

# Independent Environmental Audit

Wilpinjong Coal Mine



## Independent Environmental Audit

Wilpinjong Coal Mine

Prepared for

Wilpinjong Coal Pty Limited

Prepared by

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## Quality Information

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Reviewed by Sharmin Lubonski

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			Name/Position	Signature
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B	06-Mar-2012	Final following client review	Peter Horn Associate Director - Environment	
C	06-Mar-2012	Final review before issue	Peter Horn Associate Director - Environment	

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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 (WCPL) in accordance with the *Development Consent DA-05-0021-2006* (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 July 2008 and December 2011, and includes:

- Comments on WCPL's compliance against the conditions of DA-05-0021-2006 (as modified), its EPL 12425, and other environmental approvals and management plans (Section 3.0);
- An assessment of WCPL's environmental management and performance as well as the adequacy of the management strategy and monitoring programme (Section 4.0); and
- A list of recommendations flowing from the findings of this audit (Section 5.0).

This audit was conducted by Peter Horn, Heidi Watters, Amanda Kerr, Graham Hawkes, Jessica Miller, and Damon Roddis and consisted of a detailed desktop review of documentation, interviews with key WCPL staff and a site visit of the WCPL. Additional desktop reviews were conducted prior to and following the site inspection. A peer review of the IEA was conducted by Sharmin Lubonski.

WCPL has in place an Environmental Management System which relies upon an overriding Environmental Management Strategy, a series of management plans and monitoring programs. The Environmental Management System forms the basis of the observed rigorous and consistent environmental management at the site.

Various good practices were noted during the IEA, particularly in relation to rehabilitation and biodiversity offset management, sediment and erosion control, waste management and community relations.

Over 1,435 conditions and commitments in the documents listed above were audited, with a total of 78 non-compliances (including 13 conditions not able to be verified). However, the majority of the non-compliances were repeated across the various development consent conditions, environmental assessment commitments, EPL conditions and management plan requirements.

Overall, WCPL has a high level of resources devoted to environmental matters through a competent and well led environmental and operations team. It was observed that a good standard of environmental management was being applied to the operation of WCPL at the time of the audit, as indicated by the audit interviews and site inspections.

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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 (WCPL) in accordance with Condition 9, Schedule 5 of the *Development Consent DA-05-0021-2006* (as modified). WCPL is a wholly-owned subsidiary of Peabody Pacific Pty Ltd, and its WCPL is operated by Thiess.

The Audit was undertaken consistent with the relevant planning approval conditions for the WCPL and focused on verification of the site's compliance against key licences, approvals and supporting documents. This Audit covers the period July 2008 to December 2011 (the auditing period).

### 1.2 Site Description

The WCPL is 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. The Ulan and Moolarben Coal Mines are situated in the locality of the WCPL. 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.

WCPL received its Mining Lease 1573 on 8 February 2006. Construction of the WCPL began in February 2006 and mining commenced in September that year.

Operations at WCPL 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 orientated east-west. 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 WCPL is approved to produce up to 15 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.

In total, the 2006 *Development Consent* has been modified twice to date:

- On 30 November 2007 to vary the Mine Access Route and Blasting Frequency; and
- On 8 September 2010 to increase the allowed annual ROM production rate from 13Mtpa to 15 Mtpa, and to make associated modifications to fixed and mobile plant.

### 1.3 Scope of Work

This IEA and subsequent report has been prepared pursuant to Condition 9, Schedule 5 of DA-05-0021-2006 (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
9(b)	Include consultation with the relevant agencies.	Section 1.0
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 3.0
9(d)	Review the adequacy of strategies, plans or programs required under the abovementioned approvals.	Section 4.0
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 5.0
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.	See section 1.0

The most recent IEA of the WCPL was undertaken by Pacrim Environmental in June/July 2008 (*Wilpinjong Coal Mine Environmental Regulatory Compliance Audit Report*). This IEA therefore covers the period July 2008 – December 2011.

## 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:

- Peter Horn (Associate Director Environment) – Lead Auditor;
- Heidi Watters (Professional Scientist) – Auditor;
- Amanda Kerr (Senior Engineer) – Surface Water Specialist;
- Graham Hawkes (Principal Hydrogeologist) – Specialist in Groundwater;
- Jessica Miller (Graduate Environmental Professional) – Audit Assistant; and
- Sharmin Lubonski (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&I 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 WCPL on 13<sup>th</sup> and 14<sup>th</sup> December 2011. Attendees at interviews included:

- Shaun Cleary - Environment and Community Manager (Peabody);
- Kieren Bennetts - Senior Environment and Community Advisor (Peabody);
- Jason McWhirter - Environmental Technician (Peabody);
- Chris Mills - Senior Environmental Advisor (Thiess);
- Cameron Sumpter - Environmental Graduate (Thiess);

- James Knowles - Manager Geology and Resources (Peabody);
- John Thorley - Manager Mining (Thiess);
- Michael Flood - Project Manager - Wilpinjong CHPP Expansion Project (Peabody);
- Linda Mumford - Project Document Controller (Peabody);
- Lloyd Coleman - Property Manager (Peabody);
- Dave Marshall - CHPP Electrical Planner (Thiess); and
- Dianne Munt - Maintenance Planner (Thiess).

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 14<sup>th</sup> December 2011. Weather at the time of inspection was dry and cool, with a temperature of approximately 28°C and some cloud cover. Rain had occurred the previous day as well as the night prior to the audit. Good climatic conditions from the previous season revealed lots of grass cover in the region, with no dry 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:

- Due to time constraints on the auditing team, not all commitments made in the environmental assessment and management plans were able to be audited. The audit team ensured that no significant commitments or requirements were excised from the audit. Where applicable, these commitments have been highlighted so that they may be prioritised for investigation in future audits;
- 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 2011 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-05-0021-2006 (as modified) as follows:

**Section 1.0** provides an introduction, background, description and layout of the WCPL, 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 WCPL, provides a description of each and confirms those which have been the subject of this IEA.

**Section 3.0** provides a discussion of non-compliances against the project approvals and other licences and management plans.

**Section 4.0** provides a review the adequacy of strategies, plans or programs required under the abovementioned approvals at WCPL.

**Section 5.0** provides recommendations for measures or actions to improve the environmental performance of WCPL.

## 2.0 Documents Reviewed

Condition 9, Schedule 5 of the *Development Consent 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 *Development Consent DA-05-0021-2006* (as modified) lists the documents that WCPL 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** WCPL documents used to assess compliance and where each is addressed in this report

Condition	Where addressed in this report
a) <i>Environmental Impact Assessment titled Wilpinjong Coal Project EIS, volumes 1-5, dated May 2005, and prepared by Resource Strategies Pty Ltd, as amended by the environmental assessment titled Wilpinjong Coal Project Operational Phase Mine Access Route and Blasting Frequency Modification, dated April 2007, and the environmental assessment titled Wilpinjong Coal Mine Mining Rate Modification, dated May 2010.</i>	EIA 2005 is assessed in Section 3.3. Due to time constraints on the audit team the two modifications were unable to be audited.
b) Statement of Commitments	Section 3.2
c) Conditions of this approval	Section 3.2

Additionally, the following documents have also been reviewed as part of this IEA:

- *Mining Lease (ML) 1573*
- *Environmental Protection Licence (EPL) 12425*
- *Wilpinjong Coal Mine Mining Operations Plan (ML 1573) February 2007 – January 2012* (WCPL, October 2008)
- *Wilpinjong Coal Project Environmental Management Strategy* (WCPL, February 2006)
- *Wilpinjong Coal Mine Blast Management Plan* (WCPL, September 2011)
- *Wilpinjong Coal Mine Noise Management Plan* (WCPL, September 2011)
- *Wilpinjong Coal Mine Air Quality and Greenhouse Gas Management Plan* (WCPL, September 2011)
- *Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan* (Peabody, February 2008)
- *Wilpinjong Coal Project Site Water Managemt Plan* (WCPL, July 2006)
- *Wilpinjong Coal Project Site Water Balance* (WCPL, July 2006)
- *Wilpinjong Coal Project Erosion and Sediment Control Plan* (WCPL, February 2006)
- *Wilpinjong Coal Project Surface Water Management and Monitoring Plan* (WCPL, March 2006)
- *Wilpinjong Coal project Surface and Groundwater Response Plan* (WCPL, July 2006)
- *Wilpinjong Coal Project Groundwater Monitoring Program* (WCPL, March 2006)
- *Wilpinjong Coal Project Rehabilitation and Landscape Management Plan* (WCPL, July 2006)
- *Wilpinjong Coal Mine Rehabilitation Management Plan* (WCPL, September 2011)
- *Wilpinjong Coal Project Spontaneous Combustion Management Plan* (WCPL, May 2006)

**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 WCPL's Approvals, Licences and Permits as held during this auditing period**

Approval Type	Detail	Authority	Expiry
Project Approval	<i>Development Consent DA-05-0021-2006</i>	Department of Planning and Infrastructure (DP&I)	8 Feb 2027
	Modification MOD1	DP&I	8 Feb 2027
	Modification MOD3	DP&I	8 Feb 2027
Environmental Protection Licence	Environmental Protection Licence EPL 12425	Office of Environmental and Heritage (OEH) and Environmental Protection Authority (EPA)	Anniversary date 8 February. Review date 29 July 2014.
Mining Tenements	Exploration Licence EL 6169	Department of Primary Industries (DPI)	November 2012
	Mining Lease ML 1573	DPI	8 February 2027
	Mining Operations Plan	DPI	January 2012
Water Licences	Production (Cumbo) Bore – Water Licence 20BL 169659	NSW Office of Water (NoW)	December 2010
	Water Supply Bores – Water Licences: 20BL 170058		18 December 2011
	20BL170059		18 December 2011
	20BL 170061		
	20BL 170062		
	20BL 170063		
	Dewatering Bores – Water Licences: 20BL 170147		30 March 2011
	20BL170148		
	20BL 170149		
	20BL 170150		
Water Licences	Open Cut Dewatering Bores – Water Licences: 20BL 170162	NSW Office of Water (NoW)	7 June 2011
	20BL 170172		
	Monitoring Bore – Water Licence: 20BL 170215		Perpetuity
	Monitoring Bores – Water Licences: 20BL 170217 to 20BL 170229		Perpetuity
	Water Supply Bores – Water Licences: 20BL 170056		14 March 2012

Approval Type	Detail	Authority	Expiry
	20BL 170057 20BL 170068 20BL 170088 20BL 170089  Water Supply Bores – Water Licence: 20BL 170065		12 May 2012
Dangerous Goods Notification	Dangerous Goods Notification 35/037774	WorkCover	8 November 2012
Explosives Licence	Explosives Act 2003 Part 3 Licence	WorkCover	7 November 2012

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### 3.0 Environmental Performance and Compliance

Condition 9(c) of schedule 5 of the *Development Consent DA-05-0021-2006* (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" or
- "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),
- "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 noted in **Table 4** however no recommendation is made.

**Table 4 Summary of Non-Compliances Found and Recommendations Made**

Document	Reference	Non Compliances or Not Able to be Verified	Recommendations Made
DA-05-0021-2006	Section 3.2	6 - Table 5	Yes – Table 21
<i>Environmental Impact Assessment titled Wilpinjong Coal Project EIS</i> (Resource Strategies Pty Ltd, May 2005)	Section 3.3	19 - Table 6	Yes – Table 21
<i>Wilpinjong Coal Mine Mining Rate modification Environmental Assessment</i> (2010)	Section 3.4	0	No
ML 1573	Section 3.5	7 - Table 7	No
EPL 12425	Section 3.6	8 - Table 8	No
<i>Wilpinjong Coal Mine Mining Operations Plan (ML 1573) February 2007 – January 2012</i> (WCPL, October 2008)	Section 3.7	4 - Table 9	Yes – Table 21
<i>Wilpinjong Coal Project Environmental Management Strategy</i> (WCPL, February 2006)	Section 3.8	1 – Table 10	Yes – Table 21
<i>Wilpinjong Coal Mine Blast Management Plan</i> (WCPL, September 2011)	Section 3.9	0	No
<i>Wilpinjong Coal Mine Noise Management Plan</i> (WCPL, September 2011)	Section 3.10	2 - Table 11	Yes – Table 21

Document	Reference	Non Compliances or Not Able to be Verified	Recommendations Made
<i>Wilpinjong Coal Mine Air Quality and Greenhouse Gas Management Plan</i> (WCPL, September 2011)	Section 3.11	1 – Table 12	Yes – Table 21
<i>Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan</i> (Peabody, February 2008)	Section 3.12	3 – Table 13	Yes – Table 21
<i>Wilpinjong Coal Project Site Water Managemt Plan</i> (WCPL, July 2006)	Section 3.13	0	No
<i>Wilpinjong Coal Project Site Water Balance</i> (WCPL, July 2006)	Section 3.14	2 – Table 14	No
<i>Wilpinjong Coal Project Erosion and Sediment Control Plan</i> (WCPL, February 2006)	Section 3.15	2 - Table 15	Yes – Table 21
<i>Wilpinjong Coal Project Surface Water Management and Monitoring Plan</i> (WCPL, March 2006)	Section 3.16	0	No
<i>Wilpinjong Coal project Surface and Groundwater Response Plan</i> (WCPL, July 2006)	Section 3.17	2 - Table 16p	Yes – Table 21
<i>Wilpinjong Coal Project Groundwater Monitoring Program</i> (WCPL, March 2006)	Section 3.18	6 - Table 17	Yes – Table 21
<i>Wilpinjong Coal Project Rehabilitation and Landscape Management Plan</i> (WCPL, July 2006)	Section 3.19	1 - Table 18	No
<i>Wilpinjong Coal Mine Rehabilitation Management Plan</i> (WCPL, September 2011)	Section 3.20	13 - Table 19	Yes – Table 21
<i>Wilpinjong Coal Project Spontaneous Combustion Management Plan</i> (WCPL, May 2006)	Section 3.21	1 - Table 20	No

Over 1,435 conditions and commitments in the documents listed above were audited, with a total of 78 non-compliances (including 13 conditions not able to be verified). However, the majority of the non-compliances were repeated across the various development consent conditions, environmental assessment commitments, EPL conditions and management plan requirements.

### 3.1 Environmental Approvals Not Able to be Audited

Due to time constraints on the auditing team, the commitments contained in the following environmental assessment documents were not able to be audited:

- *Wilpinjong Coal Project Operational Phase Mine Access Route and Blasting Frequency Modification* (April 2007)

- Wilpinjong Coal Mine Mining Rate Modification (May 2010)

### 3.2 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**.

**Table 5 Non-Compliances against Development Consent DA-05-0021-2006 (as modified)**

Schedule	Condition	Commitment	Audit Finding																																								
Development Consent DA-05-0021-2006 (as modified)																																											
3	8	<p>The Proponent shall ensure that blasting on the site does not cause exceedances of the criteria in Table 4.</p> <table><tr><td colspan="4">Table 4: Blasting impact assessment criteria</td></tr><tr><td>Location</td><td>Allowed overpressure (dB(L<sub>in</sub> Peak))</td><td>Ground vibration (mm/s)</td><td>Allowable exceedances</td></tr><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></table>	Table 4: Blasting impact assessment criteria				Location	Allowed overpressure (dB(L <sub>in</sub> Peak))	Ground vibration (mm/s)	Allowable exceedances	Residence on privately owned land	115	5	5% of the total number of blasts over a period of 12 months	120	10	0%	<p>One exceedance of airblast overpressure occurred on 5/08/2010. DECCW was notified of this exceedance (AEMR 2010 Section 3.7.2). No exceedances occurred in 2008 or 2009 (2008 and 2009 AEMRs Sections 3.8.2).</p>																									
Table 4: Blasting impact assessment criteria																																											
Location	Allowed overpressure (dB(L <sub>in</sub> Peak))	Ground vibration (mm/s)	Allowable exceedances																																								
Residence on privately owned land	115	5	5% of the total number of blasts over a period of 12 months																																								
	120	10	0%																																								
3	16	<p>The Proponent shall ensure that no offensive odours are emitted from the site, as defined under the POEO Act.</p>	<p>Spontaneous combustion does occur frequently at the WCPL. During the auditing period, various community complaints were received in relation to gaseous emissions caused by spontaneous combustion (as per AEMRs 2008, 2009 and 2010 Appendix E - Community Complaints Register Summary, and per the 2011 Community Complaints Register Summary on the WCPL website).</p>																																								
3	18	<p>Except for the land referred to in Table 1, the Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedances of the criteria listed in Tables 5, 6, and 7 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.</p> <table><tr><td colspan="4">Table 5: Long term impact assessment criteria for particulate matter</td></tr><tr><td>Parameter</td><td>Auditing period</td><td>Criterion</td><td></td></tr><tr><td>Total suspended particulates (TSP) matter</td><td>Annual</td><td>50 µg/m<sup>3</sup></td><td></td></tr><tr><td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td><td>Annual</td><td>50 µg/m<sup>3</sup></td><td></td></tr><tr><td colspan="4">Table 6: Short term impact assessment criteria for particulate matter</td></tr><tr><td>Parameter</td><td>Auditing period</td><td>Criterion</td><td></td></tr><tr><td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td><td>24 hour</td><td>50 µg/m<sup>3</sup></td><td></td></tr><tr><td colspan="4">Table 7: Long term impact assessment criteria for deposited dust</td></tr><tr><td>Parameter</td><td>Auditing period</td><td>Maximum increase in deposited dust level</td><td>Maximum total deposited dust level</td></tr><tr><td>Deposited dust</td><td>Annual</td><td>2 g/m<sup>2</sup>/month</td><td>6 g/m<sup>2</sup>/month</td></tr></table>	Table 5: Long term impact assessment criteria for particulate matter				Parameter	Auditing period	Criterion		Total suspended particulates (TSP) matter	Annual	50 µg/m <sup>3</sup>		Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	50 µg/m <sup>3</sup>		Table 6: Short term impact assessment criteria for particulate matter				Parameter	Auditing period	Criterion		Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>		Table 7: Long term impact assessment criteria for deposited dust				Parameter	Auditing period	Maximum increase in deposited dust level	Maximum total deposited dust level	Deposited dust	Annual	2 g/m <sup>2</sup> /month	6 g/m <sup>2</sup> /month	<p>The 24 hour average PM10 concentrations at three high volume samplers (HV1, HV2 and HV4) and the TEOM exceeded the 50ug/m3 short-term impact assessment criterion for particulate matter on a number of occasions during the 2009 reporting period. These events triggered the implementation of the Air Quality Monitoring Protocol (AEMR 2010 Section 3.4.2).</p>
Table 5: Long term impact assessment criteria for particulate matter																																											
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3	54	<p>The Proponent shall minimise the visual impacts of the project to the satisfaction of the Director- General.</p>	<p>As per the previous audit report, this was not undertaken. Tree screen planting is currently undertaken, as confirmed by site inspection; however this condition was unable to be verified due to correspondence from Director-General unable to be provided.</p>																																								

Schedule	Condition	Commitment	Audit Finding
3	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.	Lighting procedure has not been submitted to the Director General and is a safety based document, not focussed on community impacts.  No lighting complaints in this audit period.
5	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 not blasting at same time and to ensure that any road closures do not impact on other operations, as confirmed during audit interview, however this condition was unable to be verified due to correspondence from the Director-General unable to be provided.

### 3.3 Environmental Impact Assessment (2005)

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

**Table 6 Non-Compliances against Environmental Impact Statement 2005**

Reference	Commitment	Audit Finding
1.5.1	The Project CCC will continue to meet on a monthly basis.	Table 28 in the 2010 AMER details the CCC meeting summary. The CCC has met at numerous intervals throughout the year however fail to meet on a regular monthly basis.
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

Reference	Commitment	Audit Finding
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 but no trials conducted to date.
2.9.1	Upslope diversion works would be designed in consultation with DIPNR.	This was not able to be verified due to evidence of consultation with DIPNR unable to be provided.
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
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 wash down areas would be contained by purpose built oil/water separator systems which would be inspected and maintained on a regular basis.	The oil/water separator was not in adequate working condition.
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).	The Induction presentation provided does not contain fire awareness or fire safety information.
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.	Light shields are not used.
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.	Upslope diversions were not evident in all locations, partly due to recent activities in vicinity of (south of) Pit 5.

Reference	Commitment	Audit Finding
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.	Cannot find evidence of this in NMP or AEMRs. However, it should be noted that 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.
4.6.2	The main controls for windblown 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 windblown and traffic generated dust; and - maintaining water sprays on product coal stockpiles.	Not all mining areas were well watered at time of the audit resulting in unnecessary levels of dust.
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 is in place at WCPL.
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.	This was not able to be verified due to Construction and Occupancy Certificates unable to be provided.
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.	Site induction sighted, Cultural Heritage not included in site inductions.
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 Water Supply Borefield Plan is in place at WCPL.

Reference	Commitment	Audit Finding
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: <ul style="list-style-type: none"> <li>- details of borefield configuration and bore location;</li> <li>- management and monitoring programmes to be implemented during the operation of the borefield;</li> <li>- processes for validating measured groundwater drawdowns against those predicted to occur;</li> <li>- a schedule of on-going borefield performance reviews through the mine life; and</li> <li>- contingency measures to mitigate any adverse impacts on existing water supply bores, groundwater users or borefield users.</li> </ul>	No Water Supply Borefield Plan is in place at WCPL.
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 is in place at WCPL.
5.1.2.10	Aboriginal cultural heritage training for Project employees (e.g. through site inductions)	Site induction sighted, Cultural Heritage not included in site inductions.
5.2.7	On-going site specific trials and studies would be conducted to examine options and to optimise revegetation techniques.	This has not commenced.

### 3.4 Environmental Assessment (2010)

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

### 3.5 Mining Lease

An assessment of compliance with Mining Lease (ML) 1573 is contained in **Appendix G**. All commitments for the ML 1573 were found to be compliant. No additional recommendations have been made, however **Table 7** lists the conditions not able to be verified.

**Table 7** Conditions not able to be verified with ML 1573

Reference	Commitment	Audit Finding
31	Disturbed land must be rehabilitated to a sustainable/agreed land use to the satisfaction of the Director-General	This was unable to be verified due to correspondence from the Director-General unable to be provided.
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:	These conditions were unable to be verified due to exploration report unable to be provided.
7(a)	Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;	



Reference	Commitment	Audit Finding
7(b)	Details of expenditure incurred in conducting that exploration;	
7(c)	A summary of all geological findings acquired through mining or development valuation activities	
7(d)	Particulars of exploration proposed to be conducted in the next twelve months period;	
7(e)	All plans, maps, sections and other data necessary to satisfactorily interpret the report.	

### 3.6 Environmental Protection Licence

A detailed assessment of compliance with EPL 12425 is addressed in **Appendix H. Table 8** lists the conditions of EPL 12425 found to be non-compliant. Four of these non-compliances related to exceedances.

**Table 8 Non Compliance against the Environmental Protection Licence 12425**

Condition	Commitment	Audit Finding																																										
L3.1	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.	During the 2008 reporting period there was an exceedance of the average concentration of 4g/m2/month and maximum increase in deposited dust level at Monitoring Point 9 (DG11). Exceedances, however coincided with a period of high traffic usage along the nearby Ulan-Wollar Road, and were reported to the EPA.																																										
L3.3	<p>To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s.</p> <p><b>POINT 4</b></p> <table><tr><th>Pollutant</th><th>Units of measure</th><th>100 percentile concentration limit</th></tr><tr><td>Deposited dust</td><td>grams per square metre per month</td><td>4.0</td></tr></table> <p><b>POINT 8</b></p> <table><tr><th>Pollutant</th><th>Units of measure</th><th>100 percentile concentration limit</th></tr><tr><td>Deposited dust</td><td>grams per square metre per month</td><td>4.0</td></tr></table> <p><b>POINTS 24,25,26</b></p> <p>Water and Land</p> <table><tr><th>Pollutant</th><th>Units of Measure</th><th>50 percentile concentration limit</th><th>80 percentile concentration limit</th><th>90th percentile 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>1500</td></tr><tr><td>TSS and Dissolved Solids</td><td>mg/litre 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>mg/litre per litre</td><td></td><td></td><td></td><td>50</td></tr></table> <p>Note: 1. Deposited dust is assessed as insoluble solids as defined by AS 3580.10.1-2003 (AS4-10) 2. The averaging period applicable for deposited dust is annually.</p>	Pollutant	Units of measure	100 percentile concentration limit	Deposited dust	grams per square metre per month	4.0	Pollutant	Units of measure	100 percentile concentration limit	Deposited dust	grams per square metre per month	4.0	Pollutant	Units of Measure	50 percentile concentration limit	80 percentile concentration limit	90th percentile concentration limit	100 percentile Concentration Limit	Conductivity	microsiemens per centimetre				1500	TSS and Dissolved Solids	mg/litre per litre				10	pH	pH				6.5-8.5	Total suspended solids	mg/litre per litre				50	During the 2009 reporting period there were exceedances of limits recorded at dust deposition gauges DG4, DG5, DG8, DG9, DG10, DG11, DG12, DG13 and DG14. Regional dust storms were found to be the cause of many of these 24 exceedances, which were reported to the EPA. During the 2010 reporting period, an exceedance of annual average dust deposition criteria occurred at points DG9 and DG10. This resulted in a single non-compliance incident which was reported to the EPA. The EPA has advised that WCPL is required to conduct a Best Practice audit of dust management during the next reporting period.
Pollutant	Units of measure	100 percentile concentration limit																																										
Deposited dust	grams per square metre per month	4.0																																										
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pH	pH				6.5-8.5																																							
Total suspended solids	mg/litre per litre				50																																							
L7.1	The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	<p>One exceedance of airblast overpressure occurred on 5/08/2010. DECCW was notified of this exceedance (AEMR 2010 Section 3.7.2).</p> <p>One exceedance on the 19-AUG-2011 was recorded in which an overburden blast was fired in Pit 2 that was subsequently found to have exceeded the site overpressure limits. The blast registered an overpressure level of 124.6 dBL at the nearest residence. The exceedance of the overpressure limit was not discovered or reported until 23 August 2011. The incident report for this exceedance was sighted by the audit team.</p> <p>No exceedances occurred in 2008 or 2009 (2008</p>																																										



Condition	Commitment	Audit Finding
		and 2009 AEMRs Sections 3.8.2).
L7.2	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.	One exceedance of airblast overpressure occurred on 5/08/2010. DECCW was notified of this exceedance (AEMR 2010 Section 3.7.2). No exceedances occurred in 2008 or 2009 (2008 and 2009 AEMRs Sections 3.8.2).
03.1	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.	During the audit team's time on-site, removal of spontaneous combustible material from a noise bund and re-emplacement in a pit was being conducted. This is an inherently dust activity but it was noted that the work areas for this activity were not adequately watered increasing the levels of dust associated with the activity. Elsewhere dust levels were reasonable though there were some higher dust levels associated with scraper work at the site periphery that may have been improved with some watering.
03.2	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.	During the audit team's time on-site, removal of spontaneous combustible material from a noise bund and re-emplacement in a pit was being conducted. This is an inherently dust activity but it was noted that the work areas for this activity were not adequately watered increasing the levels of dust associated with the activity. Elsewhere dust levels were reasonable though there were some higher dust levels associated with scraper work at the site periphery that may have been improved with some watering.
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:	During the 2008 reporting period, several air emissions monitoring records were found to be missing for Monitoring Points 9, 13, 16 and 19 due to a power failure. This resulted in a total of 14 non-compliance incidents that were reported to the EPA. During the 2009 reporting period, failure of high volume samplers HV1 and HV2 occurred as a result of problems with access to power. This resulted in a total of 5 non-compliance incidents which were reported to the EPA. During the 2010 reporting period, monitoring failed to be undertaken of dust gauges in November and December due to extreme wet weather and of High Volume monitors due to power supply interruptions. This resulted in a single non-compliance incident occurring, which was reported to the EPA.

Condition	Commitment	Audit Finding																																																																																												
	<div><p><b>POINTS 3.4</b></p><table><tr><td>Parameter</td><td>Units of measure</td><td>Frequency</td><td>Sampling Method</td></tr><tr><td>Particulates - Deposited Matter</td><td>grams per square metre per month</td><td>Continuous</td><td>Composite sample</td></tr></table><p><b>POINT 8</b></p><table><tr><td>Parameter</td><td>Units of measure</td><td>Frequency</td><td>Sampling Method</td></tr><tr><td>Particulates - Deposited Matter</td><td>grams per square metre per month</td><td>Continuous</td><td>Composite sample</td></tr></table><p><b>POINTS 8.6</b></p><table><tr><td>Parameter</td><td>Units of measure</td><td>Frequency</td><td>Sampling Method</td></tr><tr><td>Particulates - Deposited Matter</td><td>grams per square metre per month</td><td>Continuous</td><td>Composite sample</td></tr></table><p><b>POINTS 10,11,12</b></p><table><tr><td>Parameter</td><td>Units of measure</td><td>Frequency</td><td>Sampling Method</td></tr><tr><td>Particulates - Deposited Matter</td><td>grams per square metre per month</td><td>Special Frequency 1</td><td>Composite sample</td></tr></table><p><b>POINT 13</b></p><table><tr><td>Parameter</td><td>Units of measure</td><td>Frequency</td><td>Sampling Method</td></tr><tr><td>PM10</td><td>micrograms per cubic metre</td><td>Every 6 days</td><td>AM 18</td></tr></table><p><b>POINT 16</b></p><table><tr><td>Parameter</td><td>Units of measure</td><td>Frequency</td><td>Sampling Method</td></tr><tr><td>PM10</td><td>micrograms per cubic metre</td><td>Every 6 days</td><td>AM 18</td></tr></table><p><b>POINT 17</b></p><table><tr><td>Parameter</td><td>Units of measure</td><td>Frequency</td><td>Sampling Method</td></tr><tr><td>Particulates - Deposited Matter</td><td>grams per square metre per month</td><td>Continuous</td><td>Composite sample</td></tr></table><p><b>POINTS 19,20</b></p><table><tr><td>Parameter</td><td>Units of measure</td><td>Frequency</td><td>Sampling Method</td></tr><tr><td>PM10</td><td>micrograms per cubic metre</td><td>Every 6 days</td><td>AM 18</td></tr></table><p><b>POINTS 22,23</b></p><table><tr><td>Parameter</td><td>Units of measure</td><td>Frequency</td><td>Sampling Method</td></tr><tr><td>PM10</td><td>micrograms per cubic metre</td><td>Continuous</td><td>AM 22</td></tr></table><p><b>POINTS 24,25,26</b></p><table><tr><td>Parameter</td><td>Units of measure</td><td>Frequency</td><td>Sampling Method</td></tr><tr><td>Conductivity</td><td>micrograms per cubic metre</td><td>Continuous during discharge</td><td>Continuous</td></tr><tr><td>Oil and Grease</td><td>micrograms per litre</td><td>Only during any discharge</td><td>Grab sample</td></tr><tr><td>Total suspended solids</td><td>micrograms per litre</td><td>Only during any discharge</td><td>Grab sample</td></tr><tr><td>pH</td><td></td><td>Continuous during discharge</td><td>Continuous</td></tr></table></div> <p>For the purposes of the table(s) above Special Frequency 1 means the collection of samples continuous monitoring (assessed monthly) when mining is within 1 kilometre of Aboriginal rock art sites.</p>	Parameter	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Continuous	Composite sample	Parameter	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Continuous	Composite sample	Parameter	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Continuous	Composite sample	Parameter	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Special Frequency 1	Composite sample	Parameter	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Every 6 days	AM 18	Parameter	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Every 6 days	AM 18	Parameter	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Continuous	Composite sample	Parameter	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Every 6 days	AM 18	Parameter	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Continuous	AM 22	Parameter	Units of measure	Frequency	Sampling Method	Conductivity	micrograms per cubic metre	Continuous during discharge	Continuous	Oil and Grease	micrograms per litre	Only during any discharge	Grab sample	Total suspended solids	micrograms per litre	Only during any discharge	Grab sample	pH		Continuous during discharge	Continuous	
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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').	The Annual Return for the 2009 reporting period was submitted a few days late to the EPA (4 days late).																																																																																												

### 3.7 Mining Operations Plan (2008)

An assessment of compliance with the *Wilpinjong Coal Mine Mining Operations Plan (ML 1573) February 2007 – January 2012* (WCPL, October 2008) (MOP) is addressed in **Appendix I. Table 9** lists the commitments in the MOP that were found to be non compliant or not able to be verified.

**Table 9 Non Compliance against Mining Operations Plan 2008**

Reference	Commitment	Audit Finding
1.6.1	Samples of the coal resource were taken for analysis which showed that in general, product coal samples contained some sulphur but almost no Acid Neutralising Capability (ANC). All samples were classified as having a low Potential Acid Forming (PAF) capacity. Further assessment for PAF will be progressively conducted as mining progresses. This will involve collection and analysis of representative grab samples at 6 monthly intervals from individual partings and seams. Material returning a positive PAF result will be identified and preferentially handled to reduce	This was not able to be verified due to information unable to be provided.

Reference	Commitment	Audit Finding
	the risk of acid generation.	
3.4.3	Blasts are designed to comply with statutory limits for vibration and air blast overpressure at nearby residences. The amenity limits must be met and are measured and monitored at the various receptors identified in the blast management plan.	One exceedance of airblast overpressure occurred on 5/08/2010. DECCW was notified of this exceedance (AEMR 2010 Section 3.7.2). No exceedances occurred in 2008 or 2009 (2008 and 2009 AEMRs Sections 3.8.2).  Blasting Assessment Criteria outlined in Schedule 3, Condition 8 of the DA and s5.1.1 in the Blast Management Plan
7.10	Night-lighting effects will be minimised through the implementation of management measures and control structures designed to minimise light spillage.	Lighting procedures is a safety based document, not focussed on community impacts. No light shields are used on lighting above topographic screens. No lighting complaints were received in this audit period.
7.14	Bushfire management strategies to prevent outbreaks and to protect property and people are detailed in the RMP. The BMP will include a protocol to be implemented in the event of a bushfire, to minimise its effect and spread.	Bushfire Management Strategies are detailed in the RMP. The BMP does not include a protocol outlining the measures in place in the event of a bushfire.

### 3.8 Environmental Management Strategy (2006)

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

**Table 10 Non Compliance against Environmental Management Strategy**

Reference	Commitment	Audit Finding
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 website contains most site information, monitoring results, AEMRs, management plans and EA documents, however it does not provide information about current activities, or proposed blast times.

### 3.9 Blast Management Plan (2011)

A detailed assessment of compliance for each commitment is provided in **Appendix I**. All commitments for the *Wilpinjong Coal Mine Blast Management Plan* (WCPL, September 2011) were found to be compliant.

### 3.10 Noise Management Plan (2011)

An assessment of compliance with the *Wilpinjong Coal Mine Noise Management Plan* (WCPL, September 2011) (NMP) is addressed in **Appendix I. Table 11** provides a summary of the commitments in the NMP that were found to be non compliant.

**Table 11 Non Compliances against Noise Management Plan**

Reference	Commitment	Audit Finding
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 attended noise monitoring is conducted on a quarterly basis (Attended Noise Monitoring reports produced by Global Acoustics) there is no evidence that this information is currently being used to complement the calibration of the real-time monitors.
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.	Attended noise monitoring has historically been conducted on a quarterly basis. More recently (2010) a two-monthly frequency can be seen. Attended Noise Monitoring reports produced by Global Acoustics sighted by audit team.

### 3.11 Air Quality and Greenhouse Gas Management Plan (2011)

An assessment of compliance with the *Wilpinjong Coal Mine Air Quality and Greenhouse Gas Management Plan* (WCPL, September 2011) (AQGGMP) is addressed in **Appendix I. Table 12** provides a summary of the commitments in the AQGGMP that were found to be non compliant.

**Table 12 Non Compliance against Air Quality and Greenhouse Gas Management Plan**

Reference	Commitment	Audit Finding
8.6	Dust deposition gauge and high volume sampler data will be assessed monthly.	This sampling is done either continuously or monthly, as per Table 11 of AEMRs 2008 and 2009, and Table 12 of AEMR 2010. However, as per Section 3.4.2 of AEMR 2010, not all dust deposition data was collected in November and December 2010 due to flooding making this collection unsafe.

### 3.12 Aboriginal and Cultural Heritage Plan (2008)

An assessment of compliance with the *Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiradjuri Cultural Heritage Management Plan* (Peabody, February 2008) (ACHMP) is outlined in **Appendix I. Table 13** provides a summary of the commitments in the ACHMP that were found to be non compliant or not able to be verified.

**Table 13 Non Compliance against Aboriginal and Cultural Heritage Management Plan**

Reference	Commitment	Audit Finding
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).	Site induction sighted, Cultural Heritage not included in site induction.
4.10	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: <ul style="list-style-type: none"> <li>- an overview of the cultural heritage management programme;</li> <li>- ways to minimise unintentional impacts on Aboriginal heritage associated with the use of vehicles and mobile plant;</li> <li>- an overview of the artefact salvage programme;</li> <li>- an overview of the management and monitoring at rock art sites;</li> <li>- simple criteria and procedures for artefact and human bone recognition;</li> <li>- actions to follow if human skeletal material is encountered (Section 4.5); and</li> <li>- Personnel to contact for more information or assistance.</li> </ul>	Site induction sighted, Cultural Heritage not included in site induction.
5	Quarterly meetings of the Cultural Heritage Committee will be held to discuss Project activities that pertain to matters of Aboriginal cultural heritage management.	Native Title Implementation Committee and the Cultural Heritage Liaison Sub-Committee only met three times in 2008, twice in 2009, and twice in 2010 (AEMR 2008 Section 4.2, AEMR 2009 Section 3.17, AEMR 2009 Section 3.16)

### 3.13 Site Water Management Plan (2006)

An assessment of compliance with the *Wilpinjong Coal Project Site Water Management Plan* (WCPL, July 2006) (SWMP) is addressed in **Appendix I**. All commitments in the SWMP were found to be compliant.

### 3.14 Site Water Balance (2006)

An assessment of compliance with the *Wilpinjong Coal Project Site Water Balance* (WCPL, July 2006) (SWB) is addressed in **Appendix I**. **Table 14** provides a summary of the commitments in the SWB that were found to be non compliant.

**Table 14 Non Compliances against Site Water Balance**

Reference	Commitment	Audit Finding
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.

Reference	Commitment	Audit Finding
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 in place in most locations inspected, however some small upslope areas did not appear to be directed to a diversion. Erosion of the diversion works (particularly batter slopes) was evident at all locations.

### 3.15 Erosion and Sediment Control Plan (2006)

An assessment of compliance with the *Wilpinjong Coal Project Erosion and Sediment Control Plan* (WCPL, February 2006) (ESCP) is addressed in **Appendix I. Table 15** provides a summary of the commitments in the ESCP that were found to be non compliant or not able to be verified.

**Table 15 Non Compliance against Erosion and Sediment Control plan**

Reference	Commitment	Audit Finding
3.1	Construction of sediment fences (downslope of disturbance and stockpile areas) where required.	No sediment fences observed during site inspection, however query this proposed measure as a long-term strategy for controlling sediment on site.
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 dam waters not released off-site - de-watered to mine water storages and re-used. Sediment dam batters not always well stabilised. Whilst sediment dams are routinely monitored for water quality, based on interview, they are not routinely dewatered following rainfall or desilted.

### 3.16 Surface Water Management and Monitoring Plan (2006)

An assessment of compliance with the *Wilpinjong Coal Project Surface Water Management and Monitoring Plan* (WCPL, March 2006) (SWMMP) is addressed in **Appendix I**. All commitments in the SWMMP were found to be compliant.

### 3.17 Surface and Groundwater Response Plan (2006)

An assessment of compliance with the *Wilpinjong Coal Project Surface and Groundwater Response Plan* (WCPL, July 2006), 2010) (SGWRP) is addressed in **Appendix I. Table 16** lists the commitments in the SGWRP that were found to be non compliant or not able to be verified.

Table 16 Commitments not able to be verified with the Surface and Groundwater Response Plan

Reference	Commitment	Audit Finding
2.6.1	The water levels in the alluvium bores will be recorded at hourly intervals using an automatic recorder.	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. (Groundwater monitoring plan)
2.6.1	Data generated from the above monitoring will be reported to the DNR on a three monthly basis.	This was not able to be verified due to correspondence to DNR unable to be provided.

### 3.18 Groundwater Monitoring Program (2006)

A detailed assessment of compliance for each condition is outlined in Appendix I. The majority of the commitments contained in the *Wilpinjong Coal Project Groundwater Monitoring Program* (WCPL, March 2006) were found to not have been triggered during the auditing period. However, an assessment of the commitments in the GMP found to be non compliant are outlined in **Table 17**.

Table 17 Non compliance against Groundwater Monitoring Program

Reference	Commitment	Audit Finding
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 with Jason 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). 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 <sub>3</sub> ), Sulphate (SO <sub>4</sub> ) and Total Iron (Fe) will also be undertaken every six months.	No units for EC in Table C1 of the AEMR. No measurements for December 2010 due to access issues caused by flooding. Exceedances in EC were reported in monitoring wells GWA1, GWA5, GWA6, GWA7 for 2008, 2009 and 2010, and GWA15 for 2008. Triggers were reviewed and are awaiting approval from DP&I. In March 2008, no water quality results (laboratory parameters for GWA7). This failure to analyse laboratory results for March 2008 for GWA7 is considered to be a non-compliance.
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 <sub>3</sub> , SO <sub>4</sub> and Total Fe will also be undertaken every six months.	These parameters are measures as per the given time frames in 2010 (Table 20 of the 2010 AEMR. However, during the 2008 and 2009 reporting periods, the required analysis was not undertaken every six months (Table 18 of AEMRs 2008 and 2009).
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 <sub>3</sub> , SO <sub>4</sub> and Total Fe will also be undertaken every six months.	These parameters are measures as per the given time frames in 2010 (Table 20 of the 2010 AEMR. However, during the 2008 and 2009 reporting periods, the required analysis was not undertaken every six months (Table 18 of AEMRs 2008 and 2009).
4.5.1	One coal measure bore will be monitored along	These parameters are measures as per the



	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 <sub>3</sub> , SO <sub>4</sub> and Total Fe will also be undertaken quarterly.	given time frames in 2010 (Table 20 of the 2010 AEMR). However, during the 2008 and 2009 reporting periods, the required analysis was not undertaken every quarter (Table 18 of AEMRs 2008 and 2009).
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 <sub>3</sub> , SO <sub>4</sub> and Total Fe will also be undertaken quarterly.	During the 2008 and 2009 reporting periods, the required analysis was not undertaken for water chemistry every quarter (Table 18 of AEMRs 2008 and 2009). During the 2010 reporting period, the required analysis for water chemistry was undertaken every six months, rather than quarterly (Table 20 of the 2010 AEMR).

### 3.19 Rehabilitation and Landscape Management Plan (2006)

A detailed assessment of compliance for each commitment, including the commitments that were not able to be verified, is outlined in **Appendix I. Table 18** lists the one commitment in the *Wilpinjong Coal Project Rehabilitation and Landscape Management Plan* (WCPL, July 2006) found to be non compliant.

**Table 18 Non Compliance against Rehabilitation and Landscape management Plan**

Reference	Commitment	Audit Finding
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	Review of the RLMP appears to have taken place during the 2010 reporting period in response to the 2008 IEA (Section 3.1 of the AEMR 2010). This post audit review thus took place more than six months after the IEA occurred.

### 3.20 Rehabilitation Management Plan

A detailed assessment of the *Wilpinjong Coal Mine Rehabilitation Management Plan* (WCPL, September 2011) (RMP) is outlined in **Appendix I. Table 19** provides a summary of the commitments in the RMP that were found to be non compliant or not able to be verified.

**Table 19 Non Compliance against Rehabilitation Management Plan**

Reference	Commitment	Audit Finding
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.	No tree salvaging has occurred to date,
7.6.4	Collection of viable seed from felled trees (Section 7.10).	Nursery in Wollar stores seed for WCPL. This procedure is not followed.
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).	
7.10	Progressive collection of native seed from the local area to augment revegetation resources.	
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.	



Reference	Commitment	Audit Finding
7.10	Seed extraction methods such as sun drying, oven-baking, light firing, high heat drying rooms and/or water soaking.	
7.10	The storage of seed in paper and/or calico bags in temperature controlled rooms.	
7.10	The labelling of seed collection bags with the species collected collection location, harvest date and dry weight details.	
7.10	The maintenance of a seed inventory which will record the amount of seed collected, species type and treatment and propagation specifications.	Seed inventory was sighted by the audit team during the site visit. It contained information about types and amounts of seed collected, but did not include specific treatment types and propagation specifications.
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.	This is not included as part of the contractors site induction.
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.	
8.13	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 tests conducted across the site with soil mapping to allow targeted stripping and storage. No soils tested in the audit period.
8.13	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.	No soil testing was conducted during the auditing period.

### 3.21 Spontaneous Combustion Management Plan

A detailed assessment of compliance for each condition, including the commitments that were not able to be verified, is outlined in **Appendix I. Table 20** lists the one commitment in the *Wilpinjong Coal Project Spontaneous Combustion Management Plan* (WCPL, May 2006) that was found to be non-compliant.

**Table 20 Non Compliance against Spontaneous Combustion Management Plan**

Reference	Commitment	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	This has not been completed during the auditing period.

Reference	Commitment	Audit Finding
	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.	

## 4.0 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 Environmental Management Strategy and Environmental Monitoring Program has been assessed by 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 WCPL to monitor and mitigate these impacts.

### 4.1 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 WCPL by providing the strategic context for environmental management across the site. Table 3.1 of the Strategy provides a checklist for the requirements of DA-05-0021-2006 (as modified) with regard to content. The implementation of the EMS is analysed each year in the AEMR. The Strategy is formulated from the requirements of Project Approval 05-0021

In general, the Strategy adequately addresses the requirements prescribed in DA-05-0021-2006. Refer **Appendix I** for further details on compliance status of this strategy.

### 4.2 Ecology

#### 4.2.1 Landscape Management Plan

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 WCPL, 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).
- *Mine Closure Plan* (yet to be prepared).

The Rehabilitation Management Plan was considered as part of this IEA, however the Final Void Management Plan and the Mine Closure Plan have yet to be finalised. As per the conditions of DA-05-0021-2006 (as modified), these Plans were not required to be finalised at the time of this IEA.

Annual monitoring began in 2007 to assess the degree and rate of rehabilitation in the Environmental Conservation Areas (ECAs). Weed and animal pest management measures are undertaken at WCPL according to the MOP, RMP, a Vegetation Clearance Protocol (VCP), and fauna management strategies. The VCP for WCPL includes procedures for the delineation of areas to be cleared, pre clearance surveys, management of fauna impacts, and vegetation clearance.

The VCP and specific fauna management strategies were implemented during the auditing period. Habitat tree mapping and inspection of felled trees occurred in March, July, August and November 2010 for clearance activities associated with Pits 2 and 5. Fifty-four habitat trees were felled and inspected during the 2010 reporting period, with 50 habitat trees and 32 habitat trees felled during the 2009 and 2008 reporting periods. All felled trees were inspected for evidence of trapped or injured fauna, and located individuals were relocated or taken into the care of a wildlife rescue organisation. No threatened fauna species were recovered from these felled habitat trees. The Threatened Species Management Protocol (TSMP) was therefore not required.

Monitoring and control of weeds was undertaken during the auditing period. Weed surveys were undertaken of WCPL land, followed up by herbicide treatment for noxious weeds. The spread of weeds throughout the site was managed by limiting vehicle and stock access through fencing. Feral animal control measures implemented during the auditing period included fox and rabbit poison baits, and maintaining a rubbish free environment to

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reduce scavenging. WCPL has also made financial contributions to the Wild Dogs Destruction Board, and has consulted with the Livestock, Health and Pest Authority in implementing rabbit baiting programs. Fencing was also maintained to exclude stock from the ECAs.

No environmental incidents or complaints were reported regarding ecology during the auditing period.

## 4.3 Air Quality

### 4.3.1 Air Quality and Greenhouse Gas Management Plan

Air quality is managed in accordance with the *Wilpinjong Coal Mine Air Quality and Greenhouse Gas Management Plan* (WCPL, September 2011). This is in relation to Schedule 3 Condition 21 of DA-05-0021-2006 (as modified)

The Air Quality and Greenhouse Gas Management Plan was originally approved by DP&I on 10 February 2006. The current version of the current version of the Air Quality Plan was approved by DP&I 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 monitoring is carried out in accordance with AS 3850.10.1-1991: *Methods for Sampling and Analysis of Ambient Air – Determination of Particulates – Deposited Matter – Gravimetric Method* and AS 3580.9-6:2003 *Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM<sub>10</sub> high volume sampler with size-selective inlet-Gravimetric method*.

Air quality control procedures used a WCP, 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, PM<sub>10</sub>, 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.

Air quality monitoring results are reported annually in the AEMR. During the 2009 reporting period, several exceedances of 24 hour average PM<sub>10</sub> concentrations and TEOM criteria as set out in Schedule 3 Condition 18 of *Development Consent DA-05-0021-2006* (as modified). These events triggered the implementation of the Air Quality Monitoring Protocol. During the 2008 reporting period there was an exceedance of the average concentration of 4g/m<sup>2</sup>/month and maximum increase in deposited dust level at Monitoring Point 9 (DG11). However, this exceedance coincided with a period of high traffic usage along the nearby Ulan-Wollar Road, and was reported to the EPA.

Not all dust deposition data was collected in November and December 2010 due to flooding making this collection unsafe, whereas this reporting is required on a monthly basis.

A number of complaints regarding air quality received during the reporting period, and these were responded to in accordance with the Mine Complaint Response Protocol. 25 complaints were recorded relating to air quality during the audit period, 17 received in 2010, a in 2009 and 4 in 2008 (2008,2009,2010 AEMR)

During the audit team's time on-site, removal of spontaneous combustible material from a noise bund and re-emplacement in a pit was being conducted. This is an inherently dust activity but it was noted that the work areas for this activity were not adequately watered increasing the levels of dust associated with the activity. Elsewhere dust levels were reasonable though there were some higher dust levels associated with scraper work at the site periphery that may have been improved with some watering.

## 4.4 Noise

### 4.4.1 Noise Management Plan

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&I on 6 February 2006. The current version of the Noise Management Plan was approved by DP&I on 15 September 2011.

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 WCPL that have led to the revised strategies in this NMP; and
- Describes noise management strategies used to manage Mine noise.

Noise control measures used at WCPL, as reported in the AEMRs and confirmed in the audit interviews 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).

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).

Attended noise monitoring was undertaken quarterly at five locations during the auditing period. This was in addition to two remote continuous noise monitors from which captured noise data is also analysed on a quarterly basis (this was increased to three monitors in 2010). Monitoring at WCPL is carried out according to the *NSW OEH's Industrial Noise Policy 2000*.

Exceedances were recorded of the night time disturbance criteria for two dwellings in 2008, three dwellings in 2009, and three dwellings in 2010 however noise monitoring data indicated WCPL was not the sole cause of these exceedances. An analysis and summary of noise monitoring results is reported annually in the AEMR. Several complaints related to noise were received during the auditing period; these were responded to in accordance with the Mine Complaint Response Protocol. No environmental incidents were reported relating to noise at the Mine during the auditing period.

In general, the strategy adequately addresses the requirements prescribed in DA-05-0021-2006 (as modified). A recommendation has been made that this EMS be reviewed and updated subsequent to the current audit (refer **Table 21**) in order to comply with DA-05-0021-2006 Schedule 6, Condition 1(f).

## 4.5 Blasting and Vibration

### 4.5.1 Blast Management Plan

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&I on 2 May 2006. The current version of the Blast Management Plan was approved by DP&I 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 WCPL; 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 WCPL is undertaken according to *AS 2187.2-2006 Explosives – Storage, Transport and Use – Use of Explosives*.

During the auditing period, blast monitoring was undertaken at six locations (including one Aboriginal rock art site). The BMP involves the 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. The objective of the monitoring is to obtain assurance that amenity overpressure and vibration limits are being achieved at privately-owned residences and that damage criteria are being achieved for public infrastructure.

An overview of blast monitoring results is reported annually in the AEMR. One exceedance of airblast overpressure occurred on 5/08/2010. DECCW was notified of this exceedance (AEMR 2010 Section 3.7.2). No exceedances occurred in 2008 or 2009 (2008 and 2009 AEMRs Sections 3.8.2).

Several complaints were received during the audit period in relation to blasting. All complaints registered were promptly investigated and monitoring data studied where required.

## 4.6 Water Management

### 4.6.1 Site Water Management Plan

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).
- *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 3.0 for further details on WCPL's compliance with these individual programs.

#### 4.6.2 Surface Water

Surface water management procedures used at WCPL, 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.

Under EPL 12425, water at WCPL is discharged from three points that are also monitored to ensure the quality of discharged water. WCPL also held an emergency discharge licence from 7 December 2010 to 31 January 2011.

Surface water quality is measured at 28 monitoring locations (AEMR 2010) according to the requirements of the SWMP and the EPL 12425. Surface water is sampled on the following basis:

- For pH, electrical conductivity, turbidity, total suspended solids and SO<sub>4</sub> - monthly and following significant rainfall events at most of the designated monitoring points, and also monthly at the Wilpinjong and Cumbo Creek gauging stations and the site water storages, tailings disposal storages and sediment retention dams;
- Flow rate and electrical conductivity is continuously monitored at Wilpinjong Creek and Cumbo Creek;
- Water level, pH, electrical conductivity, turbidity and SO<sub>4</sub> are monitored at existing waterholes on the nearby McDermott property as per consultation with the landowner;
- Stream health monitoring is conducted annually for sections of Wilpinjong and Cumbo Creek; and
- Channel stability monitoring is planned to be undertaken every five years for long sections of Wilpinjong and Cumbo Creek.

The prescribed monitoring methodology is outlined in *AS/NZS 5667-1008 Water quality – Sampling*.

An analysis and summary of surface water monitoring results are reported in the AEMR. During the audit period, results for water quality have generally remained within historical trends and EIS predictions.

During the audit site inspection no specific surface water management issues were identified.

#### 4.6.3 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).

In accordance with the WCPL and SWMP, the control strategies implemented were considered adequate to manage groundwater-related risks associated with operations during the reporting period.

An analysis and summary of groundwater monitoring results are reported in the AEMR. There were no environmental incidents or complaints reported relating to groundwater management during the audit period.

#### 4.6.4 Erosion and Sediment Control

An *Erosion and Sediment Control Plan* (ESCP) (WCPL, 2006) has been prepared and implemented for the WCPL. 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 WCPL, as reported in the AEMRs and confirmed during the audit interviews, include:

- Construction of diversion drains, sediment dams, collection drains, sediment fences and minor infrastructure.

Generally, appropriate erosion and sedimentation systems and procedures were observed during the IEA site inspection. No complaints relating to erosion and sediment control were received during the audit period.

## 4.7 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. The inspections have identified storage improvements that have since been implemented by Wilpinjong Coal.

During the IEA site inspection no specific waste management issues were identified.

## 4.8 Cultural Heritage

### 4.8.1 Aboriginal Cultural Heritage Management Plan

The 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 WCPL. 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.

## 4.9 Rehabilitation

Rehabilitation at WCPL 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.

Specific rehabilitation objectives for the Regeneration Areas include:

- To establish woodland vegetation in the Regeneration Areas (including the banks of Wilpinjong and Cumbo Creeks) through natural regeneration and selective planting;
- 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 enhancement of conservation areas through the implementation of the land management practices such as the exclusion of livestock to encourage natural regeneration and selective planting if required and; and
- Conservation through voluntary conservation agreement which has rezoned the land in the ECAs for the purpose of protecting the land for conservation

Rehabilitation efforts at WCPL have progressively increased since 2008, with approximately 97 hectares of spoil being rehabilitated throughout the audit period. Observed rehabilitation has included; re-shaping of mine spoil, contour ripping, seeding and fertilising, as well as topsoil placement.

Observations from site inspection included:

- Rehabilitation was at inception and no large areas had yet been completed;
- The areas that had been completed looked in reasonable condition considering the poor soil substrates endemic to the area;
- Erosion was well controlled in the rehabilitated areas;
- The approval documents indicated that trials would be conducted to identify best practice in rehabilitation at the site, no trials had been conducted to date;
- Areas completed to date did not have very mature woody vegetation as yet so no conclusions can be drawn on long term sustainability of the rehabilitation; and
- There were not enough areas completed to a mature level to verify that the patterns and percentages woodland, pasture and woodland/pasture were being met.



## 5.0 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.

Various good practices were noted during the IEA, particularly in relation to rehabilitation, surface water management and efforts to physically secure biodiversity offset areas. Overall, WCPL has a high level of resources devoted to environmental matters through a competent and well led environmental and operations team. It was observed that a good standard of environmental management was being applied to the operation of WCPL at the time of the audit, as indicated by the audit interviews and site inspections. It was noted however, that the Peabody staff did not have complete control of the implementation of environmental controls on the site and yet held the regulatory responsibility for these issues. Control over the actions of the Thiess portion of the operation will no longer be an issue following the removal of contract mining from the site in March 2013.

Over 1,435 conditions and commitments in the documents listed above were audited, with a total of 78 non-compliances (including 13 conditions not able to be verified). However, the majority of the non-compliances were repeated across the various development consent conditions, environmental assessment commitments, EPL conditions and management plan requirements. These non-compliances have been outlined in Section 3.0.

**Table 21** 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 3.0 as far as is practical. **Table 21** is intended to provide guidance for WCPL in resolving these non-compliances.

**Table 21 Consolidated Audit Recommendations**

Reference	Recommendation
<b>Monitoring</b>	
NMP Section 5.1.1	Use results from the attended monitoring programme to verify data collected from the real-time noise monitors and maintain documentation.
AQGGMP Section 6.4	Review the AQGGMP to reflect direct monitoring of TSP at Maher Residence.
<b>Management Plans</b>	
All management plans	Update the management plan review system for ease of reference to ensure that management plans are being reviewed and updated as necessary.  Ensure relevant personnel are consulted in reviews and updates to management plans.
DA-05-0021-2006 Schedule 3 Condition 55	Consider reviewing the lighting procedure to address potential community impacts, and submit to the Director-General for endorsement.
EMS Section 11.2	Update the WCPL website to provide information about current activities, or proposed blast times.
ESCP Section 3.1	Review the site sediment basin strategy to reflect current operational activities.
Surface Water Management Plan Section 8	Future Surface Water Impact Review reports to provide greater detail of the surface water monitoring and discussion of results and trends.
Surface Water Management Plan Section 8	Site water balance to be included in future AEMRs.
Surface Water Management Plan Section 8	Verify water-related complaint prior to reviewing protocols.
Groundwater Management Plan Section 1.9	Future AEMRs to report on the following groundwater related issues: - Investigations arising from groundwater complaints or impacts; - Results of any contingency measures implemented; and - Results of any groundwater model refinements.

Reference	Recommendation
<b>Other Actions</b>	
EIS Section 2.4.4	Undertake trials of various surface treatments (including subsoil and topsoil depths).
EIS Section 2.11.1	Upgrade the oil/water separator system.
EIS Section 4.2.4	Install light shields to limit the spill of lighting where practicable.
EIS Section 4.3.1	Reference is made to the catchment types and is reported in the Rehabilitation Management Plan
EIS Sections 5.1 and 5.12.10 Rehabilitation Management Plan Section 7.12	Review the induction and environmental awareness programme to include: Cultural Heritage; Weed management.
EIS Section 5.27	Commence site specific trials and studies to examine options and to optimise revegetation techniques.
MOP Section 4.8	Allow for variation/flexibility in future rehabilitation trials.
Rehabilitation Management Plan Section 7.2	Hollow bearing trees to be assessed by consultant ecologists for the viability of using nest boxes.
Rehabilitation Management Plan Section 7.6.2	Retain larger trees for relocation into the rehabilitation to provide fauna habitat.
Rehabilitation Management Plan Section 8.1.1	Prepare and utilise a checklist to guide rehabilitation inspections to maintain compliance

## Appendix A

# Audit Team Curricula Vitae

## Appendix A    Audit Team Curricula Vitae

**Peter Horn**  
**Associate Director - Environment**

**Qualifications**

Master of Applied Science (Environmental Management and Restoration)

Bachelor Applied Science (Environmental Science)

**Affiliations**

Insert MEIANZ (Environmental Institute of Australia and New Zealand)

MCASANZ (Clean Air Society of Australia and New Zealand)

**Career History**

Peter has 16 years experience providing professional environmental services to industry and a further 15 years industry experience. Peter has extensive experience as a Director, Project Manager and Team Member for a range of clients in the management of environmental controls and issues including environmental assessment, strategic environmental advice, EMS implementation and auditing, application of ESD principles, contaminated land management and Legal compliance. His project direction experience includes numerous multi-disciplinary projects with deliverables from a broad range of skill sets.

Peter has developed skills in all aspects of environmental management and a good general overview of the project development process. These skills include Project Management, Environmental Assessment, Environmental Constraints Analysis, Air Quality and Noise, Stakeholder Consultation, Site Investigation and Remediation, Ecologically Sustainable Development, Environmental Management Systems, Energy and Climate Change, Water and Waste Water, Community Consultation, Approvals Management, Ecological Rehabilitation, Management of Contractors and Consultants and Communication with key Stakeholders including Regulatory Authorities.

As the Environmental Officer for Ashton Coal Mine, Peter managed all facets of environment and planning for the site including site compliance and compliance of the construction of the underground mine and associated facilities, coordinating with the Site General Manager and Development Manager.

Peter has audited environmental compliance, Environmental Management Systems, NSW Planning approval conditions, Environment Protection License compliance, construction compliance and general environmental performance since completing an ISO 14000 based auditing course in 1997. He has been accepted by NSW Planning as a lead auditor on six audits to date.

**Detailed Experience***Auditing*

Peter is a trained lead auditor for EMS and compliance and has conducted numerous audits. Audits have included gap analysis, EMS compliance, Department of Planning Independent Environmental Auditing, compliance audits and due diligence audits.

Recent projects include:

- Compliance Audits of Hunter Valley Operations, Warkworth, Mount Thorley mines for Coal and Allied.
- Compliance audit of Eraring Energy's Eraring Power Station and six Hydro-electric generation sites.
- Independent Environmental Audits of Warkworth Mine, Muswellbrook Coal, Drayton Mine, Integra Mine, Bengalla Mine, Hydro Aluminium as an approved Lead Auditor (DoP).
- EMS audits for University of Western Sydney and Colongra Power Station.
- Due diligence audit for AGL pre-joint venture with ACTEW.
- EPL compliance for CSA Mine (Cobar), Ashton Coal Mines.

*Environmental Impact Assessment*

Peter has been involved in a number of Environmental Impact Assessments since joining AECOM in 2006.

Recent projects include:

- EIS for Stingray Creek Bridge, Port Macquarie Hastings Council.
- SEE for Amp Increase Project, Tomago Aluminium.
- EA under Part 3A for Chain Valley Mine, LDO Coal Pty Ltd.
- EA under Part 3A for Baal Bone Colliery, Xstrata Coal.
- EIS for Demolition of Catherine Hill Bay Jetty, Peabody Energy.
- Various small REFs, NSW RTA.

*Environmental Management*

Peter has extensive experience in the development and review of environmental management documentation including EMPs, EMSs, Environmental Strategies, Subsidence Management Plans, Extraction Plans, MOPs and Environmental Reporting.

Recent projects include:

- CEMPs for Ravensworth North open cut coal mine and the Diversion of Bowmans Creek for Ashton Coal.

- EMPs for Open-cut, Underground mines, Ashton Coal, Delta Electricity's Colongra Power Station, Hydro Aluminium.
- EMSs for the University of Western Sydney, New England Trading, Delta Electricity's Colongra Power Station, Central Queensland Power.
- Environmental Strategy for Ashton Coal Mines.
- Subsidence Management Plans for Ashton Coal Mines.
- MOP and MOP revisions for Ashton Coal Mines.
- Environmental reporting including AEMRs, NPI, EPL returns and corporate environmental reporting.

**Training**

Train the Trainer, AECOM 2008

Senior First Aid, 2006

Two Day Project Manager Training, PSMJ for AECOM Australia, 2007

World Class Consultant Training, ERM 2005

NSCA Course in OHS Consultation, 2002

Project Manager Training, Parsons Brinckerhoff, 2000

Environmental Management Systems Auditor Training – 1999

**Professional History**

2006 to Current

AECOM Australia Pty Limited  
Associate Director – Environment

2005 to 2006

Carbon Based Environmental  
Ashton Coal Mine, Environmental Officer

2004 to 2005

Environmental Resources Management  
Senior Environmental Scientist

1999 to 2004

Parsons Brinckerhoff  
Senior Environmental Scientist

1995 to 1999

ACIRL  
Senior Environmental Scientist/ Environmental  
Scientist/ Environmental Technician

## Sharmin Lubonski

### Associate Director

#### Qualifications

Bachelor of Science (Hons) (Environmental)

Master of Science (Environmental Technology)

Doctor of Philosophy (Environmental Economics and Corporate Social Responsibility)

#### Affiliations

DCCEE Registered NGERs Auditor

GHG Management Institute, GHG Verification and Advanced Accounting

IRCA Sustainability Assurance Professional

RABQSA Environmental Managements Systems Auditor (Lead Auditor)

IEMA Environmental Auditor

Institute of Engineers (Hong Kong)

Institute of Environmental Economics (Australia)

#### Awards

University of Hong Kong RGC Award for Outstanding International Workshop/Conference (2004)

Paper award for World Student Business Congress, Cologne, Germany (2003)

ICAC Award for Outstanding Research Project in Corporate Governance, Hong Kong (2001)

#### Publications and Technical Papers

Salahuddin, S. (2005) "Drivers and Barriers for Extended Producer Responsibility in Asia" PhD Thesis, University of Hong Kong

Salahuddin, S. (2004) "Environmental Industry in Hong Kong: A Company Case Study of Jets Technics Ltd.", Greening of Industry Network Conference Paper, Hong Kong, November 2004

Salahuddin, S. and Tsoi, J. (2003) "Ethical Practices and Codes of Conduct amongst Retailers in Hong Kong", Project Report 9, CEGP, University of Hong Kong Publications

Salahuddin, S. (2003) Taking Responsibility in a Dynamic Global Market: A Strategy for Competitive Success." World Student Business Congress, Cologne, 2003

Salahuddin, S. Tsoi, C.S.J , Lam, J.C.K. (2003) "Corporate Social Responsibility as a Competitive Advantage: a Hong Kong Perspective" Greening of Industry Network Conference Paper, San Francisco, October 2003

#### Career History

Sharmin is an environmental and sustainability professional with 11 years of experience, including extensive management system and compliance auditing. She has worked for major international companies in Australia, Hong Kong, Sweden, Portugal and the United Kingdom. Sharmin specialises in helping clients with environmental and sustainability risk management including:

- Auditing and verification.
- Management systems and reporting.
- Issues management such as climate change, waste, water and supply chain management.
- Wide industry experience including infrastructure, manufacturing, retail (food, beverage and apparel), finance and telecommunications sectors.

Sharmin is a RABQSA and IEMA Environmental Auditor (Lead Auditor) with experience in leading audit teams for internal, second party and third party audits for environmental, quality and social management systems and compliance audits. This includes for EMAS, ISO 14001, ISO 9000, ISO 14040, ISO 14020/24 and SA 8000. In addition Sharmin holds specialist qualifications and experience as a Registered Greenhouse and Energy Auditor (NGER audits) and Sustainability Assurance Professional (GRI and AA100 audits).

#### Recent project experience:

- Chief Company Auditor, Green Loans Audit Program
- Lead Auditor, Independent Environmental Audit, Port Kembla Coal Terminal
- Lead Auditor, Endeavour Energy, Greenhouse Gas Management Plan and NGERs compliance
- Internal Auditor, Vodafone (Australia) environmental management system review and audits (EMAS)
- Lead Auditor, Water Supplies Department Hong Kong carbon verification of desalination plant
- Lead Auditor, IF Nordic and Balticum environmental management system (ISO 14001)
- Lead Auditor, Coca Cola Breweries carbon auditing and verification
- Lead Auditor, Vattenfall (water processing) environmental management system
- Lead Auditor, Proctor & Gamble (manufacturing plants) carbon accounting and verification
- Lead Auditor, Carlsberg (Sweden) environmental management systems (ISO 14001)
- Technical Lead Environmental Management (ISO 14001), Downer EDI (ANZ) integrated management systems development and implementation

**Detailed Experience**

- Auditing and verification e.g. greenhouse and carbon audits, management systems implementation and audits, sustainability report assurance, green building audits, supply chain managements, diversity policies, human rights reports for high-risk countries.
- Carbon management and climate change: carbon inventories, audits of inventories and reports, procurement of offsets, carbon trading advice, development of climate change strategy and policy.
- Project management of climate change, environmental and sustainability reporting (Global Reporting Initiative) and assurance (AA1000AS) as well as submissions of government reports e.g. EEO, NGRS.
- Manage the legal compliance and public reporting in accordance with international standards and guidelines (e.g. CDP project, FTSE4GOOD, Dow Jones, Global Reporting Initiative).
- Develop programs for environmental management systems and their audits, including ISO14000, ISO 26000, SA8000.

**Conferences**

Industrial Ecology Conference (Annual)

Greening of Industry Conference (Annual)

**Training**

ISO 14000 series, 14020 series, 9000 series, 14040 series

ISO 26000

SA 8000

AA1000/GRI

Greenhouse gas protocol reporting and verification

NGRS reporting

Six Sigma

Human rights in international development (60 points  
University of Gothenburg)

Certificate of Environmental Law (Freshfields  
Bruckhaus Deringer)

**Languages**

Fluent in Swedish, English, and Hindi/Urdu

Working knowledge of German and French

Basic knowledge of Chinese (Cantonese and  
Mandarin) and Polish

**Professional History**

2010 - Present

AECOM, Australia

Associate Director, Sustainability and Climate Change

2009 - 2010

Respect Europe, Sweden

Manager, Sustainability and CSR

A/Manager Carbon Footprint Services

2008

Downer EDI, Australia

Manager, Sustainability Reporting

2007 - 2008

Vodafone Australia

Corporate Responsibility Advisor

2005 - 2007

Department of Environment and Climate Change NSW

Economist

2002 - 2005

Corporate Environmental Governance, Hong Kong

Consultant

2001 - 2002

Freshfields Bruckhaus Deringer, United Kingdom

Environmental and Planning Consultant

2000

Department of Environment, Transport and the

Regions, United Kingdom

Executive Officer



**Amanda Kerr**  
**Senior 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 ten years professional experience specialising in environmental impact assessment, environmental management, water quality assessment, stormwater management and drainage design. Her fields of expertise include:

- Hydrologic and hydraulic analysis and modelling for flood studies
- Stormwater drainage design for urban, commercial, industrial, and extractive industry
- Surface water quality and urban stormwater treatment
- Flood modelling/studies
- Environmental impact assessment
- Environmental management
- Design of erosion controls and soil conservation works
- Subsidence management.

She 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 sulfate 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**

- 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. Modelling and design carried out using DRAINS and MUSIC software packages.
- 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 Thorley Warkworth Clean Coal Pads – Upgrade of the existing stormwater drainage system to ensure the protection of site infrastructure (reclaimers, conveyors, rails etc) and provide adequate sediment and coal fines capture and removal
- Mount Arthur Adit 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.
- Yabulu Flood Impact Assessment - Preparation of a flood impact assessment using RAFTs and MIKE-11 for proposed substation north of Townsville including site investigation, modelling of catchments and modelling of the floodplain and proposed site changes.
- Maroota Quarry EIS – Preparation of an EIS for a proposed sand extraction operation at Maroota. Major environmental issues included surface water impacts, land rehabilitation, quarry staging, and groundwater impacts.
- Drainage Design Bonner Stage 1a - Detailed drainage design for proposed residential subdivision in the ACT, including catchment analysis using RAFTs, HEC-RAS modelling of trunk waterway and detailed design of street drainage network.
- RTA Newcastle Desktop Flood Assessment - A desktop assessment of ongoing sustainability of the Newcastle RTA Motor Registry which was recently affected by flash flooding. Assessment was based on existing flooding information and flooding related planning and building requirements with respect to any future redevelopment.
- 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 detailed field assessment of stream condition.
- 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.
- Partridge Creek, Acid Flux Modelling - The project involved water balance modelling of a wetland and aimed to identify optimum water levels within site (an acid sulfate soils hotspot) to reduce the generation of acidic discharge into the Hastings River.
- Wingham Aged Care Facility – Flood impact assessment of the proposed development and channel realignment works. Also included channel realignment, water quality treatment and detention measures.
- Morisset Opportunities/Constraints Assessment – Consideration of engineering and environmental constraints of a site, particularly with respect to stormwater and flooding, for a large-scale residential rezoning proposal being considered west of Lake Macquarie.

**Training**

- Stormwater Management (Source Control) Course, Engineering Education Australia
- Geographical Information Systems (MapInfo), Statement of Attainment, NSW TAFE

**Professional History**

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

**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 Hydrogeologist (IAH), NSW Branch President (2011);

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.

**Publications and Technical Papers**

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.

Hawkes G., Ross JB and Gleeson L 2009; Hydrogeological resource investigations – to supplement Sydney's water supply at Leonay, western Sydney, NSW, Australia. 37<sup>th</sup> IAH Congress, IAH, Hyderabad, India, 6 – 12 September 2009. Insert publications and technical papers here

**Career History**

Graham Hawkes is a Principal Hydrogeologist based in Sydney, NSW with more than 20 years experience in clean water regional groundwater investigations and contaminated groundwater sites specializing in groundwater characterization and remediation programs. He has worked in most states of Australia and in England in many groundwater related projects in a variety of geological settings.

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. 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.

Graham has managed numerous interdisciplinary projects requiring the interaction of geotechnical, environmental management and contaminated land management groups where groundwater has been a large component. He provides technical review for groundwater related projects. He is the current president (2011) of the NSW branch of the International Association of Hydrogeologists (IAH).

**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 accredited EPA 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:

- 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.
- Contaminated soil and groundwater investigation and remediation for solvents at an illegal dump site, Putty 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.

*Groundwater Resource Investigations*

Graham has managed numerous groundwater resource investigations for a variety of clients in different hydrogeological settings. These programs typically involve characterisation of the hydrogeology, commissioning of drillers, pumping and geophysical contractors, and test pumping analysis, assessment of groundwater storage, recharge and sustainable yield. Examples of projects include:

- Groundwater investigation at Leonay, western Sydney within the Hawkesbury Sandstone for the Sydney Catchment Authority to provide a supplement to Sydney's water supply.
- Emergency drought water supply at Cowra to expand the groundwater extraction network within the Lachlan River palaeochannels.

- Contingency for drought relief at Glen Innes. A groundwater resource was identified within a paleochannel within the Tertiary basalt.
- Groundwater resource assessment of a tourist resort within alluvial sediments at Murramarang on the NSW south coast.
- Hydrogeological assessments to assess the potential yield and impact on other users from existing bores within the Hawkesbury Sandstone. Recommend extraction rates in accordance with the water agency requirements.

*Groundwater salinity studies*

Graham has undertaken numerous salinity investigations in a consulting capacity and part of research studies for government agencies (CSIRO, Bureau of Mineral Resources and WA Geological Survey). Urban salinity investigations in western Sydney have been undertaken in accordance with the WSROC code of practice to assess potential salinity risks and recommend long term management strategies. Examples of salinity projects are:

- Urban salinity investigations at Glenfield, Voyager Point, Hoxton Park, Greystanes, in western Sydney to evaluate the salinity potential and potential impacts of proposed developments based on desktop and groundwater and soil investigations.
- Hydrogeological review of the lower Murray Darling area for the Murray Darling Water Management Action Plan.
- Identification of areas potentially under threat from water logging and salinisation in the Lake Cowal Jemalong Wlldes Plain Irrigation district, based on a desk top investigation and field program.
- Dryland salinity investigations in NSW, Vic, SA and WA, research projects in the Murray Basin and WA Wheatbelt including hydrogeological mapping, aerial photographic interpretation, database management, drilling supervision and liaison with local landcare groups.

*Civil Engineering Projects*

Graham has managed and undertaken numerous civil engineering projects that have involved hydrogeological assessments and groundwater characterisation. Many projects have been part of larger multidisciplinary investigations or assessments. Examples of civil engineering projects are:

- Development of more than ten dewatering management plans and investigations in urban environments. Projects included groundwater modeling, groundwater and hydrogeochemistry characterization, prediction of extraction rates, assessment of settlement potential, development

of trigger point levels and assessment of water disposal options.

- Baseline groundwater assessment at the ANSTO new research reactor for inclusion in an EIS and development of groundwater monitoring and management program (organic, inorganic and radionuclide).
- Groundwater characterization for major infrastructure projects such as Parramatta – Chatswood Rail Link, South Sydney Freight Line, Great Western Highway upgrade Mt Victoria – Lithgow, Sydney Light Rail extension.
- Integrated study to quantify leakage losses from reservoirs and canals to groundwater for the Sydney Catchment Authority.
- Development of a water management plan to dewater abandoned quarries to discharge water in accordance with appropriate guidelines without disturbing ponds and waterways around the residential estate, Woonona, NSW.

#### *Mining and quarrying projects*

Graham has managed and provided technical hydrogeological input to numerous mining and quarrying projects. Graham's Masters thesis is titled "The hydrogeology of the Lake Cowal Gold Mine" a metalliferous mine located in central western NSW. Examples of projects include:

- Baseline hydrogeological investigation at a former Boral quarry at Greystanes to assess groundwater recharge following termination of quarrying. Included hydrogeochemical characterization, water balance studies, groundwater monitoring and groundwater and surface water interaction.
- Technical review of groundwater investigations to support the recommencement of underground mining and reprocessing of on-site tailings at the Woodlawn copper and lead mine. Water inflows to the proposed mine workings and assessment of potential environmental impacts were reviewed.
- Groundwater investigations to assess the longwall mining relationship to surface water balance and groundwater quality in the Cataract and Nepean Rivers at Tower Colliery.
- Environmental monitoring, hydrogeological impacts assessment and water supply protection studies for heavy mineral sands mining Tomago NSW.
- Baseline hydrogeological investigations to assess groundwater conditions in multi-alluvial and hard rock aquifers in environmentally sensitive areas. Lake Cowal Gold Mine West Wyalong, NSW. Included an outside borefield assessment for mine water supply.

#### *Sewage effluent and re-use schemes*

Graham has managed and provided technical hydrogeological input to many effluent re-use schemes assessing the environmental impacts to surface water and groundwater and assessing regulatory conditions. Groundwater modelling was typically undertaken to predict impacts of exfiltration schemes on the local hydrogeological regime. Examples of projects include:

- Assessment of the proposed exfiltration schemes on the local hydrogeological regime at Old Bar, Hallidays Point, Lake Cathie, Sussex Inlet, Tuncurry and Hawks Nest.
- Review of groundwater and surface water conditions following effluent irrigation at numerous sites on the mid NSW north coast and NSW north coast.
- Assess groundwater conditions for proposed exfiltration system at Crowdy Head and effluent re-use scheme at east Dubbo.
- Hydrogeological investigations at feedlots in Yanco, Ladysmith and Coonamble NSW to assess liquid waste disposal options for feedlot expansions in environmentally sensitive areas. Recommend modifications to EPA license regulations.

#### **Professional History**

2011- Present  
AECOM (Sydney, NSW)  
Principal Hydrogeologist

1998 - 2011  
PPK/Parsons Brinckerhoff (Sydney, NSW)  
Principal Hydrogeologist

1994 - 1998  
Coffey Partners International (Sydney, NSW)  
Hydrogeologist

1993 - 1993  
Geological Survey of Western Australia (Perth WA)  
Hydrogeologist

1992- 1992  
Water Research Centre, Medmenham (UK)  
Hydrogeologist

1990 - 1991  
CSIRO Division of Water Resources (Perth WA)  
Experimental Scientist

1989 - 1990  
Rockwater (Perth WA)  
Hydrogeologist

**Jessica Miller**  
**Graduate Environmental Planner****Qualifications**

Bachelor of Laws

Advanced Diploma of Applied Environmental  
Management

Bachelor of Arts

**Awards**

College Dux, St Francis Xavier's College, Hamilton,  
in Years 11 and 12

Bronze and Silver levels of the Duke of Edinburgh's  
Award

UAI 98.00

**Career History**

Jessica commenced employment with AECOM in November 2010 as a Graduate Environmental Planner, having recently completing a Bachelor of Laws and an Advanced Diploma of Applied Environmental Management.

In her time working at AECOM, Jessica has been involved in the preparation of environmental assessment reports for various project approvals, and in the preparation of post approvals documentation. She has also produced update reports on environmental and occupational health and safety law amendments.

Jessica's personal attributes and qualifications in law and environmental management are well suited to environmental auditing. Since joining AECOM, she has prepared an audit protocol for the Ravensworth North Project to assist with internal compliance, and was an audit assistant for an IEA of Werris Creek Mine.

**Detailed Experience**

Worked on delivering reports to key clients including Reviews of Environmental Factors and law update reports. This has involved desktop environmental research, collating specialist information, and undertaking legal research.

**Conferences**

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

**Training**

WorkCover NSW Construction Induction

Communication for Success – EQ

Delivering Successful Presentations

Safety for Life

**Languages**

French and Spanish – Intermediate language skills

**Professional History**

2010- Present

AECOM

Graduate Environmental Planner

**Heidi Watters**  
**Professional Scientist**

**Qualifications**

Bachelor of Environmental Science, University of Newcastle, 2003

**Career History**

Heidi's work experience encompasses environmental management systems, environmental and strategic planning, including the preparation of Environmental Planning Instruments, State of Environment Reports and environmental management and action plans, as well as the co-ordination of land use planning studies, the provision of specialist environmental advice for development assessment and community consultation.

In her current role as a project manager, Heidi is required to monitor project resource allocation, compile and review project budgets, ensuring timely delivery of project deliverables whilst also providing consistent and reliable client communication.



**Detailed Experience***Environmental Sampling*

Heidi has been involved in the development of a number of environmental management plans and sustainability plans for local government, the mining industry and electricity providers.

In her current role Heidi has project managed and developed a wide range of management plans, the core focus of which have been related to sustainable natural resource management, the foundation for which have been provided by relevant legislation and Development Application Consent Conditions.

In late 2008 to early 2009, Heidi was seconded to Coal & Allied Hunter Valley Services to support the Environment Officer – Systems. During this time, Heidi was involved in implementing site Environmental Management Systems, managing and updating environmental monitoring systems databases (including air quality, surface water, ground water and noise monitoring, as well as meteorological data), reviewing environmental reports and preparation of the Annual Environmental Management Reports.

In April 2009, Heidi was seconded to Bengalla Mining Company Pty Ltd to support the Environmental Specialist whilst the Environmental Advisor was on annual leave. During this time, Heidi was involved in managing the site's EMS, reviewing environmental reports and assisting in the general day-to-day environmental management of the site.

In mid 2009, Heidi was seconded to Coal & Allied Hunter Valley Services to support the Environment Co-ordinator – Planning. During this time, Heidi was involved in preparing and reviewing Part 3A and Part 4 planning applications for several projects across Coal & Allied's Hunter Valley Operations and Mount Thorley Warkworth mine sites.

*Environmental Legislation*

Through her work experiences, Heidi has gained an excellent working knowledge of both State and Australian legislation.

*Environmental Assessment and Reporting*

Heidi has worked on a number of environmental assessment and management programs.

Heidi has also been trained in, and implemented the Landscape Function Analysis (LFA) (an assessment technique developed by the CSIRO) to provide an accurate representation of the functional ability of the landscape related to soil and resource processes related to the development of suitable land management practices at Wambo Coal, Ravensworth Operations and Centennial Coal mine sites.

*Environmental Auditing*

Heidi has recently assisted in undertaking environmental compliance audits and is knowledgeable

in the principles, techniques and procedures of auditing. As an auditor, Heidi has been involved in site inspection and audit interviews, as well as the preparation of the audit report including environmental management recommendations for cases of non-compliance/opportunities for improvement.

Heidi's recent Environmental Auditing experience includes:

- Environmental Compliance Audits for Coal and Allied (2009) and
- Macquarie Generation, Hunter River Pumping Station - Environmental Compliance Audit – assessing Environmental performance and Compliance (March 2009).

*Geographic Information Systems (GIS)*

Heidi has a sound working knowledge of GIS systems including MapInfo® and ArcView® software. She has been extensively involved in the collection and collation of GIS data for presentation to AECOM clients of the Natural Resource Management workgroup, which includes the coal mining and power generating industries of the Hunter Valley, together with the Department of Defence. This work requires that Heidi has a keen eye for detail and data collection and collation – skills that Heidi prides herself on.

*Stakeholder Consultation and Liaison*

Heidi has experience in stakeholder and community consultation through a range of approaches, including meetings, workshops, and surveys. Heidi has also undertaken stakeholder and community education initiatives involving forums, displays and workshops together with the preparation of media releases, brochures and newsletters.

**Training**

AECOM - PSMJ Project Management Training, 2010

Introduction to ArcGIS I, ESRI Australia, 2008

Planning Law and Practice Short Course, University of NSW, Faculty of the Built Environment, 2006

Rural Development Control Short Course, University of NSW, Faculty of the Built Environment, 2006

Rural Strategic Planning Short Course, University of NSW, Faculty of the Built Environment, 2006

MapInfo Professional Level 1 – Land Management, MapInfo Australia Pty Ltd, 2005

Community Engagement, NSW Department of Environment and Conservation, 2004

Satisfying Difficult Clients, Developing Potential Pty Ltd, 2004

Occupational Health and Safety Induction Training, WorkCover NSW, 2004

## Appendix B

# Consultation

## Appendix B Consultation



## Planning & Infrastructure

### Major Development Assessment Mining & Industry

Phone: (02) 9228 6583  
Fax: (02) 9228 6583  
Email: [sara.wilson@planning.nsw.gov.au](mailto:sara.wilson@planning.nsw.gov.au)

Room 305  
23-33 Bridge Street  
GPO Box 39  
SYDNEY NSW 2001

Kieren Bennetts  
Senior Environment & Community Advisor  
Wilpinjong Coal Pty Ltd  
Locked Bag 2005  
MUDGEE NSW 2850

Our ref: S04/00699

Dear Mr Bennetts

### Wilpinjong Coal Mine Approval of Independent Environmental Audit Team

I refer to your correspondence dated 13 September 2011 seeking the Director-General's endorsement of a suitability qualified, experienced and independent team of experts to undertake the independent environmental audit required under Schedule 5 condition 9 of the Minister's Approval for the Wilpinjong Coal Mine (05\_0021).

The Department is satisfied that the following audit team is suitability qualified, experienced and independent and includes experts in the relevant fields:

- Peter Horn – AECOM – Lead auditor and rehabilitation expert;
- Heidi Waters – AECOM – Auditor;
- Jessica Miller – AECOM – Assistant auditor;
- Amanda Kerr – AECOM – Surface water expert;
- Graham Hawker – AECOM – Groundwater expert;
- Glenn Holmes – PAE Holmes – Noise expert;
- Damon Roddis – PAE Holmes – Air quality expert; and
- Troy Collie – AECOM – Peer review.

The Director-General approves these appointments on the basis set out in your correspondence.

Please feel free to call Sara Wilson on (02) 9228 6583 if you have any enquiries in relation to this matter.

Yours sincerely

*dkitto* 29/7/11

David Kitto  
**Director**  
**Mining & Industry**  
As delegate for the Director-General

## 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	13 / 14 December 2011
Distribution	As above		

### Day 1 – 13 December 2011

No	Item	Personnel	Time
1	Opening Meeting (To be attended by all personnel to be interviewed) <ul style="list-style-type: none"><li>• Introductions &amp; Audit Purpose</li><li>• Confirmation of Meetings &amp; Process</li></ul>	Peter Horn – AECOM	8:00
2	Overview of Wilpinjong mine		8:20
3	Environmental Management Including: <ul style="list-style-type: none"><li>• Noise</li><li>• Blasting</li><li>• Air Quality</li><li>• Water</li><li>• Flora</li><li>• Fauna</li><li>• Heritage</li><li>• Visual Impact</li><li>• Greenhouse Gas</li><li>• Waste</li><li>• Bushfire</li><li>• Mine Closure</li><li>• Environmental Monitoring</li><li>• Community</li></ul>	Environment and Community Coordinator – Wilpinjong	8:40
4	Site Inspection	Environment and Community Coordinator – Wilpinjong	15:00

### Day 2 – 14 December 2011

No	Item	Personnel	Time
1	CHPP Management Including:	CHPP Manager, Supervisors and	8:00

No	Item	Personnel	Time
	<ul style="list-style-type: none"> <li>Water Management</li> <li>Noise Management</li> <li>Waste Management</li> <li>Air Quality</li> <li>Radiation Licences</li> </ul>	Technicians Environment Staff	
2	Mine Planning Including: <ul style="list-style-type: none"> <li>Mining Lease and MOP review</li> <li>Mine Closure</li> </ul>	Mining Manager, Supervisors and Technicians  Geologist	9:00
3	Blasting	Drill and Blast Manager, Supervisors and Technicians Environment Staff	
4	Auditor Review	AECOM	
5	Closeout meeting <ul style="list-style-type: none"> <li>Preliminary findings</li> </ul>		



## Appendix D

# Audit Protocol DA-05-0021-2006 (as modified)

## Appendix D    Audit Protocol DA-05-0021-2006 (as modified)

Condition	Requirement	Evidence	Audit Finding
<b>SCHEDULE 2 - ADMINISTRATIVE CONDITIONS</b>			
<b>OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT</b>			
1	The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the project.	During the site visit, the audit team observed the WCM site being generally carried out in accordance with best environmental management practices.	Complies
<b>TERMS OF APPROVAL</b>			
2	The Proponent shall carry out the project generally in accordance with the: (a) EA; (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 audit identified that WCPL appears to be generally carrying out operations at WCM in accordance with this consent, the statement of commitments, and the conditions of this approval.	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 Kieren.	Not Triggered
<b>LIMITS ON APPROVAL</b>			
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 I&amp;I NSW. 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 15 million tonnes of ROM coal from the site in a calendar year; (b) beneficiate more than 8.5 million tonnes of ROM coal at the Coal Handling and Preparation Plant on the site in a calendar year; and (c) export more than 12 million tonnes of product coal from the site in a calendar year.	This was verified as per Section 2.4 of AEMRs 2008, 2009, and 2010.	Complies
7	The Proponent shall ensure that: (a) all product coal is transported from the site by rail; (b) no more than 6 laden trains leave the site each day.	This was verified as per Sections 1.1 and 2.7 of AERMRs 2008, 2009 and 2010.	Complies

STRUCTURAL ADEQUACY			
8	<p>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.</p> <p><i>Notes: Under Part 4A of the EP&amp;A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works; and Part 8 of the EP&amp;A Regulation sets out the requirements for the certification of the project.</i></p>	<p>An expansion occurred at the washplant during the auditing period. The BCA certificates were sighted by the audit team during the site visit.</p>	Complies
DEMOLITION			
9	<p>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.</p>	<p>No such demolition works have occurred during the auditing period.</p>	Not Triggered
OPERATION OF PLANT AND EQUIPMENT			
10	<p>The Proponent shall ensure that all plant and equipment used at the site is:</p> <p>(a) maintained in a proper and efficient condition; and</p> <p>(b) operated in a proper and efficient manner.</p>	<p>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.</p>	Complies
STAGED SUBMISSION OF STRATEGIES, PLANS OR PROGRAMS			
11	<p>With the approval of the Director-General, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis.</p> <p><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></p>	<p>This was noted during the audit, however a finding on this condition was not required to be made.</p>	Not Triggered
PLANNING AGREEMENT			
12	<p>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&amp;A Act, that provides for the upgrade of Ulan-Wollar Road as described in Appendix 9.</p>	<p>Road was upgraded during 2008 as per the agreement with Mid Western Regional Council. Minor Services Agreement between Wilpinjong Coal Pty Ltd and Mid-Western regional Council was sighted, and confirms this condition.</p>	Complies
SUPPLY OF OVERBURDEN			
13	<p>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.</p> <p><i>Note: The use of this material in the regional infrastructure project must be authorised prior to the supply of any material.</i></p>	<p>This was noted during the audit, however a finding on this condition was not required to be made.</p>	Not Triggered

**SCHEDULE 3 - SPECIFIC ENVIRONMENTAL 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 6 – 7 of schedule 4.	Gaffney property currently under negotiations. MacKenzie property has been acquired. Correspondance provided, Peabody is in accordance with condition 1.	Complies						
	<u>Table 1: Land subject to acquisition upon request</u>								
	<table><tr><td>30 – Gaffney</td><td>45 – Smith</td></tr><tr><td>48 – Evans</td><td>50 – Thompson &amp; Hopper</td></tr><tr><td>94 – McKenzie</td><td></td></tr></table>			30 – Gaffney	45 – Smith	48 – Evans	50 – Thompson & Hopper	94 – McKenzie	
	30 – Gaffney			45 – Smith					
	48 – Evans			50 – Thompson & Hopper					
94 – McKenzie									
<i>Note: To interpret the locations referred to in Table 1, see the applicable figures in Appendix 7.</i>									

**NOISE**
**Noise Impact Assessment 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.

*Table 2: Noise Impact assessment criteria dB(A)*

Location	Day	Evening	Night	
	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>A1</sub> (1 minute)
58 – Maher	35	39	39	45
52A – Long				
52B – Long				
53 – Reynolds				
23B – Bishop	35	39	37	45
25 – Pettit	35	39	36	45
31A – Conradt	35	37	37	45
31B – Conradt	35	36	36	45
100 – Rheinberger	35	37	35	45
125 – Roberts				
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			-

Exceedances were recorded of the night time disturbance criteria for two dwellings in 2008, three dwellings in 2009, and three dwellings in 2010. However noise monitoring data indicated WCM was not the sole cause of this exceedance (AEMRs 2008 and 2009 Section 3.9.2 and AEMR 2010 Section 3.8.2).

Complies

	<p>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.</p> <p>Notes:</p> <ul style="list-style-type: none"><li>- To interpret the locations referred to in Table 2, see the applicable figures in Appendix 7.</li><li>- Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.</li><li>- 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.</li></ul>						
Noise Acquisition Criteria							
3	<p>If the noise generated by the project exceeds the criteria in Table 3 at any residence on privately owned land or on more than 25 per cent of any privately-owned land, the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 6 – 7 of schedule 4.</p> <p>Table 3: Land acquisition criteria dB(A)</p> <table><tr><th>Day/Evening/Night L<sub>Aeq</sub>(15 minute)</th><th>Land</th></tr><tr><td>40</td><td>All privately owned land, excluding the land listed in Table 1</td></tr></table> <p>Note: Noise generated by the project is to be measured in accordance with the notes presented below Table 2. For the condition to apply, the exceedances must be systemic.</p>	Day/Evening/Night L <sub>Aeq</sub> (15 minute)	Land	40	All privately owned land, excluding the land listed in Table 1	<p>Exceedances were recorded of the night time disturbance criteria for two dwellings in 2008, three dwellings in 2009, and three dwellings in 2010. However noise monitoring data indicated WCM was not the sole cause of this exceedance (AEMRs 2008 and 2009 Section 3.9.2 and AEMR 2010 Section 3.8.2).</p>	Not Triggered
Day/Evening/Night L <sub>Aeq</sub> (15 minute)	Land						
40	All privately owned land, excluding the land listed in Table 1						
Additional Noise Mitigation Measures							
4	<p>Upon receiving a written request from the owner of any residence:</p> <p>(a) on the land listed in Table 1; or</p> <p>(b) on the land listed 23B, 25, 52A, 52B, 53, or 58 in the applicable figures in Appendix 7; or</p> <p>(c) where subsequent noise monitoring shows that the noise generated by the project is greater than, or equal to, L<sub>Aeq</sub>(15 minute) 38 dB(A),</p> <p>the Proponent shall implement reasonable and feasible noise mitigation measures (such as double glazing, insulation, and/or air conditioning) at the residence in consultation with the landowner.</p> <p>If within 3 months of receiving this request from the landowner, the Proponent and the landowner 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.</p>	<p>No such written requests have been received during the auditing period.</p>	Not Triggered				
5	<p>By 30 November 2010, or within 1 month of obtaining monitoring results showing an exceedance of the relevant criteria listed in condition 4(c) above, the Proponent shall notify all applicable owners that they are entitled to ask for additional noise mitigation measures to be installed at their residence.</p>	<p>This has not occurred during the audit period</p>	Not Triggered				

Operating Conditions			
6	<p>The Proponent shall:</p> <p>(a) implement all reasonable and feasible noise mitigation measures;</p> <p>(b) ensure that the real-time noise monitoring and meteorological forecasting data are assessed regularly, and that operations on site are relocated, modified, and/or stopped to ensure compliance with the relevant criteria in conditions 2 to 4 of this schedule; and</p> <p>(c) regularly investigate ways to reduce the operational, low frequency, rail, and road traffic noise generated by the project; and report on these investigations in the annual review (see condition 2 of schedule 5), to the satisfaction of the Director-General.</p>	<p>During the auditing period, various noise mitigation measures were employed and reviewed at the WCM. Fixed plant and mobile equipment were maintained below maximum operating equivalent continuous noise level sound power levels (AEMR 2008 Section 3.9.1). During 2009, 2806 machine hours were lost as a result of noise management activities on the site (AEMR 2009 Section 3.9.1). The 2010 AEMR reports that noise was managed through operational modifications and refinement of monitoring and management procedures (AEMR 2010 Section 3.8.1).</p>	Complies
Noise Management Plan			
7	<p>The Proponent shall prepare and implement a Noise Management Plan for the project, in consultation with DECCW, and to the satisfaction of the Director-General. This plan must:</p> <p>(a) describe the noise mitigation measures that would be implemented to ensure compliance with the relevant noise impact assessment criteria in this approval, including the proposed real-time noise management system and associated meteorological forecasting; and</p> <p>(b) include a noise monitoring program, that uses a combination of real-time and supplementary attended monitoring measures to evaluate the performance of the project, and includes a protocol for determining exceedances with the relevant conditions of this approval.</p>	<p>The Wilpinjong Coal Mine Noise Management Plan (Wilpinjong Coal Pty Limited, September 2011) fulfils these requirements</p>	Complies

BLASTING																
Blast Impact Assessment Criteria																
8	<p>The Proponent shall ensure that blasting on the site does not cause exceedances of the criteria in Table 4.</p> <p><i>Table 4: Blasting impact assessment criteria</i></p> <table><tr><th>Location</th><th>Airblast overpressure (dB(Lin Peak))</th><th>Ground vibration (mm/s)</th><th>Allowable exceedance</th></tr><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></table>			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%	<p>One exceedance of airblast overpressure occurred on 5/08/2010. DECCW was notified of this exceedance (AEMR 2010 Section 3.7.2). No exceedances occurred in 2008 or 2009 (2008 and 2009 AEMRs Sections 3.8.2).</p>	<p>Not Compliant</p>
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%													
Blasting Hours																
9	<p>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.</p>			<p>Blast Register Confirms this</p>	<p>Complies</p>											
Blasting Frequency																
10	<p>The Proponent shall comply with the following blasting restrictions on site:</p> <p>(a) a maximum of 2 blasts per day;</p> <p>(b) a maximum of 5 blasts per week, averaged over any 12 month period;</p> <p>(c) a maximum of 2 blasts per week where the maximum instantaneous charge (MIC) is greater than 400kg; and</p> <p>(d) a maximum of 1 blast per week where the MIC is greater than 400kg, when averaged over any 12 month period.</p> <p>However the Director-General may approve minor variations to these restrictions for short periods of time.</p>			<p>Blast Register Confirms this</p>	<p>Complies</p>											
Property Inspections																
11	<p>If the Proponent receives a written request for a property inspection from any landowner within 3 km of the project, the Proponent shall within 2 months of receiving this request:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to:</p> <ul style="list-style-type: none"><li>- establish the baseline condition of any building or structures on the land;</li><li>- inspect the condition of any building or structure on the land, and recommend measures to mitigate any potential blasting impacts; and</li></ul> <p>(b) give the landowner a copy of the property inspection report.</p>			<p>This has not occurred during the auditing period.</p>	<p>Not Triggered</p>											



Property Investigations			
12	<p>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:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to investigate the claim; and</p> <p>(b) give the landowner a copy of the property investigation report.</p> <p>If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Director-General.</p> <p>If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution.</p>	<p>This did occur during the auditing period, and WCPL undertook to fulfil these requirements. During the site visit, the audit team viewed a letter dated 24 September 2008 detailing the requirements of a dilapidation survey at the Marshall property. Another letter was also sighted, which was dated 15 January 2009, was addressed to DP&amp;I and contained a request for a surveyor to be approved to carry out the dilapidation survey.</p>	Complies
Operating Conditions			
13	<p>During mining operations on the site, the Proponent shall:</p> <p>(a) implement best blasting practice to:</p> <ul style="list-style-type: none"> <li>- protect the safety of people and livestock in the area surrounding blasting operations;</li> <li>- protect public or private infrastructure/property and Aboriginal cultural heritage sites in the area surrounding blasting operations from blasting damage; and</li> <li>- minimise the dust and fume emissions from blasting at the project;</li> </ul> <p>(b) limit temporary blasting-related road closures to 1 per day;</p> <p>(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</p> <p>(d) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site,</p> <p>to the satisfaction of the Director-General.</p>	<p>WCPL maintains a register of people who receive phone calls before blasting. A blasting hotline is also maintained (AEMRs 2007 and 2008 Section 3.8.2, and AEMR 2010 Section 3.7.2). The <i>Wilpinjong Coal Mine Blast Management Plan</i> (WCPL, September 2011) fulfils these requirements.</p>	Complies
14	<p>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).</p>	<p>This has occurred during the auditing 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.</p>	Complies

Blast Management Plan			
15	<p>The Proponent shall prepare and implement a Blast Management Plan for the project, in consultation with DECCW, and to the satisfaction of the Director-General. This program must:</p> <p>(a) describe the blast mitigation measures that would be implemented to ensure compliance with the relevant conditions of this approval; and</p> <p>(b) include a blast monitoring program to evaluate the performance of the project.</p>	<p>The Wilpinjong Coal Mine Blast Management Plan (Wilpinjong Coal Pty Limited, September 2011) fulfils these requirements.</p>	Complies
AIR QUALITY			
Odour			
16	<p>The Proponent shall ensure that no offensive odours are emitted from the site, as defined under the POEO Act.</p>	<p>Spontaneous combustion does occur frequently at the WCM. During the auditing period, various community complaints were received in relation to gaseous emissions caused by spontaneous combustion (as per AEMRs 2008, 2009 and 2010 Appendix E - Community Complaints Register Summary, and per the 2011 Community Complaints Register Summary on the WCPL website).</p>	Not Compliant
Greenhouse Gas Emissions			
17	<p>The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Director-General.</p>	<p>AEMRs 2008, 2009 and 2010 Section 3.4.2 report the following GHG abatement measures are being undertaken at the WCM:</p> <ul style="list-style-type: none"> <li>• Minimisation of fuel usage (i.e. diesel and unleaded petrol) through: <ul style="list-style-type: none"> <li>– encouragement of staff car pooling;</li> <li>– undertaking plant and equipment maintenance; and</li> <li>– operational practices (e.g. unattended plant is not left idling and is switched off as soon as practicable after use).</li> </ul> </li> <li>• Use of solar power for monitoring equipment and investigations into its use for other operations.</li> </ul>	Complies

Air Quality Impact Assessment Criteria																											
18	<p>Except for the land referred to in Table 1, the Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedances of the criteria listed in Tables 5, 6, and 7 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.</p> <p><i>Table 5: Long term impact assessment criteria for particulate matter</i></p> <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>90 µg/m<sup>3</sup></td></tr><tr><td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td><td>Annual</td><td>30 µg/m<sup>3</sup></td></tr></table> <p><i>Table 6: Short term impact assessment criterion for particulate matter</i></p> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Criterion</th></tr><tr><td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td><td>24 hour</td><td>50 µg/m<sup>3</sup></td></tr></table> <p><i>Table 7: Long term impact assessment criteria for deposited dust</i></p> <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>Deposited dust</td><td>Annual</td><td>2 g/m<sup>2</sup>/month</td><td>4 g/m<sup>2</sup>/month</td></tr></table> <p><i>Note:</i> - Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS 3580.10.1-1991: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.</p>	Pollutant	Averaging period	Criterion	Total suspended particulate (TSP) matter	Annual	90 µg/m <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	30 µg/m <sup>3</sup>	Pollutant	Averaging period	Criterion	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	Deposited dust	Annual	2 g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month	<p>The 24 hour average PM10 concentrations at three high volume samplers (HV1, HV2 and HV4) and the TEOM exceeded the 50ug/m3 short-term impact assessment criterion for particulate matter on a number of occasions during the 2009 reporting period. These events triggered the implementation of the Air Quality Monitoring Protocol (AEMR 2010 Section 3.4.2).</p>		Not Compliant
		Pollutant	Averaging period	Criterion																							
		Total suspended particulate (TSP) matter	Annual	90 µg/m <sup>3</sup>																							
		Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	30 µg/m <sup>3</sup>																							
		Pollutant	Averaging period	Criterion																							
		Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>																							
		Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level																						
		Deposited dust	Annual	2 g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month																						



Operating Conditions			
20	<p>The Proponent shall:</p> <p>(a) implement all practicable measures to minimise the off-site odour and fume emissions generated by any spontaneous combustion at the project;</p> <p>(b) ensure any visible air pollution generated by the project is assessed regularly, and that mining operations are relocated, modified, and/or stopped as required to minimise air quality impacts on privately-owned land; and</p> <p>(c) ensure real-time air quality monitoring for 24-hour average PM10 and the meteorological monitoring data are assessed regularly, and that mining operations are relocated, modified and/or stopped as required to ensure compliance with the relevant criteria in this approval, to the satisfaction of the Director-General.</p>	<p>Sections 3.4 2010, 2009 &amp; 2008 AEMRs address condition 20.</p> <p>Sections 6.3, 11, 8.2 &amp; 8.4 of the Air Quality and Greenhouse Gas Management Plan also address this condition.</p> <p>Confirmed during site inspection.</p>	Complies
Air Quality & Greenhouse Gas Management Plan			
21	<p>The Proponent shall prepare and implement an Air Quality &amp; Greenhouse Gas Management Plan for the project, in consultation with DECCW, and to the satisfaction of the Director-General. This program must:</p> <p>(a) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including the proposed real-time air quality management system; and</p> <p>(b) include an air quality monitoring program, that uses a combination of real-time monitors, high volume samplers and dust deposition gauges to evaluate the performance of the project, and includes a protocol for determining exceedances with the relevant air quality impact assessment criteria.</p> <p><i>Note: The air quality monitoring program may incorporate monitoring from any relevant regional monitoring network endorsed by DECCW.</i></p>	<p>The Wilpinjong Coal Mine Air Quality and Greenhouse Gas Management Plan (WCPL, September 2011) fulfils these requirements.</p>	Complies
METEOROLOGICAL MONITORING			
22	<p>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:</p> <p>(a) complies with the requirements in Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and</p> <p>(b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy, to the satisfaction of the Director-General.</p> <p><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></p>	<p>10 m monitoring station, plus a 60 m tower to measure temp inversions, and this also has a met station on it. The first one will be decommissioned soon. Section 8.4 of the AQGGMP addresses this condition.</p>	Complies
SOIL AND WATER			
Water Supply			
23	<p>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.</p>	<p>Wilpinjong Mine has had sufficient water onsite for operations during the auditing period.</p>	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 Section 3.5.3 of AEMR 2010, and as per Sections 3.6.6 of AEMRs 2008 and 2009.	Complies
<b>Cumbo Creek Relocation</b>			
25	The Proponent shall design, construct, maintain, and rehabilitate the proposed relocation of Cumbo Creek, to the satisfaction of the Director-General.	Cumbo Creek Relocation Plan is currently with DP&I awaiting approval. These construction works have therefore not commenced.	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.	Cumbo Creek Relocation Plan is currently with DP&I awaiting approval. These construction works have therefore not commenced.	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.	Cumbo Creek Relocation Plan is currently with DP&I awaiting approval. These construction works have therefore not commenced.	Not Triggered
<b>Site Water Management Plan</b>			
28	<p>The Proponent shall prepare and implement a Site Water Management Plan for the project, to the satisfaction of the Director-General. This plan must:</p> <p>(a) be prepared in consultation with DECCW and NOW by suitably qualified expert/s whose appointment/s have been approved by the Director-General; and</p> <p>(b) include:</p> <ul style="list-style-type: none"> <li>- a Cumbo Creek Relocation Plan;</li> <li>- a Site Water Balance;</li> <li>- an Erosion and Sediment Control Plan;</li> <li>- a Surface Water Management and Monitoring Plan;</li> <li>- a Ground Water Monitoring Program; and</li> <li>- a Surface and Ground Water Response Plan.</li> </ul> <p><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></p>	<p>The <i>Site Water Management Plan: Wilpinjong Coal Project</i> (Wilpinjong Coal Pty Limited, July 2006) fulfils these requirements. Was approved by D-G on 6 March 2006. Was subsequently revised.</p> <p>The Cumbo Creek Relocation Plan is not included in the SWMP (2006) however the CCRP has been submitted to the DP&amp;I and is pending approval. The CCRP will be developed and subsequently included in the SWMP within 24 months of the commencement of Project Approval</p>	Complies

Cumbo Creek Relocation Plan			
29	<p>The Cumbo Creek Relocation Plan must include:</p> <ul style="list-style-type: none"> <li>(a) a vision statement for the creek relocation;</li> <li>(b) an assessment of the water quality, ecological, hydrological and geomorphic baseline conditions in Cumbo Creek;</li> <li>(c) the detailed design and specifications for the creek relocation;</li> <li>(d) a construction program for the creek relocation, describing how the work would be staged, and integrated with mining operations;</li> <li>(e) a revegetation program for the relocated creek using a range of suitable native species;</li> <li>(f) water quality, ecological, hydrological and geomorphic performance and completion criteria for the creek relocation based on the assessment of baseline conditions; and</li> <li>(g) a program to monitor and maintain the water quality, ecological, hydrological and geomorphic integrity of the creek relocation.</li> </ul>	<p>The Director-General of the Department of Planning (DoP) subsequently approved the revised timetable for completion and approval of the CCRP on 3 February 2006. This approval stipulates that the CCRP should be submitted 24 months from the approval date of Project Approval 05-0021 (i.e. 1 February 2008). The CCRP was sighted by the audit team and includes these conditions.</p>	Complies
Site Water Balance			
30	<p>The Site Water Balance must:</p> <ul style="list-style-type: none"> <li>(a) include details of: <ul style="list-style-type: none"> <li>- sources of water;</li> <li>- reliability of water supply;</li> <li>- water use on site;</li> <li>- water management on site;</li> <li>- off-site water transfers;</li> <li>- reporting procedures; and</li> </ul> </li> <li>(b) describe measures to minimise water use by the project.</li> </ul>	<p>The Wilpinjong Coal Project Site Water Balance (WCPL, July 2006) fulfils these requirements.</p>	Complies
Erosion and Sediment Control			
31	<p>The Erosion and Sediment Control Plan must:</p> <ul style="list-style-type: none"> <li>(a) be consistent with the requirements of the Department of Housing's Managing Urban Stormwater: Soils and Construction manual;</li> <li>(b) identify activities that could cause soil erosion and generate sediment;</li> <li>(c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;</li> <li>(d) describe the location, function, and capacity of erosion and sediment control structures; and</li> <li>(e) describe what measures would be implemented to maintain the structures over time.</li> </ul>	<p>The Wilpinjong Coal Project Erosion and Sediment Control Plan (Wilpinjong Coal Pty Limited, February 2006) fulfils these requirements</p>	Complies

Surface Water Management and Monitoring			
32	<p>The Surface Water Management and Monitoring Plan must include:</p> <ul style="list-style-type: none"> <li>(a) detailed baseline data on surface water flows and quality in creeks and other waterbodies that could potentially be affected by the project;</li> <li>(b) surface water and stream health assessment criteria;</li> <li>(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);</li> <li>(d) a program to assess stream health conditions in Wilpinjong and Cumbo Creeks;</li> <li>(e) a program to monitor channel stability in Wilpinjong and Cumbo Creeks;</li> <li>(f) reporting procedures; and</li> <li>(g) a protocol for the investigation, notification, and mitigation of identified exceedances of the surface water and stream health assessment criteria.</li> </ul>	<p>The Wilpinjong Coal Project Surface Water Management and Monitoring Plan (WCPL, March 2006) fulfils these requirements.</p>	Complies
Groundwater Monitoring			
33	<p>The Groundwater Monitoring Program must include:</p> <ul style="list-style-type: none"> <li>(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);</li> <li>(b) groundwater impact assessment criteria (including for monitoring bores and privately owned bores);</li> <li>(c) a program for accurately delineating the boundary of the Wilpinjong Creek alluvial aquifer in any areas intersected by mining;</li> <li>(d) a program to monitor: <ul style="list-style-type: none"> <li>- impacts on the groundwater supply of potentially affected landowners;</li> <li>- impacts of the water supply borefield;</li> <li>- impacts on the Wilpinjong Creek alluvial aquifer;</li> <li>- connectivity and groundwater leakage to/from Cumbo Creek following relocation;</li> <li>- impacts on groundwater dependent ecosystems and riparian vegetation;</li> <li>- the volume of ground water seeping into the open cut mine workings;</li> <li>- regional ground water levels and quality in the alluvial, coal seam, and interburden aquifers; and</li> <li>- the groundwater pressure response in the surrounding coal measures.</li> </ul> </li> <li>(e) procedures for the verification of the groundwater model; and</li> <li>(f) reporting procedures for the results of the monitoring program and model verification.</li> </ul>	<p>The Wilpinjong Coal Project Groundwater Monitoring Program (Wilpinjong Coal Pty Limited, March 2006) fulfils these requirements.</p>	Complies



Surface and Ground Water Response Plan									
34	<p>The Surface and Ground Water Response Plan must include:</p> <p>(a) a protocol for the investigation, notification and mitigation of any exceedances of the surface water, stream health and groundwater impact assessment criteria;</p> <p>(b) measures to mitigate and/or compensate potentially affected landowners with privately owned groundwater bores within the predicted drawdown impact zone identified in the EA, including provision of alternative long term supply of water to the affected landowner that is equivalent to 13 the loss attributed to the project;</p> <p>(c) measures to mitigate and/or compensate potentially affected landowners for the loss of surface water flows in Wilpinjong Creek downstream of the open cut;</p> <p>(d) measures to minimise, prevent or offset groundwater leakage from the Wilpinjong Creek alluvial aquifer if the rate of leakage exceeds EA predictions;</p> <p>(e) measures to mitigate any direct hydraulic connection between the backfilled open cut and the Wilpinjong Creek and Cumbo Creek alluvium if the potential for adverse impacts is detected; and</p> <p>(f) the procedures that would be followed if any unforeseen impacts are detected during the project.</p>	<p>The Wilpinjong Coal project Surface and Groundwater Response Plan (WCPL, July 2006) fulfils these requirements.</p>	Complies						
35	<p>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.</p>	<p>This condition had not been triggered yet as the current IEA is the first IEA to be conducted at WCM.</p>	Not Triggered						
LANDSCAPE MANAGEMENT									
36	<p>The Proponent shall:</p> <p>(a) implement the Offset Strategy described in the EA and summarised in Table 11 (shown conceptually in Appendix 3) ; and</p> <p>(b) progressively rehabilitate the site in a manner that is generally consistent with the final landform in the EA (shown conceptually in Appendix 4), to the satisfaction of the Director-General.</p> <p><a href="#">Table 11: Offset Strategy</a></p> <table><tr><th>Area</th><th>Size</th></tr><tr><td>Enhancement and Conservation Areas</td><td>480 ha</td></tr><tr><td>Regeneration Areas</td><td>350 ha</td></tr></table>	Area	Size	Enhancement and Conservation Areas	480 ha	Regeneration Areas	350 ha	<p>enhancement and conservation areas are being worked on. Rehabilitation is occurring. MOP will contain these requirements. This area will be subject to a voluntary conservation agreement. Regen areas not completed yet, stock still grazing in some of these areas. Progress towards final rehabilitation is working well.</p>	Complies
Area	Size								
Enhancement and Conservation Areas	480 ha								
Regeneration Areas	350 ha								
37	<p>The Proponent shall make suitable arrangements to provide appropriate long term security for the Enhancement and Conservation Areas, to the satisfaction of the Director-General.</p>	<p>The Voluntary Conservation Area has been signed off on by Minister for Environment, as confirmed in interview.</p>	Complies						

38	<p>The Proponent shall, in consultation with DECCW:</p> <p>(a) secure ownership of land beyond the boundary of the site which contains sufficient areas of Yellow Box White Box Blakely's Red Gum Woodland EEC to satisfactorily offset the impacts of the project on the EEC; and</p> <p>(b) make suitable arrangements to secure the long term protection of this land, to the satisfaction of the Director-General.</p>	<p>This was undertaken during the previous auditing period, as confirmed in the <i>Wilpinjong Coal Mine Environmental Regulatory Compliance Audit Report</i> (Pacrim, 2008). In that IEA report it was stated that the WCPL Capital Expenditure Request, dated 22 November 2005 and the WCPL Capital Disposal Request, dated 8 September 2006 were sighted by the audit team. As per this documentation, WCPL purchased a property called Nullo Mountain near Rhylstone as a WBYBBRG offset area in late 2005/early 2006. This property was subsequently handed over to OEH for inclusion in an adjoining national park.</p>	Complies
<b>Landscape Management Plan</b>			
39	<p>The Proponent must prepare and implement a detailed Landscape Management Plan for the project, in consultation with NOW, DECCW and I&amp;I NSW and to the satisfaction of the Director-General. This plan must be prepared by suitably qualified expert/s whose appointment/s have been approved by the Director-General, and must include a:</p> <p>(a) Rehabilitation Management Plan;</p> <p>(b) Final Void Management Plan; and</p> <p>(c) Mine Closure Plan.</p> <p><i>Note: The Department accepts that the initial Rehabilitation and Landscape Management Plan may not include the detailed Final Void Management Plan and Mine Closure Plan. 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 Final Void Management Plan and Mine Closure Plan.</i></p>	<p>The Wilpinjong Coal Project Rehabilitation and Landscape Management Plan (Wilpinjong Coal Pty Limited, July 2006) fulfils these requirements.</p>	Complies

Rehabilitation Management Plan			
40	<p>The Rehabilitation Management Plan must include:</p> <p>(a) the rehabilitation objectives for the site;</p> <p>(b) a description of the short, medium, and long term measures that would be implemented to:</p> <ul style="list-style-type: none"> <li>- rehabilitate the site;</li> <li>- implement the Offset Strategy; and</li> <li>- manage the remnant vegetation and habitat on the site;</li> </ul> <p>(c) detailed assessment and completion criteria for the rehabilitation of the site;</p> <p>(d) a detailed description of how the performance of the rehabilitation of the mine would be monitored over time to achieve the stated objectives;</p> <p>(e) a detailed description of what measures would be implemented over the next 3 years to rehabilitate and manage the landscape of the site including the procedures to be implemented for:</p> <ul style="list-style-type: none"> <li>- progressively rehabilitating areas disturbed by mining;</li> <li>- implementing revegetation and regeneration within the Offset Strategy;</li> <li>- protecting areas outside the disturbance areas; rehabilitating creeks on the site (including Wilpinjong Creek);</li> <li>- undertaking pre-clearance surveys;</li> <li>- managing impacts on fauna;</li> <li>- landscaping the site to minimise visual impacts;</li> <li>- conserving and reusing topsoil;</li> <li>- collecting and propagating seed for rehabilitation works;</li> <li>- salvaging and reusing material from the site for habitat enhancement;</li> <li>- controlling weeds and feral pests;</li> <li>- controlling access;</li> <li>- bushfire management;</li> <li>- managing any potential conflicts between the rehabilitation of the mine and Aboriginal cultural heritage; and</li> </ul> <p>(f) details of who is responsible for monitoring, reviewing, and implementing the plan.</p> <p><i>Note: Reference to "rehabilitation" in this approval includes all works associated with the rehabilitation and restoration of the site as described in the EA, and applies to all areas within the Mining Lease, Offset Strategy, and the areas proposed to be rehabilitated along Wilpinjong Creek.</i></p>	<p>The Wilpinjong Coal Mine Rehabilitation Management Plan (WCPL, September 2011) fulfils these requirements.</p>	Complies

Final Void Management			
41	<p>The Final Void Management Plan must:</p> <ul style="list-style-type: none"> <li>(a) justify the planned final location and future use of the final void/s;</li> <li>(b) incorporate design criteria and specifications for the final void/s based on verified groundwater modelling predictions and a re-assessment of post-mining groundwater equilibration;</li> <li>(c) assess the potential interactions between creeks on the site and the final void/s; and</li> <li>(d) describe what actions and measures would be implemented to: <ul style="list-style-type: none"> <li>- minimise any potential adverse impacts associated with the final void; and</li> <li>- manage and monitor the potential impacts of the final void until the Mining Lease for the project is relinquished.</li> </ul> </li> </ul>	<p>This has not been finalised yet, but this requirement is not due yet.</p>	Not Triggered
Mine Closure Plan			
42	<p>The Mine Closure Plan must:</p> <ul style="list-style-type: none"> <li>(a) define the objectives and criteria for mine closure;</li> <li>(b) investigate options for the future use of the site, including any final void/s;</li> <li>(c) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and</li> <li>(d) describe how the performance of these measures would be monitored over time.</li> </ul>	<p>This has not been finalised yet, but this requirement is not due yet.</p>	Not Triggered
43	<p>Within 6 months of the Independent Environmental Audit (see condition 7 in schedule 5), the Proponent shall update the Rehabilitation and Landscape Management Plan to the satisfaction of the Director-General.</p>	<p>This condition had not been triggered yet as the current IEA is the first IEA to be conducted at WCM.</p>	Not Triggered
Conservation Bond			
44	<p>Following the Independent Environmental Audit (see condition 7 in schedule 5) at the end of year 12 of the project, the Proponent shall lodge a conservation bond with the Department to ensure that there are sufficient resources available to fully implement the Offset Strategy. The size of the bond will be set by the Director-General, in consultation with the Proponent, at that time, of fully implementing the Offset Strategy in accordance with the completion criteria set out in the approved Rehabilitation and Landscape Management Plan. The bond will be adjusted by the Director-General, in consultation with the Proponent, after each subsequent Independent Environmental Audit.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>- If the Offset Strategy is completed to the satisfaction of the Director-General, the Director-General will release the conservation bond.</li> <li>- If the Offset Strategy is not completed to the satisfaction of the Director-General, the Director-General will call in all or part of the conservation bond, and arrange for the satisfactory completion of the relevant works.</li> <li>- The conservation bond does not apply to areas subject to equivalent bonding arrangements under the Mining Act 1992. If amendments to the Mining Act allow the Minister for Mineral Resources to require rehabilitation securities under a Mining Lease which apply to the implementation of rehabilitation works outside the boundary of a Mining Lease, the Proponent may transfer the conservation bond required under this approval to the Minister of Mineral Resources provided the Director-General and I&amp;I NSW agree to the transfer.</li> </ul>	<p>This condition had not been triggered yet as the current IEA is the first IEA to be conducted at WCM.</p>	Not Triggered

HERITAGE			
Archaeological Salvage Program			
45	The Proponent shall prepare and implement a salvage program for the project, in consultation with the DECCW 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.	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.	Section 4.3 of the ACHMP 2008 deal with these matters.	Complies
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 DECCW and the Aboriginal communities, replace the objects within the rehabilitated landscape.	Sections 4.3 and 4.4 of the ACHMP 2008 deal with these matters.	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.	Sections 4.8, 4.7, 4.1, 4.5, 2.4 and 2.5 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
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.	This was undertaken during the previous auditing period, as confirmed in the <i>Wilpinjong Coal Mine Environmental Regulatory Compliance Audit Report</i> (Pacrim, 2008). In that IEA report it was stated that the Wilpinjong Coal 'Non-Aboriginal Heritage Archival Record of Sites 1 to 9,' January 2006 provided an adequate record to meet this requirement.	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.	Verified as per Sections 2.4 of AEMRs 2008, 2009, and 2010, and per Sections 1.1 and 2.7 of AEMRs 2008, 2009 and 2010.	Complies

Ulan Road Strategy			
51	<p>By the end of December 2011, unless the Director-General directs otherwise, the Proponent shall prepare a strategy for the upgrade and maintenance of Ulan Road between Mudgee and the entrance to the underground surface facilities at the Ulan mine over the next 21 years, to the satisfaction of the Director-General. This strategy must be prepared in conjunction with the owners of both the Moolarben and Ulan mines, and the cost of preparing the strategy should be shared equally between the Proponent and the owners of the Moolarben and Ulan mines. The strategy must:</p> <p>(a) be prepared by a suitably qualified, experienced and independent person whose appointment has been endorsed by the Director-General;</p> <p>(b) be prepared in consultation with both the RTA and Council;</p> <p>(c) determine the design standard of the relevant section of road (and any associated intersections) to the satisfaction of the RTA (based on the relevant road design guideline(s));</p> <p>(d) identify the works required to upgrade the road to the agreed design standard;</p> <p>(e) estimate the cost of these works and the likely annual costs for maintaining the upgraded road;</p> <p>(f) identify any measures that could be implemented to reduce the amount of mine traffic on the road, such as providing long-term parking in Mudgee to support increased car pooling, and the likely cost of implementing these measures;</p> <p>(g) identify any measures that could be implemented to minimise the traffic noise impacts of mine traffic on Ulan Road on adjoining residences, and the likely cost of implementing these measures</p> <p>(h) include a detailed program for the proposed upgrade and maintenance of the road, implementation of traffic noise mitigation measures, and implementation of any works to support efforts to reduce the amount of mine traffic on the road;</p> <p>(i) calculate what each mine and the Council shall contribute towards the implementation of the detailed program outlined in (h) above, including consideration of:</p> <ul style="list-style-type: none"> <li>- the likely traffic generated by each mine as a proportion of the total traffic on the road; any mine contributions that have been made towards the upgrading of the road in recent years; and</li> <li>- any relevant planning agreements that deal with the funding or maintenance of roads in the Mid-Western LGA; and</li> </ul> <p>(j) include a detailed contributions plan for the three mines and the Council to support the implementation of the detailed program described in (g) above.</p> <p>If there is any dispute between the various parties involved in either the preparation or the implementation of the strategy, then any of the parties may refer the matter to the Director-General for resolution.</p>	<p>The due time for this strategy has not passed yet.</p>	Not Triggered
52	<p>Once the Ulan Road Strategy (referred to in condition 51) has been approved by the Director-General, the Proponent shall either implement, or contribute towards the implementation of the strategy, to the satisfaction of the Director-General.</p>	<p>The due time for this strategy has not passed yet.</p>	Not Triggered

Road Traffic Management			
53	<p>The Proponent shall:</p> <p>(a) implement all reasonable and feasible measures to reduce the mine traffic on Ulan Road;</p> <p>(b) schedule shift changes on site to occur outside the school bus hours; and</p> <p>(c) co-ordinate the shift changes on site with the shift changes of the adjoining Moolarben and Wilpinjong coal mines to minimise the potential cumulative traffic impacts of the shift changes of the three mines, to the satisfaction of the Director-General.</p>	<p>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 2008 and 2009 Section 3.15.1, and AEMR 2010 Section 3.14.1). Shift times are staggered against Moolarben and Ulan and attempt to stay outside of school bus hours (as confirmed during audit interview).</p>	Complies
VISUAL IMPACT			
Visual Amenity			
54	<p>The Proponent shall minimise the visual impacts of the project to the satisfaction of the Director-General.</p>	<p>As per the previous audit report, this was not undertaken. Tree screen planting is currently undertaken, as confirmed by site inspection. Approval from the Director General is required to verify compliance</p>	Not Compliant
Lighting Emissions			
55	<p>The Proponent shall:</p> <p>(a) take all practicable measures to mitigate off-site lighting impacts from the project; and</p> <p>(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.</p>	<p>Lighting procedure has not been submitted to the Director General and is a safety based document, not focussed on community impacts.</p> <p>No lighting complaints in this audit period.</p>	Not Compliant
WASTE			
56	<p>The Proponent shall:</p> <p>(a) monitor the amount of waste generated by the project;</p> <p>(b) investigate ways to minimise waste generated by the project;</p> <p>(c) implement reasonable and feasible measures to minimise waste generated by the project;</p> <p>(d) ensure irrigation of treated wastewater is undertaken in accordance with DECCW's Environmental Guideline for the Utilisation of Treated Effluent; and</p> <p>(e) report on waste management and minimisation in the Annual Review, to the satisfaction of the Director-General.</p>	<p>This information and waste records are contained in Sections 2.6 of AEMRs 2008, 2009 and 2010.</p>	Complies

SCHEDULE 4 - ADDITIONAL PROCEDURES FOR AIR QUALITY & NOISE MANAGEMENT			
NOTIFICATION OF LANDOWNERS			
1	By the end of September 2010, the Proponent shall notify the owners of the land listed in Table 1 of schedule 3 in writing that they have the right to require the Proponent to acquire their land at any stage during the project.	This was undertaken during the previous auditing period, as confirmed in the <i>Wilpinjong Coal Mine Environmental Regulatory Compliance Audit Report</i> (Pacrim, 2008). In that IEA report it was stated that email copies of this correspondence were sighted by the audit team (letters were sent to Gaffney, Power and Smith, and were dated 3 March 2006).	Complies
2	If the results of the monitoring required in schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, and there is no negotiated agreement in place to allow the impact, then within 2 weeks of obtaining the monitoring results the Proponent shall: (a) notify the Director-General, the affected landowners and tenants (including tenants of mine owned properties) accordingly, and provide monitoring results to each of these parties until the results show that the project is complying with the criteria in schedule 3; and (b) in the case of exceedances of the relevant air quality impact assessment criteria, send the affected landowners and tenants (including tenants of mine-owned properties) a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time).	Verified during audit interview	Complies
INDEPENDENT REVIEW			
3	If a landowner of privately-owned land considers the project to be exceeding the relevant air quality or noise impact assessment 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, the Proponent shall within 2 months of the Director-General's decision: (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 towards 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.	This has not occurred during the auditing period.	Not Triggered



4	<p>If the independent review determines that the project is complying with the relevant impact assessment criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General. If the independent review determines that the project is not complying with the relevant impact assessment criteria in schedule 3, and that the project is primarily responsible for this noncompliance, then the Proponent shall:</p> <p>(a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until the project complies with the relevant criteria; or</p> <p>(b) secure a written agreement with the landowner to allow exceedances of the relevant impact assessment criteria, to the satisfaction of the Director-General.</p> <p>If the independent review determines that the project is not complying with the relevant land acquisition criteria in schedule 3, and that the project is primarily responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent shall acquire all or part of the landowner's land in accordance with the procedures in conditions 6-7 below.</p>	This has not occurred during the auditing period.	Not Triggered
5	<p>If the independent review determines that the relevant impact assessment criteria in schedule 3 are being exceeded, but that more than one mine is responsible for this non-compliance, then the Proponent shall, together with the relevant mine/s:</p> <p>(a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until there is compliance with the relevant criteria; or</p> <p>(b) secure a written agreement with the landowner and other relevant mines to allow exceedances of the relevant impact assessment criteria in schedule 3, to the satisfaction of the Director-General.</p> <p>If the independent review determines that the project is not complying with the relevant land acquisition criteria in schedule 3, but that more than one mine is responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent shall acquire all or part of the landowner's land on as equitable a basis as possible with the relevant mine/s, in accordance with the procedures in conditions 6-7 below.</p>	This has not occurred during the auditing period.	Not Triggered

LAND ACQUISITION			
6	<p>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:</p> <p>(a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the project, having regard to the:</p> <ul style="list-style-type: none"> <li>- existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and</li> <li>- presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the 'additional noise mitigation measures' in condition 7 of schedule 3;</li> </ul> <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> <li>- relocating within the Mid-Western Regional local government area, or to any other local government area determined by the Director-General; and</li> <li>- 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</li> </ul> <p>(c) reasonable compensation for any disturbance caused by the land acquisition process.</p>	<p>WCM is in accordance with Condition 6. Correspondance between landowner and Proponent confirms this.</p>	Complies

6	<p>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 shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:</p> <ul style="list-style-type: none"> <li>- consider submissions from both parties;</li> <li>- 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;</li> <li>- prepare a detailed report setting out the reasons for any determination; and</li> <li>- provide a copy of the report to both parties.</li> </ul> <p>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.</p> <p>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 shall determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above and the independent valuer's report, and the detailed report of the party that disputes the independent valuer's determination.</p> <p>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.</p>	<p>WCM is in accordance with Condition 6. Correspondance between landowner and Proponent confirms this.</p>	Complies
7	<p>The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 6 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.</p>	<p>WCM is in accordance with Condition 7. Correspondance between landowner and Proponent confirms this.</p>	Complies

SCHEDULE 5 - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING			
ENVIRONMENTAL MANAGEMENT			
Environmental Management Strategy			
1	<p>The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. The strategy must:</p> <ul style="list-style-type: none"> <li>(a) be submitted to the Director-General for approval within 6 months of the date of this approval;</li> <li>(b) provide the strategic framework for environmental management of the project;</li> <li>(c) identify the statutory approvals that apply to the project;</li> <li>(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;</li> <li>(e) describe the procedures that would be implemented to: <ul style="list-style-type: none"> <li>- keep the local community and relevant agencies informed about the operation and environmental performance of the project;</li> <li>- receive, handle, respond to, and record complaints;</li> <li>- resolve any disputes that may arise during the course of the project;</li> <li>- respond to any non-compliance;</li> <li>- respond to emergencies; and</li> </ul> </li> <li>(f) include: <ul style="list-style-type: none"> <li>- copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and</li> <li>- a clear plan depicting all the monitoring to be carried out in relation to the project.</li> </ul> </li> </ul>	<p>The <i>Wilpinjong Coal Project Environmental Management Strategy</i> (WCPL, February 2006) fulfils these requirements.</p>	<p>Complies</p>

Management Plan Requirements			
2	<p>The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <ul style="list-style-type: none"> <li>(a) detailed baseline data;</li> <li>(b) a description of: <ul style="list-style-type: none"> <li>- the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>- any relevant limits or performance measures/criteria;</li> <li>- the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;</li> </ul> </li> <li>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</li> <li>(d) a program to monitor and report on the: <ul style="list-style-type: none"> <li>- impacts and environmental performance of the project;</li> <li>- effectiveness of any management measures (see c above);</li> </ul> </li> <li>(e) a contingency plan to manage any unpredicted impacts and their consequences;</li> <li>(f) a program to investigate and implement ways to improve the environmental performance of the project over time;</li> <li>(g) a protocol for managing and reporting any: <ul style="list-style-type: none"> <li>- incidents;</li> <li>- complaints;</li> <li>- non-compliances with statutory requirements; and</li> <li>- exceedances of the impact assessment criteria and/or performance criteria; and</li> </ul> </li> <li>(h) a protocol for periodic review of the plan.</li> </ul>	<p>These features are noted throughout all of the management plans reviewed as part of this IEA.</p>	<p>Complies</p>
Annual Review			

3	<p>By the end of December 2011, and annually thereafter, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must:</p> <ul style="list-style-type: none"> <li>(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;</li> <li>(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: <ul style="list-style-type: none"> <li>- relevant statutory requirements, limits or performance measures/criteria;</li> <li>- monitoring results of previous years; and</li> <li>- relevant predictions in the EA;</li> </ul> </li> <li>(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</li> <li>(d) identify any trends in the monitoring data over the life of the project;</li> <li>(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and</li> <li>(f) describe what measures will be implemented over the next year to improve the environmental performance of the project.</li> </ul>	The due time for this review has not passed yet.	Not Triggered
<b>Revision of Strategies, Plans and Programs</b>			
4	<p>Within 3 months of the submission of an:</p> <ul style="list-style-type: none"> <li>(a) annual review under condition 3 above;</li> <li>(b) incident report under condition 7 below;</li> <li>(c) audit under condition 9 below; or</li> <li>(d) any modification to the conditions of this approval;</li> </ul> <p>the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.</p> <p><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></p>	<p>Last mod approved in Sep 2010. Recommendations were made in the previous audit for the Rehab Management Plan, Erosion and Sediment Control Plan and the Water Management Plan to be updated. Management Plans have been reviewed and since approved by the Director General (Letter sighted 15/09/2011)</p>	Complies
<b>Community Consultative Committee</b>			
5	<p>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).</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>- <i>The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.</i></li> <li>- <i>In accordance with the Guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, affected councils and the general community.</i></li> </ul>	<p>This CCC was constituted and has been meeting regularly throughout the life of the project, as per Section 4.2 of AEMR 2008, Section 3.17 of AEMR 2009, and Section 3.16 of AEMR 2010.</p>	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 not blasting at same time and to ensure that any road closures do not impact on other operations, as confirmed during audit interview, Approval from the Director General needs to be provided to verify compliance.	Not Compliant
REPORTING			
Incident Reporting			
7	The Proponent shall 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.	Incident report was provided. Proponent provided the OEH 6 days after incident occurred with a detailed report on the incident.	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
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 6 weeks of the completion of 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
<b>ACCESS TO INFORMATION</b>			
11	<p>From the end of October 2010, the Proponent shall:</p> <p>(a) make the following information publicly available on its website:</p> <ul style="list-style-type: none"> <li>- a copy of all current statutory approvals for the project;</li> <li>- a copy of the current environmental management strategy and associated plans and programs;</li> <li>- a 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;</li> <li>- a complaints register, which is to be updated on a monthly basis;</li> <li>- a copy of the minutes of CCC meetings;</li> <li>- a copy of any Annual Reviews (over the last 5 years);</li> <li>- a copy of any Independent Environmental Audit, and the Proponent's response to the recommendations in any audit;</li> <li>- any other matter required by the Director-General; and</li> </ul> <p>(b) keep this information up to date, to the satisfaction of the Director-General.</p>	The WCM website was observed to contain all of this information.	Complies
<b>APPENDIX B - STATEMENT OF COMMITMENTS</b>			
<b>BLASTING, VIBRATION AND PUBLIC SAFETY</b>			
Pg1	WPCL will:		
Pg1	Undertake all additional blasting activities in accordance with the Blast Management Plan and Monitoring Programme, including:		
Pg1	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	WCPL maintains a register of people who receive phone calls before blasting. A blasting hotline is also maintained (AEMRs 2007 and 2008 Section 3.8.2, and AEMR 2010 Section 3.7.2), and is advertised in local newsletter at least quarterly (BMP).	Complies
Pg1	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	According to BMP, Traffic control signs will be set up in accordance with the RTA/Mid-Western Regional Council (MWRC) guidelines. Including posting signs at least three days prior to blasting.	Complies



Pg1	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	According to BMP, Traffic control signs will be set up in accordance with the RTA/Mid-Western Regional Council (MWRC) guidelines.	Complies
Pg1	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	Blast reports indicate that correct procedures are followed when exceedences have occurred. Blasting Checklist was sighted and confirms this condition.	Complies
Pg1	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	Blasting Checklist was sighted and includes pre and pose blasting checklist including Wind Direction and Strength, Shot Overburden potential and MIC.	Complies
Pg1	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	AEMRs and BMP report on blast results, and evaluate improvement measures.	Complies
Pg 2	<ul style="list-style-type: none"> <li>• Establishment of a meteorological assessment protocol so that blasts are postponed during adverse weather conditions.</li> </ul>	<p>Meteorological Assessment Protocol is in place</p> <p>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).</p>	Complies
Pg 2	<ul style="list-style-type: none"> <li>• 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).</li> </ul>	Blast register confirms this condition	Complies
Pg 2	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	No private landholders are within 2 km, however there are specified landholders who are telephoned prior to blasting to inform them of blasting times.	Complies
Pg 2	<ul style="list-style-type: none"> <li>• 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).</li> </ul>	This has not occurred during the auditing period.	Not Triggered
Pg 2	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	This has occurred during the auditing 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

Pg 2	<ul style="list-style-type: none"> <li>Operating the complaints line and register and managing all blast related complaints in accordance with the existing complaints protocol.</li> </ul>	WCPL maintains a register of people who receive phone calls before blasting. A blasting hotline is also maintained (AEMRs 2007 and 2008 Section 3.8.2, and AEMR 2010 Section 3.7.2). 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 (as per AEMRs 2008, 2009 and 2010 Appendix E - Community Complaints Register Summary, and per the 2011 Community Complaints Register Summary on the WCPL website).	Complies
Pg 2	<ul style="list-style-type: none"> <li>Limit the maximum instantaneous charge of additional blasts for coal and interburden to a maximum of 400 kg.</li> </ul>	BMP confirms this commitment (Section 5.1.3)	Complies
Pg 2	<ul style="list-style-type: none"> <li>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.</li> </ul>	Section 4.7 of the ACHMP and Section 9 of the BMP have included these procedures into the plans.	Complies
Pg 2	<ul style="list-style-type: none"> <li>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).</li> </ul>	Ulan Road Strategy is currently being prepared between MWRC, Wilpinjong, Moolarben and Ulan and RTA. Traffic count data has been obtained. This strategy will assist in upgrading the Ulan Road and in improving road safety.	Complies
Pg 2	<ul style="list-style-type: none"> <li>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.</li> </ul>	BMP confirms this commitment	Complies
<b>TRAFFIC AND PUBLIC SAFETY</b>			
Pg 2	WPCL will:		
Pg 2	<ul style="list-style-type: none"> <li>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.</li> </ul>	Tax Invoice to MWRC was sighted for the period of 1-DEC-08 to 30-NOV-09 for \$20,000.00	Complies
Pg 2	<ul style="list-style-type: none"> <li>Finance and sealing of the un-sealed section of Ulan-Wollar Road between Ulan Road and the internal mine access road.</li> </ul>	Minor Services Agreement between Wilpinjong Coal Pty Ltd and Mid-Western regional Council was sighted, and confirms this condition.	Complies
Pg 2	<ul style="list-style-type: none"> <li>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.</li> </ul>	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 Able to be Verified

Pg 2	<ul style="list-style-type: none"> <li>Finance the installation appropriate line-marking and signage along the section of Ulan-Wollar Road between Ulan Road and the internal mine access road.</li> </ul>	Minor Services Agreement between Wilpinjong Coal Pty Ltd and Mid-Western regional Council was sighted, and confirms this condition.	Complies
Pg 3	<ul style="list-style-type: none"> <li>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.</li> </ul>	These intersections were upgraded as reported in Section 3.15.1 of the 2008 AEMR, in consultation with Moolarben Coal Mine.	Complies
Pg 3	<ul style="list-style-type: none"> <li>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.</li> </ul>	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 2008 and 2009 Section 3.15.1, and AEMR 2010 Section 3.14.1). 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	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>Upgrading of Ulan-Wollar Road/internal mine access road intersection to include: <ul style="list-style-type: none"> <li>(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</li> <li>(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.</li> </ul> </li> <li>Upgrading of the Ulan Road/Ulan-Wollar Road intersection to include: <ul style="list-style-type: none"> <li>(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;</li> <li>(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</li> <li>(iii) appropriate lighting at the intersection in accordance with AS 1158 to Country Energy and RTA requirements.</li> </ul> </li> </ul> </li> </ul>	<p>Tax Invoice to MWRC was sighted for the period of 1-DEC-08 to 30-NOV-09 for the upgrading of Ulan-Wollar road.</p>	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.	See above	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 Able to be Verified

RAIL SAFETY AND ROAD SURFACE PERFORMANCE STRATEGY			
	WPCL will:		
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 confirms compliance	Complies
Pg 3	<ul style="list-style-type: none"> <li>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.</li> </ul>	Ulan Road Strategy is currently being prepared between MWRC, Wilpinjong, Moolarben and Ulan and RTA. Traffic count data has been obtained. This strategy will assist in upgrading the Ulan Road and in improving road safety.	Complies
Pg 4	<ul style="list-style-type: none"> <li>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.</li> </ul>	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 2008 and 2009 Section 3.15.1, and AEMR 2010 Section 3.14.1). 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	<ul style="list-style-type: none"> <li>Continue to actively promote safe driving on public roads.</li> </ul>	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 2008 and 2009 Section 3.15.1, and AEMR 2010 Section 3.14.1).	Complies
Pg 4	<ul style="list-style-type: none"> <li>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.</li> </ul>	Shift times are staggered against Moolarben and Ulan and attempt to stay outside of school bus hours.	Complies
Pg 4	<ul style="list-style-type: none"> <li>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.</li> </ul>	See above, Ulan Road Strategy confirms compliance	Complies

TRAFFIC NOISE			
Pg 4	<p>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.</p>	<p>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 2008 and 2009 Section 3.15.1, and AEMR 2010 Section 3.14.1). Shift times are staggered against Moolarben and Ulan and attempt to stay outside of school bus hours (as confirmed during audit interview).</p>	Complies

## Appendix E

# Environmental Impact Statement (2005)

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Section	Requirement	Evidence	Audit Finding
<b>Section One Volume One - Introduction</b>			
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.	This is occurring.	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.	Not Triggered
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.	Complies
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).	This is occurring.	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.	These are approximately the production numbers currently, though 10mtpa has not yet been reached.	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.	This occurs.	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



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. This will be reassessed once Thiess leave the site in 2012.	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.	Undertaken prior to this audit period	NA
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.	NA
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 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.	CCC meetings were held in September, June and March 2011 and December, September and March 2010 (as per peabody energy website). Table 28 2010 AMER details the CCC meeting summary.	Not Compliant
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.	Noted

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
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	Noted
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.	This has and is occurring.	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
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
1.7.7	WCPL propose to continue to consult with the Ulan Coal Mines during the life of the Project on water supply issues.	This has occurred and is ongoing, there are water sharing arrangements that have not yet been required.	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.		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 is not yet within the area being mined.	Not Triggered

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 project has not commenced yet but the CCRP is required 24 months after approval. The Director-General of the Department of Planning (DoP) subsequently approved the revised timetable for completion and approval of the CCRP on 3 February 2006. This approval stipulates that the CCRP should be submitted 24 months from the approval date of Project Approval 05-0021 (i.e. 1 February 2008).	Complies
<b>Section One Volume Two - Project Description</b>			
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 vary to take into consideration detailed design aspects for Project infrastructure components and actual water supply requirements.		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
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
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
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	Noted
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 Compliant
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	Noted
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
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

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
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
2.4.2	Waste rock material excavated would be used in the construction of various mine and rail infrastructure components.		Noted
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).	Mining methods are generally consistent with this description.	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 - No trials conducted.	Not Compliant
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
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.	Blast Checklist confirms this	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.	This occurred when the site first commenced mining but is no longer required due to distance of mining activities from the rail line.	Complies
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
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
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.	Complies
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
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
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.	No water cover was observed in the site visit but the tailings were maintained wet except where tailings storage was being dewatered for rehab.	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.	Sighted during site inspection, a tailings area was partially rehabilitated and the process was clearly demonstrated.	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
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.	Evidence of consultation with DIPNR is required to verify compliance	Not Compliant
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.	No eroding of drainage lines was observed in the site visit. Cross-sections and designs were not checked.	Not able to be Verified
2.9.1	The Cumbo Creek relocation corridor would provide for the diversion of upslope runoff and flows in Cumbo Creek.	Not yet constructed, design not reviewed.	Not able to be Verified
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 operations to facilitate efficient dewatering operations and to minimise interruption to mining.		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.	Noted
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.	Relocation of Cumbo Creek not yet commenced.	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.	Relocation of Cumbo Creek not yet commenced.	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.	Relocation of Cumbo Creek not yet commenced.	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.	Relocation of Cumbo Creek not yet commenced.	Not Triggered
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.	Noted
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.	Noted



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.	Noted
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 Compliant
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 has occurred.	Complies
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
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
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
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.	The oil water separator was not in adequate working condition, no evidence of regular inspections.	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
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.	Noted
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.	Detailed in the AEMRs, verified during audit interview	Complies
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.	This information and waste records are contained in Sections 1.6 of AEMRs 2008, 2009 and 2010.	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).	Three aerated sewage and pumping systems operate at WCM (AEMR 2008, 2009, 2010 s2.6.2)	Complies
<b>Streamflow</b>			
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.	Stream flow records are reported in the AEMR section 3.5 (2010)	Complies
<b>Section One Volume Four - Potential Impacts and Mitigation Measures</b>			
<b>Soils and Erosion Potential</b>			
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.	Present in the ESCP	Complies

4.1.2	<p>Specific mitigation measures to control soil erosion and sediment migration would include:</p> <ul style="list-style-type: none"> <li>- minimising surface disturbance and restricting access to undisturbed areas;</li> <li>- progressive rehabilitation and revegetation of mine landforms;</li> <li>- minimising soil compaction during soil excavation and handling;</li> <li>- 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</li> <li>- use of sediment retention storages to contain runoff from disturbed areas and permit the settling of solids.</li> </ul>	<p>These commitments are covered in the ESCP, Mitigation measure were identified on site such as:</p> <ul style="list-style-type: none"> <li>- Diversion drains were noted on site during inspection of southern perimeter. Site Water Management Plan commits to diversion drains "around the southern perimeter of the Project disturbance areas".</li> <li>- 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.</li> <li>- Collection drains noted along roads/haul roads and around spoil dumps etc - generally all drain to in-pit storage.</li> <li>- Runoff from all disturbed catchments ultimately contained on site and directed to mine water storage.</li> <li>- Limited access to non-disturbed areas noted during site inspection.</li> </ul>	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
4.1.2	<p>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:</p> <ul style="list-style-type: none"> <li>- Soil stockpiles to be located outside of active mining areas.</li> <li>- Stockpiles to be constructed with a rough surface condition to reduce erosion hazard, improve drainage and promote revegetation.</li> <li>- Stockpiles which are inactive for extended periods to be fertilised and seeded, to maintain soil structure, organic matter and microbial activity.</li> <li>- Silt fences to be installed around soil stockpiles to control potential loss of soil where necessary.</li> <li>- Soil stockpiles to be deep-ripped to establish aerobic conditions, prior to soil use in rehabilitation.</li> </ul>	<p>Site inspection supported most of these approaches though the deep ripping was not able to be verified</p>	complies

4.1.2	<p>Potential soil salinity and dispersivity issues associated with some soil types would be managed during stockpiling as follows:</p> <ul style="list-style-type: none"> <li>- Saline soil types to be stockpiled separately and then placed in mine waste rock emplacements below the topsoil/subsoil cover layer.</li> <li>- 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).</li> </ul>	<p>Site inspection was unable to verify these two conditions. However, the MOP was developed to satisfaction of DTRIS DRE and addressed soil management issues.</p>	Complies
4.1.3	<p>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.</p>	<p>WCM is in accordance with this condition. Correspondence between landowner and Proponent confirms this.</p>	complies
<b>Landuse and Land Capability Assessment</b>			
4.1.3	<p>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.</p>		Noted
4.1.3	<p>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).</p>	<p>Surrounding properties were not inspected.</p>	Noted
4.1.3	<p>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.</p>	<p>Noted, though at the particular point of development that was observed by the audit team it must be noted that there was a lot of exposed area due to a number of pits open simultaneously and not all pits were being actively mined.</p>	Noted.
4.1.3	<p>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).</p>	<p>Sighted in MOP, site not advanced enough to verify physically.</p>	Not able to be Verified
4.1.3	<p>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).</p>	<p>Sighted in MOP, site not advanced enough to verify physically.</p>	Not able to be Verified
4.1.3	<p>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).</p>	<p>EACs were not investigated in the site inspection but fencing to control grazing and delineating signage was observed.</p>	Not able to be Verified
<b>Land Contamination Potential</b>			

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
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.	Rail contractors were not investigated in the site audit and inspection	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).	The audit schedule did not allow time to adequately assess compliance with this point.	Not able to be Verified
<b>Bushfire Hazard</b>			
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.	BMP sighted.	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).	Induction presentation provided does not contain fire awareness or fire safety information	Not Compliant
<b>Visual</b>			
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.	Progressive rehab was noted in the site inspection.	Noted

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.	Buildings and structures were of suitable colour and design to reduce visual impact though most of the infrastructure was not able to be seen from public viewing points.	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 now 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.	Light shields are not used.	Not Compliant
<b>Surface Water</b>			
<b>Surface Water Quality</b>			
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.	The Site Water Management Plan: Wilpinjong Coal Project (Wilpinjong Coal Pty Limited, July 2006) contains a SWMP and fulfils these requirements. Was approved by D-G on 6 March 2006. Was subsequently revised.	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 Plans don't mention segregating the catchment areas. Rehabilitation was not progressed enough to verify this condition. Recommendation - It is recommended that reference to catchment types is included in the Rehabilitation Management Plan	complies <b>Recommendation Made</b>
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. 3.5.1 AEMR 2010 and SWMP	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.	Upslope diversions were not evident in all locations, partly due to recent activities in vicinity of (south of) Pit 5.	Not Compliant
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.	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). <b>Recommendation - It is recommended that the site sediment basin strategy be reviewed given the potential total on-site storage (in-pit) available to capture runoff from disturbed areas, and also noting that many of the sediment basins were required during construction phase and the placement and maintenance of such should be viewed/reconsidered to reflect completion of construction and commencement of operations.</b>	Complies <b>Recommendation Made</b>
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.	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
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.	This information and waste records are contained in Sections 2.6 of AEMRs 2008, 2009 and 2010.	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).	ESCP confirms this commitment	Complies
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.	ESCP confirms this commitment	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
<b>Surface Water Flows</b>			
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.	Site Water balance verifies this condition	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.	Exclusion of livestock has occurred in the audit period. (AEMRs). Rehabilitation of Wilpinjong Creek has occurred and will begin at Cumbo Creek when Mining commences there.	complies



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.	CCRP verifies this condition	Complies
<b>Groundwater</b>			
<b>Existing Groundwater Users</b>			
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.	1 exceedance was identified in the groundwater monitoring program for EC at 4 locations. The Impact investigation protocol was implemented, and the investigation concluded that: High EC values were recorded in 2006,2007,2008 & 2009, indicative of a naturally saline system. A review of the SGWRP and GMP has been conducted and is currently being assessed by DoP. (AEMR 2010 section 3.6)	Complies
<b>Groundwater Inflows to Creeks</b>			
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
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-	complies
<b>Acoustics</b>			

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.	Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.	Complies
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.(Section 3.8 2010 AEMR). Section 7.2 & 7.3 of the Noise Management Plan details mobile equipment and states - Mine mobile equipment will be noise attenuated to meet more stringent maximum operating LAeq sound power levels.	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.	Cannot find evidence of this in NMP or AEMRs. However, it should be noted that 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	not compliant
<b>Noise Management Zone</b>			

4.5.2	<p>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:</p> <ul style="list-style-type: none"> <li>- noise monitoring on-site and within the community;</li> <li>- prompt response to any community issues of concern;</li> <li>- refinement of on-site noise mitigation measures and mine operating procedures, where practicable;</li> <li>- discussions with relevant landowners to assess concerns;</li> <li>- consideration of acoustical mitigation at receptors; and</li> <li>- consideration of negotiated agreements with landowners.</li> </ul>	<p>These conditions are verified in the Noise Management plan and reported in the AEMRs</p>	Complies
<b>Noise Affection Zone</b>			
4.5.2	<p>Exposure to noise levels greater than 5 dBA above Project-specific criteria may be considered unacceptable by some landowners. Management procedures for the noise affection zone would include:</p> <ul style="list-style-type: none"> <li>- discussions with relevant landowners to assess concerns and develop practical mitigation;</li> <li>- implementation of acoustical mitigation at receptors (e.g. double glazing of windows); and</li> <li>- negotiated agreements with landowners.</li> </ul>	<p>correspondence between WCPL and landowners confirms this condition. Section 3.3.3 Noise Management Plan further verify this condition</p>	Complies
<b>Road Transportation</b>			
4.5.5	<p>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.</p>	<p>Now there are three mines using the line, train timetables are becoming more congested. Rail times are beyond the capacity of the WCPL to influence</p>	Noted
<b>Blast Impact Assessment</b>			
4.5.6	<p>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).</p>	<p>Appendix D of the 2008, 2009 &amp; 2010 AEMRs detail Blast Monitoring results. No blasts recorded a vibration level above 80 mm/s for the Aboriginal rock sites listed in this condition.</p>	Complies
4.5.6	<p>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.</p>	<p>Evidence was sighted by the audit team</p>	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
<b>Air Quality</b>			
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.	Not all mining areas well watered at time of the audit resulting in unnecessary levels of dust.	Not Compliant

4.6.2	<p>Controls for mine generated dust would include the following:</p> <ul style="list-style-type: none"> <li>- All active roads and traffic areas would be watered using water carts to minimise the generation of dust.</li> <li>- 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.</li> <li>- 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.</li> <li>- The number of active haul roads would be minimised and haul roads would be clearly defined.</li> <li>- Development of minor roads would be limited and the locations of these would be clearly defined.</li> <li>- 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.</li> <li>- All obsolete roads would be rehabilitated.</li> <li>- Access tracks used by topsoil stripping equipment during their loading and unloading cycle would be watered.</li> <li>- 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.</li> <li>- Dust aprons would be lowered during drilling.</li> <li>- Drill rigs would be equipped with dust suppression equipment which would be operated whenever the potential for high levels of dust generation is identified.</li> <li>- Blast stemming would be designed to provide optimum confinement of the blast charge.</li> <li>- Automatic sprays or other dust control mechanisms would be used when tipping raw coal into the ROM dump hopper.</li> <li>- Spillage of CHPP materials would be promptly cleaned up to prevent dust.</li> <li>- Dust suppression systems would be fitted at transfer points to prevent high dust levels, where necessary.</li> </ul>	<p>Most of these points have been addressed at other points in the audit, not the negative findings on dust above.</p>	Noted
<b>Greenhouse Gas</b>			
4.6.4	<p>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:</p> <ul style="list-style-type: none"> <li>- regular maintenance of plant and equipment to minimise fuel consumption and associated emissions;</li> <li>- consideration of energy efficiency in plant and equipment selection/purchase; and</li> <li>- establishment of significant areas of woodland vegetation over the Project life (Sections 5.2 and 5.3).</li> </ul>	<p>The greenhouse aspects of the fleet were not able to be investigated in detail.</p>	Not able to be Verified
	<p>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.</p>	<p>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.</p>	Noted

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 FFMP	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
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
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	compliant

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
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.	three ECAs have been established, site map showing location of ECAs was sighted by audit team.	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.	Section 7.1 RMP verifies this condition	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	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	compliant
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	compliant
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
<b>Fauna</b>			
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.	These measures are outlined in the Rehabilitation Management Plan (RMP)	complies
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
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.	Confirm if speed limits have been enforced - have to find evidence of consultation with agencies	CHECK
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
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. This condition is not a direction from the department and the requirements are dealt	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, Greycrowned Babbler and Squirrel Glider.	RMP contains this condition.	complies
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
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
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
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
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
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 matters.	Complies
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 AHCMP 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
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).		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
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
<b>Non Aboriginal Heritage</b>			
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
<b>Road Transport</b>			
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.	Not able to be Verified
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.	Not able to be Verified
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 AS 1742.3-2002	Complies
4.12.2	WCPL would encourage car pooling to minimise Project traffic generation during the life of the Project.	This is done	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.	Noted
<b>Rail Transport</b>			
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.	Noted



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
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
<b>Community Infrastructure Assessment</b>			
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.		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
<b>Benefit Cost Analysis and Regional Economic Impact Assessment</b>			
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
<b>Hazard and Risk</b>			
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
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 are required to verify compliance	not compliant
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.	See BVMP	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.	See elsewhere in this audit.	Noted
4.16.2	Coal Stockpile Management – Coal stockpiles would be managed to reduce the potential for spontaneous combustion.	No evidence of unmanaged coal stockpile spon com in the audit, site personnel commented that stockpiles were minimised and that site knowledge of which particular seam (and which parting) was responsible from spon com and this particular coal was managed differently to other product.	Complies
4.16.2	CHPP Management – CHPP management procedures would be developed to reduce the potential for spillages of contaminated water.	CHPP contained within the dirty water management system	Complies
4.16.2	Emergency Response – Emergency response procedures manuals and systems would be developed.	Sighted by audit team	Complies
4.16.2	Storage Facilities – Storage and usage procedures for potentially hazardous materials (i.e. fuels and lubricants) would be developed.	Sighted in site visit	Complies
<b>Section One Volume Five - Environmental Protection Plan</b>			
<b>Environmental Management and Monitoring</b>			
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

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, Cultural Heritage not included.	Not Compliant
<b>Mining Operations Plan</b>			
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
<b>Annual Environmental Management Report</b>			
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
<b>Environmental Management Strategy</b>			
5.1.1.3	<p>An Environmental Management Strategy (EMS) would be prepared for the Project describing:</p> <ul style="list-style-type: none"> <li>- operational procedures and environmental management plans to manage the environmental effects of the Project;</li> <li>- assignment of responsibilities;</li> <li>- verification and audit processes;</li> <li>- environmental monitoring programmes;</li> <li>- schedules for the development and implementation of environmental management plans and monitoring programmes;</li> <li>- training programs;</li> <li>- community consultation processes;</li> <li>- complaint handling mechanisms including site contacts;</li> <li>- strategies to use monitoring information to improve performance;</li> <li>- strategies to achieve acceptable environmental impacts (including remedial response strategies);</li> </ul> <p>and</p> <ul style="list-style-type: none"> <li>- measures to avoid and minimise the generation of wastes and promote waste reuse and recycling.</li> </ul>	EMS sighted and reviewed.EMS Contains these commitments	Complies
<b>Environmental Management Plans</b>			
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.		Noted
<b>Land Management Plan</b>			
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
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:		Noted
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 Compliant
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 Cumbo Creek Relocation Plan (CCRP) sighted by the audit team. CCRP was made in conjunction with the SWMP.	Complies
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 confirms this	Complies
<b>Water Supply Borefield Plan</b>			
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 Compliant
<b>Not</b>			
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:	Cumbo Creek rehabilitation Plan was sighted by the audit team.	Complies
5.1.2.6	design and specifications for creek relocation works;	CCRP verifies this condition	Complies
5.1.2.6	a construction programme for the creek relocation, describing how the work would be staged and progressively integrated with mining operations;	CCRP verifies this condition	Complies
5.1.2.6	a revegetation programme using appropriate native riparian species consistent with upstream regeneration works (Section 5.2.5);	CCRP verifies this condition	Complies
5.1.2.6	design of the block bund foundation to provide for the diversion of sub-surface flow associated with Cumbo Creek alluvium;	CCRP verifies this condition	Complies
5.1.2.6	water quality, ecological and geomorphic performance criteria for the creek relocation;	CCRP verifies this condition	Complies
5.1.2.6	a programme to monitor water quality and ecological and geomorphic integrity of the creek relocation; and	CCRP verifies this condition	Complies

5.1.2.6	a programme to inspect and maintain the creek relocation and revegetation works until they stabilise.	CCRP verifies this condition	Complies
<b>Flora and Fauna Management Plan</b>			
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 is in place at WCPL	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
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
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
<b>Weed and Animal Pest Control</b>			
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
<b>Traffic Management Plan</b>			
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
<b>Aboriginal Cultural Heritage Management Plan</b>			
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.	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	The ACHMP would include:		
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;	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	Details of statutory requirements to be met regarding the management of Aboriginal heritage under the NPW Act;	Section 4.1 ACHMP	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;	e 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	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);	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	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;	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	An access protocol so that Aboriginal people can access sites in the Project area in accordance with site occupational health and safety requirements;	Section 4.9 ACHMP	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;	Section 4.6 ACHMP	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).	Cultural Heritage not included in Site inductions	Not Compliant
<b>Spontaneous Combustion Management Plan</b>			
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
<b>Blast Management Plan</b>			
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
<b>Meteorology</b>			
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	<p>The following dust deposition monitoring sites would be monitored on a monthly basis (Figure 5-1):</p> <ul style="list-style-type: none"> <li>- DG3 – Close dwelling;</li> <li>- DG4 – Robinson dwelling;</li> <li>- DG5 – St Laurence O'Toole Catholic Church;</li> <li>- DG7 – Helm dwelling;</li> <li>- DG8 – Ulan Coal Mines-owned dwelling;</li> <li>- DG9 – McKinna dwelling;</li> <li>- DG10 – Bailey dwelling; and</li> <li>- DG11 – Smith dwelling.</li> </ul>	3.4.1 AEMR 2010 details the air quality monitoring sites and results for the report period. Table 12 AEMR 2010 Confirms this condition	Complies
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.	Table 12 AEMR 2010 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).	Table 12 AEMR 2010 Confirms this condition	Complies
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	<p>The Project noise monitoring programme would comprise quarterly unattended and attended monitoring. Noise would be monitored at the following locations (Figure 5-1):</p> <ul style="list-style-type: none"> <li>- N6 – St Laurence O'Toole Catholic Church;</li> <li>- N7 – Smith dwelling;</li> <li>- N9 – Bailey dwelling;</li> <li>- N10 – Robinson dwelling;</li> <li>- N11 – Helm dwelling;</li> <li>- N12 – Ulan Coal Mines-owned dwelling; and</li> <li>- N13 – Close dwelling.</li> </ul>	3.8.2 AEMR 2010 details the noise monitoring sites and results for the report period. Noise monitoring is conducted in accordance with Schedule 3, Condition 2 of the DA and confirm this condition.	Complies
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 E of the AEMRs. Results of NMP reported in AEMR (2010) Section 3.8.	Complies
Blasting			
5.1.3.4	<p>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):</p> <ul style="list-style-type: none"> <li>- BM1 – Robinson dwelling;</li> <li>- BM2 – Bailey dwelling;</li> <li>- BM3 – Smith dwelling;</li> <li>- BM4 – Close dwelling; and</li> <li>- BM5 – Helm dwelling.</li> </ul>	BMP (2011) and AEMR confirms (2010) (section 3.7.2) BMP	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
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.	Table 22 AEMR 2010 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.	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 <sub>4</sub> ). 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	B41 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 apart from testing so no modelling has been conducted.	Not Triggered

5.1.3.7	<p>The following sites would be monitored by the programme (Figure 5-1):</p> <ul style="list-style-type: none"> <li>- four alluvium bores (and two coal measure bores) along Wilpinjong Creek (sites GWA1 to GWA4, GWC1 and GWC2);</li> <li>- two alluvium bores (and one coal measure bore) along Cumbo Creek (sites GWA5, GWA6 and GWC3);</li> <li>- one coal measure bore along Wollar Creek (site GWC4);</li> <li>- one alluvium bore (and one coal measure bore) in Wollar Village (sites GWA7 and GWC5); and</li> <li>- 19 water supply bores (sites GWS1 to GWS19).</li> </ul>	<p>NO extraction for borefield has occurred apart from testing so no modelling has been conducted.</p>	Not Triggered
5.1.3.7	<p>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<sub>3</sub>); sulphate (SO<sub>4</sub>); and total iron (Fe).</p>	<p>AEMR Contains these commitments</p>	Complies
5.1.3.7	<p>In addition to the above, groundwater monitoring would be undertaken at selected existing bores surrounding the Project area, in consultation with relevant landowners.</p>	<p>monitoring of existing bores is conducted upon the request of the landowner (AEMR 3.6.2)</p>	Complies
5.1.3.7	<p>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.</p>	<p>Bore Licence sighted by audit team, Letter from office of water dated 4/05/11</p>	Complies
<b>Aquatic Biology</b>			
5.1.3.8	<p>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.</p>	<p>The Macroinvertebrate and Water Quality Monitoring for Wilpinjong and Cumbo Creek Program confirms this condition</p>	Complies
5.1.3.8	<p>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.</p>	<p>noted</p>	Not able to be Verified
<b>Weeds and Pests</b>			
5.1.3.9	<p>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).</p>	<p>Weed and Animal Pest Control is reported in the AEMRs and is detailed in the RMP</p>	Complies
<b>Traffic Flows</b>			
5.1.3.10	<p>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).</p>	<p>TMP verifies this condition</p>	Complies

<b>Planning</b>			
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).	MOP developed to satisfaction of DTRIS DRE. Monitoring results are reported annually in the AEMRs. Verified in audit interview	Complies
<b>Erosion and Sediment Controls</b>			
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
<b>Soil Removal, Handling and Replacement</b>			
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
<b>Revegetation</b>			
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

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
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
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 [ <i>Eucalyptus albens</i> ], Yellow Box [ <i>E. melliodora</i> ] and Blakely's Red Gum [ <i>E. blakelyi</i> ]).	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
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
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. <i>C. cunninghamiana</i> ). 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

<b>Replacement of Aboriginal Objects</b>			
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
<b>Studies and Trials</b>			
5.2.7	On-going site specific trials and studies would be conducted to examine options and to optimise revegetation techniques.	This has not commenced	Not Compliant
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.	Proposed trials and research are identified in MOP. No Trials were conducted during the 2009 & 2010 AEMR, however there were trials recorded in the 2008 AEMR (section 5.4).	Complies
<b>Final Landform Design</b>			
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	Noted
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 north-eastern extent of the final landform and another at the western extent.	MOP plan 6 confirms this	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.	MOP plan 6 confirms this	Complies
<b>Mine Waste Rock Emplacements</b>			
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
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



<b>Tailings Disposal Areas</b>			
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	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
<b>Surface Infrastructure</b>			
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.	Not Triggered
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).	Assume this refers to soils from the Mining Infrastructure Area, testing for contamination, not yet required.	Not Triggered
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
<b>Final Voids</b>			
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
<b>Monitoring, Maintenance and Reporting</b>			
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.	This has occurred as required by the rehabs progress.	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.	Section 8 of Rehabilitation management Plan confirms this condition	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).	Section 8 of Rehabilitation management Plan confirms this condition	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).	Section 4 AEMR reports on the rehabilitation activities and progress	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).	Section 8.1.1 of Rehabilitation management Plan confirms this condition	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 is monitored as reported in the WILPINJONG ECA FLORA AND REHABILITATION MONITORING REPORT	Complies
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.	Section 8.1.2 of Rehabilitation management Plan confirms this condition	Complies
5.2.9	A number of flora survey quadrates 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.	Section 8.1.2 of Rehabilitation management Plan confirms this condition	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.	detailed in the RMP and MOP	Complies
<b>Regeneration Areas</b>			
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
<b>Enhancement and Conservation Areas</b>			
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 Mudgee LEP (Figure 5-2). Works within this area would be constrained to that permitted by the Mudgee LEP.	Figure 3 Rehabilitation Management Plan shows the position of the three ECAs on site at WCPL	Complies
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.	ECAs are documented in the Rehabilitation Management Plan. The RMP contain these commitments. 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.	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.	Rezoning application not submitted. Recommend that process is reviewed and application submitted as a matter of urgency	Not Triggered - Recommendation Made

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.	Wilpinjong ECA Flora and Rehabilitation monitoring Report 2010 was sighted by the audit team. Fauna surveys are outlined in the RMP	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.		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.	Section 8.1.2 of Rehabilitation management Plan confirms this condition	complies
<b>Mine Closure Plan</b>			
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
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
<b>Completion Criteria</b>			
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

# Environmental Assessment (2010)

## Appendix F    Environmental Assessment (2010)

Section	Requirement	Evidence	Audit Finding
3.1	Construction activities would be limited to the CHPP and associated materials handling area adjacent to the rail loop (Figure 5).	Aerial photos prior and post construction were viewed by the audit team during the site visit. This confirmed that this area was where the construction activities occurred.	Complies
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.	The construction was undertaken during this time period in 2011, as confirmed during audit interview.	Complies
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).	Construction heavy vehicle movements were limited to daytime hours, as confirmed during audit interview. Aerial photos prior and post construction were viewed by the audit team during the site visit. This confirmed that this area was where the construction activities occurred.	Complies
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.	Noted
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.	There has continued to be sufficient water at the site to meet operational requirements during the auditing 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).	This has not been triggered during the auditing period.	Not Triggered
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

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).	mitigation measures are in place at WCPL as confirmed during audit	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 monitoring is being undertaken.	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.	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 2008 and 2009 Section 3.15.1, and AEMR 2010 Section 3.14.1). Shift times are staggered against Moolarben and Ulan and attempt to stay outside of school bus hours, as confirmed during audit interview.	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).	Management Plans have been reviewed and since approved by the Director General (Letter sighted 15/09/2011)	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.	Complies
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.	New version of MOP is currently under final review	Not Triggered



## Appendix G

# Mining Leases

## Appendix G Mining Leases

Condition	Requirement	Evidence	Audit Finding
<b>Notice to Landholders</b>			
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
<b>Subsidence Management</b>			
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
<b>Working Requirement</b>			
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	Approximately 350 full time employees are currently employed at the WCM, plus contractors.	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 350 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
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
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:	Exploration Report required to verify compliance	Not Compliant
7(a)	Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;	Exploration Report required to verify compliance	Not Compliant
7(b)	Details of expenditure incurred in conducting that exploration;	Exploration Report required to verify compliance	Not Compliant
7(c)	A summary of all geological findings acquired through mining or development valuation activities	Exploration Report required to verify compliance	Not Compliant
7(d)	Particulars of exploration proposed to be conducted in the next twelve months period;	Exploration Report required to verify compliance	Not Compliant
7(e)	All plans, maps, sections and other data necessary to satisfactorily interpret the report.	Exploration Report required to verify compliance	Not Compliant
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
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
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
<b>Terms of the non-exclusive licence</b>			
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
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
<b>Safety</b>			
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	Exploration drilling was not undertaken within the ML boundaries during the auditing period.	Not Triggered

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	No exploration works have occurred within this ML during the auditing period.	Not Triggered
15(2)	If the lease holder drills exploratory drill holes he must satisfy the Director- General that : -	No exploration works have occurred within this ML during the auditing period.	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;	No exploration works have occurred within this ML during the auditing period.	Not Triggered
15(2)(b)	All holes cored or otherwise are sealed to prevent the collapse of the surrounding surface	No exploration works have occurred within this ML during the auditing period.	Not Triggered
15(2)(c)	All drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters	No exploration works have occurred within this ML during the auditing period.	Not Triggered
15(2)(d)	If any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape	No exploration works have occurred within this ML 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.	No exploration works have occurred within this ML during the auditing period.	Not Triggered
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.	No exploration works have occurred within this ML during the auditing period.	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	No exploration works have occurred within this ML during the auditing period.	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	Confirmed elsewhere	Complies
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.	Not Triggered
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	No relevant access tracks have been constructed during the auditing period.	Not Triggered
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
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

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 there under 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 there under	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:		
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	See above	Complies
Mining Operations Plan			
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	Wilpinjong Coal Mine Mining Operations Plan Feb 2007 - Jan 2012 (Wilpinjong Coal Pty Limited, October 2008) fulfils these requirements.	Complies



27(b)	<p>The [MOP] must:</p> <ul style="list-style-type: none"> <li>- identify a areas that will be disturbed by mining operations;</li> <li>- detail the staging of specific mining operations;</li> <li>- identify how the mine will be managed to allow mine closure;</li> <li>- identify how mining operations will be carried out on site in order to prevent and or minimise harm to the environment;</li> <li>- reflect the conditions of approval under: <ul style="list-style-type: none"> <li>(i) the Environmental Planning and Assessment Act 1979;</li> <li>(ii) the Protection of the Environment Operations Act 1997</li> <li>(iii) and any other approvals relevant to the development including the conditions of this lease; and</li> </ul> </li> <li>- have regard to any relevant guidelines adopted by the Director-General.</li> </ul>	<p><i>Wilpinjong Coal Mine Mining Operations Plan Feb 2007 - Jan 2012 (Wilpinjong Coal Pty Limited, October 2008) fulfils these requirements.</i></p>	Complies
27(c)	<p>The titleholder may apply to the DG to amend an approved MOP at any time.</p>	<p>This was noted during the audit, however a finding on this condition was not required to be made.</p>	Not Triggered
27(d)	<p>It is not a breach of this condition if:</p>	<p>This was noted during the audit, however a finding on this condition was not required to be made.</p>	Not Triggered
27(d)(i)	<p>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</p>	<p>This was noted during the audit, however a finding on this condition was not required to be made.</p>	Not Triggered
27(d)(ii)	<p>The Director-General had been notified of the terms of the order or direction prior to the operations constituting the breach being carried out.</p>	<p>This was noted during the audit, however a finding on this condition was not required to be made.</p>	Not Triggered
27(d)	<p>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</p>	<p>This was noted during the audit, however a finding on this condition was not required to be made.</p>	Not Triggered
27(e)	<p>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.</p>	<p>This was noted during the audit, however a finding on this condition was not required to be made.</p>	Not Triggered
<b>Annual Environmental Management Reporting</b>			
28	<p>The lease holder must lodge Environmental Management Reports (EMR) with the Director-General annually or at dates otherwise directed by the DG.</p>	<p>Annual Environmental Reports (AEMRs) have been lodged during the auditing period, for the 2008, 2009 and 2010 reporting periods.</p>	Complies

29	<p>The EMR must:</p> <ul style="list-style-type: none"> <li>- Report against compliance with the MOP;</li> <li>- Report on progress in respect of rehabilitation completion criteria;</li> <li>- Report on the extent of compliance with regulatory requirements; and</li> <li>- Have regard to any relevant guidelines adopted by the D-G</li> </ul>	The AEMRs 2008, 2009 and 2010 fulfil these requirements.	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
<b>Rehabilitation</b>			
31	Disturbed land must be rehabilitated to a sustainable/agreed land use to the satisfaction of the Director-General	Approval from the Director-General is required to verify compliance	Not Compliant

## Appendix H

# Environmental Protection Licence 12425

## Appendix H   Environmental Protection Licence 12425

Section	Requirement	Evidence	Audit Finding												
1 Administrative conditions															
A1 What licence authorises and regulates															
A1.1	This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2. Construction works and other development activities as described in section 2.3, Vol 1 of Wilpinjong Coal Project EIS.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered												
A1.2	<div>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, Feebased 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.</div> <table><tr><th colspan="2">Scheduled Activity</th></tr><tr><td>Mining for coal</td><td></td></tr><tr><td>Coal works</td><td></td></tr></table> <table><tr><th>Fee Based Activity</th><th>Scale</th></tr><tr><td>Mining for coal</td><td>&gt; 5000000 - T produced</td></tr><tr><td>Coal works</td><td>&gt; 5000000 - T loaded</td></tr></table>	Scheduled Activity		Mining for coal		Coal works		Fee Based Activity	Scale	Mining for coal	> 5000000 - T produced	Coal works	> 5000000 - T loaded	Verified as per Section 2.4 of AEMRs 2008, 2009, and 2010.	Complies
Scheduled Activity															
Mining for coal															
Coal works															
Fee Based Activity	Scale														
Mining for coal	> 5000000 - T produced														
Coal works	> 5000000 - T loaded														
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>Ulan-Wollar Road</td></tr><tr><td>WOLLAR</td></tr><tr><td>NSW</td></tr><tr><td>2850</td></tr><tr><td>MLA 1</td></tr><tr><td></td></tr><tr><td></td></tr></table>	Premises Details	Wilpinjong Coal Pty Ltd	Ulan-Wollar Road	WOLLAR	NSW	2850	MLA 1			This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered			
Premises Details															
Wilpinjong Coal Pty Ltd															
Ulan-Wollar Road															
WOLLAR															
NSW															
2850															
MLA 1															
A3 Other Activities															
A3.1	This licence applies to all other activities carried on at the premises, including: - Crushing, grinding or separating activities - Extractive	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered												

**A4 Information supplied to the EPA**

A4.1	<p>Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence. In this condition the reference to "the licence application" includes a reference to:</p> <p>(a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and</p> <p>(b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.</p>	<p>This was noted during the audit, however a finding on this condition was not required to be made.</p>	Not Triggered
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**2 Discharges to air and water and applications to land**
**P1 Location of monitoring/discharge points and areas**

P1.1	<p>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.</p> <table border="1"> <thead> <tr> <th>EPA Identification no.</th><th>Type of Monitoring Point</th><th>Type of Discharge Point</th><th>Description of Location</th></tr> </thead> <tbody> <tr> <td>3</td><td>Dust Monitoring Discharge to Air</td><td>Dust Monitoring Discharge to Air</td><td>DG4: Mine owned location - adjacent to Robinson dwelling off Wollar Road south of mine project area, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009</td></tr> <tr> <td>4</td><td>Dust Monitoring Discharge to Air</td><td>Dust Monitoring Discharge to Air</td><td>DG5: Adjacent to St Laurence O'Toole Catholic Church, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009</td></tr> <tr> <td>6</td><td>Dust Monitoring Discharge to Air</td><td>Dust Monitoring Discharge to Air</td><td>DG8: Mine owned location - Mittaville Nth property boundary with Ulan Coal mine owned land as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009 from mine site</td></tr> <tr> <td>8</td><td>Dust Monitoring Discharge to Air</td><td>Dust Monitoring Discharge to Air</td><td>DG10: Adjacent to Maher dwelling off Slate Gully Road east of mine project area, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February</td></tr> </tbody> </table>	EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location	3	Dust Monitoring Discharge to Air	Dust Monitoring Discharge to Air	DG4: Mine owned location - adjacent to Robinson dwelling off Wollar Road south of mine project area, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009	4	Dust Monitoring Discharge to Air	Dust Monitoring Discharge to Air	DG5: Adjacent to St Laurence O'Toole Catholic Church, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009	6	Dust Monitoring Discharge to Air	Dust Monitoring Discharge to Air	DG8: Mine owned location - Mittaville Nth property boundary with Ulan Coal mine owned land as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009 from mine site	8	Dust Monitoring Discharge to Air	Dust Monitoring Discharge to Air	DG10: Adjacent to Maher dwelling off Slate Gully Road east of mine project area, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February	<p>These locations were confirmed to be part of the monitoring programs at WCM during the audit interview.</p>	Complies
EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location																				
3	Dust Monitoring Discharge to Air	Dust Monitoring Discharge to Air	DG4: Mine owned location - adjacent to Robinson dwelling off Wollar Road south of mine project area, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009																				
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2009			
9	Dust Monitoring Discharge to Air	Dust Monitoring Discharge to Air	DG11: Mine owned location - adjacent to Wilpinjong Creek north east of mine project area, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009
EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location
10	Dust Monitoring Discharge to Air	Dust Monitoring Discharge to Air	DG12: Mine owned location - Aboriginal rock art site 72, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009
11	Dust Monitoring Discharge to Air	Dust Monitoring Discharge to Air	DG13: Mine owned location - Aboriginal rock art site 153, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009
12	Dust Monitoring Discharge to Air	Dust Monitoring Discharge to Air	DG14: Mine owned location - Aboriginal rock art site 152, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009
13	Dust Monitoring		PM10, HV1: Adjacent to St Laurence O'Toole Catholic Church with Wollar Village south east of mine project area, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009
16	Dust Monitoring		PM10, HV2: Adjacent to WA (mine-owned) dwelling north-west of mine project area, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009
17	Dust monitoring	Dust monitoring	DG7: Mine owned location - Adjacent to WA

Discharge to Air	Discharge to Air	(mine owned) dwelling north-west of mine project area, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009
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EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location
19	Dust Monitoring		PM10, HV3: Maher property in Slate Gully, approximately 5km east of CHPP, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009
20	Dust Monitoring		PM10, HV4: Old Robinsons property approximately 2.5km south east of CHPP, as indicated on Figure 4, Air Quality Monitoring Sites, Wilpinjong Coal Mine Annual Environmental Management Report, February 2009
21	Meteorological weather monitoring		Meteorological weather station as indicated on figure 1 Location of Meteorological Station Wilpinjong Coal Mine correspondence dated 7/9/10
22	Dust monitoring		TEOM 2 Mittaville property as indicated on figure 2 Air Quality Monitoring Sites Wilpinjong Coal Mine Air Quality Monitoring Programme April 2010
23	Dust monitoring		TEOM 1 Slate Gully as indicated on figure 2 Air Quality Monitoring Sites Wilpinjong Coal Mine Air Quality Monitoring Programme April 2010

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.



P1.3	<p>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.</p> <table border="1"> <thead> <tr> <th>EPA identification no.</th><th>Type of monitoring point</th><th>Type of discharge point</th><th>Description of location</th></tr> </thead> <tbody> <tr> <td>24</td><td>Discharge to waters. Discharge water quality monitoring.</td><td>Discharge to waters. Discharge water quality monitoring.</td><td>Pit 2 west as indicated on figures 1 and 7 of the licence variation application received by the EPA on 27 May 2011</td></tr> <tr> <td>25</td><td>Discharge to waters. Discharge water quality monitoring.</td><td>Discharge to waters. Discharge water quality monitoring.</td><td>Ed's Lake as indicated on figures 1 and 7 of the licence variation application received by the EPA on 27 May 2011</td></tr> <tr> <td>26</td><td>Discharge to waters. Discharge water quality monitoring.</td><td>Discharge to waters. Discharge water quality monitoring.</td><td>Recycled water dam as indicated as DWD on figure 1 and 7 of the licence variation application received by the EPA on 27 May 2011</td></tr> </tbody> </table>	EPA identification no.	Type of monitoring point	Type of discharge point	Description of location	24	Discharge to waters. Discharge water quality monitoring.	Discharge to waters. Discharge water quality monitoring.	Pit 2 west as indicated on figures 1 and 7 of the licence variation application received by the EPA on 27 May 2011	25	Discharge to waters. Discharge water quality monitoring.	Discharge to waters. Discharge water quality monitoring.	Ed's Lake as indicated on figures 1 and 7 of the licence variation application received by the EPA on 27 May 2011	26	Discharge to waters. Discharge water quality monitoring.	Discharge to waters. Discharge water quality monitoring.	Recycled water dam as indicated as DWD on figure 1 and 7 of the licence variation application received by the EPA on 27 May 2011		Complies
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26	Discharge to waters. Discharge water quality monitoring.	Discharge to waters. Discharge water quality monitoring.	Recycled water dam as indicated as DWD on figure 1 and 7 of the licence variation application received by the EPA on 27 May 2011																
<b>3 Limit conditions</b>																			
<b>L1 Pollution of waters</b>																			
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	This condition was complied with, as per Section 3.5.3 of AEMR 2010, and as per Sections 3.6.6 of AEMRs 2008 and 2009.	Complies																
<b>L3 Concentration limits</b>																			
L3.1	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.	During the 2008 reporting period there was an exceedance of the average concentration of 4g/m <sup>2</sup> /month and maximum increase in deposited dust level at Monitoring Point 9 (DG11). Exceedances however coincided with a period of high traffic usage along the nearby Ulan-Wollar Road, and was reported to the EPA.	Not Compliant																
L3.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	These pH criteria were not exceeded during the auditing period.	Complies																

L3.3	<p>To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s.</p> <p><b>POINT 4</b></p> <table><tr><td>Pollutant</td><td>Units of measure</td><td>100 percentile concentration limit</td></tr><tr><td>Particulates - Deposited Matter</td><td>grams per square metre per month</td><td>4.0</td></tr></table> <p><b>POINT 8</b></p> <table><tr><td>Pollutant</td><td>Units of measure</td><td>100 percentile concentration limit</td></tr><tr><td>Particulates - Deposited Matter</td><td>grams per square metre per month</td><td>4.0</td></tr></table> <p style="text-align: center;"><i>Water and Land</i></p> <p><b>POINTS 24,25,26</b></p> <table><tr><td>Pollutant</td><td>Units of Measure</td><td>50 percentile concentration limit</td><td>90 percentile concentration limit</td><td>3DGM concentration limit</td><td>100 percentile Concentration Limit</td></tr><tr><td>Conductivity</td><td>microsiemens per centimetre</td><td></td><td></td><td></td><td>1500</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> <p>Note: 1. Deposited dust is assessed as insoluble solids as defined by AS 3580.10.1-2003 (AM-19) 2. The averaging period applicable for deposited dust is annually.</p>	Pollutant	Units of measure	100 percentile concentration limit	Particulates - Deposited Matter	grams per square metre per month	4.0	Pollutant	Units of measure	100 percentile concentration limit	Particulates - Deposited Matter	grams per square metre per month	4.0	Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit	Conductivity	microsiemens per centimetre				1500	Oil and Grease	milligrams per litre				10	pH	pH				6.5-8.5	Total suspended solids	milligrams per litre				50	<p>During the 2009 reporting period there were exceedances of limits recorded at dust deposition gauges DG4, DG5, DG8, DG9, DG10, DG11, DG12, DG13 and DG14. Regional dust storms were found to be the cause of many of these 24 exceedances, which were reported to the EPA. During the 2010 reporting period, an exceedance of annual average dust deposition criteria occurred at points DG9 and DG10. This resulted in a single non compliance incident which was reported to the EPA. The EPA has advised that WCM is required to conduct a Best Practice audit of dust management during the next reporting period.</p>	Not Compliant
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L4 Volume and mass limits																																													
L4.1	<p>For each discharge point or utilisation area specified below (by a point number), the volume/mass of:</p> <p>(a) liquids discharged to water; or;</p> <p>(b) solids or liquids applied to the area;</p> <p>must not exceed the volume/mass limit specified for that discharge point or area.</p>	<p>On 10 December 2010 6.12 ML was discharged from Point 24 (AEMR 2010 Table 9). However, this was done under an emergency access licence.</p>	Complies																																										

	<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><tr><td>25</td><td>megalitres per day</td><td>2</td></tr><tr><td>26</td><td>megalitres per day</td><td>3</td></tr></table>	Point	Unit of measure	Volume/Mass Limit	24	megalitres per day	5	25	megalitres per day	2	26	megalitres per day	3																					
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L5 Waste																																		
L5.1	<p>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.</p> <p>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.</p> <p>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.</p> <p>Condition L5.1 does not limit any other conditions in this licence.</p> <table><tr><th>Code</th><th>Waste</th><th>Description</th><th>Activity</th><th>Other Limits</th></tr><tr><td>NA</td><td></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 60 tonnes per annum</td></tr></table>	Code	Waste	Description	Activity	Other Limits	NA		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 60 tonnes per annum	<p>No waste was received at the WCM premises during the auditing period, as confirmed during the audit interview.</p>	Complies																
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L6 Noise Limits																																		
L6.1	<p>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.</p> <table><tr><th rowspan="3">Locality</th><th rowspan="3">Location</th><th colspan="4">NOISE LIMITS dB(A)</th></tr><tr><th>Day</th><th>Evening</th><th colspan="2">Night</th></tr><tr><th>L<sub>Aeq</sub> (15 minute)</th><th>L<sub>Aeq</sub> (15 minute)</th><th>L<sub>Aeq</sub> (15 minute)</th><th>L<sub>A1</sub> (1 minute)</th></tr><tr><td rowspan="2">Araluen</td><td>25 Pettit</td><td>35</td><td>39</td><td>36</td><td>45</td></tr><tr><td>Lot 16 DP250053</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td>125 E &amp; K Roberts</td><td>35</td><td>37</td><td>35</td><td>45</td></tr></table>	Locality	Location	NOISE LIMITS dB(A)				Day	Evening	Night		L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>A1</sub> (1 minute)	Araluen	25 Pettit	35	39	36	45	Lot 16 DP250053						125 E & K Roberts	35	37	35	45	<p>Exceedances were recorded of the night time disturbance criteria for two dwellings in 2008, three dwellings in 2009, and three dwellings in 2010 however noise monitoring data indicated WCM was not the sole cause of this exceedance.</p>	Complies
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L6.2	For the purpose of condition L6.1; - Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holiday's. 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 Holiday's.	This was noted during the audit, however a finding on this condition was not required to be made.			Not Triggered																																																																											
L6.3	The noise limits set out in condition L6.1 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.	This was noted during the audit, however a finding on this condition was not required to be made.			Not Triggered																																																																											

L6.4	For the purpose of condition L6.3: 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.	Over 58 m.	Complies
L6.5	To determine compliance: a) With the Leq(15 minute) noise limits in condition L6.1, 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 L6.1, the noise measurement equipment must be located within 1 metre of a dwelling façade. c) With the noise limits in condition L6.1, 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 L6.5(a) or L6.5(b).	Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately. Noise monitoring techniques and locations were inspected by the audit team (PAEHolmes Photo log Picture A1 - A3).	Complies
L6.6	A non-compliance of condition L6.1 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 L6.5(a) and L6.5(b); and/or - at a point other than the most affected point at a location.	L6.1 and audit interview confirm this condition	Complies
L6.7	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.	Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.	Complies
<b>L7 Blasting limits</b>			
L7.1	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.	One exceedance of airblast overpressure occurred on 5/08/2010. DECCW was notified of this exceedance (AEMR 2010 Section 3.7.2). No exceedances occurred in 2008 or 2009 (2008 and 2009 AEMRs Sections 3.8.2).	Not Compliant

L7.2	<p>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.</p>	<p>One exceedance of airblast overpressure occurred on 5/08/2010. DECCW was notified of this exceedance (AEMR 2010 Section 3.7.2).</p> <p>One exceedance on the 19-AUG-2011 was recorded in which an overburden blast was fired in Pit 2 that was subsequently found to have exceeded the site overpressure limits. The blast registered an overpressure level of 124.6 dBL at the nearest residence. The exceedance of the overpressure limit was not discovered or reported until 23 August 2011. The incident report for this exceedance was sighted by the audit team.</p> <p>No exceedances occurred in 2008 or 2009 (2008 and 2009 AEMRs Sections 3.8.2).</p>	Not Compliant
L7.3	<p>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.</p>	<p>No exceedances of ground vibration occurred during the reporting period (AEMR 2010 Section 3.7.2, 2008 and 2009 AEMRs Sections 3.8.2).</p>	Complies
L7.4	<p>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.</p> <p><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></p>	<p>No exceedances of ground vibration occurred during the reporting period (AEMR 2010 Section 3.7.2, 2008 and 2009 AEMRs Sections 3.8.2).</p>	Complies
L7.5	<p>Blasting operations at the premises may only take place between 9:00am – 5:00pm Monday to Saturday. Blasting outside the hours specified in L7.5 can only take place with the written approval of the EPA.</p>	<p>Blast Register Confirms this</p>	Complies
L7.6	<p>Blasting at the premises is limited to the following:</p> <ul style="list-style-type: none"> <li>a) a maximum of 2 blasts per day;</li> <li>b) a maximum of 5 blasts per week, on average over a 12 month period;</li> <li>c) a maximum of 2 blasts per week where the maximum instantaneous charge is greater than 400 kg; and</li> <li>d) a maximum of 1 blast per week where the maximum instantaneous charge is greater than 400 kg, when averaged over a 12 month period.</li> </ul>	<p>Blast Register Confirms this</p>	Complies

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
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.	During the audit teams time on-site, removal of spontaneous combustible material from a noise bund and reemplacement in a pit was being conducted. This is an inherrently dust activity but it was noted that the work areas for this activity were not adequately watered increasing the levels of dust associated with the activity. Elsewhere dust levels were reasonable though there were some higher dust levels associated with scraper work at the site periphery that may have been improved with some watering.	Not Compliant
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.	During the audit teams time on-site, removal of spontaneous combustible material from a noise bund and reemplacement in a pit was being conducted. This is an inherrently dust activity but it was noted that the work areas for this activity were not adequately watered increasing the levels of dust associated with the activity. Elsewhere dust levels were reasonable though there were some higher dust levels associated with scraper work at the site periphery that may have been improved with some watering.	Not Compliant
O4 Waste Water Utilisation Areas			
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).	This information and waste records are contained in Sections 2.6 of AEMRs 2008, 2009 and 2010. Verified during audit interview	Complies
O4.2	Effluent application must not occur in a manner which causes surface runoff.	This information and waste records are contained in Sections 2.6 of AEMRs 2008, 2009 and 2010.	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.	Sections 2.6 of AEMRs 2008, 2009 and 2010, verified during audit interview.	Complies																																
<b>5 Monitoring and recording conditions</b>																																			
<b>M1 Monitoring records</b>																																			
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.																																		
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.	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																																
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.	The audit team sighted a field monitoring data sheet from 8 March 2010 as a sample to determine compliance. From this it was determined that the monitoring records at Wilpinjong comply with this condition.	Complies																																
<b>M2 Requirement to monitor concentration of pollutants discharged</b>																																			
	<p>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:</p> <p><b>POINTS 3,4</b></p> <table border="1"> <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>Continuous</td><td>Composite sample</td></tr> </tbody> </table> <p><b>POINT 6</b></p> <table border="1"> <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>Continuous</td><td>Composite sample</td></tr> </tbody> </table> <p><b>POINTS 8,9</b></p> <table border="1"> <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>Continuous</td><td>Composite sample</td></tr> </tbody> </table> <p><b>POINTS 10,11,12</b></p> <table border="1"> <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>Special Frequency 1</td><td>Composite sample</td></tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Continuous	Composite sample	Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Continuous	Composite sample	Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Continuous	Composite sample	Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Special Frequency 1	Composite sample	<p>During the 2008 reporting period, several air emissions monitoring records were found to be missing for Monitoring Points 9,13,16 and 19 due to a power failure. This resulted in a total of 14 non compliance incidents which were reported to the EPA. During the 2009 reporting period, failure of high volume samplers HV1 and HV2 occurred as a result of problems with access to power. This resulted in a total of 5 non compliance incidents which were reported to the EPA. During the 2010 reporting period, monitoring failed to be undertaken of dust gauges in November and December due to extreme wet weather and of High Volume monitors due to power supply interruptions. This resulted in a single non compliance incident occurring, which was reported to the EPA.</p>	Not Compliant
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M2.1

**POINT 13**

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Every 6 days	AM-18

**POINT 16**

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Every 6 days	AM-18

**POINT 17**

Pollutant	Units of measure	Frequency	Sampling Method
Particulates - Deposited Matter	grams per square metre per month	Continuous	Composite sample

**POINTS 19,20**

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Every 6 days	AM-18

**POINTS 22,23**

Pollutant	Units of measure	Frequency	Sampling Method
PM10	milligrams per cubic metre	Continuous	AM-22

**POINTS 24,25,26**

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	micrograms per cubic metre	Continuous during discharge	Continuously
Oil and Grease	milligrams per litre	Daily during any discharge	Grab sample
Total suspended solids	milligrams per litre	Daily during any discharge	Grab sample
pH	pH	Continuous during discharge	Continuously

	For the purposes of the table(s) above Special Frequency 1 means the collection of samples continuous monitoring (assessed monthly) when mining is within 1 kilometre of Aboriginal rock art sites.		
<b>M3 Testing methods - concentration limits</b>			
M3.1	<p>Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:</p> <p>(a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or</p> <p>(b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or</p> <p>(c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.</p> <p><i>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".</i></p>	Confirmed during audit interview	Complies
M3.2	<p>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.</p>	Confirmed during audit interview	Complies
<b>M4 Recording of pollution complaints</b>			
M4.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	The Peabody Compliance Manager System (intranet system) was sighted by the audit team during the site visit. This contains the complaints register, which was confirmed to abide by all of these requirements.	Complies
M4.2	<p>The record must include details of the following:</p> <p>(a) the date and time of the complaint;</p> <p>(b) the method by which the complaint was made;</p> <p>(c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;</p> <p>(d) the nature of the complaint;</p> <p>(e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and</p> <p>(f) if no action was taken by the licensee, the reasons why no action was taken.</p>	The Peabody Compliance Manager System (intranet system) was sighted by the audit team during the site visit. This contains the complaints register, which was confirmed to abide by all of these requirements.	Complies

M4.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	The Peabody Compliance Manager System (intranet system) was sighted by the audit team during the site visit. This contains the complaints register, which was confirmed to contain data about complaints since 2006.	Complies						
M4.4	The record must be produced to any authorised officer of the EPA who asks to see them.	The Peabody Compliance Manager System (intranet system) was sighted by the audit team during the site visit.	Complies						
M5 Telephone complaints line									
M5.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	Complaints line is in operation	Complies						
M5.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	number is in the paper quarterly and is also available in community newsletters.	Complies						
M5.3	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.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered						
M6 Requirement to monitor volume or mass									
M6.1	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.  POINTS 24,25,26 <table><tr><th>Frequency</th><th>Unit Of Measure</th><th>Sampling Method</th></tr><tr><td>Daily during any discharge</td><td>megalitres per day</td><td>Flow meter and continuous logger</td></tr></table>	Frequency	Unit Of Measure	Sampling Method	Daily during any discharge	megalitres per day	Flow meter and continuous logger	The Reverse Osmosis Plant is under construction and has not been commissioned yet. When this is functioning, regular discharges will occur at these points, as confirmed during audit interview with Environment and Community Manager.	Not Triggered
Frequency	Unit Of Measure	Sampling Method							
Daily during any discharge	megalitres per day	Flow meter and continuous logger							
M7 Requirement to monitor weather									
M7.1	The meteorological weather station must be maintained so as to be capable of continuously monitoring the parameters specified in condition M7.2.	Air Quality Management Plan confirms this	Complies						
	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.	Air Quality Management Plan confirms this	Complies						

M7.2	<table><tr><th>Parameter</th><th>Units of Measure</th><th>Frequency</th><th>Averaging Period</th><th>Sampling Method</th></tr><tr><td>Air temperature</td><td>°C</td><td>Continuous</td><td>1 hour</td><td>AM-4</td></tr><tr><td>Wind direction</td><td>°</td><td>Continuous</td><td>15 minute</td><td>AM-2 &amp; AM-4</td></tr><tr><td>Wind speed</td><td>m/s</td><td>Continuous</td><td>15 minute</td><td>AM-2 &amp; AM-4</td></tr><tr><td>Temperature lapse rate</td><td>°</td><td>Continuous</td><td>15 minute</td><td>Part E2 Appendix E 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	Units of Measure	Frequency	Averaging Period	Sampling Method	Air temperature	°C	Continuous	1 hour	AM-4	Wind direction	°	Continuous	15 minute	AM-2 & AM-4	Wind speed	m/s	Continuous	15 minute	AM-2 & AM-4	Temperature lapse rate	°	Continuous	15 minute	Part E2 Appendix E of the NSW Industrial Noise Policy	Rainfall	mm	Continuous	24 hour	AM-4	Relative Humidity	%	Continuous	1 hour	AM-4		
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Point 21																																						
M8 Blasting Monitoring																																						
M8.1	<p>To determine compliance with condition(s) L7.1 to L7.4:</p> <p>a) Airblast overpressure and ground vibration levels experienced at the following noise sensitive locations must be measured and recorded for all blasts carried out on the premises;</p> <p>- Property 45 JAW Smith – eastings/northings</p> <p>b) Instrumentation used to measure and record the airblast overpressure and ground vibration levels must meet the requirement of Australian Standard AS 2187.2-2006.</p> <p><i>Note: A breach of the licence conditions will still occur where airblast overpressure or ground vibration levels from the blasting operations at the premises exceeds the limit specified ion conditions L7.1 to L7.4 at any “noise sensitive locations” other than the locations identified in the above condition.</i></p> <p><i>The airblast overpressure and ground vibration levels in conditions L7.1 to L7.4 do not apply at noise sensitive locations that are owned by the licensee or subject to a private agreement, relating to airblast overpressure and ground vibration levels, between the licensee and land owner.</i></p>	<p>Standard confirmed as per BMP. Monitoring is undertaken at this property, and between the mine and this property as a fail safe.</p>	Complies																																			
6 Reporting Conditions																																						
R1 Annual return documents																																						
What documents must an Annual Return contain?																																						
R1.1	<p>The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:</p> <p>(a) a Statement of Compliance; and</p> <p>(b) a Monitoring and Complaints Summary.</p> <p>A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.</p>	<p>The EPL returns for 2009 and 2010 were sighted by the audit team during the site visit. It was confirmed that the EPL returns contained this information.</p>	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>	Annual Returns were viewed for each of the reporting periods since the WCM commenced operations.	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>	The EPL has not been transferred during this auditing 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
Deadline for Annual Return			
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').	The Annual Return for the 2009 reporting period was submitted a few days late to the EPA (4 days late).	Not Compliant
Licensee must retain copy of Annual Return			
R1.7	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 EPL returns going back to 2006 were sighted by the audit team during the site visit.	Complies
Certifying of Statement of Compliance and signing of Monitoring and Complaints Summary			
R1.8	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 2009 and 2010 were sighted by the audit team during the site visit. These EPL returns were signed by the Company Director and Secretary.	Complies
R1.9	A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
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>	Copies of correspondence relating to 5 August 2010 blast overpressure exceedance were sighted by the audit team during the site visit as a sample of how incidents are responded to.	Complies

R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.	The EPA was notified in this manner, as confirmed during the audit interview.	Complies
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.	There was a verbal agreement in place for this written notification to be submitted late (10 September 2010). There was no penalty issued by the EPA for this late written notification, implying that this verbal agreement was valid (as confirmed during audit interview).	Complies
<b>R3 Written report</b>			
R3.1	Where an authorised officer of the EPA suspects on reasonable grounds that: (a) where this licence applies to premises, an event has occurred at the premises; or (b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	EPA officers have visited site in relation to spontaneous combustion. EPA officer requested a Strategic Management Plan for Spontaneous Combustion Plan be created for spontaneous combustion. This information was provided, as confirmed during audit interview.	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.	On June 16 2010 OEH requested Wilpinjong to prepare a Strategic Management Plan for Spontaneous Combustion. On 27 July this plan was provided to OEH.	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.	This was noted during the audit, however a finding on this condition was not required to be made.	Not Triggered
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 Noise Monitoring Report			
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 L6.1.	This was not required during the current auditing period.	Not Triggered
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.	An electronic copy of the EPL was viewed onsite by the audit team during the site visit.	Complies
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	An electronic copy of the EPL was viewed onsite by the audit team during the site visit.	Complies
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	An electronic copy of the EPL was viewed onsite by the audit team during the site visit.	Complies
Pollution studies and reduction programs			
U1 Discharge Water Quality			
U1.1	Six (6) months from the date that a water treatment plant is commissioned, all water discharged from the premises must have: - An electrical conductivity of 500 µs/cm or less; and - A flow regime which is variable and consistent with the ephemeral nature of the flows in Wilpinjong and Cumbo Creeks. The licensee must notify the Bathurst office of the EPA within 24 hours, by email or telephone, of the water treatment plant becoming operational, that is, commissioning has been completed.	The Reverse Osmosis Plant is under construction and has not been commissioned yet. When this is functioning, regular discharges and monitoring will occur at relevant points, as confirmed during audit interview with Environment and Community Manager.	Not Triggered

## Appendix I

# Other Management Plans



## Appendix I      Other Management Plans

Reference	Requirement	Evidence	Audit Finding
<b>Wilpinjong Coal Project Environmental Management Strategy February 2006 (Wilpinjong Coal Pty Limited)</b>			
<b>Authorisation, Revision and Distribution Control</b>			
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.	Review of the EMS appears to have taken place during the 2009 reporting period in response to the 2008 IEA (Section 3.1 of the AEMR 2009). It is not clear whether this post audit review thus took place more than three months after the IEA occurred. <b>Recommendation - It is recommended that this management plan review system at WCM be updated for ease of reference to ensure that management plans are being reviewed and updated as necessary.</b>	Not Able to be Verified - <b>Recommendation Made</b>
1.2	The control of documentation associated with the Strategy is to be undertaken in accordance with the EMS.	noted	Not able to be verified
<b>Regulatory Authorities and Requirements</b>			
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.	No significant legislative changed have occurred during the auditing period that would impact on operations.	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.	No significant legislative changed have occurred during the auditing period that would impact on operations.	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

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
<b>Wilpinjong Coal Environmental and Community Policy</b>			
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.	N/A
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.	N/A
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.	N/A
<b>Contractual Commitments</b>			
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.	No new operational contracts have been entered into during the auditing period as Thesis have continued to manage the works at Wilpinjong.	Not Triggered
<b>Environmental Objectives and Targets</b>			
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 2008, 2009 and 2010).	Complies
<b>Structure and Responsibility</b>			
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
<b>Position Responsibilities</b>			
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 Thesis 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
<b>Resources and Operational Control</b>			
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.		Not able to be verified
<b>Incident and Emergency Preparedness</b>			
<b>Emergency Response</b>			
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.	H&S management undertake these matters and comply to this condition	complies
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
<b>Incidents</b>			
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.	Incident management procedure and incident reports were sighted by the audit team and verify this condition	Complies

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 management procedure and incident reports were sighted by the audit team and verify this condition	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 overpressure exceedance on 5 August 2010. This remedial actions response was prepared on 10 September 2010.	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
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
<b>Communication</b>			
<b>Internal Communication</b>			
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.		not able to be verified
<b>External Communication</b>			
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.	noted	noted
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.	Distribution of ECPL newsletter has occurred	complies

11.2	A blasting hotline will also be operated to provide up to date information on blasting at the WCP to the community.	Blasting hotline was maintained during the reporting period (Section 3.8.2 of AEMRs 2008 and 2009, and AEMR 2010 Section 3.7.2)	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 website contains most site information, monitoring results, AEMRs, management plans and EA documents, however it does not contain information about current activities, or proposed blast times.	Not Compliant
<b>Community Consultative Committee</b>			
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.	This CCC was constituted and has been meeting regularly throughout the life of the project, as per Section 4.2 of AEMR 2008, Section 3.17 of AEMR 2009, and Section 3.16 of AEMR 2010.	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 CC has met at least twice a year as per AEMR 2008 Section 3.17, AEMR 2009 Section 4.2, and AEMR 2010 Section 3.16	Complies
<b>Complaints Management</b>			
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 and on internet	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.	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	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. AEMR justifies compliance. (as per AEMRs 2008, 2009 and 2010 Appendix E - Community Complaints Register Summary, and per the 2011 Community Complaints Register Summary on the WCPL website).	Complies
<b>Dispute Resolution</b>			
<b>Community</b>			

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.	Disagreements are conducted in this manner	complies
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 procedure has been invoked during the auditing period in relation to the McKenzie property and the DA conditions were followed in resolving the dispute.	Complies
<b>Measurement and Evaluation</b>			
<b>Environmental Monitoring</b>			
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.	This audit confirms this condition	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.	This audit confirms this condition	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.	this is reported in the AEMRs and confirms this condition	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
<b>Inspections</b>			

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
<b>Corrective and Preventative Action</b>			
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
<b>EMS Records and Information Management</b>			
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.	Review of the EMS appears to have taken subsequently following the most recent IEA, as was reported in Section 3.1 of the AEMR 2009. Section 3.1 of AEMR 2010 also makes reference to this plan being reviewed subsequent to the 2008 IEA having taken place. From this information, it is not able to be determined whether the EMS was in fact reviewed during each year of the current auditing period. <b>It is recommended that this management plan review system at WCM be updated for ease of reference to ensure that management plans are being reviewed and updated as necessary.</b>	Not Able to be Verified - <b>Recommendation Made</b>
<b>Audits</b>			
<b>Internal Audits</b>			



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
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.	Lead Auditor contacted at Peabody corporate, received no response	Not able to be Verified
<b>External Audits</b>			
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.	Refer to Appendix A of the Wilpinjong IEA Report 2011	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.	email correspondence between WCPL Environmental coordinator and the external auditors verifies this condition	complies
<b>Review and Improvement</b>			
<b>Management Review</b>			
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.	Review of the EMS appears to have taken subsequently following the most recent IEA, as was reported in Section 3.1 of the AEMR 2009. Section 3.1 of AEMR 2010 also makes reference to this plan being reviewed subsequent to the 2008 IEA having taken place. From this information, it is not able to be determined whether these factors were taken into account as part of the EMS reviews that took place during this auditing period. <b>It is recommended that this management plan review system at WCM be updated for ease of reference to ensure that management plans are being reviewed and updated as necessary.</b>	Not Able to be Verified - <b>Recommendation Made</b>

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.	Review of the EMS appears to have taken subsequently following the most recent IEA, as was reported in Section 3.1 of the AEMR 2009. Section 3.1 of AEMR 2010 also makes reference to this plan being reviewed subsequent to the 2008 IEA having taken place. From this information, it is not able to be determined whether these reviews were in fact undertaken annually during this auditing period. <b>It is recommended that this management plan review system at WCM be updated for ease of reference to ensure that management plans are being reviewed and updated as necessary.</b>	Not Able to be Verified - <b>Recommendation Made</b>
<b>Wilpinjong Coal Project Site Water Management Plan (Wilpinjong Coal Pty Limited, July 2006)</b>			
<b>Site Water Management Plan</b>			
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. The Cumbo creek relocation plan has been sighted by the audit team.	complies
<b>Site Water Management Plan Revisions</b>			
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.	The SWMP was revised and updated during the reporting period, as per recommendations from the previous IEA (Section 3.5.4 of the AEMR 2010).	Complies
<b>Wilpinjong Coal Project Site Water Balance (Wilpinjong Coal Pty Limited, July 2006)</b>			
<b>Water Sources</b>			
<b>Water Supply System</b>			
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
<b>Open Cut Dewatering</b>			
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
<b>Water Supply Borefield</b>			
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
<b>Water Use and Water Management</b>			

4	<p>Where practicable, Project water supply will be prioritised as follows (Figure 2):</p> <ol style="list-style-type: none"> <li>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).</li> <li>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.</li> <li>3. Dewatering of inactive open cut mining areas (mine water storages) including groundwater inflows, incident rainfall and infiltration/runoff from adjacent spoil emplacements.</li> <li>4. Licensed groundwater extractions from the Project water supply borefield.</li> </ol>	<p>This was noted during the audit, however a finding on this condition was not required to be made.</p>	<p>Not Triggered</p>
<b>Upslope Diversion Works</b>			
4.1	<p>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.</p>	<p>Upslope diversions were not evident in all locations, partly due to recent activities in vicinity of (south of) Pit 5.</p>	<p>Not Compliant</p>
4.1	<p>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.</p>	<p>Confirmed on site during inspection</p>	<p>Complies</p>
4.1	<p>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.</p>	<p>Upslope diversions were in place in most locations inspected, however some small upslope areas did not appear to be directed to a diversion. Erosion of the diversion works (particularly batter slopes) was evident at all</p>	<p>Not compliant</p>
4.1	<p>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.</p>	<p>The Cumbo Creek relocation project has not commenced yet.</p>	<p>Not Triggered</p>
<b>Site Water Balance Revisions</b>			

8	<p>The SWB will be reviewed, and if necessary updated, by the Environmental Manager:</p> <ul style="list-style-type: none"> <li>- where there is a significant change in the Project water balance surplus/deficit;</li> <li>- in response to an Independent Environmental Audit;</li> <li>- when there are changes to Project Approval or licence conditions relating to aspects of this SWB; or</li> <li>- in response to a relevant change in technology or legislation.</li> </ul>	<p>The SWB was reviewed and updated during the 2010 reporting period in response to recommendations from the previous IEA (AEMR 2010 Section 3.5.4).</p>	Complies
<b>Wilpinjong Coal Mine Aboriginal Cultural Heritage Management Plan and North Eastern Wiridjuri Cultural Heritage Management Plan (Peabody, February 2008)</b>			
<b>Aboriginal Representation on Project Committees</b>			
2.4	<p>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.</p>	<p>No such applications were made during the auditing period.</p>	Not Triggered
<b>Protocol for Consultation with Aboriginal Groups</b>			
2.5	<p>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:</p>	<p>Native Title Implementation Committee deals with this</p>	
2.5	<p>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.</p>	<p>Initial meeting would have been held before the current auditing period. Ongoing meetings as above</p>	Not Triggered

2.5	<p>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:</p> <ul style="list-style-type: none"> <li>– The provision of a six monthly presentation or brief summary report to update the Aboriginal organisation on Wilpinjong site cultural heritage works.</li> <li>– Providing copies of relevant completed heritage management reports (if applicable) and Annual Environmental Management Report (AEMR) to the organisation for their information.</li> <li>– 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&amp;S) requirements as detailed in the Site Safety Management Plan</li> </ul>	<p>A copy of the minutes from the Cultural Heritage Liaison Sub-Committee meeting was provided (minutes dated 14-JUN-2011). Minutes confirm six monthly presentations occur and are consistent with this condition. The AEMRs s3.10 2008 further confirm this condition</p>	complies
<b>Management of Aboriginal Cultural Heritage at the Project</b>			
4	<p>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.</p>	<p>The Aboriginal community have continued to be involved in the management of cultural heritage at the WCM during the auditing period, as outlined in Sections 3.10.1 of the AEMRs 2008 and 2009, and Section 3.9.1 of AEMR 2010.</p>	Complies
<b>Obligations under the Project Approval</b>			
4.1	<p>WCPL will apply the following general protocol for management of Aboriginal cultural heritage in these ancillary disturbance areas.</p>		
4.1	<p>Ancillary Disturbance Area Protocol:</p> <ol style="list-style-type: none"> <li>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.</li> <li>2. Avoidance of the identified Aboriginal object/sites by realigning or adjusting infrastructure/disturbance area if practicable.</li> </ol>	<p>Archaeological surveys and salvaging was undertaken prior to the current auditing period. Items are maintained in a keeping place. Includes scarred trees</p>	Complies
4.1	<p>If the object/site cannot be avoided:</p> <ol style="list-style-type: none"> <li>3. Consider surface salvage (advice from Aboriginal representatives and/or an archaeologist will be sought).</li> <li>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).</li> <li>5. Conduct surface salvage (and subsurface salvage if necessary) with the assistance of Aboriginal representatives and/or an archaeologist.</li> <li>6. Store salvaged artefacts in the "Keeping Place".</li> <li>7. Post-rehabilitation, replace artefacts onto the rehabilitated landform.</li> </ol>	<p>Surface salvage has been undertaken, also in the process of doing some sub surface salvage in Pit 5</p>	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.	Fencing and flagging observed in the site visit	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 3.9 AEMR and ACHMP confirms this commitment	Complies
<b>Archaeological Salvage Program</b>			
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.	The salvage program continued to be implemented throughout the reporting period, as per Sections 3.10.1 of the AEMRs 2008 and 2009, and Section 3.9.1 of AEMR 2010.	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.	Section 4.2 ACHMP confirms this commitment	Complies
4.2	The salvage program will be led by an archaeologist in consultation with attending representatives from the Aboriginal community.	The salvage program continued to be implemented as per these requirements throughout the reporting period, as per Sections 3.10.1 of the AEMRs 2008 and 2009, and Section 3.9.1 of AEMR 2010.	Complies
4.2	GPS co-ordinates of salvaged sites will be recorded for future use in the artefact replacement programme (Section 4.4).	Maintained in the salvage records. (Section 4.4 ACHMP)	Complies
<b>Surface Salvage</b>			
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	Section 4 ACHMP	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.	Section 4 ACHMP	Complies
4.2.1	This analysis will be conducted by a qualified lithic specialist.	This is undertaken	Complies
<b>Subsurface Salvage</b>			
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.	Subsurface salvage has occurred.	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.		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.		Noted
<b>Scarred Trees Salvage and Analysis</b>			
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.	Scar trees have been recovered and are in storage.	Complies
<b>Salvage/Inspection Time Frames</b>			
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



4.2.4	All parties will use their best endeavours to meet the timing requirements of WCPL to minimise delays to mining operations.		Noted
<b>Process for Designation of Areas as 'Cleared for Site Disturbance'</b>			
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
<b>Keeping Place</b>			
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.	The keeping place was maintained during the reporting period, as per Sections 3.10.1 of the AEMRs 2008 and 2009, and Section 3.9.1 of AEMR 2010.	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
<b>Artefact Replacement Programme</b>			
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

4.4	<p>Artefact replacement onto rehabilitated landforms will be undertaken in accordance with the following general guidelines:</p> <ul style="list-style-type: none"> <li>- general rehabilitation works utilising mobile machinery (including tree planting) should be complete;</li> <li>- 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;</li> <li>- the artefacts will be located where risk of damage to the replaced artefacts during rehabilitation maintenance activities will be low;</li> <li>- the Aboriginal community will replace the artefacts to approximately the same location and/or aspect of the site prior to mining; and</li> <li>- the location of replaced artefacts will be recorded by GPS and mapped for future reference.</li> </ul>	Rehabilitation has not been completed, and so this requirement has not been triggered yet.	Not Triggered
4.4	<p><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></p>	This was noted during the audit, however a finding on this requirement was not required to be made.	Not Triggered
<b>Human Skeletal Remains - Monitoring and Management Protocol</b>			
4.5	<p>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.</p>	This has not occurred during the current auditing period.	Not Triggered
4.5	<p>The following steps will be carried out in the event that human skeletal material is exposed within the Project area:</p> <ul style="list-style-type: none"> <li>- ground disturbance works in the immediate vicinity of the skeletal material will cease;</li> <li>- the Department of Planning (DoP), DECC, NSW police and Aboriginal stakeholder groups will be informed as soon as practicable; and</li> <li>- the identified skeletal remains will not be disturbed until the NSW police and DECC have inspected the remains and authorised their disturbance.</li> </ul>	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
<b>Additional Escarpment Area Surveys</b>			
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
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).	This occurred during the auditing period	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.	This condition is identified in the BMP (Sep 2011), and confirmed in s3.7.2 of AEMR	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.	These sites are fenced off from stock, as identified in site inspection	Complies
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
4.7	<p>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:</p> <ul style="list-style-type: none"> <li>- the location and type of exceedance will be recorded;</li> <li>- the Environmental Manager, in consultation with an archaeologist and Aboriginal community representatives will determine if the exceedance has been caused by WCPL's operations;</li> <li>- the archaeologist in consultation with Aboriginal representatives will examine the rock shelter to determine if any damage has occurred;</li> <li>- 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);</li> <li>- the relevant monitoring program (dust, ground vibration) will continue to identify whether any adopted mitigation measures have been successful; and</li> <li>- if required, regular inspection of the art site will be initiated in consultation with the Aboriginal community.</li> </ul>	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	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
<b>General Land Management Measures to Protect Aboriginal Cultural Heritage</b>			
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.		
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.	Confirmed during audit interview	Compliant
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).	Induction sighted, Cultural Heritage not included.	Not Compliant
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).	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,	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.	LMP confirms this condition	complies
4.8	Implementation of the ancillary disturbance area protocol (Section 4.1) to minimise impacts associated with the construction of ancillary infrastructure.	This has not occurred during the auditing period.	Not Triggered
4.8	Restricting mobile vehicles to existing access tracks where practicable.	Licensing requirements for driving onsite, not allowed to travel outside the MOP.	Complies
<b>Aboriginal Community Access to the Project Area</b>			
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	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
<b>Cultural Heritage Employee and Contractor Training</b>			
4.10	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.	Induction sighted, Cultural Heritage not included.	Not Compliant
<b>Cultural Heritage Reporting</b>			
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.	These issues have been reported, where relevant, in the AEMRs 2008, 2009 and 2010 (Sections 3.10 of AEMRs 2008 and 2009, and Section 3.9 of AEMR 2010).	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.	Native Title Implementation Committee and the Cultural Heritage Liaison Sub-Committee only met three times in 2008, twice in 2009, and twice in 2010 (AEMR 2008 Section 4.2, AEMR 2009 Section 3.17, AEMR 2009 Section 3.16)	Not Compliant
<b>Provision of Cultural Heritage Reports to the CHLSC</b>			
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.	A recent archaeology report for Site 216 was provided to the CHLSC (minutes sighted by audit team for 29 November 2011).	Complies
<b>Aboriginal Cultural Heritage Management Plan Review</b>			
6	<p>The ACHMP will be reviewed, and if necessary updated, by the Environmental Manager:</p> <ul style="list-style-type: none"> <li>- on an annual basis;</li> <li>- in consultation with the CHLSC;</li> <li>- where there is an incident on site relating to Aboriginal cultural heritage management;</li> <li>- as an outcome of any Independent Environmental Audit;</li> <li>- when there are changes to Project Approval or licence conditions relating to aspects of this ACHMP; or</li> <li>- in response to a relevant change in technology or legislation.</li> </ul>	Review of the ACHMP appears to have taken place during the 2009 reporting period in response to the 2008 IEA (Section 3.1 of the AEMR 2009). It is not clear whether the ACHMP was reviewed annually during the current auditing period. <b>It is recommended that this management plan review system at WCM be updated for ease of reference to ensure that management plans are being reviewed and updated as necessary.</b>	Not Able to be Verified - <b>Recommendation Made</b>
<b>Wilpinjong Coal Project Erosion and Sediment Control Plan (Wilpinjong Coal Pty Limited, February 2006)</b>			
<b>Introduction</b>			
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.	Review of the ESCP appears to have taken place during the 2009 reporting period in response to the 2008 IEA (Section 3.1 of the AEMR 2009). It is not clear whether this post audit review thus took place more than three months after the IEA occurred.	Complies
<b>Principles</b>			

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:	-	
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 noted on site during inspection of southern perimeter. Some smaller upslope catchment areas not provided with diversion drains, however Site Water Management Plan commits to diversion drains "around the southern perimeter of the Project disturbance areas".	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. <b>It is recommended that the site sediment basin strategy be reviewed given the potential total on-site storage (in-pit) available to capture runoff from disturbed areas, and also noting that many of the sediment basins were required during construction phase and the placement and maintenance of such should be reviewed/reconsidered to reflect completion of construction and commencement of operations.</b>	Complies <b>recommendation made</b>
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.	No sediment fences observed during site inspection, however query this proposed measure as a long-term strategy for controlling sediment on site. <b>It is recommended that the erosion and sediment control strategy be updated to reflect current operational activities.</b>	Not Compliant <b>Recommendation made</b>
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 dam waters not released off-site - dewatered to mine water storages and re-used. Sediment dam batters not always well stabilised. Whilst sediment dams are routinely monitored for water quality, based on interview, they are not routinely dewatered following rainfall or desilted.	Not Compliant
<b>Salinity Management</b>			
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.:		Noted
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.	All surface drains to the in-pit mine water storage. RO plant due to be commissioned in March 2012.	Complies
<b>Saline Soil Identification Procedure</b>			
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 and audit interview	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 and audit interview	complies
<b>Salinity Management Measures</b>			
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	confirmed in site inspection and contained within rehab 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 rehab management plan	complies
<b>Erosion and Sediment Control Monitoring Program</b>			
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.	sediment control structures were inspected for capacity on at least a monthly basis as well as following rainfall events of 20 mm or more in a 24 hour period throughout the reporting period.(3.4.6 AEMR 2010)	complies
<b>Reporting the Effectiveness and Performance of the Sediment and Erosion Control System</b>			

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 2010 AEMR.	Complies
<b>Erosion and Sediment Control Plan Revisions</b>			
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.	Review of the ESCP appears to have taken place during the 2009 reporting period in response to the 2008 IEA (Section 3.1 of the AEMR 2009). It is not clear whether these reviews have occurred annually during the current auditing period. <b>It is recommended that this management plan review system at WCM be updated for ease of reference to ensure that management plans are being reviewed and updated as necessary.</b>	Not Able to be Verified - <b>Recommendation Made</b>
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.	Areas addressed by the ESCP are not clearly defined in the plan and Attachment 1 only provides specific control measures for "Initial Development Activities" suggesting that the ESCP needs to be reviewed to include current relevant activities. <b>See recommendation above.</b>	Not Able to be Verified - <b>Recommendation Made</b>
<b>Wilpinjong Coal project Surface and Groundwater Response Plan (Wilpinjong Coal Pty Limited, July 2006)</b>			
<b>Triggers</b>			
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.	Water management activities were undertaken during the reporting period in accordance with the mine water management system outlined in the MOP and Site Water Management Plan (SWMP) (AEMR section 2.8).	Compliant
<b>Landholder Complaint Triggers</b>			
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 water related complaints were received during the auditing period.	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. <b>It is recommended complaint should be verified before any protocols are reviewed.</b>	Not Triggered - <b>Recommendation Made</b>
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. CCC minutes were sighted by the audit team during the site visit that also detailed this.	Complies
<b>Direct Alluvium Groundwater Inflow Trigger</b>			
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
<b>Stream Flow Triggers</b>			
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.	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	Not Triggered																			
Groundwater Quality Triggers																						
2.4	<p>Typical baseline electrical conductivity (EC) and pH values for the groundwater aquifers have been provided in Table 2.</p> <p style="text-align: center;"><b>Table 2</b> <b>Typical Baseline EC and pH Values by Aquifer Type</b></p> <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>~2,350<sup>1</sup></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>6,176<sup>2</sup></td><td>5.6<sup>2</sup></td><td>8.3<sup>2</sup></td></tr></table> <p>Source: Wipiljong Coal Project GWMP (2006b)</p> <p><sup>1</sup> Average calculated using ratio of 0.68 EC/Total Dissolved Solids.</p> <p><sup>2</sup> Range does not include two alkaline sites (EW5049 and EW5052) and two acidic sites (EW2004 and EW2005).</p> <p>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.</p>	Aquifer Type	EC (µS/cm)		pH		Average	Max Recorded	Min Recorded	Max Recorded	Alluvium	~2,350 <sup>1</sup>	4,100	6.9	8.4	Illawarra Coal Measures	~3,200	6,176 <sup>2</sup>	5.6 <sup>2</sup>	8.3 <sup>2</sup>	<p>Monitoring results from bores in the alluvium (i.e. GWa1 to GWa15) during the 2010 reporting period indicate an exceedance of the relevant groundwater impact assessment criteria for EC (4,100 SS/cm) at GWa1 (12,560 SS/cm), GWa5 (13,830 SS/cm), GWa6 (9,360 SS/cm) and GWa7 (12,660 SS/cm).</p> <p>During the 2009 reporting period an exceedance of the relevant groundwater impact assessment criteria for EC (4,100 µS/cm) at GWa1 (12,730 µS/cm), GWa5 (14,870 µS/cm), GWa6 (7,950 µS/cm) and GWa7 (10,490 µS/cm) occurred.</p> <p>During the 2008 reporting period an exceedance of the relevant groundwater impact assessment criteria for EC (4,100 µS/cm) at GWa1 (8,020 µS/cm), GWa5 (15,340 µS/cm), GWa6 (10,140 µS/cm), GWa7 (10,290 µS/cm) and GWa15 (4,660 µS/cm).</p> <p>Following these exceedances, the groundwater impact investigation protocol was implemented.</p>	complies
Aquifer Type	EC (µS/cm)		pH																			
	Average	Max Recorded	Min Recorded	Max Recorded																		
Alluvium	~2,350 <sup>1</sup>	4,100	6.9	8.4																		
Illawarra Coal Measures	~3,200	6,176 <sup>2</sup>	5.6 <sup>2</sup>	8.3 <sup>2</sup>																		
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.	12 months not passed at time of audit	not triggered																			
Production Bore Triggers																						

2.6	<p>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</p> <p style="text-align: center;"><b>Table 3</b> <b>Production Bore Trigger Levels – Reporting and Cease-to Pump Triggers</b></p> <table><tr><th>Production Bore</th><th>Groundwater Monitoring Bore*</th><th>Reporting Trigger<sup>1</sup></th><th>Cease-to-Pump Trigger<sup>2</sup></th><th>Expected Maximum Drawdown Level<sup>3</sup></th></tr><tr><td rowspan="2">WSB10</td><td>GWsc10</td><td>351.5 m AHD</td><td>346 m AHD</td><td>341 m AHD</td></tr><tr><td>GWsa10</td><td colspan="2">See Section 2.6.1</td><td>-</td></tr><tr><td rowspan="2">WSB11</td><td>GWsc11</td><td>353 m AHD</td><td>348.5 m AHD</td><td>344 m AHD</td></tr><tr><td>GWsa11</td><td colspan="2">See Section 2.6.1</td><td>-</td></tr><tr><td rowspan="2">WSB12</td><td>GWsc12</td><td>338 m AHD</td><td>332.5 m AHD</td><td>327 m AHD</td></tr><tr><td>GWsa12</td><td colspan="2">See Section 2.6.1</td><td>-</td></tr><tr><td rowspan="2">WSB14</td><td>GWsc14</td><td>328 m AHD</td><td>319.5 m AHD</td><td>311 m AHD</td></tr><tr><td>GWsa14</td><td colspan="2">See Section 2.6.1</td><td>-</td></tr><tr><td rowspan="2">WSB15</td><td>GWsc15</td><td>324 m AHD</td><td>314.5 m AHD</td><td>305 m AHD</td></tr><tr><td>GWsa15</td><td colspan="2">See Section 2.6.1</td><td>-</td></tr></table> <p><sup>1</sup> Based on 70% of maximum predicted drawdown from observed/estimated pre-mining groundwater level. <sup>2</sup> Based on 85% of maximum predicted drawdown from observed/estimated pre-mining groundwater level. <sup>3</sup> Equivalent to the interpreted base of the Ulan Seam. * Refer to Figure 2a. m AHD - metres Australian Height Datum</p>	Production Bore	Groundwater Monitoring Bore*	Reporting Trigger <sup>1</sup>	Cease-to-Pump Trigger <sup>2</sup>	Expected Maximum Drawdown Level <sup>3</sup>	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		-		noted
Production Bore	Groundwater Monitoring Bore*	Reporting Trigger <sup>1</sup>	Cease-to-Pump Trigger <sup>2</sup>	Expected Maximum Drawdown Level <sup>3</sup>																																																	
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WSB15	GWsc15	324 m AHD	314.5 m AHD	305 m AHD																																																	
	GWsa15	See Section 2.6.1		-																																																	
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.	Table C-4 AEMR 2010 reveals that trigger levels are shown as stipulated by the SGWRP.	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.	SGWRP includes surface water monitoring trigger levels (Section 3.5.1 AEMR)	complies																																																		
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.	Alluvial bore has been installed	Complies
2.6.1	The water levels in the alluvium bores will be recorded at hourly intervals using an automatic recorder.	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. (Groundwater monitoring plan)	Not compliant
2.6.1	Data generated from the above monitoring will be reported to the DNR on a three monthly basis.	evidence of correspondence with DNR is required to verify compliance	Not compliant
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	Groundwater Monitoring Programme confirms this	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 groundwater monly borefield, the groundwater impact investigation protocol (Section 4) and the surface water investigation and contingency protocol (Section 5) would be commenced.	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.	Not Triggered
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.	An updated version of the GWMP is currently being finalised (November 2011). The GWMP is constantly under review as WPCL have been commissioning specialists to undertake site water balance studies during the auditing period.	Complies
<b>Stream Flow Model</b>			

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.	AEMRs confirm this condition	complies
<b>Monthly Stream Flow Assessment</b>			
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.	AEMRs confirm this condition	complies
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 (%)	s 3.6.2 AEMRs 2009 & 2008 and Section 3.5.2 AEMR 2010 confirm this condition	complies
3.4	Cease-to-Flow Percentage (Recorded cease-to-flow2 days for preceding 12-month period) / (Model predicted cease-to-flow days for preceding 12-month period) x 100 (%)	s 3.6.2 AEMRs 2009 & 2008 and Section 3.5.2 AEMR 2010 confirm this condition	complies
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).	s 3.6.2 AEMRs 2009 & 2008 and Section 3.5.2 AEMR 2010 confirm this condition	complies
<b>Reviews</b>			
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:		
3.5	Calibration/revised calibration of an AWBM for GS3 (Wilpinjong Creek upstream).	This has not occurred during the audit period	not triggered



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.	This has not occurred during the audit period	not triggered
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.	This has not occurred during the audit period	not triggered
3.5	Calculation of GS1 from the recorded preceding 12 months of stream flow data.	This has not occurred during the audit period	not triggered
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%.	This has not occurred during the audit period	not triggered
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 review of the SGWRP was undertaken during the 2010 reporting period (AEMR 2010 Section 3.6.2).	Complies
<b>Groundwater Impact Investigation Protocol</b>			
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.	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.	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.	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.	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.	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.	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.	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.	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.	Not Triggered
<b>Surface Water Investigation and Contingency Protocol</b>			
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):	This is detailed in the Surface and groundwater Response Plan. Results are outlined in the AEMRs	Complies
5(i)	check and validate the data which indicates an exceedance of the trigger conditions and/or information provided with a complaint;	This is detailed in the Surface and groundwater Response Plan. Results are outlined in the AEMRs	Complies
5(ii)	undertake review of recorded data at GS1 and GS3 and stream flow models, as per annual review methodology (Section 3.5);	This is detailed in the Surface and groundwater Response Plan. Results are outlined in the AEMRs	Complies

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;	This is detailed in the Surface and groundwater Response Plan. Results are outlined in the AEMRs	Complies
5(iv)	investigate changes in recorded salinity values with time and between gauging stations to assess if any trends are evident;	This is detailed in the Surface and groundwater Response Plan. Results are outlined in the AEMRs	Complies
5(v)	identify plausible and possible causative mechanisms and assess/quantify these against all relevant data and information to identify most likely causes;	This is detailed in the Surface and groundwater Response Plan. Results are outlined in the AEMRs	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;	This is detailed in the Surface and groundwater Response Plan. Results are outlined in the AEMRs	Complies
5(vii)	undertake landholder and government consultation, as required;	This is detailed in the Surface and groundwater Response Plan. Results are outlined in the AEMRs	Complies
5(iii)	implement appropriate contingency measures, including follow-up monitoring and auditing (Section 6.2.1); and	This is detailed in the Surface and groundwater Response Plan. Results are outlined in the AEMRs	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.	This is detailed in the Surface and groundwater Response Plan. Results are outlined in the AEMRs	Complies
5	The results of any investigations will be communicated to the relevant landholders and summarised in the Annual Environmental Management Report (AEMR).	This is detailed in the Surface and groundwater Response Plan. Results are outlined in the AEMRs	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.	Groundwater and Surface water response plan has been created. Significant further assessment of groundwater has been undertaken since this plan is developed. <b>Recommendation -It is therefore recommended that these criteria be revised and updated if necessary.</b>	Complies <b>Recommendation made</b>
<b>Existing Groundwater Supply Users</b>			
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
<b>Direct Groundwater Inflows from Alluvium Exposed in the Final Highwall of the Open Cut</b>			
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
<b>Surface Water</b>			

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
<b>Loss of Surface Water Flows</b>			
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
<b>Unforeseen Impacts</b>			
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
<b>Surface and Ground Water Response Plan Revisions</b>			

8	<p>The SGWRP will be reviewed, and if necessary updated, by the Environmental Manager:</p> <ul style="list-style-type: none"> <li>- where there is a significant change in the Project operational arrangements/details;</li> <li>- as an outcome of any Independent Environmental Audit;</li> <li>- when there are changes to Project Approval or licence conditions relating to aspects of this SGWRP; or</li> <li>- in response to a relevant change in technology or legislation.</li> </ul>	<p>The SGWRP was revised during the 2009 reporting period in response to the most recent IEA in 2008 (Section 3.1 of the AEMR 2009).</p>	Complies
<b>Wilpinjong Coal Project Rehabilitation and Landscape Management Plan (Wilpinjong Coal Pty Limited, July 2006)</b>			
<b>Rehabilitation and Landscape Management Plan Revisions</b>			
4	<p>The RLMP (and its appendices) will be reviewed, and if necessary updated, by the Environmental Manager:</p> <ul style="list-style-type: none"> <li>- where there is a significant change in the Project;</li> <li>- when there are changes to Project Approval or licence conditions relating to aspects of this RLMP; or</li> <li>- in response to a relevant change in technology or legislation.</li> </ul>	<p>This was reviewed by WCPL following the previous IEA in 2008 (Section 3.1 of the AEMR 2010).</p>	Complies
4	<p>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.</p>	<p>Review of the RLMP appears to have taken place during the 2010 reporting period in response to the 2008 IEA (Section 3.1 of the AEMR 2010). This post audit review thus took place more than six months after the IEA occurred.</p>	Not Compliant
<b>Wilpinjong Coal Mine Rehabilitation Management Plan (Wilpinjong Coal, September 2011)</b>			
<b>RMP Review and Update</b>			
2	<p>In addition, the RMP will be revised to the satisfaction of the Director-General of the NSW Department of Planning and Infrastructure (DP&amp;I) if necessary, to ensure the plan is updated on a regular basis and to incorporate any recommended measures to improve environmental performance.</p>	<p>This was reviewed by WCPL following the previous IEA in 2008 (Section 3.1 of the AEMR 2010).</p>	Complies
2	<p>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&amp;I.</p>	<p>The latest modification to the Project Approval occurred in August 2010. The review that occurred within the 2010 reporting period can thus satisfy this requirement (Section 3.1 of the AEMR 2010).</p>	Complies
<b>Licences, Permits and Leases</b>			

3.2	<p>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.</p> <ul style="list-style-type: none"> <li>- The conditions of Mining Lease (ML) 1573 issued under the NSW Mining Act, 1992.</li> <li>- A Department of Trade, Investment, Regional Infrastructure and Services (DTIRIS NSW) approved Mining Operations Plan (MOP).</li> <li>- The conditions of Environment Protection Licence (EPL) No. 12425 issued under the NSW Protection of the Environment Operations Act, 1997.</li> <li>- Water extraction licences issued under the NSW Water Act, 1912.</li> <li>- Mining and occupational health and safety related approvals granted by I&amp;I NSW and WorkCover NSW.</li> </ul>	These requirements are covered in other parts of the Audit.	Noted
<b>Rehabilitation Objectives</b>			
<b>Rehabilitation Areas</b>			
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).	Identified in MOP (section 5.3.1)	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.	Identified in MOP (section 5.3.1)	Complies
5	To preserve the existing beneficial use of water resources.	Identified in MOP (section 5.3.1)	Complies
5	Future landuse options for the rehabilitation areas include grazing activities of varying intensity and establishment of woodland habitat.	MOP and site inspection	Noted
<b>Regeneration Areas</b>			

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).	Not yet started	Not Triggered
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).	Conceptual design stage in the MOP	
<b>Enhancement and Conservation Areas</b>			
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	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).	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).	VCAs approved 6 weeks ago, the Department has not yet been notified. The notification will be completed in the near future once the letter passes through the internal (Wilpinjong) approval process.	Complies
<b>Landform Design</b>			
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).	Section 4.2 AEMR 2010 confirms this condition	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.	Section 4.2 AEMR 2010 confirms this condition	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.	Sediment control dams are in place and were sighted in site inspection.	Complies												
Rehabilitation Management Measures															
7	<p>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:</p> <ul style="list-style-type: none"><li>- progressive site rehabilitation;</li><li>- revegetation and regeneration within the ECAs;</li><li>- protecting the ECAs;</li><li>- creek rehabilitation;</li><li>- a VCP (including pre-clearance surveys and managing impacts on fauna);</li><li>- a TSMP;</li><li>- landscaping within the Wilpinjong Coal Mine area to minimise visual impacts;</li><li>- conservation and re-use of topsoil;</li><li>- collection and propagation of seed for rehabilitation works;</li><li>- salvage and re-use of material from the Wilpinjong Coal Mine area for habitat enhancement;</li><li>- weed and animal pest control;</li><li>- restrictions on site access;</li><li>- bushfire management; and</li><li>- Aboriginal community consultation.</li></ul>	The AEMRs and site inspection confirm the practices outlined in the Rehabilitation Management Plan	Complies												
7	<p>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</p> <p style="text-align: center;"><b>Table 7</b> <b>Timing of Rehabilitation Management Measures</b></p> <table><tr><th>Management Measure</th><th>Commencement</th><th>Frequency</th></tr><tr><td colspan="3"><b>General Management of Remnant Vegetation/Habitat</b></td></tr><tr><td>Seed collection</td><td>2008</td><td>On a progressive basis</td></tr><tr><td>Salvage of materials for use in habitat creation</td><td>2008</td><td>On a progressive basis</td></tr></table>	Management Measure	Commencement	Frequency	<b>General Management of Remnant Vegetation/Habitat</b>			Seed collection	2008	On a progressive basis	Salvage of materials for use in habitat creation	2008	On a progressive basis	Rehabilitation at WCPL is generally done in accordance with these measures	Complies
Management Measure	Commencement	Frequency													
<b>General Management of Remnant Vegetation/Habitat</b>															
Seed collection	2008	On a progressive basis													
Salvage of materials for use in habitat creation	2008	On a progressive basis													

	<table><tr><td>Weed surveys of disturbance areas and ECAs</td><td>February 2011</td><td>Annually over life of mine</td></tr><tr><td>Weed control of disturbance areas and ECAs</td><td>During pre-clearance survey for vegetation clearance</td><td>On-going over the life of the mine</td></tr><tr><td>Pest surveys of disturbance areas and ECAs</td><td>During pre-clearance survey for vegetation clearance</td><td>Triennially</td></tr><tr><td>Pest control of disturbance areas and ECAs</td><td>During pre-clearance survey for vegetation clearance</td><td>Annually</td></tr><tr><td>Fencing of ECAs and rehabilitation areas</td><td>2008</td><td>Repairs as required</td></tr><tr><td>Bushfire management</td><td>September 2007</td><td>Annually in September</td></tr><tr><td colspan="3"><b>Regeneration Areas</b></td></tr><tr><td>Selective planting if required</td><td>September 2011</td><td>As required</td></tr><tr><td colspan="3"><b>Rehabilitation Areas</b></td></tr><tr><td>Fencing</td><td>Disturbance sites have been stock proof fenced in 2008</td><td>Repairs as required over the life of the mine</td></tr><tr><td>Revegetation</td><td>Within 12 months of rehabilitation land becoming available. First parcel of land rehabilitated in October 2008</td><td>On a progressive basis over the life of the mine, as land becomes available</td></tr><tr><td colspan="3"><b>ECAs</b></td></tr><tr><td>Fencing</td><td>February 2008</td><td>Repairs as required over the life of the mine</td></tr><tr><td>Weed survey</td><td>September 2010</td><td>Annual over the life of the mine</td></tr><tr><td>Weed control</td><td>February 2008</td><td>Ongoing/as required over the life of the mine</td></tr><tr><td>Pest survey</td><td>February 2008</td><td>Annual over the life of the mine</td></tr><tr><td>Pest control</td><td>February 2008</td><td>Ongoing/as required over the life of the mine</td></tr><tr><td>Selective planting if required</td><td>October 2011</td><td>As required over the life of the mine</td></tr><tr><td>Provision of roosting/nesting resources</td><td>2015, if monitoring shows action required</td><td>As required over the life of the mine</td></tr><tr><td>Rezoning application</td><td>Within 2 years of Project Approval</td><td>Not applicable</td></tr><tr><td>Bushfire management</td><td>February 2008</td><td>Ongoing over the life of the mine</td></tr></table>	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	<b>Regeneration Areas</b>			Selective planting if required	September 2011	As required	<b>Rehabilitation Areas</b>			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	<b>ECAs</b>			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		
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<b>Progressive Site Rehabilitation</b>																																																																		
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 (Peabody, July 2011) is in place. This was sighted by the audit team during the site visit.	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.	Topsoil stripping is undertaken on a "single pass" basis where possible where one area is stripped and then re-soiled as soon as practicable rather than going to stockpile. Stockpiles are seeded with a pasture mix when they will be in situ for around 12 m	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> ]).	No revegetation has been conducted in the woodland areas	Not Triggered
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.		Noted
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
7.1	Rehabilitation areas will be fenced to prevent the uncontrolled entry of livestock and to minimise vehicular traffic during the establishment phase.	Fencing maintenance was undertaken to maintain stock exclusion from the ECAs during the 2008, 2009 and 2010 reporting period (Sections 3.13.1 of AEMRs 2008 and 2009, and Section 3.12.1 of 2010 AEMR).	Complies
<b>Progressive Rehabilitation Specifications</b>			

7.1.1	The following technical standards will be implemented during construction of the final landform at Wilpinjong Coal Mine.	noted	noted
<b>Inert Cover Depth</b>			
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.	The AEMRs and RMP Confirm 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.	2m of inert material were recorded in the rehabilitation section of AEMR 2010	complies
<b>Coarse Reject Disposal</b>			
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.	Coarse reject is usually disposed of deep in pit as confirmed during audit interview with Kieren.	Complies
<b>Drainage Control</b>			
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
<b>Sediment Control Structures</b>			
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).	this is the method used	complies
7.1.1	All other sediment control works are to be consistent with the Wilpinjong Coal Mine ESCP.	As verified in the ESCP review	complies
<b>Topsoil Placement</b>			

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 however this was not occurring during the site inspection	Not Able to be Verified
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
<b>Slope Angles</b>			
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
<b>Vegetation Species Selection</b>			
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
<b>Graded Banks</b>			
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.	Graded bank observed in completed rehabilitation area (completed 2010). Appeared stable. Also viewed site of graded bank breach in 2009 - has been repaired and 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.	Areas without graded banks appeared either of relatively mild slope or short slope length.	Complies
<b>Rock Waterways</b>			
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
<b>Contour Ripping, Seeding and Fertilising</b>			
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.	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.	Trialling of new contractor, but this practise is used at the site.	Complies
<b>Enhancement and Conservation Areas</b>			
<b>Fencing</b>			
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.	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).	Complies
<b>Weed and Animal Pest Control</b>			

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.	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.	Complies
<b>Selective Planting of Native Vegetation</b>			
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 <i>E. blakelyi</i> and <i>Angophora floribunda</i> .	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).	Some seed collection early in the site development, but none recently. Seed is broadcast, not propagated but has only been applied to rehab areas not to the ECAs.	Not Triggered
<b>Roosting/Nesting Resources</b>			
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.	No habitat hollows collected as yet. No nest boxes deployed. <b>Recommendation - hollow bearing trees be collected and that the consultant ecologists assess the viability of using nest boxes.</b>	Complies - <b>Recommendation Made</b>
<b>Bushfire Management</b>			
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).	Section 4.2 AEMR confirms this commitment	Complies

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.	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). ECA mitigation measures verify this condition	complies
7.3	WCPL will provide the Federal Department of Sustainability, Environment, Water, Population and Communities (DSEWPac) with a copy of the rezoning documents, once finalised.	VCAs approved 6 weeks ago, the Department has not yet been notified. The notification will be completed in the near future once the letter passes through the internal (Wilpinjong) approval process.	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.	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). Audit team sighted a map showing location of fencing and all fencing of ECAs was completed at the lot boundaries.	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:	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).	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 withstand the impacts of stock grazing	Fencing maintenance was undertaken to maintain stock exclusion from the ECAs during the 2008, 2009 and 2010 reporting period (Sections 3.13.1 of AEMRs 2008 and 2009, and Section 3.12.1 of 2010 AEMR).	Complies
7.4	Monitor regeneration areas to determine natural regeneration processes and to identify areas that may need assistance with the regeneration process	Rehabilitation Monitoring Programme is in place and confirms this condition	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
<b>Creek Rehabilitation</b>			
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.	Fencing maintenance was undertaken to maintain stock exclusion from the ECAs during the 2008, 2009 and 2010 reporting period (Sections 3.13.1 of AEMRs 2008 and 2009, and Section 3.12.1 of 2010 AEMR).	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.	See above	
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.	See above	
<b>Vegetation Clearance Protocol</b>			

7.6	<p>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:</p> <ul style="list-style-type: none"> <li>- delineation of areas to be cleared of remnant vegetation;</li> <li>- pre-clearance surveys;</li> <li>- managing impacts on fauna; and</li> <li>- vegetation clearance procedures including restrictions on clearing times for fauna breeding seasons.</li> </ul>	VCP provided and verifies this condition	complies
<b>Delineation of Disturbance Areas</b>			
7.6.1	<p>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.</p>	GPS machine control and physical boundaries	Complies
<b>Pre-Clearance Surveys</b>			
7.6.2	<p>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.</p>	This occurs, noted in site visit.	Complies
7.6.2	<p>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.</p>	<p>No tree salvaging has occurred to date, <b>it is recommended that larger trees be retained for relocation into the rehab to provide fauna habitat.</b></p>	<p>Not Compliant Recommendation made</p>
7.6.2	<p>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.</p>	<p>certified personnel are responsible for this work, and complies with this condition. No wombats relocated in this audit period.</p>	Complies
7.6.2	<p>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).</p>	<p>certified personnel are responsible for this work, and complies with this condition. No wombats relocated in this audit period.</p>	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.	NO threatened species ID during the audit period so the TSMP was not triggered.	Not Triggered
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:	The VCP contains this information	Complies
7.6.2	identification of weed infestations adjacent to or within the proposed disturbance area during pre-clearance surveys;	The VCP contains this information	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
<b>Managing Impacts on Fauna</b>			
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).	Contractor who is licensed by OEH conducts pre-clearance fauna works.	Complies
<b>Fauna Management Strategies</b>			
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	confirmed and noted	noted

7.6.3	<p>when fauna (particularly bats) are identified in the habitat tree, the following will be utilised selectively to minimise the potential for injury to fauna:</p> <ul style="list-style-type: none"> <li>– fell surrounding non-habitat trees to encourage the colony/individuals in the habitat tree to move to an alternative location;</li> <li>– cause sufficient physical disturbance to the tree (i.e. shake tree with a dozer) to encourage fauna to relocate;</li> <li>– as gently as possible, fell the tree using an excavator and inspect on felling;</li> <li>– capture existing fauna for later release at a suitable time;</li> <li>– relocate the habitat feature to adjacent remnant vegetation; or</li> <li>– block the entrance to habitat features to prevent re-entry prior to felling.</li> </ul>	No fauna identified to date	Not Triggered
7.6.3	Specific fauna management strategies to minimise Wilpinjong Coal Mine impacts on the Common Wombat ( <i>Vombatus ursinus</i> ) 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.	Complies
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.	
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.	Complies
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.	Complies
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.	Complies
<b>Vegetation Clearance Procedures</b>			

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:	VCP was sighted by the audit team and verifies this condition. Section 3.12.1 AEMR 2010 and sections 3.13.1 AEMRs 2009 & 2008 detail the VCP	Complies
7.6.4	Clear delineation of disturbance areas prior to clearance commencing in each area of works.	VCP was sighted by the audit team and verifies this condition. Section 3.12.1 AEMR 2010 and sections 3.13.1 AEMRs 2009 & 2008 detail the VCP	Complies
7.6.4	In areas of significant earthworks, topsoil resources will be identified, stripped and stockpiled (Section 7.9).	Topsoil stripping is undertaken on a "single pass" basis where possible where one area is stripped and then re-soiled as soon as practicable rather than going to stockpile. Stockpiles are seeded with a pasture mix when they will be in situ for around 12 months or more. Section 3.12.1 AEMR 2010 and sections 3.13.1 AEMRs 2009 & 2008 detail the VCP	Complies
7.6.4	Trees may be examined for their provision of seed prior to vegetation clearance (Section 7.10).	VCP verifies this condition. Section 3.12.1 AEMR 2010 and sections 3.13.1 AEMRs 2009 & 2008 detail the VCP	Complies
7.6.4	Habitat trees are to be felled as soon as practicable after a negative survey result.	Habitat tree mapping and inspection of felled trees was undertaken in March, July, August and November 2010 prior to clearance activities in Pit 2 and Pit 5.	Complies
7.6.4	Those features identified for use in rehabilitation programs (e.g. hollow branches) are to be salvaged (Section 7.11).	See above re nest boxes and tree hollows. Timber has been collected for fence posts where practicable.	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.	VCP verifies this condition. Section 3.12.1 AEMR 2010 and sections 3.13.1 AEMRs 2009 & 2008 detail the VCP	Complies

7.6.4	Collection of viable seed from felled trees (Section 7.10).	Nursery in Wollar stores seed for WCPL. This procedure is not followed.	Not Compliant
<b>Threatened Species Management Protocol</b>			
<b>Site Observations/Surveys</b>			
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
<b>Threatened Species Management Strategies</b>			
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, so these threatened species management strategies have not been triggered for implementation. The audit team sighted a copy of the Threatened Species Management Protocol.	Not Triggered
<b>Visual Impacts</b>			
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.	See above	Complies
<b>Topsoil Management</b>			
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).	Topsoil stripping is undertaken on a "single pass" basis where possible where one area is stripped and then re-soiled as soon as practicable rather than going to stockpile. Stockpiles are seeded with a pasture mix when they will be in situ for around 12 months or more.	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.	Confirm during site visit	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).	Landform is reshaped minus 2m and then 2m of inert material is placed on top. This was demonstrated on a YTD Rehab Plan (Nov 2011) as sighted by the audit team during the site visit.	Complies
<b>Seed Collection and Propagation</b>			
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.	VCP verifies this condition. Section 3.12.1 AEMR 2010 and sections 3.13.1 AEMRs 2009 & 2008 detail the VCP	Complies
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. This procedure is not followed.	Not Compliant
7. 10	Progressive collection of native seed from the local area to augment revegetation resources.	Nursery in Wollar stores seed for WCPL. This procedure is not followed.	Not Compliant
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. This procedure is not followed.	Not Compliant
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. This procedure is not followed.	Not Compliant
7. 10	The storage of seed in paper and/or calico bags in temperature controlled rooms.	Nursery in Wollar stores seed for WCPL. This procedure is not followed.	Not Compliant
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. This procedure is not followed.	Not Compliant

7.10	The maintenance of a seed inventory which will record the amount of seed collected, species type and treatment and propagation specifications.	Seed inventory was sighted by the audit team during the site visit. It contained information about types and amounts of seed collected, but did not include specific treatment types and propagation specifications.	Not Compliant
<b>Habitat Salvage</b>			
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.	See above re nest boxes and tree hollows. Timber has been collected for fence posts where practicable.	Complies
<b>Weed and Feral Animal Control</b>			
<b>Weed Control</b>			
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;	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.	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);	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.	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;	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.	Complies



7.12	Follow-up inspections to assess the effectiveness of the weed management measures implemented and the requirement for any additional management measures;	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.	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	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).	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.	Site visit by MWRC weeds officer in 2008 as confirmed during audit interview. . Most recent CCC minutes talk about this (Point 7).	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.	This is not included as part of the contractors site induction. <b>It is recommended that weed control be included in the induction process.</b>	Not Compliant - <b>Recommendation Made</b>
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.	See above	
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.	MSDS database is hosted by Thiess for the Wilpinjong site. The weed control chemicals used onsite are Roundup, Grazon Plus, 24DA Mine and Cordon as confirmed during audit interview with Kieren. Listing is provided detailing which sprays are used for which weed species.	Complies
<b>Feral Animal Control</b>			

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:	Feral animal control measures were implemented during the auditing period, as per Sections 3.14.1 of AEMRs 2008 and 2009, and Section 3.13.1 of AEMR 2010.	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);	Feral animal control measures were implemented during the auditing period, as per Sections 3.14.1 of AEMRs 2008 and 2009, and Section 3.13.1 of AEMR 2010.	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);	The maintenance of a rubbish free environment was undertaken during the reporting period, as per Sections 3.14.1 of AEMRs 2008 and 2009, and Section 3.13.1 of AEMR 2010.	Complies
7.12	Mandatory pest control for any declared pests (i.e. rabbits, pigs and wild dogs) known to occur on WCPL-owned land;	Dog baiting program is undertaken, rabbit burrow ripping is undertaken and pigs have been trapped on the site.	Complies
7.12	No domestic pets such as cats or dogs will be permitted to be brought onto the site; and	It is site policy that no domestic pets are allowed onsite, as confirmed during audit interview.	Complies
7.12	Pest control in accordance with any Pest Control Orders issued under the Rural Lands Protection Act, 1998.	No such orders have been issued under the Rural Lands Protection Act 1998.	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.	Induction slides instruct any injured animals to be reported however it fails to instruct personnel to report sightings of animal pests.	not compliant
<b>Restrictions on Area Access</b>			

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.	Checked signposting and fencing during site inspection and exclusion notification is reasonable given traffic routes and other site training.	Complies
<b>Bushfire Management</b>			
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.	Not present in initial induction slides however WCM has in place training performed by the RFS for employees and contractors (as per meeting minutes)	Complies
7.14	The provision and maintenance of on-site fire fighting equipment.	Fire extinguishers , blankets and hoses are available onsite. Training in fire response is provided to all members of crew. Water carts are fitted to be able to connect to Rural Fire Services equipment.	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.	Annual inspection by Rural Fire Service, as per minutes with RFS	Complies
7.14	Fuel management by means other than burning such as grazing and slashing.	Fuel loads are managed by slashing and grazing as confirmed during audit interview.	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).	Fuel loads are managed by slashing and grazing as confirmed during audit interview.	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 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
7.14	On-going consultation with the NSW Rural Fire Service.	Ongoing consultation is undertaken with the Rural Fire service (as per meeting minutes)	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).	The VCP is used for all vegetation clearance onsite.	Complies
<b>Aboriginal Community Consultation</b>			
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.	The Native Title Implementation Committee and the Cultural Heritage Liaison Sub-Committee met three times during 2008, twice in 2009, and twice in 2010 (AEMR 2008 Section 4.2, AEMR 2009 Section 3.17, AEMR 2009 Section 3.16)	Complies
<b>Rehabilitation Monitoring Program</b>			
8	Rehabilitation performance will be monitored to ensure vegetation is establishing and to determine the need for any maintenance and/or contingency measures.	Landline consulting undertakes annual vegetation monitoring report.	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).	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
<b>Monitoring of Rehabilitation, ECA and Regeneration Areas</b>			
<b>Visual Monitoring</b>			

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.	These procedures are undertaken on a regular basis as per audit interview. <b>It is recommended that a check list be created to guide these regular inspections to maintain compliance.</b>	Complies - <b>Recommendation Made</b>
<b>Flora and Soil Surveys for Rehabilitation Areas, ECA and Regeneration Areas</b>			
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.	Email (9-12-2011) showing correspondence between WCPL and Landline Consulting (ecologists) confirmed that these sites were established. ECA and Flora Rehabilitation Monitoring Report 2010 further confirms this.	Complies
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.	Email (9-12-2011) showing correspondence between WCPL and Landline Consulting (ecologists) confirmed that these sites were established. ECA and Flora rehabilitation Monitoring Report 2010 Confirms further this condition	Complies
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 2010 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 (m <sup>2</sup> ) 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.	Section 2.0 EAC and Flora Rehabilitation monitoring Report 2010 Confirm 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).	This was confirmed in the annual report from 2010 in Table 4.	Complies															
8.12	<p>The parameters, methodology and units of measures used during flora sampling are outlined in Table 9.</p> <p style="text-align: center;"><b>Table 9</b> <b>Parameters, Methodology and Units of Measure for Vegetation Monitoring</b></p> <table><tr><th>Parameter</th><th>Survey Method</th><th>Units of Measure</th></tr><tr><td>Flora species diversity</td><td><ul style="list-style-type: none"><li>Each transect will be systematically monitored to compile a list of vascular plant species (i.e. trees, shrubs, grasses and herbs) observed.</li></ul></td><td><ul style="list-style-type: none"><li>Total number of flora species.</li><li>Number and percent of native flora species.</li><li>Number and percent of introduced flora species.</li></ul></td></tr><tr><td>Cover</td><td><ul style="list-style-type: none"><li>A count will be made of the number of individuals of each tree and shrub species on each transect.</li><li>Groundcover percentage is rated along the transect.</li></ul></td><td><ul style="list-style-type: none"><li>Total number of each tree species.</li><li>Total number of each shrub species.</li><li>Groundcover percentage for each species.</li></ul></td></tr><tr><td>Vegetation height</td><td><ul style="list-style-type: none"><li>The height of each tree or shrub is recorded.</li></ul></td><td><ul style="list-style-type: none"><li>Height of woody species.</li></ul></td></tr><tr><td>Vegetation progress</td><td><ul style="list-style-type: none"><li>Photographs along each transect are taken as a visual record of long term changes in vegetation performance.</li></ul></td><td><ul style="list-style-type: none"><li>At least 1 photo of each transect.</li></ul></td></tr></table>	Parameter	Survey Method	Units of Measure	Flora species diversity	<ul style="list-style-type: none"><li>Each transect will be systematically monitored to compile a list of vascular plant species (i.e. trees, shrubs, grasses and herbs) observed.</li></ul>	<ul style="list-style-type: none"><li>Total number of flora species.</li><li>Number and percent of native flora species.</li><li>Number and percent of introduced flora species.</li></ul>	Cover	<ul style="list-style-type: none"><li>A count will be made of the number of individuals of each tree and shrub species on each transect.</li><li>Groundcover percentage is rated along the transect.</li></ul>	<ul style="list-style-type: none"><li>Total number of each tree species.</li><li>Total number of each shrub species.</li><li>Groundcover percentage for each species.</li></ul>	Vegetation height	<ul style="list-style-type: none"><li>The height of each tree or shrub is recorded.</li></ul>	<ul style="list-style-type: none"><li>Height of woody species.</li></ul>	Vegetation progress	<ul style="list-style-type: none"><li>Photographs along each transect are taken as a visual record of long term changes in vegetation performance.</li></ul>	<ul style="list-style-type: none"><li>At least 1 photo of each transect.</li></ul>	This methodology was confirmed as per annual ecology report from 2010	Complies
Parameter	Survey Method	Units of Measure																
Flora species diversity	<ul style="list-style-type: none"><li>Each transect will be systematically monitored to compile a list of vascular plant species (i.e. trees, shrubs, grasses and herbs) observed.</li></ul>	<ul style="list-style-type: none"><li>Total number of flora species.</li><li>Number and percent of native flora species.</li><li>Number and percent of introduced flora species.</li></ul>																
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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 tests conducted across the site with soil mapping to allow targeted stripping and storage. No soils tested in the audit period.	Not Compliant															
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.	No soil testing was conducted during the auditing period.	Not Compliant															
Terrestrial Fauna Surveys																		

8.1.4	<p>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.:</p> <ul style="list-style-type: none"><li>- creek line and riparian habitats;</li><li>- woodland/open forest; and</li><li>- predominantly cleared land previously used for grazing.</li></ul>	RMP details these results	complies																										
8.1.4	<p>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.</p>	RMP details these results	complies																										
8.1.4	<p>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.</p> <p style="text-align: center;"><b>Table 10</b> <b>Overview of Fauna Survey Methods</b></p> <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. In addition, small Elliott traps will be baited and mounted on trees to sample small arboreal mammals.	Cage Traps	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.	Hair Tubes	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.	Pitfall Traps	Pitfall traps with drift fences (at least 5 m either side of each trap) will be established at the survey site.	Spotlighting	Spotlighting will involve two observers traversing each sampling site and immediate surrounds on foot.	Anabat Detection	Anabat™ echolocation call detector systems, each controlled by a call-activated switching device will be utilised to survey bat fauna. 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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.	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.	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.	Not Triggered								
9	<p>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.</p> <p style="text-align: center;"><b>Table 11</b> <b>Key Completion Criteria for Wilpinjong Coal Mine Components</b></p> <table><tr><th>Mine Component</th><th>Key Completion Criteria</th></tr><tr><td>Rehabilitation Areas</td><td><ul style="list-style-type: none"><li>Woodland/riparian areas on trajectory toward self-sustaining ecosystem.</li><li>Woodland/riparian areas contain flora species characteristic of native vegetation communities.</li></ul></td></tr><tr><td>Regeneration Areas</td><td><ul style="list-style-type: none"><li>Woodland/riparian areas on trajectory toward self-sustaining ecosystem.</li><li>Woodland/riparian areas contain flora species characteristic of native vegetation communities.</li></ul></td></tr><tr><td>Enhancement and Conservation Areas – Enhancement of existing remnant vegetation (including the WBYBBRG)</td><td><ul style="list-style-type: none"><li>Habitats available to flora and fauna are enhanced/improved.</li></ul></td></tr></table>	Mine Component	Key Completion Criteria	Rehabilitation Areas	<ul style="list-style-type: none"><li>Woodland/riparian areas on trajectory toward self-sustaining ecosystem.</li><li>Woodland/riparian areas contain flora species characteristic of native vegetation communities.</li></ul>	Regeneration Areas	<ul style="list-style-type: none"><li>Woodland/riparian areas on trajectory toward self-sustaining ecosystem.</li><li>Woodland/riparian areas contain flora species characteristic of native vegetation communities.</li></ul>	Enhancement and Conservation Areas – Enhancement of existing remnant vegetation (including the WBYBBRG)	<ul style="list-style-type: none"><li>Habitats available to flora and fauna are enhanced/improved.</li></ul>	As the Wilpinjong mine is not near to closure yet, these completion criteria are not able to be assessed yet. See above for analogue sites. 2012 verification is not triggered yet.	Not Triggered
Mine Component	Key Completion Criteria										
Rehabilitation Areas	<ul style="list-style-type: none"><li>Woodland/riparian areas on trajectory toward self-sustaining ecosystem.</li><li>Woodland/riparian areas contain flora species characteristic of native vegetation communities.</li></ul>										
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EEC*).	
– Establishment of woodland vegetation (excluding the WBYBBRG EEC).	<ul style="list-style-type: none"> <li>Woodland (including riparian areas) on trajectory toward self-sustaining ecosystem.</li> <li>Woodland (including riparian areas) contain flora species characteristic of native vegetation communities.</li> </ul>
– Establishment of the WBYBBRG EEC.	<ul style="list-style-type: none"> <li>EEC establishment areas on trajectory toward self-sustaining ecosystem.</li> </ul>

\* White Box, Yellow Box and Blakey's Red Gum Woodland Endangered Ecological Community.

**Table 12**  
**Quantitative Completion Criteria for Wilpinjong Coal Mine Components**

Mine Component	Quantitative Completion Criteria		
	Year 1	Year 5	Year 15
Rehabilitation Areas	<ul style="list-style-type: none"> <li>Groundcover &gt; 60%</li> <li>Groundcover species &gt; 3</li> <li>Stem density of woody plants &gt; 3000 stems/ha</li> <li>Woody plant diversity &gt; 3 upper storey species and &gt; 3 under storey species</li> </ul>	<ul style="list-style-type: none"> <li>Groundcover &gt; 60%</li> <li>Groundcover species &gt; 3</li> <li>Stem density of woody plants &gt; 1000 stems/ha</li> <li>Woody plant diversity &gt; 3 upper storey species and &gt; 3 under storey species</li> <li>Erosion less than score 3</li> </ul>	<ul style="list-style-type: none"> <li>Groundcover &gt; 60%</li> <li>Groundcover species &gt; 3</li> <li>Stem density of woody plants &gt; 800 stems/ha or similar to that in analogue site</li> <li>Woody plant diversity &gt; 3 upper storey species and &gt; 3 under storey species</li> <li>Natural regeneration woody species &gt; 10 stem/ha</li> <li>Erosion less than score 3</li> <li>Soil chemistry parameters similar to those on analogue sites</li> </ul>
Regeneration Areas	<ul style="list-style-type: none"> <li>Groundcover &gt; 60%</li> <li>Groundcover species &gt; 3</li> <li>Stem density of woody plants &gt; 1000 stems/ha</li> <li>Woody plant diversity &gt; 3 upper storey species and &gt; 3 under storey species</li> </ul>	<ul style="list-style-type: none"> <li>Groundcover &gt; 60%</li> <li>Groundcover species &gt; 3</li> <li>Stem density of woody plants &gt; 1000 stems/ha</li> <li>Woody plant diversity &gt; 3 upper storey species and &gt; 3 under storey species</li> </ul>	<ul style="list-style-type: none"> <li>Groundcover &gt; 60%</li> <li>Groundcover species &gt; 3</li> <li>Stem density of woody plants &gt; 800 stems/ha or similar to that in analogue site</li> <li>Woody plant diversity &gt; 3 upper storey species and &gt; 3 under storey species</li> <li>Natural regeneration woody species &gt; 10 stem/ha</li> <li>Similar species occurrence to adjacent reference sites</li> </ul>
Enhancement and Conservation Areas -Enhancement of existing remnant vegetation (including the WBYBBRG EEC).	<ul style="list-style-type: none"> <li>Groundcover &gt; 60%</li> <li>Groundcover species &gt; 4</li> <li>Stem density of woody plants &gt; 500 stems/ha</li> <li>Woody plant diversity &gt; 3 upper storey species and &gt; 3 under storey species</li> </ul>	<ul style="list-style-type: none"> <li>Groundcover &gt; 60%</li> <li>Groundcover species &gt; 4</li> <li>Stem density of woody plants &gt; 500 stems/ha</li> <li>Woody plant diversity &gt; 3 upper storey species and &gt; 3 under storey species</li> </ul>	<ul style="list-style-type: none"> <li>Groundcover &gt; 60%</li> <li>Groundcover species &gt; 4</li> <li>Stem density of woody plants &gt; 800 stems/ha</li> <li>Woody plant diversity &gt; 3 upper storey species and &gt; 3 under storey species</li> <li>Natural regeneration woody species &gt; 10 stem/ha</li> <li>Similar species occurrence to adjacent reference sites</li> </ul>
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<ul style="list-style-type: none"> <li>• Woody plant diversity &gt; 3 upper storey species and &gt; 3 under storey species</li> </ul>	<ul style="list-style-type: none"> <li>• Natural regeneration woody species &gt; 10 stem/ha</li> <li>• Similar species occurrence to adjacent reference sites</li> </ul>
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**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.	<ul style="list-style-type: none"> <li>• Groundcover &gt; 60%</li> <li>• Groundcover species &gt; 4</li> <li>• Stem density of woody plants &gt; 500 stems/ha</li> <li>• Woody plant diversity &gt; 3 upper storey species and &gt; 3 under storey species</li> </ul>	<ul style="list-style-type: none"> <li>• Groundcover &gt; 60%</li> <li>• Groundcover species &gt; 4</li> <li>• Stem density of woody plants &gt; 500 stems/ha</li> <li>• Woody plant diversity &gt; 3 upper storey species and &gt; 3 under storey species</li> </ul>	<ul style="list-style-type: none"> <li>• Groundcover &gt; 60%</li> <li>• Groundcover species &gt; 4</li> <li>• Stem density of woody plants &gt; 800 stems/ha</li> <li>• Woody plant diversity &gt; 3 upper storey species and &gt; 3 under storey species</li> <li>• Natural regeneration woody species &gt; 10 stem/ha</li> <li>• Similar species occurrence to adjacent reference sites</li> </ul>

### Contingency Plan

10	In the event that completion criteria detailed in Section 9 are not being achieved, WCPL will implement the following Contingency Plan:	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.	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.	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.	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.	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.	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.	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.	As the Wilpinjong mine is not near to closure yet, these completion criteria are not able to be assessed yet.	Not Triggered
<b>Potential Contingency Measures</b>			
10.1	Potential contingency measures will be reviewed during revisions of this RMP.	This has not been required during the auditing period.	Not Triggered
<b>Annual Review and Improvement of Environmental Performance</b>			
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.	This has not been required during the auditing period.	Not Triggered
12	The Annual Review will specifically address the performance of the RMP and will:	This has not been required during the auditing 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;	This has not been required during the auditing period.	Not Triggered
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;	This has not been required during the auditing period.	Not Triggered
12	identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;	This has not been required during the auditing period.	Not Triggered

12	identify any trends in the monitoring data over the life of the Wilpinjong Coal Mine;	This has not been required during the auditing period.	Not Triggered
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	This has not been required during the auditing period.	Not Triggered
12	describe what measures will be implemented over the next year to improve the environmental performance of the Wilpinjong Coal Mine.	This has not been required during the auditing period.	Not Triggered
<b>Wilpinjong Coal Project Spontaneous Combustion Management Plan (Wilpinjong Coal Pty Limited, May 2006)</b>			
<b>Material Classification</b>			
<b>Assessment of Carbonaceous Material</b>			
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.	Samples are collected onsite as required, and are analysed by external consultant. Material that has the propensity to spontaneously combust is selectively handled to reduce risks. Thermal imaging is used across the site as confirmed during audit interview.	Complies
<b>Identification of Inert Material</b>			
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.	Material that has the propensity to spontaneously combust is selectively handled to reduce risks. Inert material is either stockpiled in a separate location, or used for rehabilitation as soon as practicable.	Complies
<b>Prevention and Maintenance of Spontaneous Combustion</b>			

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 included in induction slides	Complies
<b>Monitoring for Spontaneous Combustion</b>			
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 (as confirmed in OCE Inspection report from 14 December 2011 that was 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
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 every day. There are staff travelling around site near these stockpiles constantly. Any anomalies are reported immediately (as confirmed in OCE Inspection report from 14 December 2011 that was 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 were used previously onsite but are not required anymore.	Not Triggered
<b>Preventing Spontaneous Combustion</b>			

6.3.2	<p>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:</p> <ul style="list-style-type: none"> <li>- Inspection of Pit stratigraphy for likely spontaneous combustion potential horizons and suitable inert material</li> <li>- Designing sampling and testing programs</li> <li>- Providing guidelines for in-pit identification of high risk materials</li> <li>- Developing recommendations for capping depth and compaction requirements</li> <li>- Conducting annual review and inspection of the process and emplacement areas.</li> </ul>	<p>This was not required to be undertaken during the current auditing period.</p>	<p>Not Triggered</p>
6.3.2	<p>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.</p>	<p>Material that has the propensity to spontaneously combust is selectively handled to reduce risks. Inert material is either stockpiled in a separate location, or used for rehabilitation as soon as practicable.</p>	<p>Complies</p>
6.3.2	<p>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.</p>	<p>This was not required to be undertaken during the current auditing period</p>	<p>Not Triggered</p>
6.3.2	<p>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.</p>	<p>This has not been completed during the auditing period.</p>	<p>Not Compliant</p>

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.	Potential spon com materials are no longer placed outside of pit, and therefore has the maximum amount of inert material placed on top of it to reduce the chance of oxygen reaching it.	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.	This is the procedure followed onsite.	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.	Material that has a propensity for spon com is not stockpiled. Stockpiled coal is turned over as quickly as practicable. Stockpile management procedure has been provided and complies with this condition	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 Spontaneous Combustion management Plan confirms this commitments	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 rejects are buried in the pit floor.	Complies



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 is the procedure followed onsite.	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 Able to be Verified
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 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 (as confirmed in OCE Inspection report from 14 December 2011 that was sighted by the audit team during the site visit)	Complies
<b>Management of Spontaneous Combustion Outbreaks</b>			
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 the procedure followed onsite, as confirmed during the audit interview.	Complies



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 the procedure followed onsite, as confirmed during the audit interview.	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 the audit interview.	Complies
<b>Reporting</b>			
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.	Check AEMRs	Complies
<b>Auditing and Review</b>			
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.	Would have been due for review in July 2009 (refer AEMR 2010). A copy of this SCMP was reviewed in March 2009.	Complies
<b>Wilpinjong Coal Project Blast Management Plan (Wilpinjong Coal Pty Limited, September 2011)</b>			
<b>3. Statutory Requirements</b>			
<b>Licences, Permits and Leases</b>			

3.2	<p>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.</p> <ul style="list-style-type: none"><li>• The conditions of Mining Lease 1573 issued by the NSW Minister for Mineral Resources, under the NSW Mining Act, 1992.</li><li>• The current Mining Operations Plan approved by Department of Trade, Investment, Regional Infrastructure and Service NSW (DTIRIS NSW).</li><li>• 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.</li><li>• Water extraction licences issued by the NSW Office of Water under the NSW Water Act, 1912.</li><li>• Mining and occupational health and safety related approvals granted by DTIRIS NSW and WorkCover NSW.</li></ul>	Covered in rest of audit	Noted								
5. Blast Criteria and Performance Indicators											
Other Blast Criteria											
5.2	<p>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.</p> <p style="text-align: center;"><b>Table 2</b> <b>Peak Particle Velocity Damage Criteria – Public Infrastructure</b></p> <table><tr><th>Infrastructure</th><th>Peak Particle Vibration Limit (mm/s)</th></tr><tr><td>Concrete power poles<sup>1</sup></td><td>50</td></tr><tr><td>Railway culverts/bridges<sup>2</sup></td><td>80</td></tr><tr><td>Railway lines<sup>3</sup></td><td>200</td></tr></table> <p><sup>1</sup> Criteria adopted from other Hunter Valley coal mines. <sup>2</sup> Blast design vibration damage control limit (Heggles Australia, 2006a). <sup>3</sup> Blast design vibration damage control limit (Heggles Australia, 2006b).</p>	Infrastructure	Peak Particle Vibration Limit (mm/s)	Concrete power poles <sup>1</sup>	50	Railway culverts/bridges <sup>2</sup>	80	Railway lines <sup>3</sup>	200	No reportable incidence relating to aboriginal cultural heritage sites have occurred during the audit period	Complies
Infrastructure	Peak Particle Vibration Limit (mm/s)										
Concrete power poles <sup>1</sup>	50										
Railway culverts/bridges <sup>2</sup>	80										
Railway lines <sup>3</sup>	200										

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).	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.	Noted															
5.2	The above criteria will be considered for the monitoring and reporting of blast activities carried out at the Wilpinjong Coal Mine.	Noted															
Blast Performance Indicators																	
5.3.1	<p>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.</p> <p style="text-align: center;">TABLE 3 Public Infrastructure Blast Performance Indicators</p> <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	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																

<b>Operating Conditions</b>			
5.3.2	WCPL will review operational compliance with Conditions 13 and 14, Schedule 3 of the Project Approval during mining operations.	<p>WCPL maintains a register of people who receive phone calls before blasting. A blasting hotline is also maintained (AEMRs 2007 and 2008 Section 3.8.2, and AEMR 2010 Section 3.7.2). The Wilpinjong Coal Mine Blast Management Plan (WCPL, September 2011) fulfils these requirements.</p> <p>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.</p>	Complies
<b>7. Blast Monitoring Program</b>			
<b>General Requirements</b>			
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).	Noted	
7.1	<p>Ground vibration monitoring will be conducted when blasting is within (Figure 3):</p> <ul style="list-style-type: none"> <li>• 350 m of concrete power poles;</li> <li>• 350 m of railway culverts/bridges;</li> <li>• 100 m of railway lines; and</li> <li>• 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.</li> </ul>	Ground vibration monitoring is conducted in these circumstances. BMP identifies this condition. .	Complies
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 certificate provided, quantifies instruments to pass within +/- 2%.	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.	Most recent version of the BMP is from September 2011, indicating that the plan has been revised and updated over the life of the mine.	Complies
<b>Assessment Against Blast Criteria and Performance Indicators</b>			
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).	Two overpressure exceedances have occurred during the auditing period. Incident reports were compiled and sent to relevant agencies. BMP identifies these conditions (section 7, 8, 9 BMP)	Complies
<b>8. Management Measures</b>			
<b>Public Notification</b>			
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 Wilpinjong Coal Mine. There are other landowners who have registered their interest and are notified of blasting (see above).	Complies
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.	Blasting hotline was maintained during the reporting period (Section 3.8.2 of AEMRs 2008 and 2009, and AEMR 2010 Section 3.7.2) See above	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.	A blasting hotline is also maintained (AEMRs 2007 and 2008 Section 3.8.2, and AEMR 2010 Section 3.7.2), and is advertised in local newsletter at least quarterly (BMP).	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.	According to BMP, Traffic control signs will be set up in accordance with the RTA/Mid-Western Regional Council (MWRC) guidelines. Including posting signs at least three days prior to blasting.	Complies
<b>Blasting Adjacent to Railway Lines</b>			
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.	See above. No deed was entered into but consultation was undertaken.	Complies
<b>Within 500 m but greater than 200 m of the Gulgong-Sandy Hollow Railway Line</b>			
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.	No blasts during the auditing period have required this.	Not Triggered
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.	No such blasts have occurred during the auditing period.	Not Triggered
<b>Within 200 m but greater than 100 m of the Gulgong-Sandy Hollow Railway Line</b>			
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.	No blasts during the auditing period have required this.	Not Triggered

8.4.2	<p>The notice must specify:</p> <ul style="list-style-type: none"> <li>• the proposed days, dates and times for the blast;</li> <li>• the proximity to any ARTC infrastructure;</li> <li>• the type of blasting (for example pre-strip or highwall);</li> <li>• the number of bank cubic metres;</li> <li>• the extent of area from which the blast will be visible; and</li> <li>• 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.</li> </ul>	No blasts during the auditing period have required this.	Not Triggered
8.4.2	<p>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.</p>	No blasts during the auditing period have required this.	Not Triggered
8.4.2	<p>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.</p>	No blasts during the auditing period have required this.	Not Triggered
8.4.2	<p>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.</p>	No blasts during the auditing period have required this.	Not Triggered
8.4.2	<p><b>After Blasting</b></p> <p>Blast monitoring points shall be monitored and all results are to be reviewed and advised/provided to ARTC within seven days of the blast.</p> <p>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.</p> <p>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.</p>	No blasts during the auditing period have required this.	Not Triggered
<b>Within 100 m of the Gulgong-Sandy Hollow Railway Line</b>			
8.4.3	<p>For all blasting operations that are less than 100 m from ARTC infrastructure the following will be carried out after blasting.</p>	No blasts during the auditing period have required this.	Not Triggered

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).	No blasts during the auditing period have required this.	Not Triggered
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.	No blasts during the auditing period have required this.	Not Triggered
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.	No blasts during the auditing period have required this.	Not Triggered
<b>Blasting Adjacent to Roads</b>			
<b>Temporary Road Closures</b>			
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.	Blasting Traffic Management Plan confirms this commitment	Complies
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.	Blasting Traffic Management Plan confirms this commitment	Complies
<b>Notification of Road Closures</b>			



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.	Blasting Traffic Management Plan confirms this commitment	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.	Blasting Traffic Management Plan confirms this commitment	Complies
8.5.2	Advice of road closures will also be provided on the blasting hotline (Section 8.1).	Blasting Traffic Management Plan confirms this commitment	Complies
<b>Flyrock Removal and Road Maintenance</b>			
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.	All blasts are video recorded. Shot firer observes shot, and blast controller clears the mine access road with sentries still in place to confirm that there is no flyrock present, and then reports back to shot firer who then releases sentries from posts (as confirmed during audit interview).	Complies
<b>Other Public Infrastructure</b>			

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.	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. (Blast Management plan)	Complies
<b>Cumulative Impacts</b>			
8.7	Blasting times and locations will be communicated via blast notifications emails between the relevant mines.	BMP (Sep 2011) confirms that the blasting times and locations will be communicated via blast notifications emails between the relevant	Complies
<b>Blast Protocol</b>			
8.8	The Wilpinjong Coal Mine has a blasting protocol in place which is consistent with the relevant legislation.	BMP	Complies
8.8.1	<b>Safety</b> The safety focus of this protocol is to ensure the safety of people, property, livestock and infrastructure. Key features of this protocol are: <ul style="list-style-type: none"> <li>• a minimum blasting exclusion zone of 500 m applies for persons;</li> <li>• use of electronic blasting technology for improved control in vibration sensitive areas where deemed appropriate;</li> <li>• pre-blast inspections are undertaken to ensure that no persons, property or livestock are at risk from blasting;</li> <li>• sentries are posted on all access points to ensure that there is no possible access to the blasting exclusion zone;</li> <li>• no blasting will occur within 500 m of privately-owned property without consultation with relevant landholders to satisfaction of DP&amp;I;</li> <li>• 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);</li> <li>• notification of blasting times provided to closest private residences on request;</li> <li>• manage misfires in a safe manner and in accordance with this BMP; and</li> <li>• visual monitoring of all of blasts with video records of significant blasts.</li> </ul>	BMP Section 8.8.1 complies with this condition.	Complies

8.8.2	<p><b>Blasting Controls</b></p> <p>In order to minimise the potential for exceedance of the relevant criteria (outlined in Section 5), blast management procedures will be implemented, including:</p> <ul style="list-style-type: none"> <li>• training all relevant personnel on environmental obligations and safe handling of explosives;</li> <li>• inspections and preparation of proposed blast areas to ensure all soft, loose or blast damaged material is removed prior to drilling;</li> <li>• 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;</li> <li>• 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;</li> <li>• use of adequate stemming, a delay detonation system, and careful drilling and hole loading to ensure that the required blast design is implemented;</li> </ul>	BMP Section 8.8.2 complies with this condition.	Complies
8.8.2	<ul style="list-style-type: none"> <li>• 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;</li> <li>• monitoring of blasts at the closest private residences to determine whether airblast and ground vibration limits are met;</li> <li>• completion of the Blast Controller Checklist (Appendix B);</li> <li>• review of monitoring results and modification of the blast design, if necessary;</li> <li>• documentation of the date and time of the blast, location of blast holes and quantity of explosive used in each blast; and</li> <li>• practices to evaluate performance and identify responsive action, if required.</li> </ul>	BMP Section 8.8.2 complies with this condition.	Complies
8.8.3	<p><b>Meteorological Assessment</b></p> <p>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.</p>	Blasting Checklist was sighted by audit team and Blasting protocol is in place and verifies this condition.	Complies

8.8.3	<p>A “blasting exclusion” arc would be calculated on the basis of:</p> <ul style="list-style-type: none"> <li>• wind direction;</li> <li>• wind speed;</li> <li>• surface;</li> <li>• size of the blast;</li> <li>• blast loading design; and</li> <li>• rock strength and competency.</li> </ul>	Blasting Checklist was sighted by audit team and Blasting protocol is in place and verifies this condition.	Complies
8.8.3	<p>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.</p>	<p>Meteorological Assessment Protocol is in place</p> <p>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).</p>	Complies
<b>9. Contingency Plan</b>			
9	<p>In the event that the blast criteria detailed in Section 5 is considered to have been exceeded, WCPL will implement the following Contingency Plan:</p>		
9	<p>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.</p>	Incident investigation form confirms this commitment	Complies
9	<p>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.</p>	Incidence report confirms this	Complies
9	<p>WCPL will report the exceedance of the blast criteria to OEH and DP&amp;I as soon as practicable after WCPL becomes aware of the exceedance.</p>	WCPL reported the exceedance less than one week to the OEH	Complies

9	WCPL will identify an appropriate course of action with respect to the identified impact(s), in consultation with specialists and OEH, 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.	Incident investigation form confirms this commitment	Complies
9	WCPL will, on request, submit the proposed course of action to DP&I for approval.	Verified during Audit interview	Complies
9	WCPL will implement the approved course of action to the satisfaction of the DP&I.	Verified during Audit interview	Complies
<b>Potential Contingency Measures</b>			
9.2	Potential contingency measures will be reviewed during revisions of this BMP.	Most recent version of the BMP is from September 2011, indicating that the plan has been revised and updated over the life of the mine.	Complies
<b>10. Annual Review and Improvement of Environmental Performance</b>			
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. As described in Section 2, this BMP will be reviewed within three months of the submission of an Annual Review, and revised where appropriate.	This was not required during the auditing period	Not Triggered
<b>11. Reporting</b>			
<b>Incidents</b>			
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.	Incident report was provided. Proponent provided the OEH 6 days after incident occurred with a detailed report on the incident.	Complies
<b>Complaints</b>			

11.2	<p>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:</p> <ul style="list-style-type: none"> <li>• The detail of the complaint will be recorded in the complaints register.</li> <li>• 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.</li> <li>• 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).</li> <li>• Following implementation of blast control measures (if required), monitoring will</li> </ul>	Figure 4 BMP (Sep 2011)	Complies
11.2	<p>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.</p>	BMP Section 11.2	Complies
<b>Non-Compliances with Statutory Requirements</b>			
11.3	<p>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.</p>	Noted	
11.3	<p>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.</p>	Internal generic environmental inspection is undertaken once a fortnight, as confirmed during audit interview with Kieren.	Complies
11.3	<p>As described in Section 11.1, WCPL will notify the Director-General of the DP&amp;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&amp;I and any relevant agencies with a detailed report on the incident.</p>	Incident report was provided. Proponent provided the OEH 6 days after incident occurred with a detailed report on the incident.	Complies

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
<b>Wilpinjong Coal Mine Mining Operations Plan Feb 2007 - Jan 2012 (Wilpinjong Coal Pty Limited, October 2008)</b>			
<b>1. Introduction</b>			
<b>Overview</b>			
1.1	Rehabilitation of disturbed areas will be undertaken progressively as part of the mining operation as will the restoration of Enhancement and Conservation Areas (ECA).	RMP complies with this commitment	Complies
1.1	Approved Run of Mine (ROM coal production is 13 million tonnes per annum (Mtpa).		Noted
<b>Consents, Leases and Licences</b>			

1.4	<p>WCPL has developed, or is developing, the following environmental management plans in consultation with relevant authorities, where applicable, to address the requirements of WCPL's Mine Approval Conditions (05-0021):</p> <ul style="list-style-type: none"> <li>• Site Water Management Plan;</li> <li>• Site Water Balance;</li> <li>• Surface Water Management and Monitoring Programme;</li> <li>• Erosion and Sediment Control Plan;</li> <li>• Groundwater Monitoring Programme;</li> <li>• Surface and Groundwater Response Plan;</li> <li>• Environmental Monitoring Programme;</li> <li>• Air Quality Monitoring Programme;</li> <li>• Noise Monitoring Programme;</li> <li>• Aboriginal Cultural Heritage Management Plan.</li> <li>• Rehabilitation and Landscape Management Plan;</li> <li>• Rehabilitation Management Plan;</li> <li>• Cumbo Creek Relocation Plan (to be developed during period of MOP);</li> <li>• Blast Management Plan;</li> <li>• Spontaneous Combustion Management Plan;</li> <li>• Final Void Management Plan (In preparation); and</li> <li>• Mine Closure Plan (in preparation).</li> </ul>	<p>Site Water Management Plan;</p> <ul style="list-style-type: none"> <li>• Site Water Balance; <b>2006</b></li> <li>• Surface Water Management and Monitoring Programme; <b>2006</b></li> <li>• Erosion and Sediment Control Plan; <b>2006</b></li> <li>• Groundwater Monitoring Programme; <b>2006</b></li> <li>• Surface and Groundwater Response Plan; <b>2006</b></li> <li>• Environmental Monitoring Programme; <b>2006</b></li> <li>• Air Quality Monitoring Programme; <b>2011</b></li> <li>• Noise Monitoring Programme; <b>2011</b></li> <li>• Aboriginal Cultural Heritage Management Plan. <b>2008</b></li> <li>• Rehabilitation and Landscape Management Plan; <b>2006</b></li> <li>• Rehabilitation Management Plan; <b>2011</b></li> <li>• Cumbo Creek Relocation Plan (to be developed during period of MOP); <b>The Cumbo Creek relocation project has not commenced yet but the CCRP is required 24 months after approval and has not yet been developed.</b></li> <li>• Blast Management Plan; <b>2011</b></li> <li>• Spontaneous Combustion Management Plan; <b>2006</b></li> <li>• Final Void Management Plan (<b>In preparation</b>); and</li> <li>• Mine Closure Plan (<b>in preparation</b>).</li> </ul>	Complies
<b>Mine Geology</b>			
1.6	<p>Samples of the coal resource were taken for analysis which showed that in general, product coal samples contained some sulphur but almost no Acid Neutralising Capability (ANC). All samples were classified as having a low Potential Acid Forming (PAF) capacity. Further assessment for PAF will be progressively conducted as mining progresses. This will involve collection and analysis of representative grab samples at 6 monthly intervals from individual partings and seams. Material returning a positive PAF result will be identified and preferentially handled to reduce the risk of</p>	Coal is tested in this manner	Complies



1.6.1	A Resource/Reserve Statement for the Wilpinjong Coal Mine was completed by Mine Consult in December 2005. The Mine proven coal reserve, as at December 2005, is 138 Mt. This will be reviewed and updated at intervals during the mine life.	This information was unable to be provided, therefore compliance could not be verified	Not Compliant - Not able to be verified
1.6.2	Mine design has also been influenced by the identification of Aboriginal sites of cultural significance during surveys of the Mine area. These sites are to be avoided and are identified in the Mine Aboriginal Cultural Heritage Management Plan and Plan 2.	BMP and ACHMP confirms this commitment	Complies
<b>2. Pre MOP Environment</b>			
<b>Flora and Fauna Management</b>			
2.5.4	<p>The management of flora and fauna is set out in the Rehabilitation Management Plan. Some of the main areas covered in the Rehabilitation Management Plan include:</p> <ul style="list-style-type: none"> <li>• the vegetation clearance protocol;</li> <li>• threatened species management protocol;</li> <li>• progressive site rehabilitation;</li> <li>• protection of Enhancement and Conservation Areas (ECA);</li> <li>• creek rehabilitation; and</li> <li>• rehabilitation monitoring</li> </ul>	Noted	
<b>Aboriginal Heritage</b>			
2.6	Management of Aboriginal objects and sites will be conducted in accordance with the Aboriginal Cultural Heritage Management Plan and will include collection and storage of Aboriginal artefacts in a "Keeping Place". A keeping place has been established on mine owned land outside the Mine disturbance boundary.	See above	
<b>European Heritage</b>			
2.7	One site of local significance, a rock retaining wall, may have been impacted by the original access road alignment but is to be demarcated for protection. All other sites in the disturbance area have been recorded and will be destroyed in accordance with the Approval.	See above	
<b>3. Proposed Mining Activities</b>			
<b>Exploration</b>			

3.1	Exploration drilling will continue in the mining lease area and within exploration licence areas during the period. This will constitute both infill drilling within Pits 1 and 2, in order to further refine the geological model and mine plan, and lower density drilling in other pit areas to facilitate medium and long term planning. An exploration report will be provided to the Department annually in accordance with Condition 7 of ML1573.	See above	
<b>Land Preparation</b>			
3.2.1	<p>Mitigation measures relevant to vegetation clearance activities are covered in the Rehabilitation Management Plan and include the following:</p> <ul style="list-style-type: none"> <li>• Wherever practicable, existing native vegetation will be retained and vegetation clearance avoided.</li> <li>• Archaeological clearance will be obtained from the qualified consultant prior to releasing the area for work.</li> <li>• Sedimentation controls will be installed as the first works implemented.</li> <li>• A vegetation clearance protocol has been developed to minimise the impact of Wilpinjong Coal Mine vegetation clearance activities on flora. As a component of the protocol, the proposed clearance areas will be delineated to prevent accidental damage to adjoining vegetation.</li> <li>• In areas of significant earthworks, topsoil resources will be identified, stripped and stockpiled for later use in rehabilitation.</li> </ul>	See above	
3.2.1	Where vegetation clearance is undertaken, timber will be cleared and windrowed by bulldozer. Windrowed timber will then be used in rehabilitation as habitat or mulched and used as a soil conditioner.	See above	
3.2.2	Topsoil will be stripped from all areas planned for disturbance prior to disturbance. Stripped topsoil will be either stockpiled for future use or applied directly to rehabilitated areas.	See above	
3.2.2	Soils will be stripped using dozers and other earthmoving machinery following vegetation clearance, if required. Actual stripping depths will be assessed by works supervisors in consultation with the environmental staff at the time of stripping.	See above	

3.2.2	<p>Soil stockpiles will be managed to ensure long-term viability through implementation of the following management practices:</p> <ul style="list-style-type: none"> <li>• soil stockpiles will be located outside of short to medium term active mining areas;</li> <li>• stockpiles will be constructed with a “rough” surface condition to reduce erosion hazard, improve drainage and promote revegetation; and</li> <li>• where stockpiles are to be inactive for extended periods they will be seeded to maintain soil structure, organic matter and microbial activity</li> <li>• direct placement of topsoil onto rehabilitation areas will be the preferred option where practical.</li> </ul>	These points of compliance were observed to be satisfactory in the site inspection.	Complies																				
3.2.2	<p>The topsoil budget for the MOP period is outlined in Table 6. An annual topsoil reconciliation will be provided in the AEMR.</p> <p><b>Table 6 Topsoil Budget</b></p> <table border="1"> <thead> <tr> <th colspan="4">Topsoil Volumes</th></tr> <tr> <th>Soil Type</th><th>Stripping Depth (m)</th><th>Area (ha)</th><th>Volume (m<sup>3</sup>)</th></tr> </thead> <tbody> <tr> <td>Red Podzolics</td><td>150mm</td><td>199.1</td><td>298650</td></tr> <tr> <td>Yellow Podzolics</td><td>200mm</td><td>288</td><td>576000</td></tr> <tr> <td><b>Total</b></td><td></td><td></td><td><b>874650</b></td></tr> </tbody> </table>	Topsoil Volumes				Soil Type	Stripping Depth (m)	Area (ha)	Volume (m <sup>3</sup> )	Red Podzolics	150mm	199.1	298650	Yellow Podzolics	200mm	288	576000	<b>Total</b>			<b>874650</b>	The annual amount of topsoil stockpiled is reported in the AEMR (2010) section 2.2.	complies
Topsoil Volumes																							
Soil Type	Stripping Depth (m)	Area (ha)	Volume (m <sup>3</sup> )																				
Red Podzolics	150mm	199.1	298650																				
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<b>Total</b>			<b>874650</b>																				
<b>Construction</b>																							
3.3	<p>Some further construction work may be undertaken during the initial period of this MOP to complete unfinished works or upgrade existing works. Any construction works undertaken will be relatively minor. Additional water and tailings storage areas will be progressively constructed as part of the mining process.</p>	See above																					
<b>Mining</b>																							
3.4.1	<p>Mining is to be carried out utilising dozers, loaders, hydraulic excavators and trucks. All equipment is operated and maintained by Thiess.</p>	Noted																					

3.4.2	The highwall and endwall batters will be battered to approximately 70 degrees. The walls will be battered using the dozer and excavator following blasting of the highwall batter. The highwall sections that will be dozer pushed have a 30 degree highwall angle designed. The final highwall design to the north incorporates a bench 10m wide to allow for catching and pumping of alluvial water flows, as required.	This is the method used onsite	Complies
3.4.2	The final design will be subject to further geotechnical assessment, with on-going review of parameters.	AEMRs confirm this condition	Complies
3.4.2	The low wall batters will be established using the excavator and will be battered to 70 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.	This is the method used onsite	Complies
3.4.3	The area to be mined will be cleared of vegetation and topsoil, utilising dozers and / or scrapers. Vegetation and topsoil on boxcut areas will be stockpiled adjacent the pit limits in a dump suited to ensure the preservation of plant and topsoil. Once pit dumps are established, topsoil will be direct placed on the final landform.	Confirmed during site inspection.	Complies
3.4.3	The overburden area will then be drilled using the overburden drills. Blast holes will be loaded with ANFO or slurry products, depending on the degree of water present. Where practical, ANFO will be utilised. The blast patterns will be tied up and initiated using a combination of electronic and nonelectric systems.	This is the procedure used onsite.	Complies
3.4.3	All blasts will be designed with multiple delays and optimised MIC's (maximum instantaneous change) to achieve vibration and overpressure compliance. Imported stemming may be utilised to ensure containment and to limit the likelihood of outbreak and flyrock. All blasting will be conducted in accordance with the Blast Management Plan.	This is the procedure used onsite. Section 5.1.3 BMP confirms this commitment.	Complies

3.4.3	Blasts are designed to comply with statutory limits for vibration and air blast overpressure at nearby residences. The amenity limits must be met and are measured and monitored at the various receptors identified in the blast management plan.	One exceedance of airblast overpressure occurred on 5/08/2010. DECCW was notified of this exceedance (AEMR 2010 Section 3.7.2). No exceedances occurred in 2008 or 2009 (2008 and 2009 AEMRs Sections 3.8.2).  Blasting Assessment Criteria outlined in Schedule 3, Condition 8 of the DA and s5.1.1 in the Blast Management Plan	Not Compliant
3.4.3	The Pit 5 mining operation will involve the excavation of an initial box cut pit. The spoil from the box cut will be hauled to a mined out area in Pit 1 for reshaping and rehabilitation.	Pit 5 mining operation did involve spoil being relocated to Pit 1.	Complies
3.4.3	Mining in Pit 5 will involve the rehandling of the Keylah out of pit dump, planned for 2012.	Not triggered	Not Triggered
3.4.3	The material in Keylah dump will be used as tailings dam capping with the balance placed in mined out areas of Pit 5 for rehabilitation.	Not triggered	Not Triggered
3.4.3	The tailings dams will be located within mined out mining voids. The voids will be bounded within the pit confines by a combination of in situ material and dumped overburden material.	Noted	
3.4.3	Wilpinjong is currently undertaking an assessment of life of mine tailings storage.	This has been completed and we have viewed the tailings management strategy.	complies
3.4.3	Tailings impoundments may be established in the Pit 1/ Pit 2 areas following completion of mining in these areas. Should studies show this to be a viable option, a variation to the MOP and a section 100 approval will be sought.	Section 100 approval for the tailings dam was sighted by audit team. Letter dated 3-11-2009.	complies
3.4.3	Tailings dams will be rehabilitated in consultation with DPI staff, in accordance with the Section 100 of the Coal Mines Regulation Act approval and standards set out in the approved Wilpinjong Rehabilitation Management Plan.	Section 100 approval for the tailings dam was sighted by audit team. Letter dated 3-11-2009.	complies

3.4.3	Coarse reject material will be dumped below the natural surface in the mined out void. The dumping operation will be managed to ensure the material is dumped lower than five metres from the original natural surface level. The spontaneous combustion potential of the reject will be closely monitored.	verified during site inspection	complies
<b>Mineral Processing - CHPP</b>			
3.5	Process water will be recycled from the current tailings emplacement / water storage via the recycled water dam with any necessary makeup water obtained from the raw water dam located within the rail loop.	Confirmed during site inspection.	Complies
<b>Mining and Process Waste Management</b>			
3.6	Should any PAF material be located during excavation it will be buried in the voids so as to exclude air.	None has been identified during the auditing period.	Not Triggered
3.6	Tailings slurry will be pumped via a tailings line to the tailings void excavated within the pit confines. Decant water from the tailings dam will be returned via the recycled water dam to the plant clarified water tank for reuse via a return water line.	Confirmed during site inspection.	Complies
<b>Water Management</b>			
3.8.1	The major components of the water management system are: • Diversion of the clean upper catchment to the west and east around the infrastructure area and Pits 1, 2 and 5 mining areas. The diversions will need to be constructed incrementally and only works proposed for this MOP period are shown. These diversions will define the outer limits of the dirty water system, although any clean catchments within the limits of the diversions will be diverted where possible. Similarly, any water from disturbed areas that can be treated to comply with the receiving water quality criteria will also be discharged.	The water management system outlined in the site water balance confirms the diversion of clean upper catchment water.	Complies
3.8.1	• A 40ML “clean” water dam to be constructed within the rail loop to service the infrastructure requirements and provide make-up water. The water level in this dam will be maintained by the production borefield as necessary.	The water management system outlined in the site water balance confirms this condition	Complies
3.8.1	• A void of approximately 300ML capacity in the vicinity of the ROM and CPP to store initial surplus groundwater from Pit 1 and Pit 2. The void will serve as a water supply dam for the CPP as well as being an emergency tailings emplacement if required.	The water management system outlined in the site water balance confirms this condition	Complies

3.8.1	<ul style="list-style-type: none"> <li>• A void of nominally 700ML capacity in the southern end of Pit 1 to store additional surplus groundwater from Pit 1 and Pit 2. The void will serve as a water supply dam for the CPP as well as being the emergency dust suppression storage.</li> </ul>	The water management system outlined in the site water balance confirms this condition	Complies
3.8.1	<ul style="list-style-type: none"> <li>• A tailings emplacement area within the initial mining voids in Pit 1 and Pit 2. These storages are the subject of a separate Section 100 of the CMRA approval application. Further tailings emplacements for latter years of mining may be created within Pits 1 and 2. These will be subject to modifications to this MOP at the time.</li> </ul>	Section 100 approval for the tailings dam was sighted by audit team, letter dated 3-11-2009	complies
3.8.1	<ul style="list-style-type: none"> <li>• Permanent sediment retention structures on the infrastructure; e.g. access roads, rail loop, stockpiles, and temporary structures on the borrow areas and other areas of topsoil disturbance. The details of the permanent structures are provided in the ESCP while the temporary structures will be designed as required in accordance with specifications in the Erosion and Sediment Control Handbook (Blue Book).</li> </ul>	these permanent structures are in place at WCPL, and are recorded in the ESCP.	Complies
3.8.2	The Site Water Management Plan (SWMP) incorporates the Site Water Balance, Erosion and Sediment Control Plan, Surface Water Management and Monitoring Plan and Groundwater Monitoring Programme. The SWMP details design criteria for drains, diversion channels and other water management structures.	Noted	
<b>Hazardous Materials</b>			
3.9	Hazardous reagents and explosives required for the Mine will be transported in accordance with the appropriate regulations under the Road and Rail Transport (Dangerous Goods) Act, 1997.	Noted	Not Able to be Verified
3.9	Explosives, including explosive precursors, will be managed in accordance with the Explosives Act 2003, including a Security Plan developed in consultation with ORICA, the explosives contractor for the Mine.	Noted	Not Able to be Verified
3.9	All persons required to work with or access explosives will be Licensed in accordance with the Act.	The Explosives Supervisor is appointed in writing by the Minister Of Mining and Engineering to perform functions with explosives and holds a current Blasting Explosive Users License.(HSE management System - Blasting Protocol and Sentry Duty)	Complies

3.9	Bulk explosives will not be stored long term on site and explosive components will only be mixed using a MMU within the blasting hole.	Confirmed during site inspection.	Complies
3.9	Hydrocarbon storage facilities will be designed, located, constructed and operated in accordance with Australian Standard (AS) 1940-1993 The Storage and Handling of Flammable and Combustible Liquids and the Occupational Health and Safety (Dangerous Goods) Regulation 2005. This will include the use of relocatable self-bunded double skinned storage tanks.	section 2.9 AEMR confirms this commitment	Complies
3.9	Waste hydrocarbons will be collected, stored and removed by licensed waste transporters on a periodic basis.	Reported in the 2010 AEMR	Complies
3.9	Runoff from the Workshop floor and apron, refuelling pads and truck washdown area will be pass through a purpose built oil/water separator systems which will be inspected and maintained on a regular basis.	AEMR 2010. Audit confirms this condition	compliant
3.9	All water passing through the system and from other areas of contamination, such as the hardstand and stockpiles will be collected separately and used on site on a first priority basis.	AEMRs and Audit inspection confirms this condition	Complies
3.9	No chemical or hazardous material will be permitted on-site unless a copy of the appropriate Material Safety Data Sheet (MSDS) is available on-site, or in the case of a new product, it is accompanied by a MSDS.	MSDS register sited. New chemicals coming onto site need to be approved by Environment and Community Manager.	complies
3.9	All chemicals brought on-site will be recorded in a register which will identify the type of product, dangerous goods class, liquid class, hazchem 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.	MSDS register see above. New chemicals coming onto site need to be approved by Environment and Community Manager.	Complies



3.9	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.	Dangerous Goods notification currently held with WorkCover	complies
<b>4. Proposed Rehabilitation Activities During MOP Term</b>			
4	Proposed rehabilitation during the term of the MOP is set out in Table 9 and includes 240 hectares of Total Rehabilitation Area (120 pastures and grasses, and 120 native forest/ecosystems).	Noted	
4.1	WCPL's consultation with stakeholder groups during the planning and ongoing rehabilitation process will include: <ul style="list-style-type: none"> <li>• local Aboriginal stakeholder groups;</li> <li>• Department of Primary Industries (DPI);</li> <li>• Department of Planning (DoP)</li> <li>• Department of Natural Resources (DNR);</li> <li>• Department of Environment and Conservation (DEC);</li> <li>• Mid-Western Regional Council (MWRC) ;</li> <li>• Central West Catchment Management Authority;</li> <li>• the Wilpinjong Mine CCC; and</li> <li>• the local community through a Newsletter.</li> </ul>	AEMRs and RMP confirm this condition.	complies
4.3	Land disturbance and rehabilitation will occur progressively. It is anticipated that by the beginning of 2008 progressive rehabilitation will commence in Pit 1, with Pit 2 rehabilitation commencing in late 2008.	Pit 1 rehab started in 2008. Pit 2 commencing in 2011	Complies
4.5	Rehabilitation of tailings emplacements and waste rock emplacements will be undertaken progressively as the areas become available.	Confirmed. AEMRs deal with this	Complies
4.6	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.	Confirmed during site inspection.	Complies

4.6	Sediment retention structures will be included in rehabilitation design to prevent the movement of sediment off-site.	Wilpinjong Coal Mine Rehabilitation Management Plan outlines some of the sediment control structures in place, Wilpinjong Coal Mine Erosion and Sediment Control Plan outlines the Sediment Retention structures in more detail	complies
4.7	Areas disturbed as part of the construction process during the period of the last MOP and remaining unrehabilitated will be rehabilitated during the period of this MOP.	Noted.	
4.8	Rehabilitation trials will be carried out on the first 10 strips of mining in Pit 1. These trials will examine the success of planned landform designs and revegetation strategies and will be used to further refine rehabilitation methodologies. The trials will include establishment of woodland and grassland communities consistent with the post mining landuse.	Native seed trial has been undertaken in this area. This is being monitored annually as per the Landline reports. <b>It is recommended that more variation/flexibility be used in future trials</b>	Complies - <b>Recommendation Made</b>
4.8	Results of these trials will be used as a guide for progressively rehabilitating disturbed areas across the mining operation and for closure planning.	No rehabilitation trials were conducted in 2009 and 2010, a small amount of rehabilitation trials was conducted in 2008 and reported in the 2008 AEMR.	Complies
<b>5. Final Rehabilitation</b>			
5.1	Decommissioned tailings emplacements will be capped to create a landform that is stable and free draining and can be rehabilitated and revegetated in line with final landuse considerations.	Not at this point yet	Not Triggered
5.1	A Final Void Management Plan will be developed as a component of the Mine Closure Plan in advance of mine closure and decommissioning in consultation with relevant authorities.	Not triggered	Not Triggered
5.1	An initial Final Void Management Plan and the Mine Closure Plan will be developed during the term of this MOP, which is consistent with Department of Planning requirements. The Plans will be progressively reviewed and updated during mine development.	Mine Closure Plan submitted to DP&I in December 2010 and is pending approval	Complies

5.2	Construction infrastructure with no on-going beneficial use will be removed from the site at the completion of the construction and the sites stabilised and revegetated as appropriate.	Major construction ceased prior to current auditing period	Not Triggered
5.3.2	Spoil emplacements will be progressively rehabilitated approximately 4 mining strips behind the prestripped mining block.	This is the procedure used onsite. Confirmed during site inspection.	Complies
5.3.2	It is envisaged that Pit 1 tailings emplacement will be sufficiently dewatered by 2011 to allow capping, topsoil placement and revegetation to commence.	This has occurred. Confirmed during site inspection.	Not Triggered
5.3.3	During the period of this MOP these works will be undertaken to establish a landscape which includes both woodland and grassland communities consistent with the post mining landuse, as described in the Rehabilitation Management Plan and EIS. Where practical, this will include the planting of species characteristic of the White Box, Yellow Box, Blakely's Red Gum Endangered Ecological Community.	Rehab has not progressed to the point where plant communities are able to be sufficiently confirmed. Pasture woodland communities have been established in the rehabilitation areas.	Not Able to be Verified
<b>7. Environmental Management Controls</b>			
7.1	Site environmental management is implemented via an Environmental Management System (EMS) that is consistent with the principles of ISO 14001	Noted	
7.1	Wilpinjong Coal does not provide access to the site for any works until such time that it is clear that all necessary controls to minimise environmental harm have either been implemented; e.g. cultural heritage surveys or flora and fauna surveys, or are part of current and future mine planning.	This is the procedure used onsite	Complies
7.1	Controls required to minimise the environmental and community impacts of the Mine will be included in site Work Procedures, with an on-going review of potential impacts occurring through the Job Safety and Environmental Analysis procedure.	This is the procedure used onsite	Complies
<b>Air Quality Monitoring Program (AQMP)</b>			
7.2	Clearance controls, progressive rehabilitation and dust suppression will be the main controls implemented. The air quality monitoring network has been installed and will continue to be used to monitor air quality during the term of this MOP.	AQMP Confirms this commitment	Complies
<b>Erosion and Sediment Control Plan (ESCP)</b>			

7.3	Installation and maintenance of erosion and sediment control works commenced during the construction phase of the operation and will continue during the life of the mine.	ESCP Confirms this commitment	Complies
<b>Surface Water Management Plan (SWMP)</b>			
7.4	The results of this programme will be used in conjunction with on-site meteorological monitoring in the site water balance to optimise performance and validate predictions.	SWMP Confirms this commitment	Complies
7.4	The SWMP will be updated annually, the results of which will be detailed in the AEMR.	Confirmed in AEMR	Complies
<b>Groundwater Monitoring Programme (GWMP)</b>			
7.5	Monitoring bores are monitored on a regular basis and the ensuing data is used to determine whether mining is impacting these subterranean systems. Groundwater encountered during mining is currently the subject of on-going assessment and modelling and validation of the results will continue to be carried out during the period of this MOP.	Section 6 GWMP confirms this commitment	Complies
7.5	Provision is still being made for the supply of water from adjacent ground water sources, should predictions of a surplus not eventuate. Water sourced from pit dewatering and water recycled from tailings emplacements will form the primary water source for the operations.	verified during site inspection and audit interview	complies
7.5	The GWMP forms part of the SWMP and will be reviewed and updated as required through out the term of this MOP.	confirmed	Complies
<b>Rehabilitation Management Plan (RMP)</b>			
7.6	Land management practices include grazing management, progressive rehabilitation, planting of native tree/shrub species and land access controls. Land management will be an on-going activity for the life of the Mine and the RMP will be reviewed and updated as required through out the term of this MOP.	RMP confirms this commitment	Complies

7.7	The RMP outlines strategies for the management of flora and fauna across the site. Specific areas covered in the RMP include: • Vegetation Clearance Protocol (VCP); • Threatened Species Management Protocol (TSMP); • Remnant Woodland Enhancement Programme; • Rehabilitation Programme; • Flora and Fauna Monitoring Programme; and • FFMP review, monitoring and implementation processes.	Noted	
7.7	A monitoring component of the RMP will assess the performance of the RMP management measures such as selective planting in the regeneration areas.	Section 8 RMP confirms this commitment	Complies
7.7.1	A clean rubbish-free environment will be maintained to discourage scavenging and reduce the potential for colonisation of these areas by non-endemic fauna (e.g. introduced rodents, birds).	Confirmed during site inspection.	Compliant
7.7.1	Weeds will be controlled using mechanical removal as well as spraying with pesticides. Follow up inspections will be used to determine whether initial treatments have been effective and whether follow treatments are required.	Section 7.12 RMP Confirms this commitment, Weed spraying order sheets sighted by audit team.	Compliant
7.7.1	Feral animal management will be carried out using strategies such as trapping, baiting and feral animal habitat removal.	Section 7.12 RMP Confirms this commitment	Compliant
<b>Blast Management Plan (BMP)</b>			
7.8	The results of monitoring will assist in future blast design and will be used in conjunction with the various mitigation measures to reduce impacts such as noise and dust on nearby receptors. A blasting information hotline has been set up and is advertised quarterly.	BMP Confirms this commitment	Compliant
<b>Noise Monitoring Programme (NMP)</b>			
7.9	The results of this monitoring will be compared against the noise criteria set out in the NMP which will be used to optimise noise management controls. The NMP contains protocols for responding to noise related complaints and is subject to continual review and reporting through the AEMR.	NMP Confirms this commitment	Compliant

Visual Amenity / Lighting			
7.10.	Progressive revegetation with native tree/shrub species onto rehabilitated landforms will further minimise the visual impact of the Mine and will be completed soon after landform shaping.	This was not in place for the previous audit, however tree screens are currently in place and have been sighted by the audit team.	complies
7.10.	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.	Not practicable to fully construct this vegetation bund yet due to the location of mining works in relation to Ulan Wollar Road. A rail line also lies between the operations and the road.	Not Triggered
7.10.	Night-lighting effects will be minimised through the implementation of management measures and control structures designed to minimise light spillage.	Lighting procedures is a safety based document, not focussed on community impacts. No light shields are used on lighting above topographic screens. No lighting complaints were received in this audit period.	Not Compliant
Aboriginal Cultural Heritage Management Plan (ACHMP)			
7.11	This Plan has been developed in consultation with DEC and the Native Title Claimants in the area.	Noted	
7.11	As part of the ACHMP a monitoring programme includes ongoing monitoring of selected earthworks and the monitoring of dust and ground vibration levels at selected rock art sites.	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
7.11	Aboriginal artefacts salvaged from areas to be disturbed are collected and relocated to a “Keeping Place” where the artefacts are be analysed, documented and stored. Aboriginal artefacts will be replaced back into the landscape once final rehabilitation works are completed.	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
European Heritage			

7.12	All non-Aboriginal heritage sites found to be of local heritage significance have been recorded to an archival standard. Heritage construction materials will be conserved for use by local landholders and the Mudgee Historical Society where practical.	No activities or monitoring relevant to non-Aboriginal heritage occurred during the reporting period.	Not Triggered
7.12	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 activities or monitoring relevant to non-Aboriginal heritage occurred during the reporting period.	Not Triggered
<b>Spontaneous Combustion Management Plan (SCMP)</b>			
7.13	Assessment of the propensity of the coal and carbonaceous partings to spontaneous combustion is continuing.	SCMP covers this commitment	Complies
<b>Bushfire</b>			
7.14	Bushfire management strategies to prevent outbreaks and to protect property and people are detailed in the RMP. The BMP will include a protocol to be implemented in the event of a bushfire, to minimise its effect and spread.	Bushfire Management Strategies are detailed in the RMP The BMP does not include a protocol outlining the measures in place in the event of a bushfire	Not Compliant
7.14	A first response capacity will be maintained on the Mine and close co-operation given to the Rural Fire Service.	Bushfire Management Poster is detailed in the Bushfire management Plan.	Complies
<b>Public Safety</b>			
7.15	All efforts will be made to ensure the safety on the public, both as visitors to the site and off the site. Measures to be implemented to minimise risks to public safety include: <ul style="list-style-type: none"> <li>• induction programmes for employees, contractors and visitors;</li> <li>• signage and communication protocols for visitors and suppliers;</li> <li>• identification systems for visitor access to the site;</li> <li>• first aid training requirements for employees and contractors;</li> <li>• maintenance of fire trails and fire management measures in accordance with the BMP;</li> <li>• fence lines maintained in an operational condition;</li> <li>• right of way accesses to neighbours are maintained;</li> <li>• speed control signs have been installed on roads throughout WCPL-owned land; and</li> <li>• maintenance of locked gates around the site for security purposes.</li> </ul>	Induction programs. Signage confirmed during site inspection. Site auditors experienced identification systems for visitors to site. First aid training as part of site induction, fire trails as per discussion with property manager, fence lines confirmed in site inspection, no direct neighbours that require right of way access, speed control signs were confirmed during site inspection, and maintained locked gates also during site inspection.	Complies
<b>Environmental Monitoring and Reporting</b>			

7.16	Details of monitoring undertaken (including monitoring locations, frequency and parameters) will be updated in the AEMR and the Annual Environmental Protection Licence Return in accordance with the relevant environmental management plans.	Details of monitoring are reported in the AEMR	Complies
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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																		
Groundwater Monitoring Program																					
4	<p>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.</p> <p style="text-align: center;"><b>Table 1</b> <b>Project Groundwater Monitoring Programme</b></p> <table><tr><th>Monitoring Locations<sup>1</sup></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>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, HCO<sub>3</sub>, SO<sub>4</sub>, Total Fe</td></tr><tr><td>Cumbo Creek – GWA5 and GWA6 (Alluvium)</td><td>Monthly</td><td>Water Level, Field pH and EC</td></tr></table>	Monitoring Locations <sup>1</sup>	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 <sub>3</sub> , SO <sub>4</sub> , Total Fe	Cumbo Creek – GWA5 and GWA6 (Alluvium)	Monthly	Water Level, Field pH and EC	<p>The groundwater monitoring program requires monthly, quarterly and six monthly monitoring. The results have been reviewed from the 2008, 2009 and 2010 AEMR.</p> <p>These monitoring wells are as follows:</p> <ul style="list-style-type: none"><li>- Project water supply bores (GW1 - GW19);</li><li>- Wilpinjong Creek (GWA1 - GWA4, GWA7);</li><li>- Cumbo Creek (GWA5 - GWA6);</li><li>- Wollar Creek (GWC4);</li><li>- Wollar Village (GWA8); and</li><li>- selected landholder bores, wells and</li></ul>	Complies
Monitoring Locations <sup>1</sup>	Frequency	Parameters																			
Open Cut Operations – Main pit sump(s)	Monthly	Water Level, Field pH and EC Volume of Water Transferred																			
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and GWc3 (Coal Measure)	Every six months	Na, K, Mg, Ca, Cl, HCO <sub>3</sub> , SO <sub>4</sub> , Total Fe																						
Wollar Creek – GWc4 (Coal Measures)	Quarterly	Water Level, Field pH and EC																						
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Wollar Village – GWa8 (Alluvium) and GWc5 (Coal Measures)	Quarterly	Water Level, Field pH and EC																						
	Every six months	Na, K, Mg, Ca, Cl, HCO <sub>3</sub> , SO <sub>4</sub> , Total Fe																						
Landholder bores, wells and waterholes	In consultation with individual landholders	Water Level, Field pH and EC																						
		Na, K, Mg, Ca, Cl, HCO <sub>3</sub> , SO <sub>4</sub> , Total Fe																						
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.	No new monitoring bores were constructed during the current auditing period.	Not Triggered																					
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).	Exceedances have occurred, and these have been recorded and the procedure was to up date the SGWRP, and it is currently being reviewed by the DP&I.	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.	Complies
<b>Open Cut Operations - Dewatering Bores and Groundwater Seepage</b>			
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. <b>It is recommended that 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.</b>	Not Compliant - <b>Recommendation Made</b>
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.	EM mapping has been done for Wilpinjong Creek and Cumbo Creek. (Jan-March 2011 by Groundwater Imaging)	Complies
<b>Water Supply Borefield Monitoring Program</b>			
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. Note that only results for bores GWS10-5 have been recorded. 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.	Not Triggered
<b>Wilpinjong Creek</b>			
<b>Alluvium</b>			

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 <sub>3</sub> ), Sulphate (SO <sub>4</sub> ) and Total Iron (Fe) will also be undertaken every six months.	No units for EC in Table C1 of the AEMR. No measurements for December 2010 due to access issues caused by flooding. Exceedances in EC were reported in monitoring wells Gwa1, Gwa5, Gwa6, Gwa7 for 2008, 2009 and 2010, and Gwa15 for 2008. Triggers were reviewed and are awaiting approval from DP&I. In March 2008, no water quality results (laboratory parameters for Gwa7). This failure to analyse laboratory results for March 2008 for Gwa7 is considered to be a non compliance.	Not Compliant
<b>Coal Measures</b>			
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 <sub>3</sub> , SO <sub>4</sub> and Total Fe will also be undertaken every six months.	These parameters were measured as per the given time frame in 2010 (Table 18 of AEMR 2010). However during the 2008 and 2009 reporting periods, the required monitoring was not undertaken monthly for level, field pH and EC.	Complies
<b>Cumbo Creek</b>			
<b>Alluvium</b>			
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 18 of AEMRs 2008 and 2009, and Table 20 of AEMR 2010).	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 <sub>3</sub> , SO <sub>4</sub> and Total Fe will also be undertaken every six months.	These parameters are measures as per the given time frames in 2010 (Table 20 of the 2010 AEMR. However, during the 2008 and 2009 reporting periods, the required analysis was not undertaken every six months (Table 18 of AEMRs 2008 and 2009).	Not Compliant
<b>Coal Measures</b>			
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 <sub>3</sub> , SO <sub>4</sub> and Total Fe will also be undertaken every six months.	These parameters are measures as per the given time frames in 2010 (Table 20 of the 2010 AEMR. However, during the 2008 and 2009 reporting periods, the required analysis was not undertaken every six months (Table 18 of AEMRs 2008 and 2009).	Not Compliant
<b>Wollar Creek</b>			
<b>Coal Measures</b>			

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 <sub>3</sub> , SO <sub>4</sub> and Total Fe will also be undertaken quarterly.	These parameters are measures as per the given time frames in 2010 (Table 20 of the 2010 AEMR. However, during the 2008 and 2009 reporting periods, the required analysis was not undertaken every quarter (Table 18 of AEMRs 2008 and 2009).	Not Compliant
<b>Wollar Village</b>			
<b>Alluvium</b>			
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 <sub>3</sub> , SO <sub>4</sub> and Total Fe will also be undertaken quarterly.	During the 2008 and 2009 reporting periods, the required analysis was not undertaken for water chemistry every quarter (Table 18 of AEMRs 2008 and 2009). During the 2010 reporting period, the required analysis for water chemistry was undertaken every six months, rather than quarterly (Table 20 of the 2010 AEMR).	Not Compliant
<b>Coal Measures</b>			
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 <sub>3</sub> , SO <sub>4</sub> and Total Fe will also be undertaken quarterly.	During the 2008 and 2009 reporting periods, the required analysis was not undertaken for water chemistry every quarter (Table 18 of AEMRs 2008 and 2009). During the 2010 reporting period, the required analysis was undertaken every quarter (Table 20 of the 2010 AEMR).	Complies
<b>Landholder Bores, Wells and Waterholes</b>			
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 <sub>3</sub> , SO <sub>4</sub> 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
<b>Connectivity and Groundwater Leakage from Cumbo Creek</b>			
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
<b>Groundwater Dependent Ecosystems and Riparian Vegetation</b>			

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 modelling is currently being refined due to technical problems with calculating reasonable water volumes for various components within the complex groundwater system at the site. The results so far have therefore not been suitable for publishing in the AEMR as WCPL are not satisfied that the results have been sufficiently accurate.	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 is currently being refined due to technical problems with finding the correct model for the complex groundwater system at the site. The results so far have therefore not been suitable for publishing in the AEMR as WCPL are not satisfied that the results have been sufficiently accurate.	Not Triggered																													
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	<p>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).</p> <p style="text-align: center;"><b>Table 2</b> <b>Typical Baseline EC and pH Values by Aquifer Type</b></p> <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>~2,350<sup>1</sup></td><td>4,100</td><td>6.9</td><td>8.4</td></tr><tr><td>Mesozoic Laccolith Intrusion</td><td>~2,225<sup>1</sup></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>6,176<sup>2</sup></td><td>5.6<sup>2</sup></td><td>8.3<sup>2</sup></td></tr><tr><td>Nile Subgroup / Shoalhaven Group</td><td>~5,700<sup>1</sup></td><td>6,470</td><td>7.1<sup>3</sup></td><td>7.1<sup>3</sup></td></tr></table> <p>Source: Attachment 1.</p>			Aquifer Type	EC (µS/cm)		pH		Average	Max Recorded	Min Recorded	Max Recorded	Alluvium	~2,350 <sup>1</sup>	4,100	6.9	8.4	Mesozoic Laccolith Intrusion	~2,225 <sup>1</sup>	2,550	6.5	6.9	Illawarra Coal Measures	~3,200	6,176 <sup>2</sup>	5.6 <sup>2</sup>	8.3 <sup>2</sup>	Nile Subgroup / Shoalhaven Group	~5,700 <sup>1</sup>	6,470	7.1 <sup>3</sup>	7.1 <sup>3</sup>
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	<sup>1</sup> Average calculated using ratio of 0.68 EC/TDS. <sup>2</sup> 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). <sup>3</sup> There is only one pH record for the Nile subgroup.		
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. Recommendation - <b>It is therefore recommended that these criteria be revised and updated if necessary.</b>	Complies <b>Recommendation Made</b>
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 Surface water response plan has also not been invoked during this auditing period.	Not Triggered
<b>Groundwater Impact Investigation Procedure</b>			
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 Surface water 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.	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.	Not Triggered
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 Surface water 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 land use/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.	Not Triggered
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 Surface water 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.	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.	Not Triggered
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.	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.	Not Triggered
<b>Contingency Measures</b>			
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, Gwa15) was exceeded. Amendments to the SGWRP have been made and are under review by DP&I.	Compliant
<b>Existing Groundwater Supply Users</b>			
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



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
<b>Direct Groundwater Inflows from Alluvium Exposed in the Final Highwall of the Open Cut</b>			
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
<b>Reporting</b>			
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 2008, 2009 and 2010 Appendix E - Community Complaints Register Summary, and per the 2011 Community Complaints Register Summary on the WCPL website). No groundwater contingency measures have been required to be implemented during the auditing period. The groundwater modelling at WCM is currently being refined and updated, but progress on this has not been reported in the 2008, 2009 or 2010 AEMRs. <b>It is recommended that future AEMRs contain information about the progress of this groundwater modelling.</b>	Complies - <b>Recommendation Made</b>
<b>Groundwater Monitoring Program Revisions</b>			
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 finalised (November 2011). The GWMP is constantly under review as WCPL have been commissioning specialists to undertake site water balance studies during the auditing period.	Complies

Reference	Requirement	Evidence	Audit Finding																			
<b>Wilpinjong Coal Mine Air Quality and Greenhouse Gas Management Plan, September 2011, Wilpinjong Coal Pty Limited</b>																						
<b>Licences, Permits and Leases</b>																						
3.2	<p>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.</p> <ul style="list-style-type: none"> <li>- The conditions of Mining Lease 1573 issued by the NSW Minister for Mineral Resources, under the NSW Mining Act, 1992.</li> <li>- The current Mining Operations Plan approved by Department of Trade and Investment, Regional Infrastructure and Services NSW (DTIRIS NSW).</li> <li>- 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.</li> <li>- Water extraction licences issued by the NSW Office of Water under the NSW Water Act, 1912.</li> <li>- Mining and occupational health and safety related approvals granted by DTIRIS NSW and WorkCover NSW.</li> </ul>	<p>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.</p>	Complies																			
<b>Operating Conditions</b>																						
6.3	<p>WCPL will review operational compliance with Condition 20, Schedule 3 of the Project Approval during mining operations.</p>	<p>Sections 3.4 2010, 2009 &amp; 2008 AEMRs address condition 20. Sections 6.3, 11, 8.2 &amp; 8.4 of the Air Quality and Greenhouse Gas Management Plan also address condition 20 Confirmed during site inspection. This condition as confirmed during audit interview.</p>	Complies																			
<b>Performance Indicators</b>																						
6.4	<p>In addition to the statutory air quality criteria, WCPL will also assess the Wilpinjong Coal Mine against internal performance indicators (Table 2).</p> <p style="text-align: center;"><b>Table 2</b> <b>Internal Performance Indicators</b></p> <table border="1"> <thead> <tr> <th>Pollutant</th><th>Monitoring Point</th><th>Averaging Period</th><th>Performance Indicator<sup>1</sup></th></tr> </thead> <tbody> <tr> <td rowspan="4">PM<sub>10</sub></td><td rowspan="2">HV1, HV2, HV2, HV4<sup>2</sup></td><td>24 hour</td><td>37.5 µg/m<sup>3</sup></td></tr> <tr> <td>Annual</td><td>25 µg/m<sup>3</sup></td></tr> <tr> <td rowspan="2">TEOM 1, TEOM 2<sup>3</sup></td><td>5 minute instantaneous reading</td><td>150 µg/m<sup>3</sup></td></tr> <tr> <td>Rolling 24 hour average</td><td>37.5 µg/m<sup>3</sup></td></tr> <tr> <td>Deposited Dust</td><td>Dust deposition gauges excluding DG12, DG13 and DG14<sup>4</sup></td><td>Annual</td><td>3 g/m<sup>2</sup>/month</td></tr> </tbody> </table> <p><sup>1</sup> Indicative performance indicators only - to be reviewed and updated with ongoing monitoring results and operational experience.</p>	Pollutant	Monitoring Point	Averaging Period	Performance Indicator <sup>1</sup>	PM <sub>10</sub>	HV1, HV2, HV2, HV4 <sup>2</sup>	24 hour	37.5 µg/m <sup>3</sup>	Annual	25 µg/m <sup>3</sup>	TEOM 1, TEOM 2 <sup>3</sup>	5 minute instantaneous reading	150 µg/m <sup>3</sup>	Rolling 24 hour average	37.5 µg/m <sup>3</sup>	Deposited Dust	Dust deposition gauges excluding DG12, DG13 and DG14 <sup>4</sup>	Annual	3 g/m <sup>2</sup> /month	<p>Air quality monitoring techniques and locations were inspected by the audit team (PAEHolmes Photo log Pictures A4 - A5). The HVAS located at the Maher residence (HV3, co-located with PM10 TEOM 1) is fitted with a TSP sampling head.</p> <p><b>Recommendation - It is Recommended that AQGGMP be amended to reflect direct monitoring of TSP at Maher Residence.</b></p>	Complies <b>Recommendation made</b>
Pollutant	Monitoring Point	Averaging Period	Performance Indicator <sup>1</sup>																			
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	<sup>2</sup> HV = High Volume Sampler (Section 8.2). <sup>3</sup> TEOM = Tapered Element Oscillating Microbalance (Section 8.2). <sup>4</sup> DG = Dust Deposition Gauge (Section 8.2).		
<b>Air Quality Monitoring Program</b>			
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 (PAEHolmes Photolog Pictures A4 - A5). Dust deposition, PM10 and meteorological monitoring were all undertaken during the auditing period (AEMRs 2008, 2009 and 2010 Sections 3.3 and 3.4).	Complies
<b>TEOMs and Real Time Air Quality Management Systems</b>			
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).	Two TEOMs were used during the auditing period to monitor particulate matter concentrations. No relevant exceedances were recorded (Wilpinjong Coal Mine Environmental Monitoring Results Summary March-August 2011 Section 3.1).	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.	The Air Quality Monitoring Protocol was triggered by the TEOM sites on 6 March, 26 April, 2 July, 24 September, 27 September, 14 October, 15 October, 23 October, 29 November, 30 November and 9 December during the 2009 reporting period (AEMR 2009 Section 3.4.2).	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).	The Air Quality Monitoring Protocol was triggered by the TEOM sites on 6 March, 26 April, 2 July, 24 September, 27 September, 14 October, 15 October, 23 October, 29 November, 30 November and 9 December during the 2009 reporting period (AEMR 2009 Section 3.4.2).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.	Currently trying to build a regional dust monitoring network amongst the mines in the area. 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. The HVAS located at the Maher residence (HV3, co-located with PM10 TEOM 1) is fitted with a TSP sampling head. As such, ratioing of PM10 to establish TSP is not required. TSP is derived from direct monitoring. Recommendation - It is Recommended that AQGGMP be amended to reflect direct monitoring of TSP at Maher Residence.	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.	An extraction of the air quality monitoring database was provided detailing air quality monitoring results from May 2011 to date. In combination with data presented within the AEMRs, this demonstrated 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.	Air quality monitoring techniques and locations were inspected by the audit team (PAEHolmes Photolog Pictures A4 - A5). The HVAS located at the Maher residence (co-located with PM10 TEOM 1) is fitted with a TSP sampling head. As such, ratioing of PM <sub>10</sub> to establish TSP is not required. TSP is derived from direct monitoring.	Compliant Recommendation made						
	<div>Table 3 Data Handling Methodology</div> <table><tr><th>Monitoring Parameter</th><th>Data Handling Method</th></tr><tr><td>Dust Deposition</td><td><ul style="list-style-type: none"><li>Samples retrieved from the monitoring instrumentation on a monthly basis.</li><li>Samples sent to a laboratory for analysis.</li><li>Data entered into an electronic database (or similar) for comparison with relevant air quality criteria.</li><li>Data compared with relevant criteria and any exceedances noted.</li></ul></td></tr><tr><td>PM<sub>10</sub></td><td><ul style="list-style-type: none"><li>Samples retrieved from the monitoring instrumentation on a six day cycle.</li><li>Samples sent to a laboratory for analysis.</li></ul></td></tr></table>	Monitoring Parameter	Data Handling Method	Dust Deposition	<ul style="list-style-type: none"><li>Samples retrieved from the monitoring instrumentation on a monthly basis.</li><li>Samples sent to a laboratory for analysis.</li><li>Data entered into an electronic database (or similar) for comparison with relevant air quality criteria.</li><li>Data compared with relevant criteria and any exceedances noted.</li></ul>	PM <sub>10</sub>	<ul style="list-style-type: none"><li>Samples retrieved from the monitoring instrumentation on a six day cycle.</li><li>Samples sent to a laboratory for analysis.</li></ul>	Inspection of air quality monitoring undertaken by the audit team (PAEHolmes Photolog Pictures A4 - A5) indicates that all other parameters are monitored per Table 3 Recommendation - It is Recommended that AQGGMP be amended to reflect direct monitoring of TSP at Maher	
Monitoring Parameter	Data Handling Method								
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	<p>Sample sent to laboratory for analysis.</p> <ul style="list-style-type: none"> <li>• Data entered into an electronic database (or similar) for comparison with relevant air quality criteria.</li> <li>• Data compared with relevant criteria and any exceedances noted.</li> </ul> <p>TSP</p> <ul style="list-style-type: none"> <li>• PM<sub>10</sub> data converted to TSP using appropriate correlation.</li> <li>• Data entered into an electronic database (or similar) for comparison with relevant air quality criteria.</li> <li>• Data compared with relevant criteria and any exceedances noted.</li> </ul>		Complies
8.5	<p>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.</p>	<p>The 24 hour average PM<sub>10</sub> concentrations at three high volume air samplers (HV1, HV2 and HV4) and the TEOM exceeded the 50ug/m<sup>3</sup> short-term impact assessment criterion for particulate matter on a number of occasions during the 2009 reporting period. These events triggered the implementation of the Air Quality Monitoring Protocol (AEMR 2010 Section 3.4.2). This protocol was sighted by the audit team during the site visit and has not been invoked during the auditing period since this incident.</p>	Complies
<b>Assessment Against Air Quality Criteria and Performance Indicators</b>			
8.6	<p>The monitoring results will be used to assess the Wilpinjong Coal Mine against the performance indicators and performance criteria detailed in Table 4.</p>	<p>An inspection of the Sentinex Monitoring data repository was undertaken (PAEHolmes Photolog Picture A6) and was found to contain appropriate logs of alarms being triggered.</p>	Complies
8.6	<p>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).</p>	<p>The 24 hour average PM<sub>10</sub> concentrations at three high volume samplers (HV1, HV2 and HV4) and the TEOM exceeded the 50ug/m<sup>3</sup> short-term impact assessment criterion for particulate matter on a number of occasions during the 2009 reporting period. These events triggered the implementation of the Air Quality Monitoring Protocol (AEMR 2010 Section 3.4.2).</p>	Complies

8.6	Dust deposition gauge and high volume sampler data will be assessed monthly.	This sampling is done either one-day-in-six (HVAS) or monthly (DDG), as per Table 11 of AEMRs 2008 and 2009, and Table 12 of AEMR 2010. However, as per Section 3.4.2 of AEMR 2010, not all dust deposition data was collected in November and December 2010 due to flooding making this collection unsafe.	Not Compliant
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.	The Air Quality Monitoring Protocol was triggered by the TEOM sites on 6 March, 26 April, 2 July, 24 September, 27 September, 14 October, 15 October, 23 October, 29 November, 30 November and 9 December during the 2009 reporting period (AEMR 2009 Section 3.4.2). Control Room Operators notes were sighted by the audit team during the site visit. This confirmed that this procedure is followed.	Complies
<b>Reasonableness of Data Validity</b>			
8.6	<p>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:</p> <ul style="list-style-type: none"> <li>• Extreme events such as: <ul style="list-style-type: none"> <li>– bushfires;</li> <li>– prescribed burning;</li> <li>– dust storms;</li> <li>– fire incidents;</li> <li>– illegal activities; and</li> <li>– other activities agreed by the Director-General of the Department of Planning and Infrastructure and the OEH.</li> </ul> </li> <li>• Irregular activities near monitoring sites such as: <ul style="list-style-type: none"> <li>– exposed areas of soil around the monitoring site;</li> <li>– adjacent land use activities; and</li> <li>– contamination from bird droppings, insects, etc.</li> </ul> </li> <li>• Reasonableness of data (e.g. is the equipment operating properly, providing reliable data and in calibration?).</li> </ul>	<p>This occurred during the 2009 and 2010 reporting periods when several initial exceedances were noted (AEMRs 2009 and 2010 Section 3.4.2). Exceedances were attributable to e.g. cattle grazing adjacent to monitors, regional dust storm events, localised influences from unsealed roads..</p>	Complies
<b>Consideration of Cumulative Sources of PM<sub>10</sub> Emissions</b>			

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 during westerly winds throughout this auditing period. It is noted however that HVAS results, being an ensemble concentration, are generally not useful for the evaluation of cumulative impacts in the manner described. It is considered that this section of the AQGGMP should refer to TEOM monitoring. <b>Recommendation - It is Recommended that AQGGMP be amended to refer to TEOM monitoring, not HVAS monitoring, be used for evaluation of cumulative impacts.</b>	Not Triggered <b>Recommendation made</b>
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 during westerly winds throughout this auditing period. It is noted however that HVAS results, being an ensemble concentration, are generally not useful for the evaluation of cumulative impacts in the manner described. It is considered that this section of the AQGGMP should refer to TEOM monitoring <b>Recommendation - It is Recommended that AQGGMP be amended to refer to TEOM monitoring, not HVAS monitoring, be used for evaluation of cumulative impacts.</b>	Not Triggered. <b>Recommendation made</b>
<b>Air Quality Monitoring Protocols</b>			
<b>Standard Protocol</b>			
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	<p>The Standard Protocol will comprise the following four steps:</p> <ol style="list-style-type: none"> <li>1. Source Identification.</li> <li>2. Management Strategy.</li> <li>3. Implementation.</li> <li>4. Review.</li> </ol>	Control Room Operators notes were sighted by the audit team during the site visit. This confirmed that this protocol is followed.	Complies
<b>Source Identification</b>			
9.1	<p>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:</p> <ul style="list-style-type: none"> <li>- methods and types of equipment that will be used;</li> <li>- timing of the activity;</li> <li>- location of the activity (including surrounding topography and landuse);</li> <li>- the results of recent air quality monitoring data; and</li> <li>- prevailing climatic conditions.</li> </ul>	Control Room Operators notes were sighted by the audit team during the site visit. This confirmed that this protocol is followed.	Complies
<b>Review</b>			
9.1	<p>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.</p>	Control Room Operators notes were sighted by the audit team during the site visit. This confirmed that this protocol is followed. Review of management strategies implemented by Thiess is undertaken by Peabody on a case by case basis.	Complies
<b>Exceedances Monitoring Protocol and Contingency Plan</b>			
9.2	<p>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.</p>	<p>Air quality monitoring techniques and locations were inspected by the audit team (PAEHolmes Photolog Picture A6 - A7). Evidence of implementation of exceedance investigations is provided within the AEMRs.</p>	Complies



Air Quality Monitoring Assessment - Exceedances			
9.2	<p>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:</p> <ul style="list-style-type: none"> <li>• The timing of the exceedance(s).</li> <li>• General location of the exceedance(s).</li> <li>• 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: <ul style="list-style-type: none"> <li>– 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</li> <li>– the location and nature of potential dust producing non-Wilpinjo</li> </ul> </li> </ul>	<p>Air quality monitoring techniques and locations were inspected by the audit team (PAEHolmes Photolog Pictures A4-A5). Evidence of implementation of exceedance investigations is provided within the AEMRs.</p>	Complies
9.2	<p>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.</p>	<p>Evidence of implementation of exceedance investigations is provided within the AEMRs. No mine-attributable exceedance events have been triggered to date.</p>	Complies
Management Strategy and Contingency Measures			
9.2	<p>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.</p>	<p>No mine-attributable exceedance 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.</p>	Complies
9.2	<p>Air quality mitigation and management measures will be selected with consideration given to:</p> <ul style="list-style-type: none"> <li>- the location of the exceedance of the criteria and the proximity to the Wilpinjong Coal Mine's activities;</li> <li>- possible reasons for the exceedance of the criteria (including consideration of meteorological factors); and</li> <li>- the likely effectiveness and feasibility of the mitigation/management measures.</li> </ul>	<p>No mine-attributable exceedance 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.</p>	Complies
9.2	<p>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.</p>	<p>No mine-attributable exceedance 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.</p>	Complies

Implementation			
9.2	<p>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:</p> <ul style="list-style-type: none"> <li>- as soon as practical, for potential 24 hour PM10 impacts or 24 hour PM10 exceedances; and</li> <li>- after appropriate evaluation, planning and design for annual average exceedances.</li> </ul>	<p>No mine-attributable exceedance 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.</p>	Complies
Review			
9.2	<p>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.</p>	<p>Control Room Operators notes were sighted by the audit team during the site visit. This confirmed that this protocol is followed. Review of management strategies implemented by Thiess is undertaken by Peabody on a case by case basis.</p>	Complies
9.2	<p>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.</p>	<p>Discussion and investigation into trends in the air quality monitoring data is provided within the AEMRs.</p>	Complies
9.2	<p>The outcomes of the above protocol will be reported in the Annual Review.</p>	<p>Evidence of implementation of exceedance investigations is provided within the AEMRs.</p>	Complies
Greenhouse Gas Management			
10	<p>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:</p> <ul style="list-style-type: none"> <li>- optimising the design of haul roads to minimise the distance travelled between the pit and the CHPP;</li> <li>- minimising the re-handling of material (i.e. coal, overburden and topsoil); and</li> <li>• maintaining the fleet in good operating order.</li> </ul>	<p>Economic factors dictate.</p>	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.	Spontaneous combustion issues witnessed at the noise bund. Peabody confirm that this is being addressed by Thiess according to the AQGHGMP. The Spontaneous Combustion Management Plan (SCMP) was also witnessed and reviewed. Bund maintenance reportedly avoided during winter to avoid adverse odour impacts associated with formation of overnight temperature inversions.	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.	Spontaneous combustion issues witnessed at the noise bund. Peabody confirm that this is being addressed by Thiess according to the AQGHGMP and SCMP.	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.	Spontaneous combustion issues witnessed at the noise bund. Peabody confirm that this is being addressed by Thiess according to the AQGHGMP and SCMP.	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.	Spontaneous combustion issues witnessed at the noise bund. Peabody confirm that this is being addressed by Thiess according to the AQGHGMP and SCMP.	Complies				
Management Measures							
12	<p>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.</p> <p style="text-align: center;"><b>Table 5</b> <b>Air Quality Management Measures for Mine Design</b></p> <table><tr><th>Source</th><th>Management Measures</th></tr><tr><td>Transport of coal</td><td>Largest practical truck size. Shortest route.</td></tr></table>	Source	Management Measures	Transport of coal	Largest practical truck size. Shortest route.	<p>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.</p> <p>Truck sizes have been optimised for production purposes.</p>	
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.
Run-of-mine coal (ROM) Stockpiles	Have available water sprays on ROM stockpiles to minimise the generation of dust.

Source: After PAEHolmes (2010).

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.

Complies

**Table 7**  
**Air Quality Management Measures for Mining-generated Dust**

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.

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

No obsolete access roads witnessed.

	<table><tr><td>Drilling</td><td>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.</td></tr><tr><td>Blasting</td><td>Meteorological conditions will be assessed prior to blasting. Adequate stemming will be used at all times.</td></tr><tr><td>Processing</td><td>Activities in the processing plant will be dust controlled.</td></tr></table> <p>Source: After PAEHolmes (2010).</p>	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.	<p>Dust aprons and extraction reportedly used for drilling.</p> <p>Environmental Procedure for Blasting witnessed.</p> <p>Water dust suppression used in processing plant.</p>
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.							
12	<p>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.</p>	<p>Exceedances recorded by the sentinex system sends email and text message alerts (PAEHolmes Photolog Pictures A6, A7 and A9). 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.</p>						
Complaints								
15.2	<p>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:</p> <ul style="list-style-type: none"><li>- The detail of the complaint will be recorded in the complaints register.</li><li>- 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.</li><li>- 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).</li><li>- Following implementation of additional air quality control measures (if required), monitoring will assess the effectiveness of the additional air quality control measures.</li></ul>	<p>Complaints investigations detailed within the AEMRs. Summary of Community Complaints Register provided within Appendix E of the AEMRs.</p>						
		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 E of the AEMRs.	Complies
<b>Non Compliances with Statutory Requirements</b>			
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. Sections 3.4 of the AEMRs 2008, 2009 and 2010 all contain an analysis of air quality performance.	Complies

**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.	Interrogation of noise monitoring data (quarterly Environmental Noise Assessments produced by Advitech) indicates that data is being appropriately excluded.	Complies
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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.	Interrogation of noise monitoring data (quarterly Environmental Noise Assessments produced by Advitech) indicates that data is being appropriately excluded. Sentinex System interrogated to establish that audio capture is being conducted at continuous noise monitoring sites.	Complies
<b>5. Monitoring and Interpretation</b>			
<b>Attended Noise Monitoring</b>			
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 attended noise monitoring is conducted on a quarterly basis (Attended Noise Monitoring reports produced by Global Acoustics) there is no evidence that this information is currently being used complement the calibration of the real-time monitors. <b>Recommendation - It is Recommended that this activity be addressed and documented within future attended monitoring.</b>	Not Compliant <b>Recommendation made</b>
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.	Attended noise monitoring has historically been conducted on a quarterly basis. More recently (2010) a two-monthly frequency can be seen. Attended Noise Monitoring reports produced by Global Acoustics witnessed. <b>Recommendation - It is Recommended that 2-monthly frequency is adhered to, or case be made for a quarterly frequency and Noise Management Plan amended accordingly.</b>	Not Compliant <b>Recommendation made</b>
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 <sub>Amax</sub> , LA <sub>1</sub> , LA <sub>10</sub> and LA <sub>eq</sub> ) 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 <sub>Amax</sub> , LA <sub>1</sub> , LA <sub>10</sub> , LA <sub>50</sub> , LA <sub>90</sub> , L <sub>Amin</sub> and LA <sub>eq</sub> ) 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 LA <sub>1</sub> measurement should be undertaken at 1 m from the dwelling façade and the LA <sub>eq</sub> 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 LA <sub>eq</sub> 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: <ul style="list-style-type: none"> <li>• operator's name;</li> <li>• locations of attended and unattended noise instruments;</li> <li>• recording intervals;</li> <li>• meteorological conditions (i.e. temperature, humidity, cloud cover, and wind speed and direction);</li> <li>• statistical noise level descriptors together with notes identifying the principle noise sources; and</li> <li>• instrument calibration details.</li> </ul>	Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.	Complies



5.1.3	<p>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.</p> <p>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.</p>	<p>Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.</p>	Complies
5.1.4	<p>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.</p>	<p>Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.</p>	Complies
5.1.4	<p>In the event of an exceedance of the noise criteria, an assessment will be conducted to determine:</p> <ul style="list-style-type: none"> <li>• Timing of the exceedance.</li> <li>• Location of the exceedance.</li> <li>• 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: <ul style="list-style-type: none"> <li>– 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</li> <li>– the location of non-WCPL mining activities or agricultural activities and proximity to the locations at which the exceedance was recorded.</li> </ul> </li> <li>• 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.</li> </ul>	<p>Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.</p>	Complies
5.1.4	<p>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.</p>	<p>Attended noise monitoring reports produced by Global Acoustics witnessed, and conducted appropriately.</p>	Complies
<b>Real-Time Noise Monitoring</b>			
5.2.2	<p>Monitors will be located at the Maher dwelling[N9], the Williams dwelling (Araluen Lane) and Wollar (mine owned land)1.</p>	<p>Noise monitoring techniques and locations were inspected by the audit team (PAEHolmes Photolog Picture A1 - A3).</p>	Complies

5.2.2	<p>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:</p> <ul style="list-style-type: none"> <li>• occupational health and safety (OHS);</li> <li>• reliable power supplies;</li> <li>• security of the monitoring equipment;</li> <li>• access to the monitoring equipment for installation, maintenance and recovery; and</li> <li>• representation of the location for noise management.</li> </ul>	Noise monitoring locations were inspected by the audit team (PAEHolmes Photolog Picture A1 - A3). Relocation of noise instrumentation has reportedly been offered to residents in Wollar, however was not taken up. Wollar Noise Logging instrumentation is trailer mounted and capable of relocation. Maher residence instrumentation is also planned for upgrade to incorporate portability.	Complies
5.2.3	<p>The real-time noise monitors will include the following general specifications:</p> <ul style="list-style-type: none"> <li>• Records 15 minute statistical noise data.</li> <li>• Records real-time audio (MP3) files continuously.</li> <li>• Records meteorological monitoring data (including wind speed, direction, temperature, humidity and rainfall).</li> <li>• Produces daily reports, including: <ul style="list-style-type: none"> <li>- 15 minute statistical data (LA10, LA90);</li> <li>- LAeq(15 minute) and LAeq(period) noise levels;</li> <li>- LAeq(15 minute) in 1/3 octave;</li> <li>- LAeq(15 minute) in the 12.5 to 630 Hertz (Hz) range; and</li> <li>- wind direction, wind speed, temperature, humidity and rainfall.</li> </ul> </li> </ul>	Noise monitoring techniques and locations were inspected by the audit team (PAEHolmes Photolog Picture A1 - A3).	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.	Interrogation of noise monitoring data (quarterly Environmental Noise Assessments produced by Advitech) indicates that data is being appropriately excluded.	Complies
5.2.3	<p>Noise investigation triggers will be set at a minimum of 2 dBA below the Project Approval criterion (Section 3.3).</p> <p>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.</p>	Exceedances recorded by the sentinex system sends email and text message alerts (PAEHolmes Photolog Pictures A7 and A8). 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 sentinelx system sends email and text message alerts (PAEHolmes Photolog Pictures A7 and A8). 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
<b>Operational Performance Assessment</b>			
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 sentinelx system sends email and text message alerts (PAEHolmes Photolog Pictures A7 and A8). 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 sentinelx system sends email and text message alerts . Sentinelx system interrogated to view graphical outputs of noise monitoring (PAEHolmes Photolog Pictures A7 and A8).	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 sentinelx system sends email and text message alerts (PAEHolmes Photolog Pictures A7 and A8). 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. Sentinelx system interrogated to establish that audio files are logged and are readily downloadable.	Complies

5.2.4	<ul style="list-style-type: none"> <li>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):</li> </ul> <ol style="list-style-type: none"> <li>1. Temporary stoppage of mobile equipment closest to the noise receptor.</li> <li>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.</li> <li>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.</li> </ol>	Exceedances recorded by the sentinex system sends email and text message alerts (PAEHolmes Photolog Pictures A7 and A8). 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	<ul style="list-style-type: none"> <li>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.</li> </ul>	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	<ul style="list-style-type: none"> <li>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).</li> </ul>	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	<ul style="list-style-type: none"> <li>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.</li> </ul>	Exceedances recorded by the sentinex system sends email and text message alerts . Sentinex system interrogated to view graphical outputs of noise monitoring (PAEHolmes Photolog Pictures A7 and A8).	Complies
<b>6. Corrective Action</b>			
<b>Complaints Management</b>			
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 within Appendix E of the AEMRs.	Complies

6.1	<p>Response to a noise complaint will include:</p> <ul style="list-style-type: none"> <li>• The detail of the complaint will be recorded.</li> <li>• 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.</li> <li>• 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).</li> <li>• Following implementation of noise control measures (if required), monitoring (e.g. attended/unattended monitoring) will assess the effectiveness of the additional noise control measures.</li> </ul>	<p>Complaints investigations detailed within the AEMRs. Summary of Community Complaints Register provided within Appendix E of the AEMRs.</p>	Complies
6.1	<p>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.</p>	<p>Complaints investigations detailed within the AEMRs. Summary of Community Complaints Register provided within Appendix E of the AEMRs.</p>	Complies
<b>7. Continuous Improvement</b>			
7.2	<p>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:</p> <ul style="list-style-type: none"> <li>• noise limits and acoustical specification in the procurement of equipment;</li> <li>• desktop design validation and supplier shop testing;</li> <li>• equipment suppliers will demonstrate acoustical conformance during tender phase;</li> <li>• environmental and OHS acoustical shop testing during procurement phase;</li> <li>• in-situ acceptance testing;</li> <li>• re-fitting and or replacement in the event of non-compliance;</li> <li>• acoustical modelling of installed plant using actual achieved sound power levels;</li> <li>• noise emission monitoring and reporting; and</li> <li>• on-site and off-site operator-attended noise surveillance measurements of acoustically significant plant.</li> </ul>	<p>No evidence obtained to demonstrate that this is not being carried out.</p>	Complies
7.3	<p>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:</p>	<p>e.g. "Quacker" reversing alarms witnessed as fitted on light vehicles.</p>	Complies

7.3	<ul style="list-style-type: none"> <li>During operational activities, fixed plant and mobile equipment will be commissioned and maintained in a manner that is consistent with manufacturer's recommendations.</li> </ul>	No evidence obtained to demonstrate that this is not being carried out.	Complies
7.3	<ul style="list-style-type: none"> <li>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.</li> </ul>	Pit 3 and Pit 4 not yet operational.	Complies
7.3	<ul style="list-style-type: none"> <li>Additional noise management measures that may be implemented following an exceedance of criteria or receipt of a complaint are as follows: <ul style="list-style-type: none"> <li>timely response to any community issues of concern;</li> <li>discussions with relevant landowners to assess concerns;</li> <li>refinement of on-site noise management measures and mine operating procedures; and</li> <li>consideration of acoustical mitigation at receivers (e.g. double glazing of windows).</li> </ul> </li> </ul>	Complaints investigations detailed within the AEMRs. Summary of Community Complaints Register provided within Appendix E of the AEMRs.	Complies
<b>8. Reporting and Review</b>			
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.	Latest NMP approved by DP&I 15 September 2011. Document control indicates regular update of this document.	Complies

Reference	Requirement	Evidence	Audit Finding
<b>Wilpinjong Coal Project Surface Water Management and Monitoring Plan (Wilpinjong Coal Pty Limited, March 2006)</b>			
<b>Surface Water Trigger Levels and Conditions</b>			
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
<b>Surface Water Monitoring Program</b>			
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).	Not relevant to this auditing period.	NA
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.	Environmental Monitoring Program confirms this condition. Certificates of Analysis from ALS and NATA Accredited reports were sighted by the audit team.	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.	A copy of the NATA accreditation was sighted by the audit team during the site visit (Certificate of Analysis, ALS Group 2 December 2011). Certificate of Analysis for surface waters provided (ALS Group 14 December 2011).	Complies
<b>Stream Health Monitoring Program</b>			
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). Stream health monitoring spring report was sighted by audit team	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 condition	Complies
6	Visual monitoring (e.g. photographic) will be conducted quarterly to detect a potential change in the quality and quantity of riparian vegetation.	Groundwater plan for stream health monitoring confirms this condition	Complies
6	Monitoring of the rehabilitation of riparian vegetation using Ecosystem Function Analysis (EFA) or similar techniques.	Confirmed in Audit interview	Complies
6	Channel stability monitoring (Section 7).	This was undertaken during the auditing period, as per AEMR 2010 Section 3.5.2, and AEMRs 2008 and 2009 Sections 3.6.2).	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):	Stream health report 2009 confirms this	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.	Three replicate macroinvertebrate samples were collected using timed 1-minute sweeps of all habitats (edge, riffle, pools, etc.) using a 250 x 250 cm (250 µm) dip net.	Complies															
6	Australian River Assessment System (AUSRIVAS) rapid biological assessment for macroinvertebrates.	AusRivAS modelling is used. Aus RivAS is used to calculate the expected SIGNAL index as an indicator for aquatic health.	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.	Stream health report 2009 confirms this	Complies															
Channel Stability Monitoring Program																		
7	<p>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.</p> <p style="text-align: center;"><b>Table 5</b> <b>Channel Stability Monitoring Programme</b></p> <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.	This was continued during the auditing period, as per AEMR 2010 Section 3.5.2, and AEMRs 2008 and 2009 Sections 3.6.2).	Complies
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.	Stream Stability Monitoring Report confirms this commitment	Complies															



7	Dimensions of significant erosional or depositional features will be measured and documented such that any subsequent changes can be evaluated quantitatively.	Stream Stability Monitoring Report confirms this commitment	Complies
7	Cross-sectional and longitudinal surveys will be undertaken to enable any flow induced change to be quantified.	Stream Stability Monitoring Report confirms this commitment	Complies
7	Photographs and written descriptions of each site will also be undertaken, focussing on evidence of erosion and exposed soils.	Stream Stability Monitoring Report confirms this commitment	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.	Stream Stability Monitoring Report confirms this commitment	Complies
<b>Data Management and Reporting Procedures</b>			
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.	Surface water quality monitoring and sample collection, storage and transportation is undertaken in accordance with the procedures outlined in the relevant parts of AS/NZS 5667 - 1998 (AS 5677) Water quality – Sampling. Confirmed during audit interview	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	

8	<p>5. Surface Water Impact Review</p> <p>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:</p> <ul style="list-style-type: none"> <li>- determine whether the Project is having an adverse impact on surface water;</li> <li>- investigate any landholder complaints which raise concerns that the Project is having an adverse effect on surface waters; and</li> <li>- facilitate the preparation of contingency/remediation plans for managing adverse impacts of the Project on surface water, where necessary.</li> </ul>	<p>Site water balance was reviewed in 2010, and ongoing reviews with the consultants, SKM, have been conducted since that time. A specific "Site Water Impact Review" has not been prepared, however it is noted that many of these commitments are addressed within the AEMR (2010). <b>It is recommended that specific Surface Water Impact Review reports, providing greater detail of the surface water monitoring and discussion of results and trends.</b></p>	<p>Complies - <b>Recommendation Made</b></p>
8	<p>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.</p>	<p>Site water balance was reviewed in 2010, and ongoing reviews with the consultants, SKM, have been conducted since that time. No site water balance reviews were completed in 2008 or 2009. An operational water balance is undertaken each month, as confirmed during the audit interview. <b>It is recommended that the site water balance be included in subsequent AEMRs.</b></p>	<p>Complies - <b>Recommendation Made</b></p>
<b>Reporting</b>			
9	<p>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:</p> <ul style="list-style-type: none"> <li>- results of the stream "health" monitoring programme (Section 6);</li> <li>- details of the channel stability monitoring programme (Section 7); and</li> <li>- results of the surface water impact reviews (Section 8).</li> </ul>	<p>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.</p>	<p>Complies</p>
<b>Surface Water Monitoring Program Revisions</b>			
10	<p>The SWMMMP will be reviewed, and if necessary updated, by the Environmental Manager:</p> <ul style="list-style-type: none"> <li>- on an annual basis following surface water impact reviews;</li> <li>- where there is a significant change in the Project water balance surplus/deficit;</li> <li>- in response to an Independent Environmental Audit;</li> <li>- when there are changes to the Project Approval or licence conditions relating to aspects of this SWMMMP; or</li> <li>- in response to a relevant change in technology or legislation.</li> </ul>	<p>The SWMMMP 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).</p>	<p>Complies</p>