL will implement suitable management measures (Section 12) and continue to monitor (Section 8).	this is the same 24 hr triggered procedure applicable to all management plans.	Complies
8.6	Dust deposition gauge and high volume sampler data will be assessed monthly.	Monthly assessments viewed by audit team	Complies
8.6	Data from the TEOMs will be used as an operational air quality management tool (i.e. not for compliance purposes) with performance indicators being used to notify relevant personnel of when dust levels are approaching the relevant performance criteria.	This register was viewed by the auditors during the site visit.	Complies
Reasonableness of Data Validity			
8.6	Where monitoring indicates a potential non-compliance against Project Approval criteria it is necessary to assess the potential for the influence of the following factors: • Extreme events such as: – bushfires; – prescribed burning; – dust storms; – fire incidents; – illegal activities; and – other activities agreed by the Director-General of the Department of Planning and Infrastructure and the OEH. • Irregular activities near monitoring sites such as: – exposed areas of soil around the monitoring site; – adjacent land use activities; and – contamination from bird droppings, insects, etc. • Reasonableness of data (e.g. is the equipment operating properly, providing reliable data and in calibration?).	AEMRs confirm this condition.	Complies

Consideration of Cumulative Sources of PM ₁₀ Emissions			
8.6	Dust concentrations at the Wilpinjong Coal Mine may be influenced by upwind land use activities such as other mining operations that lie to the west of the Wilpinjong Coal Mine. If an exceedance has been recorded at a high volume sampler during westerly winds indicative dust contributions from the Wilpinjong Coal Mine will be determined by subtracting the concentrations monitored at TEOM 2 from TEOM 1 viz.: Indicative Wilpinjong 24 hour PM10 contribution = (TEOM 1 24 hour PM10 mass concentration) – (TEOM 2 24 hour PM10 mass concentration).	No exceedances have been recorded at HV samplers throughout this auditing period.	Not Triggered
8.6	If an exceedance has been recorded at a high volume sampler during easterly winds, indicative dust contributions from the Wilpinjong Coal Mine will be determined by subtracting the concentrations monitored at TEOM 1 from TEOM 2, viz.: Indicative Wilpinjong 24 hour PM10 contribution = (TEOM 2 24 hour PM10 mass concentration) – (TEOM 1 24 hour PM10 mass concentration).	No exceedances have been recorded at HV samplers throughout this auditing period.	Not Triggered
Air Quality Monitoring Protocols			
Standard Protocol			
9.1	The objective of the Standard Protocol is to facilitate the day-to-day management of dust emissions from the Wilpinjong Coal Mine's activities. The Standard Protocol will also be implemented following the activation of a real-time PM10 performance indicator described in Table 4. Dust control measures will be actively carried out as a standard operating procedure utilising the techniques described in Section 12. The implementation of the Standard Protocol will be the responsibility of the Mining Manager and/or CHPP Manager.	Exceedances recorded by the sentinex system sends email and text message alerts. Responsibility then goes to Open Cut Examiner to manage operations to minimise impacts. Control Room Operators notes were sighted by the audit team during the site visit. This confirmed that this procedure is followed.	Complies
9.1	The Standard Protocol will comprise the following four steps: 1. Source Identification. 2. Management Strategy. 3. Implementation. 4. Review.	visit control room later on during site visit.	Complies

Source Identification			
9.1	The first step of the protocol involves identification of the mining activities with the potential for excessive dust generation. Consideration will be given to the following: - methods and types of equipment that will be used; - timing of the activity; - location of the activity (including surrounding topography and landuse); - the results of recent air quality monitoring data; and - prevailing climatic conditions.	confirmation received that this procedure is being followed.	Complies
Review			
9.1	An important component of the protocol is the review of dust control and management measures. These will be assessed by comparing the results of the air quality monitoring program detailed in Section 8 with the air quality criteria outlined in Section 6.1. Where necessary, the management strategy phase of the protocol will be reviewed. The timing of the review of dust control and management measures will be consistent with the timing provided in Section 15.	confirmation received that this procedure is being followed.	Complies
Exceedances Monitoring Protocol and Contingency Plan			
9.2	Air quality monitoring will be carried out as described in Section 8. The results of the monitoring program will be assessed against the air quality criteria identified in Section 6.1. The Exceedances Monitoring Protocol will be implemented by the Peabody Environment and Community Manager or delegated officer.	Air quality monitoring techniques and locations were inspected by the audit team (PAEHolmes Photolog Pictures A4-A5). Evidence of implementation of exceedence investigations is provided within the AEMRs.	Complies
Air Quality Monitoring Assessment - Exceedances			
9.2	In the event of an exceedance of the impact assessment criteria presented in Section 6.1, an assessment will be commenced within 24 hours of identifying the exceedance, to determine: • The timing of the exceedance(s). • General location of the exceedance(s). • Potential contributing factors (e.g. can the exceedance(s) be attributed directly to the Wilpinjong Coal Mine). In addition to the consideration of the factors described in Section 8.6, this will include consideration of: – the methods and type of equipment being used at the Wilpinjong Coal Mine at the time of the exceedance(s) and proximity to the locations at which the exceedance(s) was recorded; and – the location and nature of potential dust producing non-Wilpinjo	Air quality monitoring techniques and locations were inspected by the audit team (PAEHolmes Photolog Pictures A4-A5). Evidence of implementation of exceedence investigations is provided within the AEMRs.	Complies
9.2	Based on the above assessment, if the exceedance is determined to be due to WCPL's operations, the Peabody Environment and Community Manager (or delegate) will determine appropriate management strategies in consultation with the Mining Manager and/or CHPP Manager.	Evidence of implementation of exceedence investigations is provided within the AEMRs. No mine-attributable exceedence events have been triggered to date.	Complies

Management Strategy and Contingency Measures			
9.2	The management strategy component facilitates determination of the air quality mitigation and management measures that will be adopted, based on the results of the air quality monitoring assessment stage of the protocol. Air quality mitigation and management measures are presented in Section 12. This stage will be conducted in consultation with the Mining Manager and/or CHPP Manager.	No mine-attributable exceedence events have been triggered to date. Evidence of day to day operational dust management (use of water carts, real-time monitoring triggering air quality protocol) was witnessed by the audit team.	Complies
9.2	Air quality mitigation and management measures will be selected with consideration given to: - the location of the exceedance of the criteria and the proximity to the Wilpinjong Coal Mine's activities; - possible reasons for the exceedance of the criteria (including consideration of meteorological factors); and - the likely effectiveness and feasibility of the mitigation/management measures.	No mine-attributable exceedence events have been triggered to date. Evidence of day to day operational dust management (use of water carts, real-time monitoring triggering air quality protocol) was witnessed by the audit team.	Complies
9.2	In addition, in accordance with Condition 20, Schedule 3 of the Project Approval if necessary, WCPL will relocate, modify and/or stop mining operations to minimise air quality impacts on privately owned land.	No mine-attributable exceedence events have been triggered to date. Evidence of day to day operational dust management (use of water carts, real-time monitoring triggering air quality protocol) was witnessed by the audit team.	Complies
Implementation			
9.2	This stage of the protocol involves the implementation of the air quality mitigation and management measures selected in the management strategy process. The Mining Manager and/or CHPP Manager will be responsible for the timely implementation of the selected measures. The timing of the implementation of some mitigation measures will be dependent on the mine production and progression. However, WCPL will generally implement contingency measures to meliorate Wilpinjong Coal Mine dust impacts: - as soon as practical, for potential 24 hour PM10 impacts or 24 hour PM10 exceedances; and - after appropriate evaluation, planning and design for annual average exceedances.	No mine-attributable exceedence events have been triggered to date. Evidence of day to day operational dust management (use of water carts, real-time monitoring triggering air quality protocol) was witnessed by the audit team.	Complies
Review			
9.2	The effectiveness of the adopted measures will be assessed against the relevant criteria identified in Section 6.1. The management strategy phase of the protocol will be revisited as required.	confirmation received that this procedure is being followed.	Complies
9.2	In addition, the Peabody Environment and Community Manager (or delegate) will note any trends in the monitoring data that may emerge in regards to particular operating scenarios or meteorological conditions.	Discussion and investigation into trends in the air quality monitoring data is provided within the AEMRs.	Complies

9.2	The outcomes of the above protocol will be reported in the Annual Review.	Evidence of implementation of exceedence investigations is provided within the AEMRs.	Complies
Greenhouse Gas Management			
10	Greenhouse gas emissions at the Wilpinjong Coal Mine will be minimised through the efficient use of diesel by the mobile fleet. Diesel use will be minimised by: - optimising the design of haul roads to minimise the distance travelled between the pit and the CHPP; - minimising the re-handling of material (i.e. coal, overburden and topsoil); and • maintaining the fleet in good operating order.	This occurs (Site inspection - interview with WCPL staff)	Complies
Odour			
11	All coal stockpiles, overburden dumps, the high wall and the pit will be regularly monitored for the presence of spontaneous combustion (i.e. presence of smoke and/or heat). Heat probes will be used to monitor long term coal stockpiles as required. Overburden dumps will be designed with low angle batters and will be compacted and covered with inert material to minimise the potential for spontaneous combustion.	Small Spon Com issues noted (Refer Spon Com Management Plan assessment). However this is being appropriately management on site. Bunds in place and monitoring taking place for Spon Com issues.	Complies
11	If smoke or heat is observed in coal stockpiles, the stockpiles will be reshaped using a fleet of dozers allowing the heated coal to come in contact with air and cool more rapidly. The heated material will be track rolled by the dozer fleet, this compaction may also assist in reducing the risk of spontaneous combustion.	Small Spon Com issues noted (Refer Spon Com Management Plan assessment). However this is being appropriately management on site. Bunds in place and monitoring taking place for Spon Com issues.	Complies
11	If smoke or heat is observed in overburden dumps, the angle of the batters will be reduced and the batters track rolled to accelerate air flow over the top of the batters. Inert material will be placed on top of the overburden if necessary.	Small Spon Com issues noted (Refer Spon Com Management Plan assessment). However this is being appropriately management on site. Bunds in place and monitoring taking place for Spon Com issues.	Complies
11	Water will only be used on open flames to saturate and cool the combusting material. The WCPL Emergency Response Procedure will be initiated if open flames are identified.	Small Spon Com issues noted (Refer Spon Com Management Plan assessment). However this is being appropriately management on site. Bunds in place and monitoring taking place for Spon Com issues.	Complies

Management Measures

Management measures will be implemented by WCPL consistent with those applied during the air quality modelling by PAEHolmes (2010) for the Modification. Air quality management measures at the Wilpinjong Coal Mine are generally consistent with best practice dust controls identified by Environment Australia (1998). Tables 5, 6 and 7 list the mine-design, wind-blown and mining generated dust sources respectively, and associated management measures which will be used to manage potential air quality impacts where relevant.

Table 5
Air Quality Management Measures for Mine Design

Source	Management Measures
Transport of coal	Largest practical truck size. Shortest route. Conveyors to be used in processing plant. Water sprays on key transfer points.
Overburden dumps	Orientation to minimise profile exposure to receptors. Profiling of surfaces to reduce surface speed. Contouring of dump shape to avoid strong wind flows and smooth gradients to reduce turbulence at surface.
Revegetation	Complete as soon as practical after disturbance. Apply as widely as practical.

Source: After PAEHolmes (2010).

Table 6
Air Quality Management Measures for Wind-blown Dust

Source	Management Measures
Areas disturbed by mining	Disturb only the minimum area necessary for mining. Reshape, topsoil and rehabilitate completed overburden emplacement areas after the completion of overburden tipping, taking into consideration seasonal factors. Where possible, scheduled rehabilitation prior to the expected onset of seasonal rains in September/October.
Ore handling areas/stockpiles	Maintain ore handling areas / stockpiles in a moist condition as required using water carts to minimise wind-blown and traffic-generated dust.

Table 7
Air Quality Management Measures for Mining-generated Dust

As with previous IEA - Operational dust management witnessed by the audit team. This is largely reliant upon water application for dust suppression. This is considered appropriate given the mine has a water surplus.

Truck sizes have been optimised for production purposes. Economic factors dictate shortest haul routes to be used.

Water sprays witnessed at transfer points.

Overburden dumps witnessed as have been being adequately profiled for dust management purposes. Profiling is also a requirement within the SCMP, and compaction / profiling is conducted for this additional purpose.

Evidence of revegetation / rehabilitation witnessed.

Water carts used for dust control purposes.

Static water sprays not fitted to ROM stockpile however water carts available to keep stockpile moist as required.

Recent rain evident during site inspection however water carts witnessed as being available.

No obsolete access roads witnessed.

Dust aprons and extraction reportedly used for drilling.

Environmental Procedure for Blasting witnessed.

Water dust suppression used in processing plant.

Complies

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Source	Management Measures
Haul Road Dust	All roads and trafficked areas will be watered as required using water trucks to minimise the generation of dust. All haul roads will have edges clearly defined with marker posts or equivalent to control their locations, especially when crossing large overburden emplacement areas. Obsolete roads will be ripped and re-vegetated.
Minor roads	Development of minor roads will be limited and the locations of these will be clearly defined. Minor roads used regularly for access etc will be watered. Obsolete roads will be ripped and re-vegetated.
Topsoil Stripping	Access tracks used by topsoil stripping equipment during their loading and unloading cycle will be watered.
Topsoil Stockpiling	Long term (>12 months) topsoil stockpiles not regularly used will be re-vegetated.
Drilling	Dust aprons will be lowered during drilling. Drills will be equipped with dust suppression systems will be used when high levels of dust are being generated.
Blasting	Meteorological conditions will be assessed prior to blasting. Adequate stemming will be used at all times.
Processing	Activities in the processing plant will be dust controlled.

Source: After PAEHolmes (2010).

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Real-time monitoring described in Section 8.2 will be used to guide the implementation of the above management measures where required to maintain compliance with the air quality criteria.

Complaints			
15.2	The objective of the Complaint Response Protocol is to reply to community concerns that relate to operations at the Wilpinjong Coal Mine. The Protocol will be the responsibility of the Peabody Environment and Community Manager (or delegate) and is outlined on Figure 5. The response to an air quality complaint will include: - The detail of the complaint will be recorded in the complaints register. - Preliminary investigations will commence within 24 hours of the complaint receipt to determine likely causes of the complaint using information regarding prevailing meteorological conditions, the nature of mining activities taking place and recent air quality monitoring results. - Air quality control measures will be determined following an investigation into the complaint, if required. Those mitigation measures developed as a result of the assessment will be implemented by the relevant mining operations supervisor (e.g. Open Cut Examiner). - Following implementation of additional air quality control measures (if required), monitoring will assess the effectiveness of the additional air quality control measures.	Complaints investigations detailed within the AEMRs. Summary of Community Complaints Register provided within Appendix of the AEMRs.	Complies
15.2	In the event of a complaint where dust or PM10 levels are demonstrated to be below the relevant criteria (Section 6.1), the resolution process will involve discussion between the complainant and the Peabody Environment and Community Manager (or delegate). The complainant will be made fully aware of the monitoring and reporting procedures used at the Wilpinjong Coal Mine. Every effort will be made to ensure that concerns are addressed in a manner that results in a mutually acceptable outcome.	Complaints investigations detailed within the AEMRs. Summary of Community Complaints Register provided within Appendix of the AEMRs.	Complies
Non Compliances with Statutory Requirements			
15.3	Compliance with all approvals, plans and procedures will be the responsibility of all personnel (staff and contractors) employed on or in association with the Wilpinjong Coal Mine, and will be developed through promotion of Wilpinjong Coal Mine ownership under the direction of the General Manager.	No significant non-compliances with respect to air quality noted.	Complies

15.3	The Peabody Environmental Advisor will undertake regular inspections, internal audits and initiate directions identifying any remediation/rectification work required, and areas of actual or potential non-compliance.	No significant non-compliances with respect to air quality noted.	Complies
15.3	As described in Section 15.1, WCPL will notify the Director-General of the DP&I and any other relevant agencies of any incident associated with the Wilpinjong Coal Mine as soon as practicable after WCPL becomes aware of the incident. Within seven days of the date of the incident, WCPL will provide the Director-General of the DP&I and any relevant agencies with a detailed report on the incident.	No significant non-compliances with respect to air quality noted.	Complies
15.3	A review of WCPL's compliance with all conditions of the Project Approval, mining leases and all other approvals and licences will be conducted prior to (and included within) each Annual Review. The Annual Review will be made publicly available on the Peabody website.	The current AEMR is available on the Peabody website. All AEMRs contained within the audit period contain an analysis of air quality performance.	Complies

Reference	Requirement	Evidence	Audit Finding
Wilpinjong Coal Project Site Water Management Plan (Wilpinjong Coal Pty Limited, July 2006)			
Site Water Management Plan			
2	As provided for in Condition 29, Schedule 3 of the Project Approval, the Cumbo Creek Relocation Plan (CCRP) has not been included in this SWMP. The CCRP will be developed and subsequently included in the SWMP within 24 months of the commencement of Project Approval.	The Cumbo Creek relocation project has not commenced yet but the CCRP is required 24 months after approval and has not yet been developed.	Not Compliant recommendation Made
Site Water Management Plan Revisions			
4	The SWMP (and its appendices) will be reviewed, and if necessary updated, by the Environmental Manager: - where there is a significant change in the Project water balance surplus/deficit; - when there are changes to Project Approval or licence conditions relating to aspects of this SWMP; or - in response to a relevant change in technology or legislation.	During audit interview, it was noted that the SWMP and its appendices had not been reviewed or updated as a result of changes to the project approval, however draft updated forms of the plans are in process of review and approval with DPE (evidence of email correspondence sighted).	Complies
Wilpinjong Coal Project Site Water Balance (Wilpinjong Coal Pty Limited, July 2006)			
Water Sources			
Water Supply System			
3.1	The Recycled Water Storage (RWS) will be used to supply water to the CHPP and for dust suppression.	Water from the RWS is used to supply the CHPP, as confirmed during the audit interview.	Complies
3.1	Fine rejects (tailings) will be disposed of by pumping as a slurry to mined-out open cuts. Supernatant water from tailings disposal areas will be recovered and pumped to the Rail Loop Pond (RLP) or the RWS.	This is the procedure that is used onsite, as confirmed during the audit interview.	Complies
3.1	Advance pit dewatering bores and if necessary the water supply borefield will be used initially (i.e. prior to commencement of open cut mine inflow) for dust suppression and moisture conditioning of earthworks. Water from these sources will also be used to supplement the Project water supply system during operations as required.	This has not occurred during the current auditing period.	Not Triggered
3.1	Groundwater extractions will be undertaken in accordance with water licences obtained from the Department of Natural Resources (DNR).	These licences held by WCPL are outlined in Table 3 of the IEA report.	Complies
Open Cut Dewatering			
3.2	Excavation of the open cut will form a localised sink in the groundwater system towards which groundwater will flow. Sumps will be excavated in the floor of active open cuts as part of routine mining operations to manage the quantities of inflows expected to report to mine workings and to minimise interruption to mining. Water accumulating in the sumps will typically be pumped to the RWS to meet Project water supply requirements.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered

3.2	Groundwater inflows to the open cut are predicted to vary over the Project life (AGE, 2005). Advance dewatering via temporary bores is being used to lower the local groundwater table prior to open cut development. This will have the effect of reducing the rate of groundwater inflow to the open cut during mining operations. Water from these bores will either be used directly for dust suppression or will be pumped to the RLP to meet Project water supply requirements.	This has not occurred during the current auditing period.	Not Triggered
Water Supply Borefield			
3.3	A network of up to 19 production bores will be installed to the north and north-east of the open cut operations (Figure 3) as required to meet water supply requirements. Bore licences will be obtained from the DNR prior to installation of the production bores.	No production bores were utilised or installed during this auditing period.	Not Triggered
3.3	The production bores will extract groundwater from the Ulan Seam and underlying Marrangaroo Sandstone using submersible pumps. The production bores will be located at a setback distance of greater than approximately 40 m from Wilpinjong Creek.	No production bores were utilised or installed during this auditing period.	Not Triggered
3.3	Water extracted from the production bores will be reticulated to the RLP. For bores located north of Wilpinjong Creek, the delivery pipelines will cross Wilpinjong Creek at selected locations via buried trenches and follow the rail spur and rail loop corridor to the mine infrastructure area.	No production bores were utilised or installed during this auditing period.	Not Triggered
Water Use and Water Management			
4	Where practicable, Project water supply will be prioritised as follows (Figure 2): 1. Recycling of water from the tailings thickener overflow. Capture of incident rainfall and runoff across the mining operational areas (i.e. CHPP, mine facilities area, ROM and product coal stockpile areas). 2. Recovery of supernatant waters and seepage collected from tailings disposal areas. Dewatering of active open cut mining areas including groundwater inflows, incident rainfall and infiltration/runoff from adjacent spoil emplacements. Advance dewatering via temporary bores. 3. Dewatering of inactive open cut mining areas (mine water storages) including groundwater inflows, incident rainfall and infiltration/runoff from adjacent spoil emplacements. 4. Licensed groundwater extractions from the Project water supply borefield.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
Upslope Diversion Works			
4.1	Both temporary and permanent upslope diversion bunds/drains and temporary interception dams will be constructed over the life of the Project. The purpose of these diversion works is to divert runoff from undisturbed areas around the open cut and spoil emplacement areas to off-site drainages. Permanent upslope diversion bunds/drains will remain around the two final voids.	Upslope diversions were not evident in all locations, partly due to recent activities in vicinity of (south of) Pit 5. However WCPL had no final voids at the time of the audit. (considered outside of scope).	Complies
4.1	Toe drains and isolation bunds will be constructed around the perimeter of any temporary out-of-pit spoil emplacements and other areas disturbed by mining to collect and convey drainage from these areas to sediment dams or to downslope sumps for transfer by pumping to water storages.	Confirmed by specialist during site during inspection.	Complies

4.1	Upslope diversions have been constructed around the southern perimeter of the Project disturbance areas (Attachment 1). These and future upslope diversions will be designed to not incur excessive erosion at the design flows. Stabilisation of the upslope diversion works will be achieved by design of appropriate channel cross-sections and gradients and the use of channel lining with grass or rockfill as required.	Upslope diversions were no longer in place (had been previously observed during earlier audit) as the extent of mining has progressed such that diversions can no longer practicably be achieved given the extent of disturbance and local topography. Where diversions can no longer be achieved - runoff from upslope catchments is being captured within the mine water system.	Not compliant
4.1	The Cumbo Creek relocation corridor will provide for the diversion of upslope runoff and flows in Cumbo Creek. Further details of the Cumbo Creek relocation works will be provided in the Cumbo Creek Relocation Plan.	The Cumbo Creek relocation project has not commenced yet.	Not Triggered
Site Water Balance Revisions			
8	The SWB will be reviewed, and if necessary updated, by the Environmental Manager: - where there is a significant change in the Project water balance surplus/deficit; - in response to an Independent Environmental Audit; - when there are changes to Project Approval or licence conditions relating to aspects of this SWB; or - in response to a relevant change in technology or legislation.	During audit interview, it was noted that the SWB has not been reviewed as part of applications for Project Approvals (i.e. MOD 5 and MOD 6) and other investigations. Copies sighted during audit.	Complies
Wilpinjong Coal project Surface and Groundwater Response Plan (Wilpinjong Coal Pty Limited, July 2006)			
Triggers			
2	Surface water and groundwater monitoring will be undertaken for the Project in accordance with the Surface Water Management and Monitoring Plan (SWMMP) (WCPL, 2006a) and Groundwater Monitoring Programme (GWMP) (WCPL, 2006b), respectively.	Monitoring data sighted during audit and presented in the AEMRs for 2012, 2013 indicate that water management activities were undertaken during the reporting period in accordance with the mine water management system outlined in the MOP and SWMMP.	Compliant
Landholder Complaint Triggers			
2.1	All complaints or enquiries will be managed in accordance with the Project Complaints Management Procedure as described in the Environmental Management Strategy (WCPL and Thiess, 2006).	No complaints relating to surface water or ground water were noted in the complaints register.	Not Triggered

2.1	In the event that a surface water-related complaint or a groundwater-related complaint is received from a local landholder in relation to a potential Project related effect on their water supply, the relevant data set will be reviewed by the Environmental Manager (or delegate), who will determine if the groundwater impact investigation protocol (Section 4) or surface water investigation protocol (Section 5) would be initiated.	No water related complaints were received during the auditing period.	Not Triggered
2.1	As described in the Environmental Management Strategy (WCPL and Thiess, 2006), the complaints reporting requirements are as follows: - A summary of complaints received is reported in the Monthly Operations Report. - A summary of complaints received and actions taken is presented to the Project Community Consultative Committee (CCC) as part of the operational performance review. - A summary of complaints received and actions taken will be included in the Annual Environmental Management Report and the Annual Return to the Department of Environment and Conservation (DEC).	Complaints are detailed in the monthly operations report, and in the AEMRs. A summary of the Community Complaints Register Summary is also provided on the Wilpinjong website.	Complies
Direct Alluvium Groundwater Inflow Trigger			
2.2	Should direct groundwater inflows be identified from alluvium exposed in the final highwall of the open cut, the observation would be reported to the Environmental Manager (or delegate) as soon as practicable.	This has not occurred during the current auditing period, as confirmed during the audit interview.	Not Triggered
2.2	The Environmental Manager will be responsible for ensuring the identified groundwater inflows are appropriately investigated and if the groundwater inflows are confirmed to be directly from alluvium exposed in the final highwall of the open cut would commence implementation of the response plan described in Section 6.1.2.	This has not occurred during the current auditing period, as confirmed during the audit interview.	Not Triggered
Stream Flow Triggers			
2.3	The following two flow triggers, calculated for the Wilpinjong Creek downstream gauging station (GS1) and upstream gauging station (GS2), will be used to determine if the surface water investigation protocol (Section 5) would be initiated: - should the Flow Volume Percentage, calculated as the ratio of recorded total flow for the preceding 12-month period to the model predicted total flow for the preceding 12-month period fall below 80%; or - should the Cease-to-Flow Percentage, calculated as the ratio of recorded cease-to-flow days for the preceding 12-month period to the model predicted cease-to-flow days for the preceding 12-month period fall below 80%.	This has not occurred during the current auditing period. It is noted that the methodology for monitoring streamflow has changed and is in the process of being formalised in the draft SWMMP under review by DPE.	Not Triggered
2.3	The two gauging stations (Figure 2) provide a measure of the actual stream flow at two points in the stream. Both these stream flows will be compared to those that the EIS hydrological model estimates would have occurred at the same points in the stream if the Project were not present, in response to the same meteorological data. The gauging stations have been located in positions where natural flow controls exist (i.e. exposed bed rock) to ensure an accurate measurement of total flow.	This has not occurred during the current auditing period. It is noted that the methodology for monitoring streamflow has changed and is in the process of being formalised in the draft SWMMP under review by DPE.	Not Triggered

Groundwater Quality Triggers																						
2.4	Table 2 Typical Baseline EC and pH Values by Aquifer Type <table><tr><th rowspan="2">Aquifer Type</th><th colspan="2">EC (µS/cm)</th><th colspan="2">pH</th></tr><tr><th>Average</th><th>Max Recorded</th><th>Min Recorded</th><th>Max Recorded</th></tr><tr><td>Alluvium</td><td>~2,350¹</td><td>4,100</td><td>6.9</td><td>8.4</td></tr><tr><td>Illawarra Coal Measures</td><td>~3,200</td><td>6,176²</td><td>5.6²</td><td>8.3²</td></tr></table> Source: Wipinjong Coal Project GWMP (2006b) ¹ Average calculated using ratio of 0.68 EC/Total Dissolved Solids. ² Range does not include two alkaline sites (EW5049 and EW5052) and two acidic sites (EW2004 and EW2005). These values will be used until more accurate criteria can be established through further monitoring in accordance with the SWMMP and GWMP (WCPL, 2006a and 2006b). If the monitoring results indicate the maximum recorded EC or recorded range of pH for the aquifer type is exceeded, the groundwater impact investigation protocol (Section 4) would be initiated. These triggers will be based on a periodic comparison of overall stream health indicators back to the recorded baseline stream health condition.	Aquifer Type	EC (µS/cm)		pH		Average	Max Recorded	Min Recorded	Max Recorded	Alluvium	~2,350 ¹	4,100	6.9	8.4	Illawarra Coal Measures	~3,200	6,176 ²	5.6 ²	8.3 ²	ifers have been The Groundwater and Surface Water response plan has also not been invoked during this auditing period in relation to a groundwater related incident.	Complies
	Aquifer Type		EC (µS/cm)		pH																	
Average		Max Recorded	Min Recorded	Max Recorded																		
Alluvium	~2,350 ¹	4,100	6.9	8.4																		
Illawarra Coal Measures	~3,200	6,176 ²	5.6 ²	8.3 ²																		
Stream Health Triggers																						
2.5	It is proposed to develop trigger conditions based on stream health indicators. These indicators will be developed following the further stream health monitoring and channel stability monitoring planned over the next 12 months and will be presented in a future revision of the SGWRP.	Development of trigger conditions for stream health has been incorporated into the Draft SGWRP - which has been submitted to DPE for review and approval.	Complies																			

Production Bore Triggers							
2.6	The proposed trigger levels for the licensed production bores (i.e. WSB10, WSB11, WSB12, WSB14 and WSB15) are provided in Table 3 and have been determined based on the expected maximum drawdown, as a result of the development of the Project open cut and Project water supply borefield, presented in the EIS at the monitoring bores required for each production bore licensed by the DNR.			noted and reviewed by audit groundwater specialist.	Complies		
	Table 3 Production Bore Trigger Levels – Reporting and Cease-to Pump Triggers						
	Production Bore	Groundwater Monitoring Bore [*]	Reporting Trigger ¹			Cease-to-Pump Trigger ²	Expected Maximum Drawdown Level ³
	WSB10	GWsc10	351.5 m AHD			346 m AHD	341 m AHD
		GWsa10	See Section 2.6.1			-	
	WSB11	GWsc11	353 m AHD			348.5 m AHD	344 m AHD
		GWsa11	See Section 2.6.1			-	
	WSB12	GWsc12	338 m AHD			332.5 m AHD	327 m AHD
		GWsa12	See Section 2.6.1			-	
	WSB14	GWsc14	328 m AHD			319.5 m AHD	311 m AHD
		GWsa14	See Section 2.6.1			-	
	WSB15	GWsc15	324 m AHD			314.5 m AHD	305 m AHD
		GWsa15	See Section 2.6.1			-	
	¹ Based on 70% of maximum predicted drawdown from observed/estimated pre-mining groundwater level.						
	² Based on 85% of maximum predicted drawdown from observed/estimated pre-mining groundwater level.						
³ Equivalent to the interpreted base of the Ulan Seam.							
[*] Refer to Figure 2a.							
m AHD - metres Australian Height Datum							
2.6	The trigger levels will be validated following drilling of the monitoring bores to confirm the actual level of the base of the Ulan Seam. The trigger levels would be reviewed on a 12 monthly basis and if necessary would be adjusted in consultation with the DNR.			noted and reviewed by audit groundwater specialist. Trigger levels were not exceeded during reporting period.	Complies		
2.6	If the monitoring results indicate the reporting trigger or cease-to-pump trigger level is exceeded, the groundwater impact investigation protocol (Section 4) would be initiated.			This has not occurred during the current auditing period	Not Triggered		
2.6	This SGWRP will be revised to include trigger levels for the remainder of the production bores following licensing by the DNR. A coal measure monitoring bore and alluvial monitoring bore will be installed for each additional production bore.			This has not occurred during the current auditing period	Not Triggered		
Alluvial Monitoring Bore Triggers							
2.6.1	WCPL will undertake a systematic process for the monitoring, analysis and reporting of the alluvium water levels as outlined below:						
2.6.1	In accordance with the requirements of the DNR licences issued to date, WCPL will install a monitoring bore in the alluvium at a site located between the bores authorised by the licences and Wilpinjong Creek along the shortest path to Wilpinjong Creek.			GW Specialist sighted. Condition confirmed during audit interview.	Complies		
2.6.1	The water levels in the alluvium bores will be recorded at hourly intervals using an automatic recorder.			GW Specialist sighted. Condition confirmed during audit interview. Groundwater monitoring program reviewed, results recorded in AEMRS (2012, 2013, 2014)	Complies		

2.6.1	Data generated from the above monitoring will be reported to the DNR on a three monthly basis.	GW Specialist sighted. Condition confirmed during audit interview. Groundwater monitoring program reviewed, results recorded in AEMRs (2012, 2013, 2014)	Complies
2.6.1	In addition to the above, on a three monthly basis the monitoring data from each of the alluvium monitoring bores would be reviewed to compare the groundwater monitoring levels to the recorded: - coal seam aquifer groundwater levels; - meteorological data (i.e. rainfall); - recorded surface water flows; and - historical monitoring data.	GW Specialist sighted. Condition confirmed during audit interview. Groundwater monitoring program reviewed, results recorded in AEMRs (2012, 2013, 2014)	Complies
2.6.1	The above data will be analysed by the Environmental Manager with technical input from appropriately qualified hydrologists and hydro-geologists. If this analysis indicates alluvium groundwater levels are responding to the operation of the Project water supply borefield, the groundwater impact investigation protocol (Section 4) and the surface water investigation and contingency protocol (Section 5) would be commenced.	GW Specialist sighted. Condition confirmed during audit interview. Groundwater monitoring program reviewed, results recorded in AEMRs (2012, 2013, 2014)	Complies
2.6.1	The monitoring and trigger system would be reviewed and modified, if necessary, to the satisfaction of the DNR, within a period of 12 months.	The GWMP is constantly under review as WPCL have been commissioning specialists to undertake site water balance studies during the auditing period.	Complies
Stream Flow Model			
3.3	Some 12 months of reliable stream flow data is now available from a gauging station on Wilpinjong Creek some 3.6 km upstream of the Wollar Creek confluence (designated GS1 - Wilpinjong Creek downstream). Rainfall data is available from four automatic recorders (pluviometers) spaced throughout the catchment. The Wilpinjong Creek stream flow model will be recalibrated using data collected up to the start of open cut mining operations. This calibrated flow model will be used as the basis against which future measured streamflow comparisons will be made.	Upstream and downstream gauging has been used to determine a flow investigation trigger. Baseline flows are documented in the draft SWMMP and trigger has been incorporated into the draft SGWRP.	Complies

Monthly Stream Flow Assessment			
3.4	The calibrated, pre-mine stream flow model of Wilpinjong Creek at GS1 will be adjusted to allow prediction of maximum mine-induced impact on stream flows, by simulating removal of an average 0.66 ML/day of baseflow and reducing the modelled total flow in proportion to the estimated maximum surface catchment excised by the Project. Modelled flows will be updated on a monthly basis, using recorded Project rainfall and evaporation data, to give a model prediction of daily stream flow in Wilpinjong Creek, downstream of the Project, with maximum mine-induced impact. Model predictions will be compared against stream flow recorded at GS1. Comparisons will be made using the previous 12 months of recorded and model-generated flow data. A 12-month period will be used to allow for the effects of seasonality and the highly variable nature of stream flow response to rainfall.	Model has not been updated on a monthly basis. Last update of the AWBM model appears to have been conducted for MOD5 by Gilbert & Associates (2013). As the local streams are ephemeral, value of assessing the data monthly is likely to be limited. It is noted that, the site gauging network has been expanded, with an additional upstream gauge on Cumbo Creek proposed. Work on assessing the baseline data and hydrological parameters has been prepared and is presented in the draft SWMMP with a simple flow investigation trigger and TARP developed to "target streamflow losses between u/s and d/s ... that are outside the range of the EIS".	Not Compliant
3.4	The following two assessment parameters will be calculated from the recorded and modelled data:		
3.4	Flow Volume Percentage (Recorded total flow for preceding 12-month period) / (Model predicted total flow for preceding 12-month period) x 100 (%)	See above	Not able to be verified
3.4	Cease-to-Flow Percentage (Recorded cease-to-flow days for preceding 12-month period) / (Model predicted cease-to-flow days for preceding 12-month period) x 100 (%)	See above	Not able to be verified
3.4	A trigger for investigation would be reached if either of the above parameters fell below 80% (i.e. greater than 20% deviation from predictions).	See above	Not able to be verified
Reviews			
3.5	Review of recorded stream flow information will be periodically undertaken by an experienced hydrologist. Reviews would also occur as part of the surface water investigation protocol (Section 5) if either of the above triggers are reached. Reviews would include the following:	Model has not been updated on a monthly basis. Last update of the AWBM model appears to have been conducted for MOD5 by Gilbert & Associates (2013). As the local streams are ephemeral, value of assessing the data monthly is likely to be limited. It is noted that, the site gauging network has been expanded, with an additional upstream gauge on Cumbo Creek proposed. Work on assessing the baseline data and hydrological parameters has been prepared and is presented in the draft SWMMP with a simple flow investigation trigger and TARP developed to "target streamflow losses between u/s and d/s ... that are outside the range of the EIS".	Not Compliant
3.5	Calibration/revised calibration of an AWBM for GS3 (Wilpinjong Creek upstream).	See above	Not able to be verified

3.5	Review of the AWBM calibration for GS1 (Wilpinjong Creek downstream). This would comprise a review of the AWBM surface flow parameters only, given that baseflow has the potential to be affected by mining activity. The review would be based on the calibration of the GS3 AWBM and data collected at GS1.	See above	Not able to be verified
3.5	Revision of the pre-mine stream flow model of Wilpinjong Creek at GS1 (adjusted for mine effects) as necessary for the next 12 monthly stream flow assessments.	See above	Not able to be verified
3.5	Calculation of GS1 from the recorded preceding 12 months of stream flow data.	See above	Not able to be verified
3.5	Calculation of the Flow Volume Percentage for the previous 12-month period, to ensure that the recorded data does not deviate from model predictions by more than 20%.	See above	Not able to be verified
3.5	Reviews would be undertaken for the first four years of mine operation and every three years thereafter, in line with IHAP Report Recommendation 8.	A thorough review and update of the plan is in process of submission/ review/ approval with DPE.	Complies
Groundwater Impact Investigation Protocol			
4	In the event the groundwater impact investigation is triggered, the following protocol will be commenced:		
4	In the event of an apparently anomalous groundwater monitoring result, a resample/retest will be conducted where possible.	No groundwater related complaints have been received during this auditing period. The Groundwater and Surface Water response plan has also not been invoked during this auditing period in relation to a groundwater related incident.	Not Triggered
4	Where monitoring results indicate the groundwater level reaches the reporting trigger for the production bores (Section 2.6), the DNR will be notified in writing.	No groundwater related complaints have been received during this auditing period. The Groundwater and Surface Water response plan has also not been invoked during this auditing period in relation to a groundwater related incident.	Not Triggered
4	Where monitoring results indicate that groundwater levels have reached the cease-to-pump trigger for an individual production bore (Section 2.6), the relevant production bore will be turned off until the investigation under this protocol is completed. Pumping from the relevant production bore will not recommence until such time as it can be determined that the EIS maximum drawdown is unlikely to be exceeded within the next six months or the groundwater level recovers to a level above the relevant cease-to-pump trigger.	No groundwater related complaints have been received during this auditing period. The Groundwater and Surface Water response plan has also not been invoked during this auditing period in relation to a groundwater related incident.	Not Triggered
4	A preliminary investigation will involve the consideration of the monitoring results in conjunction with site activities being undertaken at the time, baseline groundwater monitoring results, groundwater results in nearby locations, the prevailing and preceding meteorological conditions and changes to the landuse/activities being undertaken in the contributing hydrogeological regime.	No groundwater related complaints have been received during this auditing period. The Groundwater and Surface Water response plan has also not been invoked during this auditing period in relation to a groundwater related incident.	Not Triggered

4	Where monitoring results indicate values exceeding the relevant threshold of acceptable variance or impact assessment criteria, an investigation appropriate for the situation will be conducted in consultation with the Department of Planning (DOP) and the DNR.	No groundwater related complaints have been received during this auditing period. The Groundwater and Surface Water response plan has also not been invoked during this auditing period in relation to a groundwater related incident.	Not Triggered
4	Contingency measures will be developed in consultation with DOP and other regulatory authorities and implemented in response to the outcomes of the investigation, and may include the response plans outlined in Section 6.1.	No groundwater related complaints have been received during this auditing period. The Groundwater and Surface Water response plan has also not been invoked during this auditing period in relation to a groundwater related incident.	Not Triggered
4	Additional monitoring may be implemented to measure the effectiveness of contingency measures, where necessary.	No groundwater related complaints have been received during this auditing period. The Groundwater and Surface Water response plan has also not been invoked during this auditing period in relation to a groundwater related incident.	Not Triggered
4	In the event that the relevant threshold of acceptable variance or impact assessment criteria continue to be exceeded, further investigations may be undertaken (i.e. a circular process of continual improvement or adjustment of the relevant triggers, if warranted). Conversely, if the relevant trigger is not exceeded following the implementation of contingency measures, DOP and other regulatory authorities will be consulted regarding the need for the implementation of ongoing measures.	No groundwater related complaints have been received during this auditing period. The Groundwater and Surface Water response plan has also not been invoked during this auditing period in relation to a groundwater related incident.	Not Triggered
4	The above protocol will be the responsibility of the Environmental Manager (or delegate).	No groundwater related complaints have been received during this auditing period. The Groundwater and Surface Water response plan has also not been invoked during this auditing period in relation to a groundwater related incident.	Not Triggered
Surface Water Investigation and Contingency Protocol			
5	The surface water investigation protocol will be undertaken in response to an exceedance of a relevant trigger (Section 2) or a complaint from a landholder (surface water-related). The following review protocol will be the responsibility of the Environmental Manager (or delegate):	No complaints related to water received. Small number of water quality samples exceeded water quality criteria at stream monitoring sites. However - no clear triggers for stream monitoring sites for water quality are noted. Exceedance of RO plant discharge criteria is also noted in the AEMR (2013) - and description of these occurrences and audit interview indicate causes of these exceedances was investigated and are now well understood.	Complies

5(i)	check and validate the data which indicates an exceedance of the trigger conditions and/or information provided with a complaint;	Verified by specialist (protocol sighted and reviewed)	Complies
5(ii)	undertake review of recorded data at GS1 and GS3 and stream flow models, as per annual review methodology (Section 3.5);	Not Triggered in audit period.	Not Triggered
5(iii)	assess conditions (climatic, hydrological, hydrogeological and changes in landuse activities in the catchment – including mining activities and riparian revegetation works as part of the Project), preceding and during the event and assess their impact of flow changes;	The SW response protocol deals with this condition. Auditors sighted.	Complies
5(iv)	investigate changes in recorded salinity values with time and between gauging stations to assess if any trends are evident;	Not Triggered in audit period.	Not Triggered
5(v)	identify plausible and possible causative mechanisms and assess/quantify these against all relevant data and information to identify most likely causes;	Verified by specialist (protocol sighted and reviewed)	Complies
5(vi)	if the above review indicates that the stream flow effects are in excess of 20% variance from predictions and that the effects are mainly attributable to the Project activities, develop/design contingency measures in consultation with the WCPL mining operations manager and the DNR, based on the results of the above investigations;	Not Triggered in audit period.	Not Triggered
5(vii)	undertake landholder and government consultation, as required;	Not Triggered in audit period.	Not Triggered
5(iii)	implement appropriate contingency measures, including follow-up monitoring and auditing (Section 6.2.1); and	Verified by specialist (protocol sighted and reviewed)	Complies
5(ix)	if on-going monthly assessment shows that the assessment parameters (Section 3.4) continue to be less than 80%, a further investigation may be undertaken (i.e. a circular process of continual improvement or adjustment of the relevant trigger level(s) if warranted). Conversely, if the relevant trigger level in the assessment parameters is not exceeded following the implementation of contingency measures, the DNR will be consulted regarding the need for ongoing contingency measures.	Not Triggered in audit period.	Not Triggered
5	The results of any investigations will be communicated to the relevant landholders and summarised in the Annual Environmental Management Report (AEMR).	Verified by specialist (protocol sighted and reviewed)	Complies
Response Plans			
Groundwater			
6.1	Potential groundwater impacts are discussed in the EIS. As outlined in Section 4, response plans will be developed based on the outcomes of an investigation into particular groundwater impacts. Nonetheless, response plans for two potential groundwater impact scenarios are presented below.	Contingency measures and groundwater impacts are dealt with in the Surface and Groundwater response Plan (SGWRP).	Complies
Existing Groundwater Supply Users			
6.1.1	In the event that an investigation conclusively attributes an adverse impact to an existing groundwater supply user to Project operations, WCPL will investigate appropriate contingency measures which may include: - deepening the affected groundwater supply; or - construction of a new groundwater supply; or - provision of a new alternative water supply.	Not triggered, no investigations to date.	Not Triggered

6.1.1	The exact nature of contingency measures will be determined in consultation with the affected landholder. If an alternative water supply source is to be provided, it will be WCPL's responsibility to obtain a licence and pay for this source, in consultation with the relevant landowner(s). The nature of the source will depend on the location of the affected landowner and the availability of nearby sources.	Not triggered, no investigations to date.	Not Triggered
Direct Groundwater Inflows from Alluvium Exposed in the Final Highwall of the Open Cut			
6.1.2	During mining operations any direct groundwater inflows from Wilpinjong or Cumbo Creek alluvium exposed in the final highwall of the open cut will be intercepted prior to it reaching the floor of the open cut and pumped back to the nearest creek (subject to WCPL obtaining relevant licences). This will be achieved by the installation of sumps and a pump/pipe system located on a bench of the open cut.	No alluvium intercepted by mining operations to date.	Not Triggered
6.1.2	Areas of exposed alluvium in the final highwall will be sealed during the backfilling of the completed open cuts. This will be achieved by measures such as the selective placement of more weathered materials against the alluvium intersect as the open cut excavation is backfilled with waste rock. These materials will be sourced from pre-stripping operations. If necessary, placement methodologies for these materials (i.e. placement in thinner layers and trafficking with mine fleet) will be developed to achieve the desired degree of compaction.	No alluvium intercepted by mining operations to date.	Not Triggered
Surface Water			
6.2	Potential surface water impacts are discussed in Appendix A of the EIS. As outlined in Section 5, contingency measures will be developed based on the outcomes of an investigation into particular surface water impacts. Nonetheless, a response plan for a potential surface water impact scenario is presented below.	No investigations into surface water impacts have been conducted	Not Triggered
Loss of Surface Water Flows			
6.2.1	In the event that an investigation conclusively attributes an adverse impact to an existing surface water user to Project operations, WCPL will investigate appropriate contingency measures which may include the provision of a new alternative water supply.	No investigations into surface water impacts have been conducted	Not Triggered
6.2.1	The exact nature of contingency measures will be determined in consultation with the affected landholder. If an alternative water supply source is to be provided, it will be WCPL's responsibility to obtain a licence and pay for this source, in consultation with the relevant landowner(s). The nature of the source will depend on the location of the affected landowner and the availability of nearby sources.	No investigations into surface water impacts have been conducted	Not Triggered
Unforeseen Impacts			
6.3	In the event that any unforeseen groundwater or surface water impacts are detected, the following procedure (in general accordance with the procedures [Sections 4 and 5]) will be invoked by the Environmental Manager (or delegate):		
6.3	Review of the unforeseen impact, including consideration of: – any relevant monitoring data; and – current mine activities and land management practices in the relevant catchment.	This has not occurred during the current auditing period	Not Triggered
6.3	Commissioning of an investigation by an appropriate specialist into the unforeseen impact, if considered appropriate by the Environmental Manager.	This has not occurred during the current auditing period	Not Triggered
6.3	Development of appropriate contingency measures based on the results of the above investigations, in consultation with the relevant authorities.	This has not occurred during the current auditing period	Not Triggered

6.3	Additional monitoring may be implemented to measure the effectiveness of the mitigation measures, where necessary.	This has not occurred during the current auditing period	Not Triggered
6.3	The outcomes of this procedure will be reported in the AEMR.	This has not occurred during the current auditing period	Not Triggered
6.3	The implementation of any mitigation measures will be undertaken in consultation with the DNR and reported in the AEMR.	This has not occurred during the current auditing period	Not Triggered
Surface and Ground Water Response Plan Revisions			
8	The SGWRP will be reviewed, and if necessary updated, by the Environmental Manager: - where there is a significant change in the Project operational arrangements/details; - as an outcome of any Independent Environmental Audit; - when there are changes to Project Approval or licence conditions relating to aspects of this SGWRP; or - in response to a relevant change in technology or legislation.	The SGWRP was revised and draft document submitted to DPE for review and approval	Complies

Reference	Requirement	Evidence	Audit Finding
Wilpinjong Coal Project Surface Water Management and Monitoring Plan (Wilpinjong Coal Pty Limited, March 2006)			
Surface Water Trigger Levels and Conditions			
4	It is also proposed to develop trigger conditions based on stream health indicators. These indicators will be developed following further baseline surveys planned over the next 12 months and will be presented in the revision of the SGWRP.	These triggers are in use and continue to be developed, as per AEMR 2010 Section 3.5.2.	Complies
Surface Water Monitoring Program			
5	The Wilpinjong Creek (upstream) gauging station will be installed and commissioned within three months of the approval of this SWMMP (subject to sufficiently dry weather conditions to allow access for construction of associated weir and equipment availability).	Upstream and downstream gauging station has been commissioned, as well as on Cumbo Creek, with additional station planned on Cumbo Creek upstream. Flow data presented in AEMR	Complies
5	Surface water quality monitoring and sample collection, storage and transportation will be undertaken in accordance with the procedures outlined in the relevant parts of AS/NZS 5667 - 1998 (AS 5677) Water quality – Sampling.	Sampling is conducted by NATA registered organisation (ALS). Copies of ALS Field sheets, and Certificates of Analysis sighted,	Complies
5	Laboratory analysis for turbidity and sulphate will be undertaken by a laboratory which has relevant accreditation by the National Association of Testing Authorities, Australia (NATA).	Sampling is conducted by NATA registered organisation (ALS). Copies of ALS Field sheets, and Certificates of Analysis sighted,	Complies
Stream Health Monitoring Program			
6	A stream "health" monitoring programme will be implemented for Wilpinjong and Cumbo Creeks to assist in determining the need for any maintenance and/or contingency measures. The routine monitoring of sections of Wilpinjong and Cumbo Creeks will include the following components:	Stream health monitoring was undertaken during the auditing period for Wilpinjong and Cumbo Creeks (AEMR 2010 Section 3.5.2, and AEMRs 2008 and 2009 Sections 3.6.2).	Complies
6	Monitoring of aquatic macroinvertebrate assemblages in spring and autumn. In situ surface water quality sampling (pH, EC, temperature, dissolved oxygen, salinity and turbidity) will also be conducted at each macroinvertebrate sampling site.	Groundwater plan for stream health monitoring confirms this.	Complies
6	Visual monitoring (e.g. photographic) will be conducted quarterly to detect a potential change in the quality and quantity of riparian vegetation.	Photo monitoring sites are noted as part of the channel stability monitoring program (evidence of quarterly monitoring provided by WCPL).	Complies
6	Monitoring of the rehabilitation of riparian vegetation using Ecosystem Function Analysis (EFA) or similar techniques.	WCPL committed to reviewing the current quantitative rehabilitation monitoring program during 2014, to align with ecosystem function analysis (EFA) methodologies as developed by the CSIRO. (AEMR, 2013 and Biodiversity Management Plan, 2014) Confirm during audit interview.	Complies
6	Channel stability monitoring (Section 7).	This was undertaken during the auditing period: "Wilpinjong & Cumbo Creek Stability Assessment 2013-2013" Barnson Pty Ltd.	Complies

6	The macroinvertebrate assemblages in Wilpinjong and Cumbo Creeks will be monitored to provide an indication of potential long-term impacts at the ecosystem level using either or both of the following methods (both described in Bately et al., 2003):	Monitoring was undertaken during the auditing period for Wilpinjong and Cumbo Creeks with monitoring reports appended to AEMRs 2011 and 2013 (Landline, 2011; Landline 2014)). Oct 2013 sampling noted "A variety of interpretive indices were applied to the sampling data to evaluate environmental quality at the sample sites", including SIGNAL2.	Complies
6	Quantitative method - samples would be taken using timed 1-minute sweeps of habitats (e.g. edge, riffle and pools) using a dip net, then preserved and sorted to family level to allow abundance and taxa richness to be determined. Baseline samples and samples from control sites would be taken to allow temporal and spatial comparison. The SIGNAL biotic index (Chessman, 1995; Chessman et al., 1997, Chessman, 2003) would also be used to assign average pollution sensitivity grades to each of the sites.	At each site, three replicate macroinvertebrate samples were collected of different habitats (edge, riffle, pools, etc.) using a 250 x 250 cm (250 µm) dip net. Samples were sorted for 60min or till all visible macroinvertebrates had been sorted.	Complies
6	Australian River Assessment System (AUSRIVAS) rapid biological assessment for macroinvertebrates.	SIGNAL index used to calculate aquatic health (as per AUSRIVAS).	Complies
6	Vegetation monitoring to be undertaken along Wilpinjong and Cumbo Creeks is discussed in the Rehabilitation Management Plan.	Vegetation monitoring along Wilpinjong/Cumbo Creeks is discussed in the RMP.	Complies
6	Data collected for the stream health monitoring programme will be analysed (e.g. using trend analysis) to provide an overall measurement of the performance of the Project's water management systems, the Cumbo Creek relocation, and stream enhancement initiatives.	Macroinvertebrate survey and channel stability reports confirm this.	Complies

Channel Stability Monitoring Program																		
7	The channel stability monitoring programme aims to provide qualitative measures of stream bed and bank erosion and channel instability along Wilpinjong and Cumbo Creeks. The monitoring programme involves both pre-mining and during mining surveys. Initial surveys will be conducted to establish baseline conditions with subsequent surveys being conducted annually. The details of the channel stability monitoring programme are outlined in Table 5.		Wilpinjong and Cumbo Creek Stability Assessment 2012-2013 (Barnson 2013) report appended to the AEMR 2013 noted field surveys were conducted in December 2012 and December 2013 during the audit period.	Complies														
	Table 5 Channel Stability Monitoring Programme <table><tr><th>Creek</th><th>Timing of Initial Survey</th><th>Reach Condition Survey</th><th>Long Sections</th><th>Frequency</th></tr><tr><td>Wilpinjong Creek</td><td>Prior to mining.</td><td>Condition of bed and banks on reach by reach basis between upstream gauge and Wollar Creek confluence (subject to landowner agreement). Erosional and dispositional features will be photographed and dimensioned by survey. Representative cross-sections will be surveyed. Results of surveys will be entered onto data base.</td><td>A long section will be surveyed along the creek alignment.</td><td>Annually</td></tr><tr><td>Cumbo Creek</td><td>Prior to mining.</td><td>Condition of bed and banks on reach by reach basis between upstream gauge and Wilpinjong Creek confluence. Erosional and dispositional features will be photographed and dimensioned by survey. Representative cross-sections will be surveyed. Results of surveys will be entered onto data base.</td><td>A long section will be surveyed along the creek alignment.</td><td>Annually.</td></tr></table>		Creek		Timing of Initial Survey	Reach Condition Survey	Long Sections	Frequency	Wilpinjong Creek	Prior to mining.	Condition of bed and banks on reach by reach basis between upstream gauge and Wollar Creek confluence (subject to landowner agreement). Erosional and dispositional features will be photographed and dimensioned by survey. Representative cross-sections will be surveyed. Results of surveys will be entered onto data base.	A long section will be surveyed along the creek alignment.	Annually	Cumbo Creek	Prior to mining.	Condition of bed and banks on reach by reach basis between upstream gauge and Wilpinjong Creek confluence. Erosional and dispositional features will be photographed and dimensioned by survey. Representative cross-sections will be surveyed. Results of surveys will be entered onto data base.	A long section will be surveyed along the creek alignment.	Annually.
Creek	Timing of Initial Survey	Reach Condition Survey	Long Sections	Frequency														
Wilpinjong Creek	Prior to mining.	Condition of bed and banks on reach by reach basis between upstream gauge and Wollar Creek confluence (subject to landowner agreement). Erosional and dispositional features will be photographed and dimensioned by survey. Representative cross-sections will be surveyed. Results of surveys will be entered onto data base.	A long section will be surveyed along the creek alignment.	Annually														
Cumbo Creek	Prior to mining.	Condition of bed and banks on reach by reach basis between upstream gauge and Wilpinjong Creek confluence. Erosional and dispositional features will be photographed and dimensioned by survey. Representative cross-sections will be surveyed. Results of surveys will be entered onto data base.	A long section will be surveyed along the creek alignment.	Annually.														
7	Monitoring will include the following:																	
7	Initial surveys will include the establishment of reference cross-sections and long-sections in Wilpinjong and Cumbo Creeks.		Creek stability assessment (2012-2013) notes as part of methodology	Complies														
7	Dimensions of significant erosional or depositional features will be measured and documented such that any subsequent changes can be evaluated quantitatively.		Creek stability assessment (2012-2013) notes as part of methodology	Complies														
7	Cross-sectional and longitudinal surveys will be undertaken to enable any flow induced change to be quantified.		Creek stability assessment (2012-2013) notes as part of methodology	Complies														
7	Photographs and written descriptions of each site will also be undertaken, focussing on evidence of erosion and exposed soils.		Creek stability assessment (2012-2013) notes as part of methodology	Complies														

7	Historical changes in channel, vegetation, alignment and form of Wilpinjong and Cumbo Creeks evident on the available historical aerial photographs will be documented and included in the initial survey report.	Creek stability assessment (2012-2013) notes as part of methodology	Complies
Data Management and Reporting Procedures			
8	The following data management and reporting procedures will be the responsibility of the Environmental Manager (or delegate).		
8	1. Data Validation All data will be validated to ensure that sample handling and transportation, equipment and containers are in accordance with AS/NZS 5667 - 1998 (AS 5677) Water quality – Sampling.	Sampling is conducted by NATA registered organisation (ALS). Copies of ALS Field sheets, and Certificates of Analysis sighted,	Complies
8	2. Data Management Validated data from each of the monitoring programmes will be entered onto a digital database by the Environmental Manager (or delegate). This will render the data in a form suitable for analysis.	Database reviewed, is compliant with the requirements	Complies
8	3. Data Review and Interpretation The following procedure will be undertaken once the data has been entered into the database: - Water quality data will be compared with baseline data, concurrent data collected from other monitoring sites including control sites and with the relevant trigger level 2. - In the event of an apparently anomalous result, an initial step will be to conduct a retest (where possible). - Data will be interpreted quantitatively (using standard parametric and non parametric statistical methods) and qualitatively in conjunction with: - site activities being undertaken at the time; - water quality results in nearby locations; - the prevailing and preceding meteorological conditions; and - changes to the landuse/activities being undertaken in the contributing hydrogeological regime.	Database reviewed, is compliant with the requirements - viewed the bi-monthly report and it is also compliant with the requirements of the MP	Complies
8	4. Reporting The SWMMP reporting requirements are outlined in Section 9.	Noted	Noted
8	5. Surface Water Impact Review Surface water impact reviews, linked to site water balance reviews, will be conducted on an annual basis (or more frequently as required), using the results of the surface water monitoring programme to: - determine whether the Project is having an adverse impact on surface water; - investigate any landholder complaints which raise concerns that the Project is having an adverse effect on surface waters; and - facilitate the preparation of contingency/remediation plans for managing adverse impacts of the Project on surface water, where necessary.	Site water balance has been reviewed for modifications (not annual). A specific "Site Water Impact Review" has not been prepared, however it is noted that many of these commitments are addressed within the AEMR (2013). New draft SWMMP incorporates longer-term data for comparison and trend identification. It is noted that previous audit recommended specific Surface Water Impact Review reports, providing greater detail of the surface water monitoring and discussion of results and trends. Provisions for Annual Review under the draft SWP has been incorporated into Section 9.2.	Complies - Recommendation Made

8	In addition to these reviews, the site water balance will be reviewed annually to optimise performance and validate predictions. The site water balance review will incorporate the results of the surface, groundwater and aquatic biology impact reviews with the results of the borefield performance reviews to optimise performance and validate predictions.	Routine annual reviews not conducted, but has been carried out for project modifications (e.g. MOD 5 and MOD 6). Investigations into quantifying internal 'recirculation' of in-pit water between Pit2 and Pit 4 sighted (Memorandum from WRM, Oct 2014). Copies of the updated site water balances on website as part of the MOD5/6 documentation (Golders & Associates). Does not incorporate results of the aquatic biology impact reviews or borefield performance reviews	Complies - Recommendation Made
Reporting			
9	In addition, to the matters relating to Surface Water which the DA required to be included in the AEMR, the AEMR will report on the following surface water related issues: - results of the stream "health" monitoring programme (Section 6); - details of the channel stability monitoring programme (Section 7); and - results of the surface water impact reviews (Section 8).	Stream health and channel stability both reported in AEMR. See note above regarding preparation of Surface Water Impact Reviews - information required is presented in the AEMR.	Complies
Surface Water Monitoring Program Revisions			
10	The SWMMP will be reviewed, and if necessary updated, by the Environmental Manager: - on an annual basis following surface water impact reviews; - where there is a significant change in the Project water balance surplus/deficit; - in response to an Independent Environmental Audit; - when there are changes to the Project Approval or licence conditions relating to aspects of this SWMMP; or - in response to a relevant change in technology or legislation.	The SWMMP was reviewed during the auditing period, in response to recommendations made from the previous IEA. It was determined that no revisions were required to be made (AEMR 2010 Section 3.5.4).	Complies

Reference	Requirement	Evidence	Audit Finding
Wilpinjong Coal Project Groundwater Monitoring Program (Wilpinjong Coal Pty Limited, March 2006)			
Baseling Groundwater Monitoring Program			
3	In order to augment the existing groundwater level and water quality data recorded during the previous studies/reports to date (Section 2), a baseline groundwater quality and level monitoring will be conducted at the following locations: - Project water supply bores; - Wilpinjong Creek; - Cumbo Creek; - Wollar Creek; - Wollar Village; and - selected landholder bores, wells and waterholes.	This baseline data was reported in the 2005 EIS, and therefore did not occur during the current auditing period.	Not Triggered
3	The locations of the proposed Project groundwater monitoring sites are shown on Figure 4 and will be installed three months prior to commencement of dewatering activities or operation of the water supply borefield or otherwise as soon as practicable. Baseline groundwater quality and level monitoring will be consistent with the Project groundwater monitoring programme detailed in Section 4.	This occurred before the current auditing period.	Not Triggered
3	In accordance with Condition 34(a), Schedule 3 of the Project Approval, sound statistical analysis of the data collected by the baseline groundwater monitoring programme will be reviewed progressively and, in conjunction with the EIS (WCPL, 2005b) groundwater model predictions (Section 5.1), will be used in the development of groundwater impact assessment criteria and investigation triggers.	This occurred before the current auditing period.	Not Triggered

Reference	Requirement	Evidence	Audit Finding																																				
Groundwater Monitoring Program																																							
	The following groundwater monitoring programme has been developed in accordance with Condition 34(d), Schedule 3 of the Project Approval. The GWMP will involve the monitoring of water levels and water quality from the Project water supply bores, dewatering bores, and groundwater seepage and surface water runoff which collect in pit sumps during mining operations. The GWMP will also involve the monitoring of groundwater levels in alluvium associated with Wilpinjong, Wollar and Cumbo Creeks, and selected/relevant Landcare bores on WCPL-owned land. Table 1 provides a summary of the Project groundwater monitoring programme. Table 1 Project Groundwater Monitoring Programme <table><tr><th>Monitoring Locations¹</th><th>Frequency</th><th>Parameters</th></tr><tr><td>Open Cut Operations – Main pit sump(s)</td><td>Monthly</td><td>Water Level, Field pH and EC Volume of Water Transferred</td></tr><tr><td>Open Cut Operations – Dewatering bores</td><td>Monthly</td><td>Water Level, Field pH and EC Volume of Water Extracted</td></tr><tr><td>Water Supply Bores – GWs1 to GWs19</td><td>Monthly</td><td>Water Level, Field pH and EC Volume of Water Extracted</td></tr><tr><td rowspan="2">Wilpinjong Creek – GWA1 to GWA4 and GWA7 (Alluvium) and GWc1 and GWc2 (Coal Measures)</td><td>Monthly</td><td>Water Level, Field pH and EC</td></tr><tr><td>Every six months</td><td>Na, K, Mg, Ca, Cl, HCO₃, SO₄, Total Fe</td></tr><tr><td rowspan="2">Cumbo Creek – GWA5 and GWA6 (Alluvium) and GWc3 (Coal Measure)</td><td>Monthly</td><td>Water Level, Field pH and EC</td></tr><tr><td>Every six months</td><td>Na, K, Mg, Ca, Cl, HCO₃, SO₄, Total Fe</td></tr><tr><td rowspan="2">Wollar Creek – GWc4 (Coal Measures)</td><td>Quarterly</td><td>Water Level, Field pH and EC</td></tr><tr><td>Every six months</td><td>Na, K, Mg, Ca, Cl, HCO₃, SO₄, Total Fe</td></tr><tr><td rowspan="2">Wollar Village – GWA8 (Alluvium) and GWc5 (Coal Measures)</td><td>Quarterly</td><td>Water Level, Field pH and EC</td></tr><tr><td>Every six months</td><td>Na, K, Mg, Ca, Cl, HCO₃, SO₄, Total Fe</td></tr><tr><td rowspan="2">Landholder bores, wells and waterholes</td><td rowspan="2">In consultation with individual landholders</td><td>Water Level, Field pH and EC</td></tr><tr><td>Na, K, Mg, Ca, Cl, HCO₃, SO₄, Total Fe</td></tr></table> ¹ Monitoring locations are shown on Figure 4.	Monitoring Locations ¹	Frequency	Parameters	Open Cut Operations – Main pit sump(s)	Monthly	Water Level, Field pH and EC Volume of Water Transferred	Open Cut Operations – Dewatering bores	Monthly	Water Level, Field pH and EC Volume of Water Extracted	Water Supply Bores – GWs1 to GWs19	Monthly	Water Level, Field pH and EC Volume of Water Extracted	Wilpinjong Creek – GWA1 to GWA4 and GWA7 (Alluvium) and GWc1 and GWc2 (Coal Measures)	Monthly	Water Level, Field pH and EC	Every six months	Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe	Cumbo Creek – GWA5 and GWA6 (Alluvium) and GWc3 (Coal Measure)	Monthly	Water Level, Field pH and EC	Every six months	Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe	Wollar Creek – GWc4 (Coal Measures)	Quarterly	Water Level, Field pH and EC	Every six months	Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe	Wollar Village – GWA8 (Alluvium) and GWc5 (Coal Measures)	Quarterly	Water Level, Field pH and EC	Every six months	Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe	Landholder bores, wells and waterholes	In consultation with individual landholders	Water Level, Field pH and EC	Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe	The groundwater monitoring program requires monthly, quarterly and six monthly monitoring. The results have been reviewed from the 2012 and 2013 AEMRs. These monitoring wells are as follows: - Project water supply bores (GW1 - GW19); - Wilpinjong Creek (GWA1 - GWA4, GWA7); - Cumbo Creek (GWA5 - GWA6); - Wollar Creek (GWc4); - Wollar Village (GWA8); and - selected landholder bores, wells and waterholes. (bores on property no 27 BC McDermott) A number of exceedances for EC were recorded in the alluvial bores in the AEMR as follows: GWA1 2013 GWA5 2013 GWA6 2013 GWA7 2012 and 2013 GWC4 2012 GWC5 2012,2013 A number of exceedances for pH were recorded in the monitoring wells in the AEMR that triggered investigations as follows: 2012 GWA5 (May-Aug) (Oct Feb)) 2012 GWc11 (AugDec) 2013 GWA5 (Apr, May,Jun) 2013 GWS10 (Aug-Dec)	Not Compliant - Recommendation Made
Monitoring Locations ¹	Frequency	Parameters																																					
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Landholder bores, wells and waterholes	In consultation with individual landholders	Water Level, Field pH and EC																																					
		Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ , Total Fe																																					

Reference	Requirement	Evidence	Audit Finding
4	Monitoring bores will be constructed in accordance with the Minimum Construction Requirements for Water Bores in Australia (Land and Water Biodiversity Committee, 2003) by an appropriately qualified water bore driller. Bore licences will be obtained from the Department of Natural Resources (DNR) prior to installation of any new monitoring bores.	New monitoring wells were installed during the audit period. A borehole completion report prepared by GES was prepared and complied with requirements of NOW and NUDLC. Piezometers GWc17, GWc18, GWc19, GWc20, GWc21, GWc22, GWc22a, GWc23, GWa16 GWc16, GWc24, GWc25, GWc26, GWc27, GWc33, GWc35, GWc30, GWc33 and GWc34 were added to the groundwater monitoring network in 2013/14. These wells were covered by licenses 20B173590, 20B173727, 20B173736 issued by NOW.	Complies
4	Groundwater monitoring, water level measurements and sample collection, storage and transportation will be undertaken in accordance with the procedures outlined in the Murray Darling Basin Groundwater Quality Sampling Guidelines (Murray Darling Basin Commission, 1997). A copy of the guidelines is provided in Attachment 2.	Field procedures were sighted by audit team during site visit for groundwater monitoring and groundwater level monitoring, and data logger downloaded.	Complies
4	Laboratory analysis will be undertaken by a laboratory which has been accredited by the National Association of Testing Authorities, Australia (NATA) to undertake testing for the parameters being determined. Field testing will be undertaken using field equipment that is well maintained and calibrated in accordance with the manufacturer's recommendations.	Laboratory analyses are conducted by ALS. ALS has NATA accreditation. Calibration records for EC and pH monitoring equipment for each monitoring event were sighted by audit team during the site visit.	Complies
4	Data collected by the GWMP will: enable verification and refinement (where necessary) of the groundwater modelling results presented in the EIS (WCPL, 2005b); be used in the development of groundwater impact assessment criteria and investigation triggers (Section 6); and provide input to annual reviews of groundwater monitoring data (Section 9). Data collected from landholder bores, wells and waterholes will be used in conjunction with the groundwater impact investigation procedure to determine if contingency measures are required (Section 8).	The original groundwater model prepared by AGE has been updated to a new modelling platform by Hydro simulations using GROUNDWATER VISTAS. The model is continually refined with ongoing collected hydrogeological data and groundwater monitoring data.	Complies
4	WCPL will consult with neighbouring developments in regard to the sharing of groundwater data and achieving a consistent approach to monitoring systems/techniques to optimise the value of this data.	Data sharing agreement has been entered into with Moolarben and Ulan for regional water sharing as confirmed during audit interview with the Environment and Community Manager. Groundwater data is reported to the public through the AEMR. No groundwater impact data has been requested by the public. The community consultative committee is an avenue where this data could be requested.	Complies

Reference	Requirement	Evidence	Audit Finding
Open Cut Operations - Dewatering Bores and Groundwater Seepage			
4.1	Water level, field pH and field electrical conductivity (EC) will be monitored on a monthly basis at all dewatering bores. The volume of water extracted from individual dewatering bores will also be recorded monthly.	Dewatering bores were not operated during auditing period.	Not Triggered
4.1	Groundwater seepage and surface water runoff will collect in pit sumps. Water level, field pH and field EC of the collected water will be monitored on a monthly basis. The volumes of water transferred from the pit sumps will also be recorded.	pH and EC is monitored in pit sumps. Audit interview confirmed that this monitoring of pH and EC is not conducted for the sumps due to the fact that it is not practicable to undertake this monitoring safely.	Not Compliant - Recommendation Made
4.1	During mining operations the extent of alluvium materials in the immediate vicinity of the Project open cuts will be mapped by Project geological staff and used for the purposes of contingency measure planning if necessary.	Investigative drilling was conducted by GES in 2013 to map the extent and geometry of alluvium along Wilpinjong Creek. A geophysical survey was conducted in 2014 to map the extent off the alluvium along Wilpinjong and Cumbo Creeks and concluded that it was unlikely that alluvium extended into the mining lease.	Complies
Water Supply Borefield Monitoring Program			
4.2	The water supply borefield monitoring programme will include: - monitoring of water levels, pH and EC on a monthly basis at all water supply bores (GWs1 to GWs19); and - recording of the volume of water extracted from individual water supply bores on a monthly basis.	This data is monitored and is contained in an online database that was viewed by the audit team during the site visit. The water supply bores have not been operated during the audit period.	Complies
4.2	Data from the water supply borefield monitoring programme will be used to help monitor the groundwater yield from the borefield and determine the extent of the effect of groundwater extractions on the existing groundwater regime.	The borefield was drilled in 2007 during a drought period. In July 2007 the drought broke and the borefield has not been required to be used since. These monitoring requirements are therefore not triggered. Flow meters that extract water from sumps of which groundwater is an unquantifiable component have been installed.	Not Triggered
Wilpinjong Creek			
Alluvium			
4.3.1	Five alluvium bores will be monitored along Wilpinjong Creek (GWa1 to GWa4 and GWa7). Water level, field pH and field EC will be monitored on a monthly basis. Laboratory analyses for Sodium (Na), Potassium (K), Magnesium (Mg), Calcium (Ca), Chloride (Cl), Carbonate (HCO ₃), Sulphate (SO ₄) and Total Iron (Fe) will also be undertaken every six months.	These parameters were measured and recorded as required. For the majority of the audit period EC results in GWa7 exceeded trigger levels. Failure to investigate the reason/s for exceedance at this location is considered to be a non compliance.	Not Compliant

Reference	Requirement	Evidence	Audit Finding
Coal Measures			
4.3.2	Two coal measure bores will be monitored along Wilpinjong Creek (GWc1 and GWc2). Water level (i.e. groundwater pressure), field pH and field EC will be monitored on a monthly basis. Laboratory analyses for Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ and Total Fe will also be undertaken every six months.	These parameters were measures as per the given time frame in 2012, 2013 and 2014 with the exception of groundwater levels in GWc2 in 2011 2012 and 2013 (Jan to May). Recorded results were compliant.	Complies
Cumbo Creek			
Alluvium			
4.4.1	Two alluvium bores will be monitored along Cumbo Creek (GWA5 and GWA6). The groundwater monitoring locations are shown on Figure 4.	These bores are monitored as per Table 27 of 2013 AEMR.	Complies
4.4.1	Water level, field pH and field EC will be monitored on a monthly basis. Laboratory analyses for Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ and Total Fe will also be undertaken every six months.	These parameters are measures as per the given time frames in 2011, 2012 and 2013.	Complies
Coal Measures			
4.4.2	One coal measure bore will be monitored along Cumbo Creek (GWc3). Water level (i.e. groundwater pressure), field pH and field EC will be monitored on a monthly basis. Laboratory analyses for Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ and Total Fe will also be undertaken every six	These parameters are measured as per the given time frames in 2011, 2012 and 2013.	Complies
Wollar Creek			
Coal Measures			
4.5.1	One coal measure bore will be monitored along Wollar Creek (GWc4). Water level, field pH and field EC will be monitored on a quarterly basis. Laboratory analyses for Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ and Total Fe will also be undertaken quarterly.	These parameters are measured as per the given time frames in 2011, 2012 and 2013.	Complies
Wollar Village			
Alluvium			
4.6.1	An alluvial bore along Wollar Creek will be monitored in Wollar Village (GWA8). The groundwater monitoring location is shown on Figure 4. Water level (i.e. groundwater pressure), field pH and field EC will be monitored on a quarterly basis. Laboratory analyses for Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ and Total Fe will also be undertaken quarterly.	These parameters are measured as per the given time frames in 2011, 2012 and 2013.	Complies
Coal Measures			
4.6.2	One coal measure bore will be monitored in Wollar Village (GWc5). Water level, field pH and field EC will be monitored on a quarterly basis. Laboratory analyses for Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ and Total Fe will also be undertaken quarterly.	These parameters are measured as per the given time frames in 2011, 2012 and 2013.	Complies
Landholder Bores, Wells and Waterholes			

Reference	Requirement	Evidence	Audit Finding
4.7	Groundwater monitoring will be undertaken at selected existing bores, wells and waterholes surrounding the Project area, in consultation with relevant landholders. This will include quantitative monitoring of water levels at existing waterholes on property number 27 (BC McDermott) (Figure 4) downstream of the Project.	This request has not been received from McDermott landowner. This property has since been acquired by WCPL.	Not Triggered
4.7	Water level, field pH and field EC, or other water quality parameters (e.g. Na, K, Mg, Ca, Cl, HCO ₃ , SO ₄ and Total Fe) will be monitored in consultation with individual landholders.	Individual landowners have not requested any such monitoring to be undertaken during the auditing period.	Not Triggered
Connectivity and Groundwater Leakage from Cumbo Creek			
4.8	A monitoring programme to monitor the connectivity and groundwater leakage from Cumbo Creek following its relocation will be included in the Cumbo Creek Relocation Plan, to be prepared in accordance with Condition 36, Schedule 3 of the Project Approval.	Cumbo Creek has not been relocated yet.	Not Triggered
Groundwater Dependent Ecosystems and Riparian Vegetation			
4.9	A stream 'health' monitoring programme will be developed to detect any potential changes in aquatic biology, the quantity and quality of riparian vegetation along Wilpinjong and Cumbo Creeks and to determine the need for any maintenance and/or contingency measures. The components of the stream 'health' monitoring programme are detailed in the Surface Water Management and Monitoring Plan.	This monitoring is undertaken annually in September. Macroinvertebrates, water quality, bank stability and vegetation cover are the parameters covered. The macroinvertebrate report from September 2010, prepared by Landline Consulting, was viewed by the audit team during the site visit.	Complies
Groundwater Prediction Validation Processes			
Groundwater Model Verification and Refinement			
5.2	The model developed as part of the Groundwater Impact Assessment in the EIS will be refined during the life of the Project to reflect the actual activities undertaken on site (i.e. actual location of water supply bores, dewatering bore locations or mine scheduling arrangements). Data collected by the groundwater monitoring programme will then be used to verify the refined groundwater model's predictions. A review of the monitoring data will be undertaken on an annual basis (or more frequently as required) to compare actual groundwater drawdown levels to those predicted by the numerical model.	The groundwater model has been updated by Hydrosimulations and is refined as data becomes available. Consultation with NOW may be required if significant changes are required.	Complies
5.2	The results of the groundwater model verification and any model refinements will be reported in the Annual Environmental Management Report (AEMR) (Section 9).	The modelling has been refined but completed outside the audit period.	Not Triggered

Reference	Requirement	Evidence	Audit Finding																													
5.2	In the event that actual groundwater drawdown levels were to exceed the predicted groundwater drawdown levels over the life of the Project, the groundwater model will be further refined using any new data available to characterise the aquifer systems. The groundwater model refinement process (if necessary) will be conducted in consultation with the DNR.	Groundwater drawdown is not expected at the site as dewatering bores are not operational. Monitoring is being conducted and trigger values were not activated during the current auditing period.	Not Triggered																													
Groundwater Impact Assessment Criteria and Triggers																																
6	Typical baseline EC and pH values have, however, been provided in Table 2. These values will be used until more accurate criteria can be established through further baseline monitoring (i.e. prior to borefield operation or open cut dewatering). Table 2 Typical Baseline EC and pH Values by Aquifer Type <table><tr><th rowspan="2">Aquifer Type</th><th colspan="2">EC (µS/cm)</th><th colspan="2">pH</th></tr><tr><th>Average</th><th>Max Recorded</th><th>Min Recorded</th><th>Max Recorded</th></tr><tr><td>Alluvium</td><td>~2,350¹</td><td>4,100</td><td>6.9</td><td>8.4</td></tr><tr><td>Mesozoic Laccolith Intrusion</td><td>~2,225¹</td><td>2,550</td><td>6.5</td><td>6.9</td></tr><tr><td>Illawarra Coal Measures</td><td>~3,200</td><td>6,176²</td><td>5.6²</td><td>8.3²</td></tr><tr><td>Nile Subgroup / Shoalhaven Group</td><td>~5,700¹</td><td>6,470</td><td>7.1³</td><td>7.1³</td></tr></table> Source: Attachment 1. ¹ Average calculated using ratio of 0.68 EC/TDS. ² Range does not include two alkaline sites (EW5049 and EW5052), which were affected by cement seals at the base of the piezometers and two excessively acidic sites (EW2004 and EW2005). ³ There is only one pH record for the Nile subgroup.	Aquifer Type	EC (µS/cm)		pH		Average	Max Recorded	Min Recorded	Max Recorded	Alluvium	~2,350 ¹	4,100	6.9	8.4	Mesozoic Laccolith Intrusion	~2,225 ¹	2,550	6.5	6.9	Illawarra Coal Measures	~3,200	6,176 ²	5.6 ²	8.3 ²	Nile Subgroup / Shoalhaven Group	~5,700 ¹	6,470	7.1 ³	7.1 ³	The results for alluvium and Illawarra Coal Alluvium were reported in the 2013 AEMR	Complies
Aquifer Type	EC (µS/cm)		pH																													
	Average	Max Recorded	Min Recorded	Max Recorded																												
Alluvium	~2,350 ¹	4,100	6.9	8.4																												
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Illawarra Coal Measures	~3,200	6,176 ²	5.6 ²	8.3 ²																												
Nile Subgroup / Shoalhaven Group	~5,700 ¹	6,470	7.1 ³	7.1 ³																												
6	Following baseline monitoring (Section 3), groundwater impact assessment criteria for both groundwater levels and quality will be developed using statistical analysis of the baseline data and the predicted effects presented in the EIS (Section 5.1).	Groundwater and Surface water response plan has been created. Significant further assessment of groundwater has been undertaken since this plan is developed. Responsibilities to comply with the groundwater response plan are outlined in section 10 of the Wilpinjong Groundwater Monitoring Program (Appendix 6).	Complies																													

Reference	Requirement	Evidence	Audit Finding
6	Notwithstanding the above, triggers will be used to determine if the groundwater impact investigation procedure (Section 7) should be initiated, including: (a) a groundwater related complaint is received; (b) direct groundwater inflows are identified from alluvium exposed in the final highwall of the open cut; (c) exceedance of the predicted groundwater drawdown effects presented in the EIS; or (d) monitoring results indicate the maximum recorded EC or recorded range of pH for the aquifer type is exceeded.	No groundwater related complaints have been received during this auditing period. The Groundwater and Surfacewater response plan has also not been invoked during this auditing period.	Not Triggered
Groundwater Impact Investigation Procedure			
7	In the event that a complaint is received in relation to depressurisation of a water supply bore, well or spring, the relevant data set will be reviewed by the Environmental Manager (or delegate), who will determine if an investigation is necessary.	No groundwater related complaints have been received during this auditing period.	Not Triggered
7	In the event the groundwater impact investigation is triggered, the following procedure will be commenced:	No groundwater related complaints have been received during this auditing period. The Groundwater and Surfacewater response plan has also not been invoked during this auditing period.	Not Triggered
7	In the event of an apparently anomalous groundwater result, a retest will be conducted where possible.	Anomalous results were recorded during the audit period but there has been no evidence of re-testing.	Not Compliant - Recommendation Made
7	Where monitoring results indicate values exceeding the impact assessment criteria, an investigation appropriate for the situation will be conducted in consultation with the Department of Planning (DoP) and other relevant authorities.	No groundwater related complaints have been received during this auditing period. The Groundwater and Surfacewater response plan has also not been invoked during this auditing period.	Not Triggered
7	The investigation will involve the consideration of the monitoring results in conjunction with site activities being undertaken at the time, baseline groundwater monitoring results, groundwater results in nearby locations, the prevailing and preceding meteorological conditions and changes to the landuse/activities being undertaken in the contributing hydrogeological regime.	Throughout the monitoring program there were analytical results and field parameters (pH and EC) that exceeded compliance values.	Not Compliant - Recommendation Made

Reference	Requirement	Evidence	Audit Finding
7	Contingency measures will be developed in consultation with DoP and other relevant authorities and implemented in response to the outcomes of the investigation, and may include the measures outlined in Section 8.	No groundwater related complaints have been received during this auditing period. The Groundwater and Surfacewater response plan has also not been invoked during this auditing period.	Not Triggered
7	Additional monitoring may be implemented to measure the effectiveness of contingency measures, where necessary.	Throughout the monitoring program there were analytical results and field parameters (pH and EC) that exceeded compliance values.	Not Compliant - Recommendation Made
7	In the event that the relevant impact assessment criteria continue to be exceeded, further investigations may be undertaken (i.e. a circular process of continual improvement or adjustment of the relevant triggers, if warranted). Conversely, if the relevant trigger is not exceeded following the implementation of contingency measures, DoP and other relevant authorities will be consulted regarding the need for the implementation of on-going measures.	Throughout the monitoring program there were analytical results and field parameters (pH and EC) that exceeded compliance values.	Not Compliant - Recommendation Made
Contingency Measures			
8	Potential groundwater impacts are discussed in the EIS (WCPL, 2005b). As outlined in Section 7, contingency measures will be developed based on the outcomes of an investigation into particular groundwater impacts. Nonetheless, contingency measures for two potential groundwater impact scenarios are presented below.	Contingency measures are dealt with in the Surface and Groundwater response Plan (SGWRP). Any investigations will be communicated to the relevant landholders and summarised in the AEMR (section 5). Trigger levels for groundwater quality measured in some of the alluvial bores (Gwa1, Gwa5-7) and coal bores (C4, C5 and C11) was exceeded. Amendments to the SGWRP have been made.	Compliant
Existing Groundwater Supply Users			
8.1	In the event that an investigation conclusively attributes an adverse impact to an existing groundwater supply user to Project operations, WCPL will investigate appropriate remedial measures which may include: - deepening the affected groundwater supply; - construction of a new groundwater supply; or - provision of a new alternative water supply.	This has not occurred during the auditing period.	Not Triggered

Reference	Requirement	Evidence	Audit Finding
8.1	The exact nature of remedial measures will be determined in consultation with the affected landholder. If an alternative water supply source is to be provided, it will be WCPL's responsibility to obtain a licence and pay for this source, in consultation with the relevant landowner(s). The nature of the source will depend on the location of the affected landowner and the availability of nearby sources.	This has not occurred during the auditing period.	Not Triggered
Direct Groundwater Inflows from Alluvium Exposed in the Final Highwall of the Open Cut			
8.2	During mining operations any direct groundwater inflows from alluvium exposed in the final highwall of the open cut will be intercepted prior to it reaching the floor of the open cut and pumped back to the nearest creek. This will be achieved by the installation of sumps and a pump/pipe system located on a bench of the open cut (as is the current practice for similar circumstances at coal mines in the Hunter Valley).	Alluvium has not been exposed during mining operations.	Not Triggered
8.2	These areas will be sealed during the backfilling of the completed open cuts. This will be achieved by measures such as the selective placement of more weathered materials against the alluvium intersect as the open cut excavation is backfilled with waste rock.	Alluvium has not been exposed during mining operations.	Not Triggered
Reporting			
9	In addition to the groundwater management issues required by the DA to be included in the AEMR, the AEMR will report on the following groundwater related issues: - investigations arising from groundwater complaints or impacts (Section 7); - results of any contingency measures implemented (Section 8); and - results of any groundwater model refinements (Section 5).	No groundwater complaints have been received during the auditing period (as per AEMRs 2011, 2012 and 2013 Appendix M - Community Complaints Register Summary). No groundwater contingency measures have been required to be implemented during the auditing period. The numbering in the 2013 AEMR for groundwater is corrupted (Section 3.8), having been omitted from the table of contents and the report commencing with Section 3.8.5. The groundwater modelling at WCM has been refined and updated, but progress on this and adequacy of predictions has not been reported in the most recent AEMR (2013).	Complies - Recommendation Made
Groundwater Monitoring Program Revisions			

Reference	Requirement	Evidence	Audit Finding
10	The GWMP will be reviewed, and if necessary updated, by the Environmental Manager: - on an annual basis following groundwater impact reviews; - where there is a significant change in the Project operational arrangements/details; - in response to an Independent Environmental Audit; - when there are changes to Project Approval or licence conditions relating to aspects of this GWMP; or - in response to a relevant change in technology or legislation.	An updated version of the GWMP is currently being reviewed by DoP. The GWMP is constantly under review as WPCL have been commissioning specialists to undertake routine groundwater and surface water monitoring. .	Complies