



## **Wambo Coal Mine Independent Environmental Audit - June 2011**

**18 August 2011**

Prepared for:  
**Wambo Coal Pty Limited**  
PMB 1  
Singleton NSW 2330

Report by:  
**Trevor Brown & Associates**  
**applied environmental management consultants**  
ABN: 23 084 906 963

3 Forwood Crescent Bundanoon 2578 Australia  
Ph: +61 2 4883 7877  
Mob: 0409 053 031

TBA Ref: WC06/11

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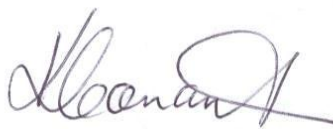
By

**Tebcon Pty Limited**  
**Trading as Trevor Brown & Associates**  
ABN: 23 084 906 963

3 Forwood Crescent Bundanoon NSW 2578



**Trevor Brown**  
Principal Environmental Consultant



**Kerrie Conant**  
Director Tebcon Pty Limited

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## EXECUTIVE SUMMARY

An independent environmental audit of the mining and infrastructure areas of the Wambo Development Project (WDP) was conducted with a site visit between 6-10 June 2011 by Trevor Brown & Associates, and follow up documentation review to assess the status of the mine activities and rail loop and coal loader facilities in relation to the Minister's Conditions of Approval (MCoA) DA 305-7-2003 and DA 177-8-2004 and other project approvals.

The audit was conducted generally in accordance with the AS/NZS ISO 19011:2002 – *Guidelines for Quality and/or Environmental Systems Auditing*.

Documentation held by Wambo Coal at the mine site was provided to the auditors in an organised and efficient manner making the audit process for verification of compliance with the MCoA and other statutory approvals, a straight forward exercise.

### ***Environmental Management Strategy***

The review of the Environmental Management Strategy concluded that the content of the Strategy meets the requirements of MCoA Schedule 6 Condition 1 and represents a sound basis for environmental management of the activities and operation of WDP.

### ***Environmental Monitoring Programs***

The Environmental Monitoring Programs requirements in the MCoA Schedule 6 Condition 2 and 3 are considered to meet the requirements of the MCoA and EPL for air, water, noise, blast and vibration, flora and fauna and rehabilitation programs.

### ***Air Quality***

The review of the Air Quality Monitoring Program indicated that the data collected from the existing monitoring sites generally comply with MCoA Schedule 4 conditions 2 to 4 and Environment Protection Licence 0529 condition P1.1. No significant or recurrent emission non-conformances were evident from the data reviewed during this audit.

### ***Water Management***

The review of the Site Water Management Plan and component monitoring programs had been prepared and approved by DoP in 2005. The data collected from the existing monitoring sites meets the requirements of MCoA Schedule 4 conditions 33 and 34 and Environment Protection Licence 0529 condition P1.2 and provides a sound basis for assessment of compliance of the operations. Revisions to the Plan occurred between 2005 and 2009 in response to Modifications to Consent.

The latest suite of Site Water Management Plans submitted to the DoP in April 2010 had not been approved by DoP at the date of this audit.

While the various documents that make up the Site Water Management Plan have been approved by DoP, some of the specific details the MCoA Schedule 4 conditions 30-35 requirements have not been addressed. Revision of these plan/programs should reflect each component of the approval conditions.

### ***North Wambo Creek Diversion Plan***

The North Wambo Creek Diversion Plan was prepared in 2007 and approved by DoP on 14 April 2008. The Plan was subsequently revised in October 2009 and will be further revised to address the Stage 3 construction works. A cut-off wall has been installed to retain alluvial groundwater upstream of the NWCD, but no physical or documentary evidence of a functioning return system for intercepted groundwater was observed during the audit.

### ***DPI and DWE Additional Requirements for the North Wambo Creek Diversion***

Construction of Stage 3 had not commenced at the date of this audit. Submission of as-executed survey plans for the North Wambo Creek Diversion is planned to be submitted to DPI and DWE at completion of the Stage 3 diversion works.

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**Erosion and Sediment Control**

The Erosion and Sediment Control Plan was approved as part of the Site Water Management Plan on 30 June 2006. The latest revision of the Erosion and Sediment Control Plan was submitted to DoP on 28 April 2010. The Erosion and Sediment Control Plan describes measures to minimise soil erosion and potential for sediment migration however it does not address management of the main mechanism for erosion risk and sediment migration on site which is soil dispersion. The Erosion and Sediment Control Plan could be improved with revision where necessary to conform to the requirements of the *Soils and Construction Volume 2E Mines and Quarries*, (particularly in relation to erosion management).

The sediment control structures on the site appeared to be in sound condition as observed during the audit inspection.

**Groundwater Monitoring Program**

The Groundwater Monitoring Program was approved by DOP in December 2005, updated in March 2006 and approved by DoP in June 2006. The latest revision of the Groundwater Monitoring Program was submitted to DoP on 28 April 2010. The approved Plan has 28 groundwater monitoring wells, three wells are located off Wambo's mining lease. Consideration should be given to the establishment of additional groundwater wells outside of the Wambo mine lease area.

**Surface Water Monitoring Program**

The initial Surface Water Monitoring Program was approved by DoP in 2005. A revised Site Water Monitoring Program was submitted to DoP on 28 April 2010. The surface water monitoring program provides a satisfactory sampling regime for the surface water quality assessment of South Wambo, North Wambo, and Stony Creek. It is recommended that the bank stability, vegetation monitoring and effectiveness of erosion and sediment control structures be inserted into the Surface Water Monitoring Program.

**Surface and Groundwater Response Plan**

The Surface and Groundwater Response Plan was approved by DoP in December 2005. The Plan was revised in June 2006, October 2007 and the February 2010 revision was submitted to DoP on 28 April 2010.

The Surface and Groundwater Response Plan should be revised to include measures to be implemented if a decrease in flow-through rates within the Wollombi Brook alluvium downstream of the open cut are detected and/or trigger levels for the relinquishment of water extraction rights to compensate for surface and groundwater losses from streams, channels or alluvials to the open cut and underground mining workings, occur due to the development.

**Noise Monitoring**

The Noise Monitoring Program Revision 3 was approved by the DoP on 2 November 2007. The quarterly attended noise monitoring conducted at the sites nominated in the Noise Monitoring Program indicated that extraneous noise sources (e.g. wind, birds, highway traffic, and other mine operations) were dominant. Wambo mine contribution to the noise levels were generally low although audible on some occasions along with the other sources. The Wambo contribution to the overall noise levels would not have resulted in exceedance of the noise criteria in the absence of extraneous noise sources.

**Blast Monitoring**

The Blast Monitoring Program was approved by DoP in 2005. Monitoring has occurred in accordance with the plan. Non-compliance of blast overpressure criteria (120dBL) occurred on 4 occasions between 2006 and 2011:

- One blast exceeded 120dBL on 1 June 2006. The DEC issued a cautionary letter in relation to the failure to comply with the maximum permissible overpressure level of 120dB.
- One blast exceeded 120dBL (120.3dBL) at Kelly monitoring site on 13 October 2008)
- One blast exceeded 120dBL (122.1dBL) at the Harris monitoring site 14 August 2009
- One blast result exceeded 120dBL (124.2dBL) on 17 February 2011 at Muller monitoring site. Wambo Coal was issued with a Penalty Infringement Notice in relation to this exceedance on 4 March 2011.

**Biodiversity**

The initial Flora and Fauna Management Plan was approved by DoP in September 2005. The Flora and Fauna Management Plan was further revised and submitted to DoP on 1 March 2010. WCPL should follow up with DoPI to obtain correspondence acknowledging receipt and approval of the revised FFMP.

The Flora and Fauna Management Plan should be revised to include references and required management actions.

A draft Deed of Agreement (MCoA 4/41) was sent to the Minister for Planning in November 2005. No correspondence acknowledging the Deed of Agreement had been received from DoP at the date of this audit (June 2011). No action had occurred from the Minister in relation to ratifying the Deed. This matter cannot be progressed by WCPL without action from the Minister.

**Rehabilitation**

Progressive rehabilitation has occurred in accordance with the Mining Operations Plan and is reported annually in the AEMR's. At the date of this site inspection there was no disturbed area awaiting rehabilitation under the MOP rehabilitation plan. The Rehabilitation Management Plan required under MCoA Schedule 4 condition 94A was being developed in accordance with the DII Guideline for submission to the Director-General of DII for approval by the end of December 2011.

A number of suggestions have been proposed to assist Wambo improve its rehabilitation performance.

**Conclusion**

In the opinion of the auditors, the documentation, reporting and activities at the WDP generally demonstrated a high degree of compliance with the conditions attached to the current consent and approvals granted for the project.

# 1. Introduction

## 1.1 Background

The development consent granted to Wambo Coal Pty Ltd (WCPL) for the Wambo Development Project (WDP) included the requirement for an audit to be conducted in accordance with the DA 305-4-2003 Minister's Condition of Approval (MCoA) Schedule 6, Condition 7 – Independent Environmental Audit:

- “7. Every 3 years, unless the Director-General directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. 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 development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these consents/approvals);
  - (d) review the adequacy of strategies, plans or programs required under the abovementioned consents/approvals; and
  - (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the above mentioned consents.

*Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Director-General.*

*Within 6 weeks of the completion of this audit, or as otherwise agreed by the Director-General, the Applicant shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.”*

An independent environmental audit of the mining and infrastructure areas of the Wambo Coal Mine and Rail loop and loader were conducted between 7-10 June 2011 by Trevor Brown & Associates, to assess the status of the mine activities in relation to the conditions of approval and in accordance with the Minister's Conditions of Approval (MCoA) Schedule 6, Condition 7.

The Trevor Brown & Associates audit team consisted of:

Trevor Brown	Principal Auditor -compliance and environmental management
Steven Pereira	Air Quality - KMH Environmental
Michelle Collins-Roe	Biodiversity - KMH Environmental
Thomas Cockings	Noise - Norman Disney Young
Michael Frankcombe	Rehabilitation – KMH Environmental
Wayne Jones	Water Management – KMH Environmental

## 1.2 Scope of Work

The compliance audit was conducted generally in accordance with the Australian/New Zealand Standards *ISO 19011:2002 – Guidelines for Quality and/or Environmental Systems Auditing*.

The scope of work for the independent environmental audit of the WDP included the following components:

- review of the development consent condition requirements and other approvals for the project;
- conduct of a site inspection and review on-site documentation and monitoring data for the project relevant to the audit;

- discussion of the development consent and other approval conditions and operation of the project with Wambo project staff;
- assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these consents/approvals);
- review the adequacy of strategies, plans or programs required under the abovementioned consents/approval;
- recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the above mentioned consents
- preparation of the Independent Environmental Audit Report providing assessment of compliance against each consent condition and provision of recommendations or actions to improve the environmental performance of the development, and/or the environmental management and monitoring systems.

### 1.3 *Structure of the Audit Report*

The report has been prepared to provide comment on each condition of approval in a tabulated form, with additional discussion where required on specific matters. The tabulated comments are attached as Attachment A for the MCoA. The Independent Audit Report sections are:

Section 1	Introduction
Section 2	Wambo Project Status – June 2011
Section 3	Ministers Conditions of Approval (MCoA)
Section 4	Other Statutory Approvals
Section 5	Conclusions and Recommendations
Glossary	
Attachment A	Ministers Conditions of Approval (DA 305-4-2003-i)
Attachment B	Additional Requirements for North Wambo Creek Diversion
Attachment C	Ministers Conditions of Approval (DA 177-8-2004)
Attachment D	Environment Protection Licence No.0529
Attachment E	Mining Lease Conditions

### 1.4 *Compliance Table*

The status of compliance of the WDP with the conditions of approval have been expressed in the audit tables using the following terminology:

Compliance - Yes	Implies compliance with the intent and/or requirement of the approval condition.
Compliance - <b>NO</b>	The specific requirement of the consent condition was not met.
In progress/Ongoing	Where activities have commenced but are not completed, and requirements of the MCoA are being developed.
Not Activated/triggered	The condition had not been activated because the activity have not yet commenced, or the requirement of the condition have not been triggered.
Not Applicable	Conditions that do not apply at the date of the audit.
Noted	No specific auditable requirement applicable to the condition.



## 2 Wambo Development Project status

The Wambo Development Project (WDP) commenced on 14 November 2005 following surrender of the previous development consents issued for the Wambo Coal project by the Singleton Council (with the exception of DA 108/91). The preparation and approval of the required environmental management plans in accordance with the MCoA and relevant approvals, permits, consents and licenses for the construction activities were obtained by Wambo Coal Pty Ltd (WCPL) to progress the development.

The general layout for the mine infrastructure and facilities are in accordance with the MCoA Schedule 3, Condition 2 – Terms of Approval, as amended in October 2006:

*"The Applicant shall carry out the development generally in accordance with the:*

- (a) DA 305-7-2003;*
- (b) EIS titled Wambo Development Project, volumes 1-5, dated July 2003, and prepared by Resource Strategies Pty. Ltd.;*
- (c) letter from Holmes Air Sciences to the Department, dated 3 September 2003, and titled Wambo Development Project - Response Air Quality Assessment;*
- (d) letter from Wambo Coal Pty. Ltd. to the Department, dated 24 October 2003, and titled Wambo Development Project – Development Application Amendment (DA 305-7-2003-i);*
- (e) Statement of Environmental Effects titled Wambo Development Project – Wambo Seam Underground Mine Modification, dated January 2005, and prepared by Wambo Coal Pty Ltd;*
- (f) Document titled Wambo Development Project – Modification of DA 305-7-2003-i, dated 24 October 2005;*
- (g) Document titled Wambo Development Project – Modification of DA 305-7-2003-i, dated 23 January 2006;*
- (h) Document titled Wambo Development Project – Modification of DA 305-7-2003-i1; dated 27 July 2006; and*
- (i) document titled Wambo Coal Mine Modification Statement of Environmental Effects; dated September 2006;*
- (j) document titled Wambo Coal Mine Statement of Environmental Effects on Proposed Modification, dated March 2009;*
- (k) document titled Wambo Coal Mine Modification Statement of Environmental Effects, dated June 2009 and the response to submissions dated July 2009;*
- (l) (l) the modification application DA 305-7-2003 MOD 9 and accompanying letter prepared by Wambo Coal Pty Ltd; and*
- (j) (m) conditions of this consent.."*

Following development consent granted in February 2004, of the following modifications have been approved:

### **Wambo Coal Mine Development Project DA 305-7-2003**

#### **Statement of Environmental Effects - Wambo Development Project – Wambo Seam Underground Mine Modification, January 2005**

Modification sought to modify the orientation and timing of the development of the Wambo Seam Underground Mine. WCPL proposed to mine the Wambo Seam Underground Mine before the Whybrow Seam Underground Mine and change the orientation of the Wambo Seam Underground Mine long-walls to facilitate access directly from the existing open cut operations. Approval for the modification was obtained in May 2005.

#### **Wambo Development Project – Modification of DA 305-7-2003-i, 24 October 2005**

Modification was sought to facilitate the construction of infrastructure for the open cut and underground mines including the extension of the existing open cut contractors workshop and associated services, construction of surface infrastructure including a

personnel transfer station and a diesel refuelling station at the North Wambo Underground mine, and modification of groundwater monitoring requirements in relation to coal seam aquifers. Approval of the modification was gained in January 2006.

**Wambo Development Project – Modification of DA 305-7-2003-i, 23 January 2006**

Modification requested to facilitate extraction of remnant coal from the existing Wollemi Underground Mine. Approval for the extraction of the remnant coal to maximise recovery of resource was obtained in April 2006.

**Wambo Development Project – Modification of DA 305-7-2003-I, 27 July 2006**

Modification sought to facilitate the construction of a temporary bypass of North Wambo Creek around open cut operations scheduled for the next two years, to provide time to design, construct, stabilise and commission the Diversion of North Wambo Creek in accordance with MCoA Schedule 4 Condition 28. Approval was obtained in October 2006.

**Statement of Environmental Effects Wambo Coal Mine Modification, September 2006**

Modification to the consent was lodged for the staged construction of the North Wambo Creek Diversion, a temporary North Wambo Creek Pipeline and construction of gas drainage and dewatering infrastructure for the North Wambo Underground Mine.

**Statement of Environmental Effects Proposed Modification DA 305-7-2003 MOD 9, March 2009 and June 2009**

WCPL sought to modify DA 305-7-2003 in accordance with Section 96(2) of the Environmental Planning and Assessment Act 1979, for the construction of a mine water storage dam. The 96(2) application to modify the consent was granted 27 August 2009.

**Modification application DA 305-7-2003 MOD 9 and accompanying letter prepared by Wambo Coal Pty Ltd**

The modification was essentially administrative in nature and proposed to update the existing subsidence management process within the development consent to reflect current requirements under development consents and project approvals for "Extraction Plans", rather than Subsidence Management Plans. Approval for the Modification was granted 28 February 2011.

The project area and location of major activities at the site are shown in Figure 2.1.

**Wambo Rail and Train Loading Infrastructure**

The general layout for the Wambo rail infrastructure and facilities were assessed in the Environmental Impact Statement (EIS) titled Wambo Development Project, July 2003, - WCPL Rail and coal loading infrastructure (DA305-7-2003) and were constructed generally in accordance with documents listed in MCoA Schedule 3, Condition 2 – Terms of Approval.

The preparation and approval of the required environmental management plans in accordance with the MCoA and relevant approvals, permits, consents and licenses for the construction activities were obtained by WCPL prior to commencement of construction to progress the development. The Wambo rail loop and coal loader construction activities were completed in late 2004 and the rail loader commenced full operation in June 2006.

**Environmental Impact Statement (EIS) titled Wambo Development Project, July 2003, - WCPL Rail and coal loading infrastructure DA305-7-2003 1 June 2004**

On 1 June 2004, the Minister approved the Wambo Development Project rail and coal loading infrastructure (DA 305-7-2003). The proposal involved:

- constructing a coal reclaim and loading system, which included reclaim hoppers, conveyors across Wollombi Brook, a load-out bin, and a coal loading system;
- constructing a rail spur and balloon loop, which included 4 kilometres of track, and a tunnel under the Golden Highway;
- realigning Wallaby Scrub Road and its intersection with the Golden Highway;
- operating the infrastructure 24 hours a day, 7 days a week.

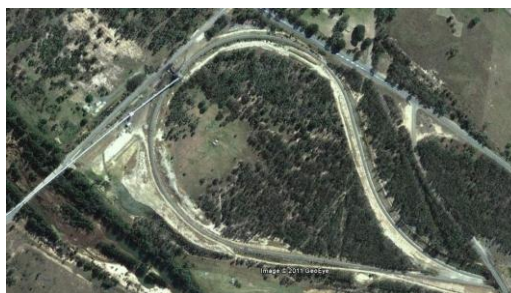
#### **Statement of Environmental Effects – Proposed Alteration to the Wambo Development Project Rail and Train Loading Infrastructure (16 December 2004)**

The modification to the approved rail and train loading infrastructure consisted of the following:

- construction of a coal reclaim and loading system, which included reclaim hoppers, conveyors across Wollombi Brook, a load-out bin, and loading system (same as the approved development);
- construction of a rail loop (Eliminating the need for the rail spur line previously approved);
- construction of a rail underpass beneath Wallaby Scrub Road (eliminating the need to realign Wallaby Scrub Road);
- upgrading the Wallaby Scrub Road/Golden Highway intersection;
- operating the infrastructure 24 hours a day, 7 days a week for up to six 8,600 tonne coal trains per day.



**Plate 2.1 Wambo Rail Development Area 2005 – pre-construction**



**Plate 2.2 Wambo Rail Development 2009 – post construction**

#### **Current Status of the Wambo Coal Development**

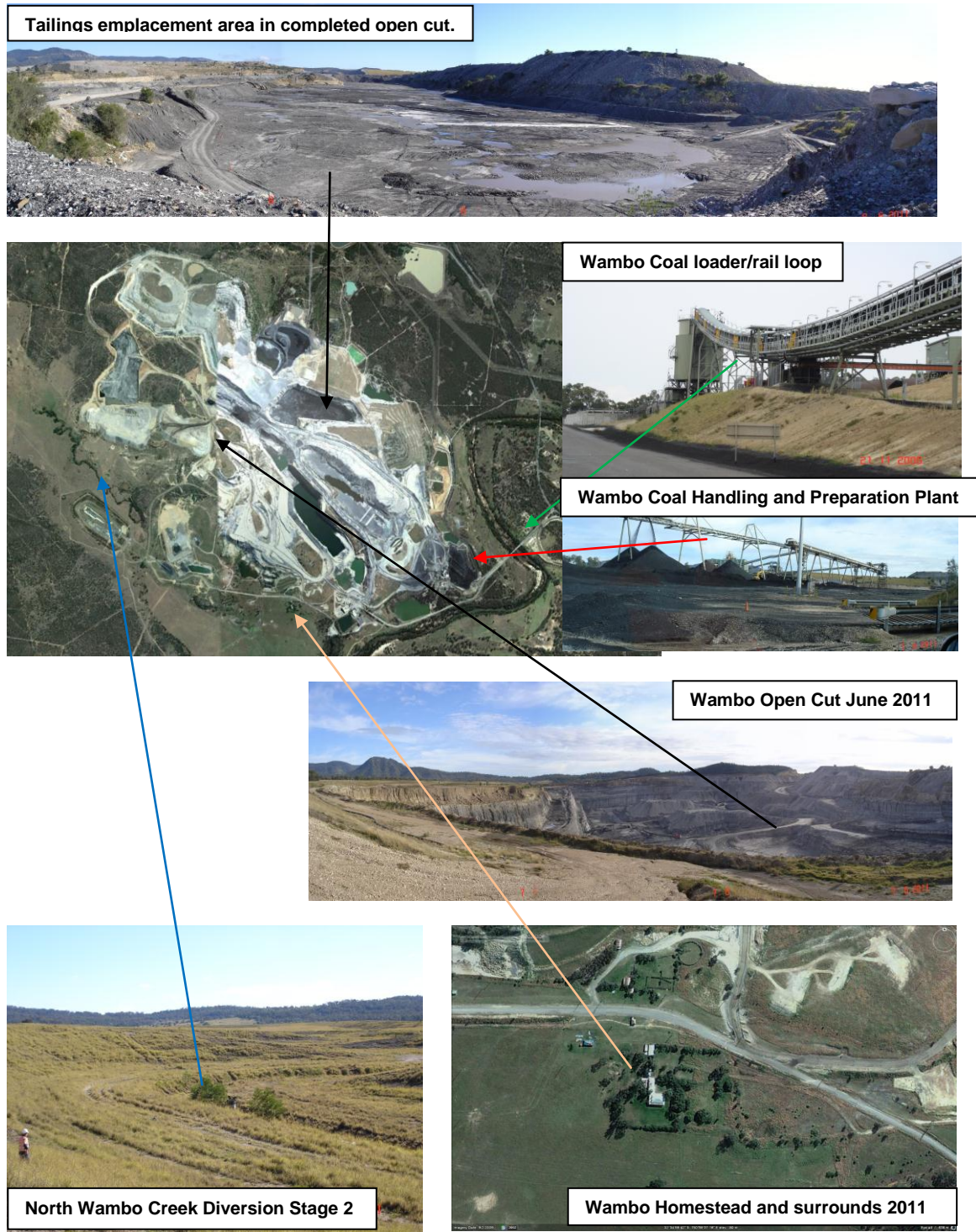
The Wambo Development Project has progressed in accordance with the description of the project in the EIS and approved modifications, and the Minister's Conditions of Consent (MCoA), Schedule 3 Condition 2. The status of the project in June 2011 was:

- Open cut mining at Wambo Open Cut is continuing with emplacement of waste rock and coarse reject within the mine waste rock emplacement areas to the southeast of the open cut pit;
- Following the closure of the Wollemi Underground Mine, Open Cut operations were expanded to maintain an overall production rate of 3 million tonnes per annum (Mtpa) of product coal. Construction of portals and drifts directly from the highwall of the open cut operations for access to the Wambo Seam Underground Mine have occurred;
- Development of the North Wambo Underground Mine commenced in November 2005, with longwall operations commencing in October 2007.
- Module 1 of the Coal Handling and Preparation Plant (CHPP) was demolished and the upgraded CHPP Module 2 and 3 were commissioned and have been operating since 2007;
- Tailings from the CHPP continue to be placed in open cut voids and will be capped with waste rock and coarse rejects prior to rehabilitation;
- The rail spur and loop and train loading infrastructure were completed and all coal from Wambo Coal Mine had been transported by rail since June 2006;



- Mining Contractor's (Downer EDI) workshop and associated services are located adjacent to the Peabody Wambo Coal administration building ;
- Four air quality monitoring stations and four real-time noise monitoring stations were installed in July 2006 and operational since that date.

**Figure 2.1 Wambo Coal Development June 2011**



### 3. Minister's Conditions of Approval

The Development Consent (DA 305-7-2003-i) under the *Environmental Planning and Assessment Act 1979* and Minister's Conditions of Approval (MCoA) for the WDP was granted 4 February 2004. Modifications to the consent were granted in May 2005, January 2006, April 2006 October 2006, January 2007, June 2009, August 2009 and February 2011, in relation to the overall development of the Wambo open cut and underground coal mines, and general terms of approval for the integrated approval from other agencies with specific legislative and administrative responsibilities (e.g. Department of Primary Industries, Department of Environment and Conservation, local Councils, etc).

This Independent Environmental Audit has reviewed the available documentation in relation to the requirements of the MCoA and other approvals granted for the project.

Where an authority other than Department of Planning had administrative responsibility for the requirements of the condition(s) or other approvals, the compliance status was determined by reviewing correspondence and consultation to assess if the requirement of the conditions of approval were met.

#### 3.1 Environmental Management Strategy

Schedule 6 of the MCoA required the development of an Environmental Management Strategy for the Wambo Development Project. The document was prepared in accordance with the requirements of MCoA Schedule 6 Condition 1, and submitted to the DoP for approval in April 2005. Approval of the Environmental Management Strategy was obtained from the DoP on 10 October 2005.

##### ***Schedule 6 Environmental Management, Monitoring, Auditing and Reporting***

1. *Before carrying out any development, the Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Director-General. This strategy must:*
  - (a) *provide the strategic context for environmental management of the development;*
  - (b) *identify the statutory requirements that apply to the development;*
  - (c) *describe in general how the environmental performance of the development would be monitored and managed during the development;*
  - (d) *describe the procedures that would be implemented to:*
    - *keep the local community and relevant agencies informed about the operation and environmental performance of the development;*
    - *receive, handle, respond to, and record complaints;*
    - *resolve any disputes that may arise during the course of the development;*
    - *respond to any non-compliance;*
    - *manage cumulative impacts; and*
    - *respond to emergencies; and*
  - (e) *describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the development.*

Review of the Environmental Management Strategy Revision 3, dated January 2009 was undertaken as part of this audit. It is considered that the Environmental Management Strategy addresses each of the elements of ANZ/ISO 14001 and satisfies the components of MCoA Schedule 6 condition 1 (DA 305-7-2003-i).

## 3.2 Environmental Monitoring Program

Schedule 6 Conditions 3 and 4 of the MCoA DA 305-7-2003-i required the development of an Environmental Monitoring Program for the Wambo Coal Mine development. The monitoring programs for each environmental aspect prepared in accordance with the requirements of MCoA Schedule 6 Condition 3, were submitted to the DoP for approval and approved by DoP in January 2006. Any revisions required have been submitted to the DoP and approval obtained from DoP.

### ***Schedule 6 Environmental Management, Monitoring, Auditing and Reporting***

- "3. Before carrying out any development, the Applicant shall prepare an Environmental Monitoring Program for the development in consultation with the relevant agencies, and to the satisfaction of the Director-General. This program must consolidate the various monitoring requirements in schedule 4 of this consent into a single document.*
- 4. The Applicant shall regularly review, and if necessary update, this program in consultation with the Director-General."*

The review of the Environmental Monitoring Program conducted as part of this audit confirmed that the monitoring requirements from each of the management plans were included in the consolidated document developed for MCoA Schedule 6 Condition 3, and the monitoring programs had been implemented by Wambo. The monitoring results are retained in electronic form and a summary of data is included in the Annual Environmental Management Reports, prepared between July 2005 and June 2010.

The Environmental Monitoring Program addresses the requirements of the MCoA for the mine site and surrounding area for blasting, air quality, noise, surface water, groundwater, flora and fauna, and rehabilitation.

### 3.2.1 Air Quality

The current Environmental Monitoring Program document was developed using air monitoring locations established for the previous mine operations (i.e. prior to 2003), with some additional monitoring locations added for the activities defined in the EIS 2003. A number of the monitoring sites included in the program are now located on mine owned land (following acquisition of properties by WCPL).

**Dust deposition sites** – the current monitoring program consists of 16 dust deposition gauges (including 4 located at the air quality monitoring stations). Several of the gauges are located on mine owned land or are within the mine lease area. The location of the monitoring locations appears appropriate given the prevailing weather conditions and the location of sensitive receptors. The townships of Warkworth and Jerry's Plains are both well represented by the full suite of monitoring.

The suitability of the dust deposition gauges sites meet Environment Protection Licence 0529 condition P1.1, which requires the dust deposition and TSP monitoring sites to be at locations where the levels being sampled are representative of emissions from the operation of the mine and take into account prevailing wind direction and the location of residential properties or other sensitive receivers.

**Air Quality Monitoring Stations (AQMS)** – four AQMS have been established in accordance with MCoA Schedule 4 Condition 4 and have been operating since July 2006. Each AQMS have a high volume air sampler (HVAS) for total suspended particulate (TSP), a TEOM for particulate matter less than 10 µm (PM<sub>10</sub>), and dust deposition gauge for deposited dust.

The locations for the AQMS were selected where electrical power and security of the stations could be assured. Inspection of the sites and localised meteorological data



shows that the locations of specific interest are north west of the site and directly adjacent to the site to the east. The Wambo site is bordered by the Wollemi National Park to the west and other mining operations to the north east.

The prevailing winds at the Wambo site are from the north-northwest. The location of monitoring sites chosen provide data to assess compliance at the nearest sensitive receptors and are also appropriately sited considering the likely source and impact of the operations. The siting of all monitoring locations is deemed appropriate for the operations. The location, monitoring and operation of the AQMS are:

AQMS No.	Location	Parameters Monitored
		Air Quality
AQ01	'Coralie' dwelling, near the WRD load-out bin and rail loop area, east of Wollombi Creek and the mine surface workings	HV01, PM01, D19
AQ02	Caban dwelling, South Wambo adjacent to Wambo Road	HV02, PM02, D20
AQ03	Thelander and O'Neill dwellings, northwest of the Wambo surface workings	HV03, PM03, D21
AQ04	Muller dwelling, northwest of the Wambo surface workings	HV04, PM04, D22

Generally at least 90% of air quality results have been collected and the data assessed to be valid. No significant or recurrent emission non-conformances are evident from the data reviewed during this audit. Results from all monitoring locations identified in Table 1 of the Air Quality Monitoring Program (EMP008\_AQMP July2008) are reported in the AEMR's.

The air quality monitoring program satisfies all the general requirements of MCoA Schedule 4 condition 2 to 4, Environment Protection Licence 0529 condition P1.1, and commitments in the approved Wambo Air Quality Management Plan (EMP008, July 2008). Assessment of the air quality data provided in the AEMR's provides comment on all non-conforming results with missing data identified and investigated as per the requirements of the Air Quality Management Plan.

There is no evidence in the AEMR's that the contribution of the Wambo operations to regional dust deposition has been assessed in relation to the maximum increase of  $2\text{g/m}^2/\text{month}$  contribution to overall dust deposition levels specified in MCoA Schedule 4, condition 2.

**Recommendation 1:**

The air quality reporting required in MCoA Schedule 4 condition 2 in relation to the maximum increase of  $2\text{g/m}^2/\text{month}$  contribution to overall dust deposition levels should be reviewed and reported in the AEMR's (Annual Report).

In the interest of the traceability of results, reference to the analytical methodology used for the air quality monitoring should be included in the AEMR's (Annual Review) to confirm that the data presented is in accordance with the approved methods specified by the EPL ("Approved Methods for the Sampling and Analysis of Air Pollutants in NSW") and/or an acceptable industry standard.

Only high level summaries of investigations into exceedances are reported in the AEMR's. These summaries are considered appropriate and the conclusions appear to be reasonable and plausible given the dust deposition results. In all cases, any exceedance of the impact assessment criteria were intermittent and of short duration.

### 3.2.2 Water Quality

#### 3.2.2.1 Site Water Management (MCoA Schedule 4, condition 30)

The suite of management plans that make up the Site Water Management Plan were prepared and originally approved by DoP in August 2005 (except for the North Wambo Creek Diversion Management Plan). The Site Management Plan was then revised between 2005 and 2009 in response to Modifications to Consent:

- Revision 1 August 2005 – revision of the draft submitted to DoP in August 2005;
- Revision 2 August 2007 – involved consolidation of the Management Plans to include rail loader and infrastructure;
- Revision 3 October 2008 – involved consolidation of the Management Plans including the rail infrastructure;
- Revision 4 November 2009 - related to Modifications of Consent for the Chitter Dam (approved June 2009) and South Dam (approved August 2009) and Revision 4 was approved by DoP in January 2010.

The component Plans that make up the Site Water Management Plan were also reviewed, revised if necessary and revised documents submitted to DoP on the 28 April 2010. No approval correspondence acknowledging the revised SWMP's had been received from DoP at the date of this audit.

While the various Plans that make up the Site Water Management Plan have been previously approved by DoP some details in the MCoA Schedule 4 conditions 30-35 were not specifically addressed in the plans/programs. The revision of these plan/programs should reflect each component of the approval conditions.

**Recommendation 2:**

WCPL should follow up with the DoPI to obtain a correspondence acknowledging receipt of the revised SWMP 2010 and provide approval of the revisions.

#### 3.2.2.2 Site Water Balance (MCoA Schedule 4, condition 30)

An initial Site Water Balance was prepared in April 2006 (Gilbert & Associates) and the site water balance is reviewed annually for the site operations and reported in the AEMR's.

In March 2010, WCPL completed a detailed review of the sites water balance based on monitoring data from numerous water flow meters on site and information provided by WCPL technical personnel. The latest revision of the Site Water Balance was submitted to DoPI on 28 April 2010.

Site Water Balance 2007 to 2010			
	2007-2008	2008-2009	2009-2010
<b>Water Sources</b>	<b>ML per year</b>		
Hunter River	20	0	80
Wolombi Brook	455	241	184
United Borehole	491	288	0
Rainfall / Runoff	3930	4137	3020
Underground Seepage	350	355	460
Open cut Seepage	294	602	450
Wollemi Sump	219	70	21
Site Wells	151	0	0
<b>Total Water Input</b>	<b>5910</b>	<b>5693</b>	<b>4215</b>
<b>Water Usage</b>			
Dust Suppression	809	692	660
CHPP Consumption	1800	701	950
Underground	131	193	350



Site Water Balance 2007 to 2010			
	2007-2008	2008-2009	2009-2010
Water Sources	ML per year		
United	255	635	443
Domestic Usage	6	2	3
<b>Total Usage</b>	<b>3001</b>	<b>2224</b>	<b>2426</b>
Water Loss			
Evaporation from mine water & tailings dams	1480	1986	1850
<b>Water Balance</b>	<b>+1429</b>	<b>+1483</b>	<b>-61</b>

A comprehensive predictive site water and salt model that includes a predictive accounting system for water and salt budgets has been developed by Wambo to satisfy recent MCoA requirements.

### 3.2.2.3 North Wambo Creek Diversion Plan (MCoA Schedule 4, condition 31)

The North Wambo Creek Diversion Plan was prepared in 2007 and submitted to DPI, and DWE for comment and consultation. Comments on the draft North Wambo Creek Diversion Plan were received by Wambo and the Plan and comments were submitted to DoP, and approved on 14 April 2008. The North Wambo Creek Diversion Plan was revised in October 2009 as Appendix A of the Site Water Management Plan and will be further revised to address the Stage 3 construction works.

A number of detailed design and specifications documents for the NWCD were sighted during the site visit. These included documents prepared by HLA Enviro Sciences, Gilbert and Associates and Alan Watson Associates. Stage 1 (the temporary by-pass) and Stage 2 (North Wambo Creek Diversion) were completed in 2008. Stage 3 of the diversion channel is yet to be constructed.

Armour protection in accordance with the requirements of the DWE and DPI was observed in sections of the North Wambo Creek diversion channel inspected.

System design details in Section 5 of Appendix A of the NWCDP (Design Report) refer to the diversion inlet structure and the capture of intercepted groundwater. While a cut of wall has been installed to intercept alluvial groundwater upstream of the NWCD, no physical or documentary evidence of a functioning return system for intercepted groundwater was observed during the audit.

Appendix B of the North Wambo Creek Diversion Plan provides a list of riparian or floodplain species suitable for rehabilitation of the creek diversion disturbed areas. Species from this list were observed in the completed stages of the creek diversion.

#### **Recommendation 3:**

To satisfy MCoA Schedule 4 condition 31 and additional requirements from DoP, DWE and DPI the North Wambo Creek Diversion Plan document should be revised to:

- reflect the current design and three stage of construction of the diversion;
- include assessment of weeds and weed control;
- include large woody debris for habitat creation;
- provide estimates of construction duration or commencement dates;
- include the detailed design of the system to return intercepted ground water to the alluvial aquifer downstream of the open cut;
- submit as-executed survey and report on the NWCD to DWE when Stage 3 of the North Wambo Creek Diversion is complete;
- provide supplementary specifications if required by DP&I for Stage 3 works

### 3.2.2.4 Erosion and Sediment Control Plan (MCoA Schedule 4, condition 32)

An initial Erosion and Sediment Control Plan was approved as part of the Site Water Management Plan on 30 June 2006. The latest revision of the Erosion and Sediment Control Plan was submitted to DoP on 28 April 2010.

The Landcom “*Managing urban storm water – Soils and Construction Volume 1*” 2004b (the Blue Book), proposes a management objective of erosion control over sediment control. Details on mining specific Erosion and Sediment Control Plans are described in Appendix C of *Soils & Construction Volume 2E Mines and Quarries* (DECC 2008). Specifically, *Soils & Construction Volume 2E Mines and Quarries* is a guide to the application of the principles and practices of erosion and sediment control described in “*Managing urban stormwater: soils and construction Volume 1*” (Landcom 2004b) for mines and quarries.

The 2010 Erosion and Sediment Control Plan identifies principles of erosion and sediment control focussing on sediment control to address the disturbance from the footprint of the open cut.

*Soils & Construction Volume 2E Mines and Quarries* Section 4.1 requires the assessment of erosion and sediment constraints – rainfall erosivity, flooding liability, topography, and soils. The control measures proposed in the Erosion and Sediment Control Plan section 3 do not adequately identify or address the primary mechanism for dispersive soils/spoils observed at Wambo and the design standards for erosion and sediment control structures in the Erosion and Sediment Control Plan section 4 are not consistent with the requirements of Table 6.1 of *Soils & Construction Volume 2E – Mines & Quarries*.

The Erosion and Sediment Control Plan could be improved by inclusion of the following key aspects outlined in *Soils & Construction Volume 2E Mines and Quarries*:

- Description of the major soil types present
- Any vulnerable lands present
- Any areas within the site with serious erosion or sedimentation potential, together with details of special planning or management requirements proposed for their protection
- The construction sequence over the life of the development in the form of a chart or table outlining the sequence of works including erosion and sediment control measures
- The erosion control strategy including the criteria used to select, locate and schedule control measures
- The extraction program
- Revegetation program including species
- The maintenance strategy for all control measures including the nomination of responsibility for follow-up maintenance of any permanent control measures.

(As part of the suite of Site Water Management Plans, component management objectives for erosion and sediment control that reflect the intent of the Blue Book, not directly addressed in the Erosion and Sediment Control Plan, are in some cases dealt with in the suite of Site Water Management Plans, Flora and Fauna Management Plan and Mining Operations Plan. The Erosion and Sediment Control Plan should be revised as necessary to address the requirements of the *Soils & Construction Volume 2E Mines and Quarries* and refer to the specific aspects in other documents if the information is not to be included in the revised Plan).

#### **Recommendations 4:**

- The ESCP should be reviewed and revised as necessary to address the requirements of *Soils & Construction Volume 2E Mines & Quarries*.

- The design standards for ESC structures in the revised ESCP should be consistent with the requirements of Table 6.1 of the *Soils & Construction Volume 2E Mines & Quarries*.
- The type of rock utilised in drop structures observed on site should be modified to reflect the requirements of the *Soils & Construction Volume 2E Mines & Quarries*.

The erosion and sediment control structures on the site appeared to be in sound condition as observed during the audit inspection.

#### 3.2.2.4 Surface Water Monitoring (MCoA Schedule 4, condition 33)

The initial Surface Water Monitoring Program was originally submitted to DoP and approved in 2005. The Site Water Monitoring Program was revised in November 2009 and the Plan submitted to DoP on 28 April 2010.

The surface water monitoring program provides a satisfactory sampling regime for surface water quality assessment of South Wambo, North Wambo, and Stony Creek. Baseline data on surface water flows and quality in the Wollombi Brook, and North Wambo, South Wambo, and Stony Creeks are provided in the Surface Water Monitoring Program, Section 4.

The Surface Water Monitoring Program refers to Flora and Fauna Management Plan for bank stability and vegetation monitoring however, there is no detail of the program for monitoring bank stability and vegetation in section 6.4 of the Flora and Fauna Management Plan 2010. (The details of annual bank stability and vegetation monitoring were provided in the Wambo Environmental Monitoring Program 2006 section 8.2.6 and this should be revised if necessary and included into the Surface Water Monitoring Program).

Monitoring of the effectiveness of the erosion and sediment control structures is outlined in the Erosion and Sediment Control Plan section 5 and Appendix D – Inspection Checklist. This monitoring procedure should also be included or referenced in the Surface Water Monitoring Program.

##### **Recommendation 5:**

- The bank stability and Vegetation monitoring program be reviewed and inserted into the Surface Water Monitoring Program and/or the Flora and Fauna Management Plan; and
- Monitoring erosion and sediment control structures outlined in other documentation be referenced in the Surface Water Monitoring Program.

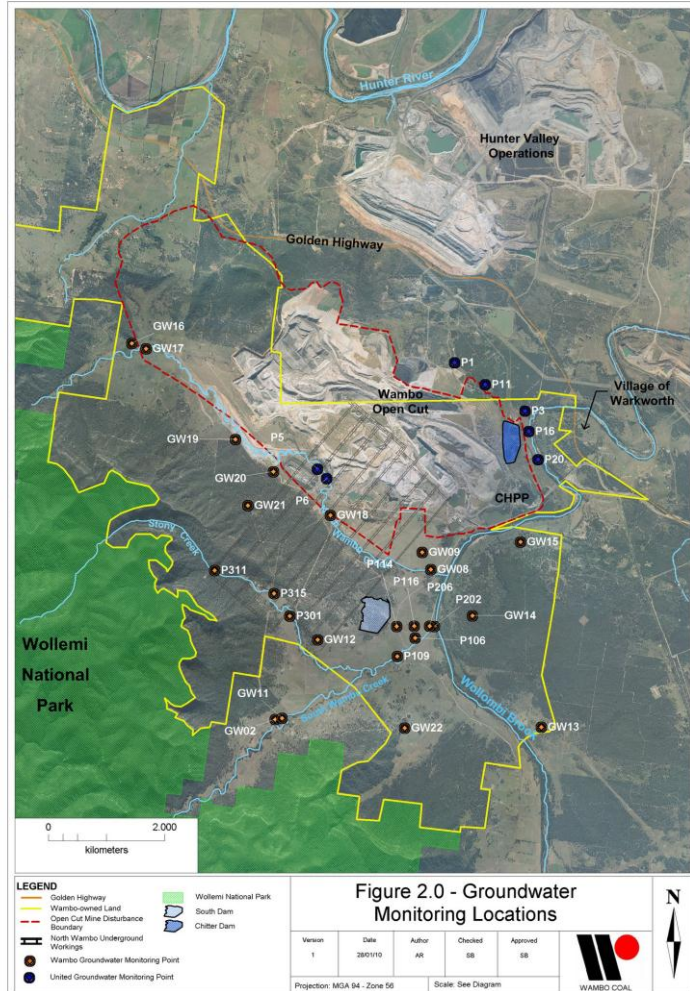
#### 3.2.2.5 Groundwater Monitoring Program (MCoA Schedule 4, condition 34)

The original Groundwater Monitoring Program was submitted to DoP and approved in December 2005, updated in March 2006 and approved by DoP in June 2006. The latest revision of the Site Water Management submitted to DoP on 28 April 2010 also included the Groundwater Monitoring Program.

Baseline groundwater data for the groundwater wells established prior to 2009 is provided in Appendix A of the Groundwater Monitoring Program. Eleven new groundwater wells (GW12-GW22) were established during 2009.

The groundwater monitoring program to monitor the water table levels and volume of groundwater seeping into the open cut and underground is provided in the Groundwater Monitoring Program Section 6.3. Section 6.4 outlines the program to investigate and monitor potential water loss from the Chitter Dump Dam and South Dam.

Groundwater piezometers located off the Wambo mine lease areas are monitored to assess regional groundwater levels. Anecdotal information suggests that no impacts on existing water supply bores or wells have been identified since the commencement of the North Wambo Underground long-wall in October 2007.



Groundwater impact assessment criteria are provided for each groundwater well in Section 5 of GWMP.

Monitoring bores GW2 and GW11 water table levels were noted as being below the trigger level periodically in the 2009-2010 AEMR.

The groundwater levels in these bores have since returned to above their respective trigger levels during the 2010/2011 period (probably due to the increased rainfall events post July 2010 following the years of drought).

Of the 28 groundwater wells identified in the GWMP, only three (3) are located off the mining lease.

#### **Recommendation**

**6:**

Consideration should be given to the establishment of additional groundwater wells outside of the Wambo mine lease area to ensure there is an appropriate monitoring system to assess regional water levels and quality in alluvial and overburden aquifers.

### **3.2.2.6 Surface & Groundwater Response Plan (MCoA Schedule 4 condition 35)**

The initial Surface and Groundwater Response Plan was submitted to DoP and approved in December 2005. The Plan was revised In June 2006, October 2007 and the February 2010 revision was submitted to DoP on 28 April 2010.

Based on results of the monitoring programs since the commencement of the North Wambo Underground long-wall in October 2007, WCPL believe there is no evidence that their open-cut or underground operations have decreased flow-through rates within the Wollombi Creek alluvium. In accordance with Section 3.1 of the Surface and Groundwater Response Plan mitigation measures would be developed in consultation with the regulators and those affected landowners should the trigger criterion be reached in any of the water monitoring bores.



The North Wambo Creek Diversion Response Plan Section 3.2 (Appendix A of the Surface and Groundwater Response Plan) presents measures to mitigate loss of surface water and discusses measures to address water loss from underground mining. The Surface and Groundwater Response Plan section 3.3 specifies that measures to mitigate any hydraulic connection between the backfilled open cut and the North Wambo Creek alluvium would be investigated if scheduled monitoring detected a long-term direct hydraulic connection.

No measures to address the decrease in flowthrough rates caused by the development within the Wollombi Brook alluvium downstream of the open cut were identified in the Surface and Groundwater Response Plan.

**Recommendation 7a:**

It is recommended that measures be identified in the Surface and Groundwater Response Plan for response to any decrease in flowthrough rates within the Wollombi Brook alluvium downstream of the open cut or underground operations, should results of the monitoring indicate a reduction in flow attributable to the development.

Measures to mitigate reduction in diversion bank stability would be determined by initiating the general procedure for response to unforeseen impacts outlined in the Surface and Groundwater Response Plan Appendix A, North Wambo Creek Diversion Response Plan Section 3.1 point 6, and section 5 - Unexpected impacts.

Ecological quality assessment of North Wambo Creek Diversion is addressed under the Flora and Fauna Management Plan section 4.1.2 - Ecosystem Function Analysis (EFA) and the Environment Monitoring Program 2006 section 8.3. The riparian monitoring program for the North Wambo Creek Diversion rehabilitation works commenced in 2008 and is reported in the AEMR.

**Recommendation 7b:**

It is recommended that references to the EFA process and the Environmental Monitoring Program should be inserted into the Surface and Groundwater Response Plan Appendix A - North Wambo Creek Diversion Response Plan to address any reduction in ecological quality.

Trigger levels specified in the Groundwater Monitoring Program Section 6 Table 4 are identified in Section 3.1 of the Surface and Groundwater Response Plan and specifically in relation to North Wambo Creek are presented in North Wambo Creek Diversion Response Plan Table 2. Trigger levels for the relinquishment of water extraction rights to compensate for surface and groundwater losses from streams, channels or alluvials to open cut and underground mining workings, were not identified in the Surface and Groundwater Response Plan.

**Recommendation 7c:**

It is recommended that trigger levels for the relinquishment of water extraction rights to compensate for surface and groundwater losses from streams, channels or alluvials to open cut and underground mining workings be referenced or included in the Surface and Groundwater Response Plan.

Procedures to address unforeseen impacts due to subsidence were identified in the Surface and Groundwater Response Plan Section 3.5. The North Wambo Creek Diversion Response Plan Section 5 (Appendix A of the Surface and Groundwater Response Plan) discusses a procedure to be adopted by WCPL should unforeseen impacts occur.

Response times for undertaking the above measures were not identified in the Surface and Groundwater Response Plan.

**Recommendation 7d:**

It is recommended that Surface and Groundwater Response Plan be revised to include response times for undertaking the above measures.

**3.2.3 Noise**

The initial Noise Monitoring Program (NMP) EMP011 June 2005 was approved by the DoP. The NMP was revised in September 2005 and May\_2007 with the NMP revision combining the requirements of the Wambo Mine (MCoA Schedule 4 condition 9) and Wambo Rail Spur Development (MCoA Schedule 4 condition 7). This combined NMP Rev 3 was approved by the DoP on 2 November 2007.

The NMP requires noise monitoring with a combination of permanent real-time monitors, temporary unattended noise monitors and attended noise monitoring. The locations and monitoring requirements are provided in Table 7 of the NMP. The NMP adequately addresses all of the requirements of the consent conditions and provides detailed documentation for the management of the noise monitoring program.

The assessment of the implementation of the NMP and the MCoA noise related conditions through the review of the AEMR's was conducted for the periods 2007–2008, 2008–2009 and 2009–2010. In addition, an audit of the quarterly reports of real-time and attended noise measurements for the period 2010 to 2011 was undertaken. The quarterly monitoring reports provided the levels, type and frequency of noise sources at the locations described in the NMP.

The MCoA requirements for monitoring real-time unattended and attended has been satisfied.

Based on the information provided for this audit, non-compliance with the noise criteria occurred in the real-time data 2008–2011. The results however indicated that the noise from the Wambo operations was generally not audible at the monitoring location receivers, but the noise exceedances were a result of external noise sources. The results generally indicated:

- Real-time monitoring reports show exceedances of the noise criteria on several occasions particularly at N16 (Muller residence 'Kilburnie', Golden Hwy, Jerry's Plains) and N22 (Henderson residence - 970 Jerrys Plains Road, Warkworth).
- The sources of noise that resulted in non-compliance with the MCoA noise criteria identified in the quarterly noise reports were:

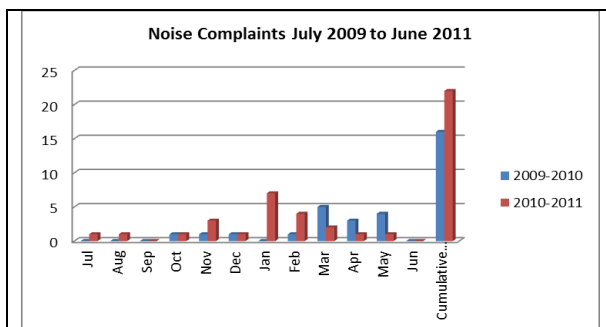
Monitoring location N16 (Muller residence 'Kilburnie', Golden Hwy, Jerry's Plains) generally exhibited noise sources as:

- Wambo Coal Mine activities were inaudible.
- Traffic on Jerry's Plains Road combined with birds/insects, generated the measured  $L_{A1}$ ,  $L_{A10}$ , and  $L_{Aeq}$ . Road traffic tyre noise on Jerry's Plains Road generated the measured  $L_{A90}$ .

Monitoring location N22 (Henderson residence 970 Jerrys Plains Road, Warkworth) generally exhibited noise from:

- Dozer track noise (400/500 Hz) from Wambo Coal Rail Spur (WBRS) due to dozers operating on the coal stockpiles were frequently audible and generated the WCRS  $L_{Aeq(15 \text{ minute})}$  of 25 dB (Operational Noise Goal 40 dB).
- Traffic on Jerry's Plains Road generated all measured levels.
- Breeze in foliage, birds and insects were audible.

- Measures to ameliorate any noise generated by the Wambo Coal activities to improve conformance should be discussed and documented in the AEMR (Annual Reports) as per MCoA Schedule 6 condition 5(e) and (f).



Total noise complaints received by Wambo Coal between July 2009 and June 2011 are shown in the figure. Seventeen of the 20 complaints in 2010-2011 were from the one complainant. Noise results at the Sentinex N21 monitoring location, indicated that the noise impact assessment criteria were exceeded by 1-2dB for 10% of the time at the N21

monitoring location. Model results indicate received noise levels from Wambo Mine operations at the Fenwick residence (which is located approximately 500m from the Sentinex N21 monitoring location) should be typically 3 dB less than received at the Sentinex N21 monitoring location.

### 3.2.4 Biodiversity

The initial Flora and Fauna Management Plan prepared in accordance with the MCoA Schedule 4 condition 44 was approved by DIPNR in September 2005. The Flora and Fauna Management Plan provided an overview of the strategies and programs associated with each of the specific issues listed in MCoA 44. The Flora and Fauna Management Plan was revised and provided to the DoP in October 2008 and further revised to take account of the recommendations in the Offset Strategy Audit (dated 16 Oct 2009). This revised Plan was submitted to DoP on 1 March 2010. No approval correspondence acknowledging the revised FFMPs had been received from DoP at the date of this audit.

A Vegetation Clearance Protocol was developed within the Flora and Fauna Management Plan and addressed each of the requirements of the MCoA 45. The Vegetation Clearance Protocol was approved by DIPNR as part of the Flora and Fauna Management Plan in September 2005. The Vegetation Clearance Protocol is included in section 3.1 of the revised Flora and Fauna Management Plan, January 2010.

A Threatened Species Management Protocol developed within the Flora and Fauna Management Plan addresses each of the requirements of the MCoA 46. The Protocol was approved by DIPNR as part of the Flora and Fauna Management Plan and approved in September 2005. The Threatened Species Management Protocol is included in section 3.2 of the revised Flora and Fauna Management Plan, January 2010.

The Remnant Woodland Enhancement Program was developed within the Flora and Fauna Management Plan addresses each of the requirements of the MCoA 47. The Protocol was approved by DIPNR as part of the Flora and Fauna Management Plan. The Remnant Woodland Enhancement Program is included in section 3.4 of the revised Flora and Fauna Management Plan, January 2010.

The Flora and Fauna Monitoring Program developed within the Flora and Fauna Management Plan addresses each of the requirements of the MCoA 48. The Program was approved by DIPNR as part of the Flora and Fauna Management Plan in September 2005. The revised Flora and Fauna Monitoring Program is in section 4 of the Flora and Fauna Management Plan January 2010.

**Recommendation 8: Flora and Fauna Management Plan**

Wambo should also follow up with the DoPI to obtain correspondence acknowledging receipt and approval of the revised FFMP

The Flora and Fauna Management Plan should be revised to include:

*DA 177-8-2004 MCoA Schedule 4 condition 33; DA 305-7-2003 MCoA Schedule 4 condition 44:*

Reference should be made within the Flora and Fauna Management Plan to other relevant management plans where specific strategies/procedures address matters identified in MCoA Schedule 4 condition 47 (e.g bushfire management - Bushfire Management Plan, land stabilisation – Mining Operations Plan, subsidence management - Surface and Subsurface Monitoring Plan, etc).

Appendix D of the FFMP should be referenced within the Flora and Fauna Management Plan and/or Flora and Fauna Monitoring Program as it provides guidance on the Field Checklist for Tasks for monitoring the various components of the Flora and Fauna Management Plan.

Specify details of the procedures for Pre-Clearance Surveys, fauna management, seed collection and salvage and re-use of materials etc in the Flora and Fauna Management Plan as attachments or appendices, or provide reference to other relevant management plans or procedures that address each specific matter.

*DA 177-8-2004 - MCoA Schedule 4 condition 34*

The Revegetation and Landscaping Plan in Appendix E of the Flora and Fauna Management Plan should be revised to include:

- measures to control weeds;
- measures to minimise feral pests;
- provision of roosting/nesting resources for fauna;
- measures to be implemented to maintain landscaping during the life of the development

**Deed of Agreement (MCoA Schedule 4 condition 41)**

A Deed of Agreement to satisfy MCoA Schedule 4 condition 41 was sent to the Minister for Planning in November 2005. DoP provided a draft letter extending the requirement to enter into a Deed with the Minister until 28 February 2007. No correspondence acknowledging the Deed of Agreement has been received by WCPL from DoP at the date of this audit (June 2011) and no further action has occurred from the Minister in relation to ratifying the Deed. This matter cannot be progressed by WCPL without action from the Minister.

Wambo consulted with the Singleton Council in 2006-07 in relation to rezoning land for the Remnant Vegetation Enhancement Areas, but no action had occurred from the Council on this matter at the time of this audit.

**Recommendation 9:**

In relation to MCoA Schedule 4 condition 41, it is recommended that WCPL should follow up with the Singleton Council and DoPI in relation to the Deed of Agreement and the rezoning of land for the Remnant Vegetation Enhancement Areas. If the rezoning of the Remnant Vegetation Enhancement Areas is not actioned by the Council and the Deed of Agreement is not ratified by the Minister, it is suggested that a request for the condition to be deleted from the MCoA.

### 3.2.5 Rehabilitation

Rehabilitation of the Wambo Coal Mine site is described in the Mining Operations Plans. The approved Open Cut Mining Operations Plans developed for the site include rehabilitation of the surface disturbed mining areas.

A Mining Operations Plan for the open cut was prepared by Wambo for the period July 2005 to June 2010 and submitted to the DPI on 8 September 2005. The Mine



Operations Plan for the underground mine was also prepared by Wambo for the period November 2005 to November 2012 and submitted to the DPI on 29 September 2005. The plans were accepted by DPI on 10 November 2005. The latest Open Cut Mining Operations Plan was prepared for July 2010 to Jun 2016 and has been approved by DII.

Progressive rehabilitation has occurred and is reported in the AEMR providing the current total area affected or rehabilitated, the current area and estimated area for the next 12 months that will be disturbed/rehabilitated. The Rehabilitation Management Plan required under MCoA Schedule 4 condition 94A was being developed in accordance with the DII Guideline at the time of this audit, for submission to the Director-General of DII for approval by the end of December 2011.

A focus on rehabilitation since the previous compliance audit in 2006 has resulted in a substantial reduction in disturbed area at the Wambo Coal Mine site. At the time of this site inspection there was no disturbed area awaiting rehabilitation under the MOP rehabilitation plan.

The audit site inspection of a number of pasture and woodland rehabilitation areas occurred on the 8 June 2011:

- Charlie's hole
- Tailings Void
- 'United' rehabilitation area
- North Wambo Creek diversion



**Plate 3.2.6.1 – Diversion bank on spoil dump**

At the time of the inspection there was no evidence of significant erosion or weed infestation in the areas inspected.

The diversion banks and drop structures on the 'United' rehabilitation area and overburden emplacement areas inspected on 8 June 2011 appeared to be stable with no evidence of gully or tunnel erosion.

Tailings from the coal handling and preparation plant were disposed of into an old open cut void west of the Charlies Hole capped and revegetated tailings emplacement.

Capping of the tailings in the old open cut mine void was being undertaken at the time of the site audit inspection in June 2011. Capping involved the placement of solid materials over geo-fabric underlain by geo-grid to provide geotechnical support for the capping layers.



**Plate 3.2.6.2 – Tailings Void undergoing capping**



**Plate 3.2.6.3 – Well shaped drop structure made from unsuitable sedimentary rock**

A sediment basin had also been constructed close to the edge of the spoil dump in the 'United' rehabilitation area.

While the source control of sediment is desirable, ponding of water on dispersive mine spoil presents a high risk of tunnel erosion and slope failure.

Rock drop structures were observed in the 'United' rehabilitation area.

While the drop structures are well constructed with no visible erosion the rock used in the drop structures was sedimentary in nature and easily weathered. Rock for use in drop structures should be durable igneous rock.



**Plate 3.2.6.4 – sediment basin constructed close to edge of the spoil dump**



**Plate 3.2.6.5 – Gully erosion observed along the North Wambo Creek diversion.**

The establishment of riparian plant species along the low flow channel of the North Wambo Creek diversion was poor and gully and tunnel erosion was evident along the bank. Remedial and soil amelioration works were being undertaken at the time of the site inspection on 8 June 2011.

The most recent AEMR rehabilitation assessment report available for review was dated 2009-2010. The 2010-2011 AEMR was being prepared at the time of this audit.

Following the site inspection during this audit, suggestions are offered to Wambo to improve its rehabilitation performance:

- Ensure rock drop structures are constructed from durable igneous rock
- Consider a landform drainage design that does not require concentrated drainage such as diversion banks and drop structures.
- Ensure sediment dams and other structures that pond water are not located where they can increase the risk of tunnel erosion and slope failure
- Continue to undertake soil testing of eroded areas along the North Wambo Creek diversion to determine erosion control measures and revegetation amelioration requirements to improve vegetation establishment.
- Consider the use of a compost blanket and direct seeding to improve stability and vegetation establishment.
- Undertake annual rehabilitation monitoring to demonstrate rehabilitation success and identify areas requiring maintenance
- Prepare detailed rehabilitation criteria. The existing LFA reports provide an excellent starting point for this process.

### 3.3 *Comments on the Minister's Conditions of Consent*

It is suggested that removal of a number of conditions of consent conditions that are no longer applicable should be discussed with the DoPI when the next Modification of Consent application is lodged. Comments are provided in the following conditions as suggestions for discussion with the Director-General:

MCoA	Recommended action	Comment
<b>Schedule 3</b>		
<b>Conditions 11 &amp; 12</b>	Delete These conditions were satisfied in 2005 and are no longer relevant.	A cheque for \$60,000 for the S94 contribution and \$15,000 Community Enhancement Contributions was submitted to the Singleton Council on 31 October 2005 and satisfies MCoA 11. A cheque for \$15,000 Community Enhancement Contributions was also submitted to the Singleton Council on 31 October 2005 and satisfies MCoA 12.
<b>Schedule 4</b>		
<b>Condition 15</b>	Delete/Remove	Residents within 2km of the mine site were advised that they were entitled to a property inspection in the letter of 3 Nov 2005. This condition is only required to be undertaken once. This condition has now been met and therefore the condition is no longer applicable.
<b>Condition 20</b>	Delete/Remove	WPCL concluded negotiations to purchase the Skinner property on 30 September 2009 so this condition is no longer applicable.
<b>Condition 41</b>	Wambo Coal should follow up with the DoP and Council. If rezoning is not actioned by the Council and the Deed of Agreement is not ratified by the Minister, it is suggested a request be lodged for the condition to be deleted from the MCoA.	Wambo developed the documentation for the Deed of Agreement in relation to the Remnant Woodland Vegetation Areas and submitted to the Minister within the MCoA time frame. The process has stalled with no response for the Minister or agreement to rezone from the Council.  Wambo cannot progress the matter without the involvement and agreement of the other parties.
<b>Condition 56</b>	Remove/Delete This condition has been satisfied and is no longer relevant.	Before carrying out the development, or as agreed otherwise by the Director-General, the Applicant shall contribute \$50,000 to the Hunter Aboriginal Cultural Heritage Trust Fund for further investigations into Aboriginal cultural heritage, as defined by the Trust Deed. The \$50,000 contribution was made to the Hunter Aboriginal Cultural Heritage Trust Fund on 7 November 2005 so this condition has been satisfied.
<b>Condition 71</b>	Remove as the alternative road and intersection will not be required.	WCPL have purchased the only private property accessed by Pinegrove Road. An application to close Pinegrove Road will not be made as an alternative road and intersection are not required for access to the property. The property was purchased by Wambo
<b>Condition 4/73</b>	Delete/Remove	WCPL has established adequate car parking on the site for all mine related traffic therefore this condition has been satisfied.
<b>Conditions 74, 76 &amp; 77</b>	Delete	The coal/rail loader was commissioned in 2007 therefore this condition has been satisfied.

#### **Rail Loop and Coal Loader Development (DA 305-7-2003)**

<b>4</b>	Remove	The construction works associated with the rail loader and rail loop have been completed so this condition is not now relevant.
<b>8</b>	Rail loop and coal loader construction complete.	Construction of the rail loop and loader is complete so this condition is now not relevant.
<b>Vibration Monitoring</b>		
<b>12</b>	Remove	Approval to discontinue quarterly vibration monitoring

		associated with the rail loop operation was granted by DoP in December 2008.
13	Remove	Vibration monitoring discontinued in Dec 2008 (see above).
24	Remove	The Hawke property has been acquired by Rio Tinto, so this condition no longer applies.
<b>Parking</b>		
25	Remove	Construction is now complete so this condition is no longer relevant.
28	Remove	The Hawke property has now been acquired by Rio Tinto so this condition is no longer required.
41	Remove Rail loop and coal loader construction complete.	The development of the rail infrastructure occurred in accordance with the relevant safety guidelines and standards in consultation with Transgrid. The construction of the rail loop and loader is now complete so the condition is not relevant.
<b>Schedule 5 Land Acquisition</b>		
1	Remove	As construction of the rail loop and loader is complete this Schedule of conditions is no longer applicable.
2	Rail loop and coal loader	
3	construction complete.	
<b>CONSTRUCTION MANAGEMENT PLAN</b>		
1	Remove Rail loop and coal loader construction complete.	The construction of the rail loop and loader is complete so this condition is no longer applicable.



## 4. Other Statutory Approvals

In addition to the Minister's conditions of approval the following licences, permits etc were relevant to the current status of the WDP.

### 4.1 Environment Protection Licence No. 529

Wambo Coal Pty Ltd received Environment Protection Licence (EPL) 0529 under section 55 of the *Protection of the Environment Operations Act 1997* for the Wambo Development Project, with a renewal date of 15 October, and a review due date by 6 August 2014.

Section 58 Variations to the EPL 0529 since 2007 are:

Notice No.	Issue Date	Comments
1070157	13 Mar 2007	This Notice varied condition L6.1 to ensure that the licence is consistent with the Development Consent for this premises.
1070979	21 May 2007	This Notice revised: <ul style="list-style-type: none"> <li>Condition P1.1 has been varied to require monitoring of fine particulate matter.</li> <li>The requirement to monitor total suspended particles in groundwater has been removed.</li> <li>The licensee's water quality monitoring shows that water quality does not generally fluctuate over short periods of time. This notice decreases the frequency of water quality monitoring.</li> </ul>
1075603	31 Jul 2007	This Notice: <ul style="list-style-type: none"> <li>Removed Condition R5 blast exceedence reporting,</li> <li>Revised of Condition R5 to submit an annual noise monitoring compliance report.</li> </ul>
1099792	3 Jun 2009	This Licence Variation increased: <ul style="list-style-type: none"> <li>the Fee-Based Activity scale of Mining for Coal from &gt;3,500,000 – 5,000,000 Tonnes Produced to &gt;5,000,000 Tonnes Produced.</li> <li>the Fee-Based Activity scale of Coal Works from &gt;3,500,000 – 5,000,000 Tonnes Produced to &gt;5,000,000 Tonnes Produced.</li> </ul>
1104176	18 Nov 2009	This Notice deleted: <ul style="list-style-type: none"> <li>Waste conditions L5.</li> <li>Potentially Offensive Odour condition L8.</li> </ul>
1119500	22 Nov 2010	This Notice requires the licensee to provide DECCW with: <ul style="list-style-type: none"> <li>a report outlining the current site water balance and dam maintenance regime at the premises.</li> <li>a report detailing historical trends in ground water quality associated with the premises. This information will enable DECCW to review the need for on-going monitoring of groundwater quality at the premises.</li> </ul>

The current licence applies to scheduled activities - Coal Mines and Coal Works. The Fee Based Activity is coal mining less than 5Mt tonnes produced or transported per annum. The licence also applies to other activities carried on at the premises including chemical storage facilities and sewage treatment works. If the production of coal exceeds 5Mt per year a Variation to the Fee Based Activity will need to be lodged.

## 4.2 Mining Leases

The following Mining Leases have been granted to Wambo Coal Pty Ltd for the project area.

Lease Reference	Area (ha)	Date Granted	Expiry Date
Coal Lease 365	630	19 Sep 1990	19 Sep 2011
Coal Lease 374	382	Renewal submitted Mar 2005	Awaiting approval
Coal Lease 397	1,480	4 Jun 1992	4 Jun 2013
Consolidated Coal Lease 743	3,000	9 Mar 1990	23 Sep 2009
Mining Lease 1402	352	23 Sep 1996	9 Mar 2009
Mining Lease 1572	1,012	21 Dec 2005	21 Dec 2026
Mining Lease Application 1594	263	1 May 2007	30 Apr 2028
Exploration Licence A444	3,060	4 Oct 2007	16 May 2011
Exploration Licence EL7211	967	29 Sep 2008	29 Sep 2011

A Mining Operations Plan for the open cut was prepared by Wambo for the period July 2005 to June 2010 and submitted to the DPI on 8 September 2005. The Mine Operations Plan for the underground mine was also prepared by Wambo for the period November 2005 to November 2012 and submitted to the DPI on 29 September 2005. The plans were accepted by DPI on 10 November 2005.

The latest Open Cut Mining Operations Plan has been prepared for July 2010 to Jun 2016 and approved by DIL.

## 4.3 Water Licences

Bore Licence Certificates under section 115 of the Water Act 1912 are held for all the groundwater bores associated with the Wambo Development.

Licence No.	Facility	Description	Extraction Limits
20BL132753	Well	Old Well No.1	243 ML/yr
20BL166910	Bore	No.1 Dewatering Bore	450 ML/yr
20BL167737	Well	Well No.2	70 ML/yr
20SL033872		Pumps in Wollombi Brook	750 ML/yr
20AL200631	Pumps	Hunter River Pump	1,000 ML/yr
20WA200632		Hunter River Licence	N/A
20BL168017	Bore	No.2 Dewatering Bore	750 ML/yr
20BL168643	Bore	Wollemi Boxcut Alluvials	300 ML/yr
20BL166438	Bore	Clifton's Well	5 ML/yr
20BL167738	Bore	Wambo Bore	300 ML/yr
20BL168997	Test Bore	Piezometer	Groundwater monitoring
20BL168998	Test Bore	Piezometer	Groundwater monitoring
20BL168999	Test Bore	Piezometer	Groundwater monitoring
20BL169000	Test Bore	Piezometer	Groundwater monitoring
20BL 170638	Test bore	Piezometer	Groundwater monitoring
20SL 061690	Cutting	NWC Temporary By-pass	N/A
20BL 166906	Irrigation	Spear point	19 ML/yr
20BL172061	Bore	Dewatering Bore No. 2A	750 ML/yr
20BL 172156	Excavation	Dewatering	98 ML/yr
20BL 171155	Excavation	Dewatering	243 ML/yr
20BL 172237	Monitoring bore	Piezometer	Groundwater monitoring
20BL 172238	Monitoring bore	Piezometer	Groundwater monitoring
20BL 172240	Monitoring bore	Piezometer	Groundwater monitoring
20BL 172242	Monitoring bore	Piezometer	Groundwater monitoring
20BL 172244	Monitoring bore	Piezometer	Groundwater monitoring
20BL 172255	Monitoring bore	Piezometer	Groundwater monitoring
20BL172256	Monitoring bore	Piezometer	Groundwater monitoring
20BL 172256	Monitoring bore	Piezometer	Groundwater monitoring

## 5. Conclusion and Recommendations

The independent environmental audit of the Wambo Coal Mine undertaken in June 2011 included site inspections, document review and discussions with relevant project personnel on site between 7 and 10 June 2011.

The documentation held by WCPL at the Wambo Mine site was presented to the auditors in an organised manner enabling verification of compliance with the conditions of approval and other statutory approvals.

The documentation, reporting and activities at Wambo Coal generally demonstrated compliance with the conditions attached to the development consent, licenses and approvals granted to WCPL for the project.

**Environmental Management Strategy** – the review undertaken as part of this audit, concluded that the content of the Environmental Management Strategy meets the requirements of MCoA Schedule 6 Condition 1 and represents a sound basis for the environmental management of the activities and operation of the Wambo development.

**Environmental Monitoring Program** - the revised Environmental Monitoring Program addresses the requirements of the MCoA for the mine site and surrounding area for blast, air, noise, surface and groundwater, flora and fauna monitoring and rehabilitation development.

**Air Quality** - the review of the air monitoring indicated that the assessment of the data collected from the existing monitoring sites meets the requirements of MCoA Schedule 4 conditions 2 to 4 and Environment Protection Licence 0529 condition P1.1.

### **Recommendation 1 - Air Quality**

The air quality reporting required in MCoA Schedule 4 condition 2 in relation to the maximum increase of  $2\text{g/m}^2/\text{month}$  contribution to overall dust deposition levels should be reviewed and reported in the AEMR's (Annual Report).

Reference to the analytical methodology used for the air quality monitoring should be included in the AEMR's (Annual Review) to confirm that the data presented is in accordance with the approved methods specified by the EPL ("Approved Methods for the Sampling and Analysis of Air Pollutants in NSW") and/or an acceptable industry standard.

**Water Management** - the review of the Site Water Management Plans and Monitoring Programs indicated that each of the component documents had been prepared and approved by DoP and the data collected from the existing monitoring sites meets the requirements of MCoA Schedule 4 conditions 33 and 34 and Environment Protection Licence 0529 condition P1.2. The monitoring programs provide a sound basis for assessment of compliance of the operations.

The Site Water Management Plan and component documents were revised and submitted to the DoP on 28 April 2010.

### **Recommendation 2 – Site Water Management Plan:**

WCPL should follow up with the DoP to obtain a correspondence acknowledging receipt of the revised SWMP 2010 and provide approval of the revision.

### **North Wambo Creek Diversion Plan**

The North Wambo Creek Diversion Plan was prepared in 2007 and approved by DoP on 14 April 2008. The Plan was subsequently revised in October 2009 and will be further revised to address the Stage 3 construction works prior to the commencement of the Stage 3 construction works.

**Recommendation 3 – North Wambo Creek Diversion:**

To satisfy MCoA Schedule 4 condition 31 and the Additional Requirements from DoP, DWE and DPI in April 2008 for the North Wambo Creek Diversion, revision of the North Wambo Creek Diversion Plan should include:

- management of intercepted groundwater to the alluvial aquifer downstream of the open cut
- current design of the three stage of construction of the diversion ;
- include assessment of weeds and weed control;
- inclusion of the use of large woody debris for habitat creation;
- provide estimates of construction duration/commencement dates for Stage 3;
- include detailed design of the system for return of intercepted ground water to the alluvial aquifer downstream of the open cut;
- as-executed survey and report documentation for the NWCD for submission to DWE and DPI (DII) when Stage 3 of the North Wambo Creek Diversion is complete;
- provide supplementary specifications if required by DP&I for Stage 3 works.

***Erosion and Sediment Control***

The initial Erosion and Sediment Control Plan was approved as part of the Site Water Management Plan on 30 June 2006. The latest revision of the Erosion and Sediment Control Plan was submitted to DoP on 28 April 2010. The sediment control structures on the site appeared to be in sound condition as observed during the audit inspection.

**Recommendation 4 - Erosion and Sediment Control Plan:**

- Revise the ESCP as necessary to address the objectives and requirements of *Soils & Construction Volume 2E Mines & Quarries* for erosion control.
- The design standards for ESC structures in the revised ESCP should be consistent with the requirements of Table 6.1 of the *Soils & Construction Volume 2E Mines & Quarries*.
- The type of rock utilised in drop structures observed on site should be modified to reflect the requirements of the *Soils & Construction Volume 2E Mines & Quarries*.

***Surface Water Monitoring Program***

The initial Surface Water Monitoring Program was submitted to DoP and approved in 2005. The Site Water Monitoring Program was revised in November 2009 and the Plan submitted to DoP on 28 April 2010. The surface water monitoring program provides a satisfactory sampling regime for the surface water quality assessment of South Wambo, North Wambo, and Stony Creek.

**Recommendation 5 – Surface Water Monitoring:**

- The bank stability and vegetation monitoring program should be reviewed and inserted into the Surface Water Monitoring Program and/or the Flora and Fauna Management Plan.
- Monitoring the effectiveness of the erosion and sediment control structures outlined in other documentation should be referenced or the monitoring program provided in the Surface Water Monitoring Program.

***Groundwater Monitoring Program***

The Groundwater Monitoring Program was submitted to DoP and approved in December 2005, updated in March 2006 and approved by DoP in June 2006. The latest revision of the Site Water Management also included the Groundwater Monitoring Program that was submitted to DoP on 28 April 2010. The approved GWMP has 28 groundwater monitoring wells, three of which are located off the Wambo mining lease. In the auditors opinion additional bores for the regional groundwater monitoring should be investigated.



**Recommendation 6 - Groundwater**

Consideration should be given to the establishment of additional groundwater wells outside of the Wambo mine lease area to ensure an appropriate level of monitoring to assess water levels and quality in regional alluvial and overburden aquifers.

**Surface and Groundwater Response Plan** -The initial Surface and Groundwater Response Plan was submitted to DoP and approved in December 2005. The Plan was revised In June 2006, October 2007 and the February 2010 revision was submitted to DoP on 28 April 2010.

**Recommendation 7 - Surface and Groundwater Response Plan:**

The Surface and Groundwater Response Plan should be revised to include:

- Measures to address any decrease in flow-through rates caused by the development within the Wollombi Brook alluvium downstream of the open-cut;
- Reference to the EFA process and the Environmental Monitoring Program should be inserted into the Surface and Groundwater Response Plan Appendix A North Wambo Creek Diversion Response Plan to address any reduction in ecological quality; and
- Trigger levels for the relinquishment of water extraction rights to compensate for surface and groundwater losses from streams, channels or alluvials to open cut and underground mining workings.
- The SGWRP be revised to include response times for undertaking the above measures.

**Biodiversity** - The Flora and Fauna Management Plan was approved by DIPNR in September 2005. The Flora and Fauna Management Plan was further revised and submitted to DoP on 1 March 2010. No approval acknowledging the revised FFMPs had been received from DoP at the date of this audit.

**Recommendation 8 – Flora and Fauna Management Plan**

Wambo should also follow up with the DoPI to obtain correspondence acknowledging receipt and approval of the revised FFMP.

The Flora and Fauna Management Plan should be revised to include:

**DA 305-7-2003 MCoA Schedule 4 condition 44:**

Reference should be made within the Flora and Fauna Management Plan to other relevant management plans where specific strategies/procedures address matters identified in MCoA Schedule 4 condition 47 (e.g bushfire management - Bushfire Management Plan, land stabilisation – Mining Operations Plan, subsidence management - Surface and Subsurface Monitoring Plan, etc).

Appendix D of the FFMP should be referenced within the Flora and Fauna Management Plan and/or Flora and Fauna Monitoring Program as it provides guidance on the Field Checklist for Tasks for monitoring the various components of the Flora and Fauna Management Plan.

Specify details of the procedures for Pre-Clearance Surveys, fauna management, seed collection and salvage and re-use of materials etc in the Flora and Fauna Management Plan as attachments or appendices, or provide reference to other relevant management plans or procedures that address each specific matter.

**DA 177-8-2004 MCoA Schedule 4 condition 34**

The Revegetation and Landscaping Plan in Appendix E of the Flora and Fauna Management Plan should be revised to include:

- measures to control weeds and feral pests;
- provision of roosting/nesting resources for fauna;
- measures to maintain landscaping during the life of the development.

The Deed of Agreement was sent to the Minister for Planning in November 2005. DoP provided a draft letter extending the requirement to enter into a Deed with the Minister until 28 February 2007. No correspondence acknowledging the Deed of Agreement has been received from DoP at the date of this audit (June 2011). No further action has occurred from the Minister in relation to ratifying the Deed of Agreement. This matter cannot be progressed by WCPL without action from the Minister.

Wambo also consulted with the Singleton Council in 2006-07 in relation to rezoning land for the Remnant Vegetation Enhancement Areas, but no action had occurred from the Council on this matter at the time of this audit

**Recommendation 9 - Deed of Agreement MCoA Schedule 4 condition 41:**

In relation to MCoA Schedule 4 condition 41, it is recommended that WCPL should follow up with the Singleton Council and DoPI in relation to the Deed of Agreement and the rezoning of land for the Remnant Vegetation Enhancement Areas. If the rezoning of the Remnant Vegetation Enhancement Areas is not actioned by the Council and the Deed of Agreement is not ratified by the Minister, it is suggested that a request for the condition to be deleted from the MCoA.

**Noise** – The Noise Monitoring Program (NMP) Revision 3 was approved by the DoP on 2 November 2007. The quarterly attended noise monitoring conducted at the sites nominated in the Noise Monitoring Program indicated that extraneous noise sources (e.g. wind, birds, highway traffic, and other mine operations) were dominant. Wambo mine noise levels were generally low although audible along with the other sources on some occasions.

**Blasting** – The Blast Monitoring Program was revised in 2008 and blast overpressure results have been generally indicated compliance with the MCoA blast criteria. Blast overpressure monitoring results demonstrated that in 2007-2008: 4 of 109 blasts exceeded 115dBL (i.e. 3.6%) and no blasts exceeded 120dBL; 2008-2009: 2 of 102 blasts exceeded 115 dBL (i.e. 2%) and one blast exceeded 120dBL (120.3dBL at Kelly monitoring site on 13 October 2008); in 2009-2010: 2 of 62 blasts exceeded 115dBL (i.e. 5%) and one blast exceeded 120dBL criteria (122.1dBL at Harris monitoring site 14 August 2009).

In 2010-2011 one overpressure result of 124.2dB was recorded at the Muller residence and DECCW issued a Penalty Infringement Notice in relation to this exceedance on 4 March 2011 for the failure to comply with the maximum permissible overpressure level of 120dB.

No exceedance of the ground vibration has occurred between 2007 and 2011.

**Rehabilitation** – Progressive rehabilitation has occurred and is reported annually in the AEMR's providing the estimated area for rehabilitation during the next 12 months. A focus on rehabilitation since the previous compliance audit in 2006 has resulted in a substantial reduction in disturbed area at the Wambo Coal Mine site. At the time of this site inspection there was no disturbed area awaiting rehabilitation under the MOP rehabilitation plan. The Rehabilitation Management Plan required under MCoA Schedule 4 condition 94A was being developed in accordance with the DII Guideline at the time of this audit, for submission to the Director-General of DII for approval by the end of December 2011.

**DPI and DWE Additional Requirements for the North Wambo Creek Diversion -**

Construction of Stage 3 had not commenced at the date of this audit. Submission of the as-executed survey plans will be post Stage 3 construction. The as-executed report for the North Wambo Creek Diversion is planned to be submitted to DPI and DWE at completion of the Stage 3 diversion works.

**Rail loop and coal loader DA 177-8-2004** - Appendix 1 of the AEMR's has the rail records for the tonnage of coal railed from the Wambo Coal Terminal, but the daily

number of coal haulage truck movements from the Wambo Coal Terminal, are not reported in the AEMR's.

**Recommendation 10 – AEMR/Annual Review Reporting:**

The number of coal haulage movements should be included into the Appendix A table of the AEMR/Annual Return to comply with MCoA Schedule 4 condition 18.

**EPL** - EPL condition A1.2 for the Wambo Coal operations are coal mining and coal works (Coal Handling and Preparation Plant) and rail load out facilities have has a production rate of less than 5,000,000 tonnes per year between 2007 and 2010. If the coal production rate is planned to exceed the 5,000,000 tonnes per annum produced a Variation to the the Fee Based Activity Scale will need to be obtained.

## **5.1 Conclusion**

In conclusion, the documentation, reporting and activities at the WDP generally demonstrated compliance with the conditions attached to the current consent and approvals granted for the project.

Recommendations are provided in relation to management plans and programs to address specific requirements within the consent and/or approval conditions that have not currently been included into the documents.

## Glossary of Terms

AEMR	Annual Environmental Management Report
AR	Annual Return – EPA
BCA	Building Code of Australia
BL	Bore Licence
CCC	Community Consultative Committee
DA	Development Application
DEC	Department of Environment and Conservation
DECC	Department of Environment, Conservation and Climate Change
DECCW	Department of Environment, Conservation, Climate Change and Water (now OEH)
DII	Department of Industry and Investment – Minerals (formerly DPI)
DIPNR	Department of Infrastructure, Planning and Natural Resources (now DoP)
Director-General	Director-General of DoP
DLWC	Department of Land and Water Conservation (now part of DIPNR)
DMR	Department of Mineral Resources (now part of DPI)
DoP	Department of Planning (formerly DIPNR)
DoPI or DP&I	Department of Planning and Infrastructure (formerly DoP)
DPI	Department of Primary Industries (includes Mineral Resources) (now DII)
DSC	Dam Safety Committee
EIS	Environmental Impact Statement
EPA	Environment Protection Authority (now part of OEH)
EPL	Environment Protection Licence
MCoA	Minister's Conditions of Approval
NPWS	National Parks and Wildlife Service
OEH	Office of Environment and Heritage (formerly DECCW)
Rec x	Recommendation No.x
RTA	Roads and Traffic Authority
SC	Singleton Council
SIS	Species Impact Statement
WCPL	Wambo Coal Pty Ltd
WDP	Wambo Development Project

## Attachment A Minister's Conditions of Approval (MCoA)

Blue type represents 2004 modification  
Red type represents May 2005 modification  
Green represents January 2006 modification  
Pink represents April 2006 Modification  
Orange represents October 2006 Modification  
Violet represents January 2007 Modification  
Brown represents June 2009 Modification  
Lime represents August 2009 Modification  
Blue with yellow background represents February 2011 Modification

## Appendix A Minister's Conditions of Approval

MCoA No.	Consent Condition	Audit Evidence	Compliance	Comments
<b>SCHEDULE 3 ADMINISTRATIVE CONDITIONS</b>				
<b>Obligation to Minimise Harm to the Environment</b>				
3/1	The Applicant shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development		Noted	
<b>Terms of Approval</b>				
3/2	<p>The Applicant shall carry out the development generally in accordance with the:</p> <p>(a) DA 305-7-2003;</p> <p>(b) EIS titled Wambo Development Project, volumes 1-5, dated July 2003, and prepared by Resource Strategies Pty. Ltd.;</p> <p>(c) letter from Holmes Air Sciences to the Department, dated 3 September 2003, and titled Wambo Development Project - Response Air Quality Assessment;</p> <p>(d) letter from Wambo Coal Pty. Ltd. to the Department, dated 24 October 2003, and titled Wambo Development Project – Development Application Amendment (DA 305-7-2003-i);</p> <p>(e) Statement of Environmental Effects titled Wambo Development project – Wambo Seam Underground Mine Modification, dated January 2005, and prepared by Wambo Coal Pty Ltd;</p> <p>(f) document titled Wambo Development Project – Modification of DA 305-7-2003-I, dated 24 October 2005;</p> <p>(g) document titled Wambo Development Project – Modification of DA 305-7-2003-I; dated 23 January 2006;</p> <p>(h) document titled Wambo Development Project – Modification of DA 305-7-2003-I; dated 27 July 2006;</p> <p>(i) document titled Wambo Coal Mine Modification Statement of Environmental Effects; dated September 2006;</p> <p>(j) document titled Wambo Coal Mine Statement of Environmental Effects on Proposed Modification, dated March 2009;</p> <p>(k) document titled Wambo Coal Mine Modification Statement of Environmental Effects, dated June 2009 and the response to submissions dated July 2009;</p> <p>(l) the modification application DA 305-7-2003 MOD 9 and accompanying letter prepared by Wambo Coal Pty Ltd; and</p> <p>(m) conditions of this consent.</p>	<ul style="list-style-type: none"> <li>• EIS - Wambo Development Project, volumes 1-5, dated July 2003, and prepared by Resource Strategies Pty Ltd</li> <li>• Ministers Conditions of Consent October 2006</li> <li>• Statement of Environmental Effects Wambo Development Project – Wambo Seam Underground Mine Modification, Jan 2005</li> <li>• Wambo Development Project – Modification of DA 305-7-2003-i, 4 Oct 2005;</li> <li>• Wambo Development Project – Modification of DA 305-7-2003-i, 23 Jan 2006;</li> <li>• Wambo Development Project – Modification of DA 305-7-2003-i, 27 Jul 2006;</li> <li>• Statement of Environmental Effects Wambo Coal Mine Modification, Sep 2006</li> </ul>	Noted	The Wambo Project is being developed generally in accordance with the EIS 2003 and the modifications approved in May 2005, January 2006, April 2006 and October 2006, January 2007, June 2009, August 2009 and February 2011

<b>3/3</b>	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 consent shall prevail to the extent of any inconsistency.		Noted	
<b>3/4</b>	The Applicant shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of: (a) any reports, plans or correspondence that are submitted in accordance with this consent; and (b) the implementation of any actions or measures contained in these reports, plans or correspondence		Noted	
<b>Deferred Commencement</b>				
<b>3/5</b>	This consent shall only commence when the Applicant has surrendered all previous development consents for the Wambo coal mine, excluding DA No. 108/91 issued by Singleton Shire Council, to the satisfaction of the Director-General	<ul style="list-style-type: none"> <li>Letter from Singleton Shire Council re Surrender of Existing Consent, 14 Nov 2006</li> <li>Letter from DoP re Commencement of DA 305-7-2003, 14 Nov 2005</li> </ul>	Yes	Wambo Coal Pty Ltd surrendered the previous Singleton Council development consents on 14 November 2005, excluding DA108/91, in accordance with the requirements of this condition.
<b>Limits on Approval</b>				
<b>3/6</b>	This consent lapses 21 years after the date it commences.		Noted	In accordance with this condition and the letter from DoP the consent lapses on 14 November 2023.
<b>3/7</b>	The Applicant shall not extract more than 14.7 million tonnes of ROM coal a year from the development.	<ul style="list-style-type: none"> <li>AEMR 2005-2006, submitted to DoP 31 August 2006</li> </ul>	Yes	ROM coal extracted each reporting year (i.e. October to September) comply with this condition: . 2007-2008    5,701 Mt 2008-2009    6,574 Mt 2009-2010    7,410 Mt 2010-2011    10,120 Mt (predicted)
<b>Management Plans/Monitoring Programs</b>				
<b>3/7A</b>	The Applicant may prepare and submit for approval all the management plans and monitoring programs required by this consent on a progressive basis. Where such management plans and monitoring programs are required before carrying out any development, or stage of development, they may be prepared and submitted for approval in relation to either discrete components of the development or for a specified time period.	Letter from DoP re Extension of Submission date for Final Void Management Plan, 7 Jan 2011	Yes	All required management plans for the project development have been submitted and approved except the Final Void Management Plan. The Final Void Management Plan is due for submission to DoP by 5 August 2011
<b>Structural Adequacy</b>				
<b>3/8</b>	The Applicant shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are	<ul style="list-style-type: none"> <li>Construction Certificate No.76/05N for Industrial</li> </ul>	Yes	New structures for the Wambo Development Project have the relevant Construction and Occupation Certificates issued by Dix

	<p>constructed in accordance with the relevant requirements of the BCA.</p> <p><i>Notes:</i></p> <p><i>Under Part 4A of the EP&amp;A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.</i></p> <p><i>Part 8 of the EP&amp;A Regulation sets out the requirements for the certification of development.</i></p> <p><i>The development is located in the Patrick Plains Mine Subsidence District. Under section 15 of the Mine Subsidence Compensation Act 1961, the Applicant is required to obtain the Mine Subsidence Board's approval before constructing or relocating any improvements on the site</i></p>	<p>Workshop and Office, Dix Gardner Pty Ltd, 9 Nov 2005</p> <ul style="list-style-type: none"> <li>• Occupation Certificate No.79/06N for Industrial Workshop &amp; Office, Dix Gardner, 18 Oct 2006</li> <li>• Construction Certificate No.53/06N for Belt Switch gear, Transfer &amp; Compressor Sheds, Dix Gardner Pty Ltd, 1 May 2006</li> <li>• Occupation Certificate No.84/06N for Belt Switch gear, Transfer/Compressor Sheds, Dix Gardner Pty Ltd, 23 Oct 2006</li> <li>• Construction Certificate No.76/05N for Stores Shed, Dix Gardner Pty Ltd, 6 Sep 2005</li> <li>• Occupation Certificate No.85/06N for Stores Sheds, Dix Gardner Pty Ltd, 23 Oct 2006</li> <li>• Fire Safety Certificate – All ground floor area not roof space, Chubb Fire Safety, 20 Aug 2008</li> <li>• Occupation Certificate Bathhouse &amp; Office Building, Dix Gardner 25 Sep 2008</li> </ul>		Gardner Pty Ltd.
<b>Demolition</b>				
<b>3/9</b>	<p>The Applicant shall ensure that all demolition work is carried out in accordance with AS 2601-2001: <i>The Demolition of Structures</i>, or its latest version.</p>	<ul style="list-style-type: none"> <li>• Australian Demolition Industries Limited, Quality Assurance Commitment, 2006</li> <li>• Demolition of Carport and Ancillary Facilities, ADI, 25 Mar 2008</li> </ul>	Yes	<p>Demolition of a redundant coal washery shed was undertaken by Australian Demolition Industries Limited in accordance with AS 2601-2001.</p> <p>The old Wollemi workshop, bathhouse and store facilities previously used by the WCPL's Underground operations were decommissioned during 2008.</p> <p>WCPL commissioned a review of the structural adequacy of the old Wollemi buildings after the site was impacted by subsidence. The review determined what materials can be reused or recycled.</p>



Operation of Plant and Equipment												
3/10	The Applicant shall ensure that all plant and equipment used at the site, or to transport coal off-site, are: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner	• Downer EDI Maintenance System – Wambo Coal Mine	Yes	Maintenance of all equipment used at the Wambo Coal open cut operations is conducted under contract by Downer EDI in accordance with their Maintenance System.								
Section 94 Contribution												
3/11	Before carrying out any development, or as agreed otherwise by Council, the Applicant shall pay Council \$60,000 in accordance with Council's Section 94 Contribution Plan.	• Letter from Wambo Coal Pty Limited to Singleton Council re S94 Contributions, 31 Oct 2005  • Receipt from Singleton Council for \$75,000 contribution, 4 Nov 2005	Yes	A cheque for \$60,000 for the S94 contribution and \$15,000 Community Enhancement Contributions was submitted to the Singleton Council on 31 October 2005.								
Community Enhancement Contribution												
3/12	Before carrying out any development, or as agreed otherwise by Council, the Applicant shall pay Council \$15,000 for the enhancement of community infrastructure or services in the Warkworth/Jerry's Plains area.	• Letter from Wambo Coal Pty Limited to Singleton Council re Community Enhancement Contributions, 31 Oct 2005  • Receipt from Singleton Council for \$75,000 contribution, 4 Nov 2005	Yes	A cheque for \$60,000 for the S94 contribution and \$15,000 Community Enhancement Contributions was submitted to the Singleton Council on 31 October 2005.								
SCHEDULE 4 SPECIFIC ENVIRONMENTAL CONDITIONS												
ACQUISITION UPON REQUEST												
4/1	Upon receiving a written request for acquisition from the landowner of the land listed in Table 1, the Applicant shall acquire the land in accordance with the procedures in conditions 9-11 of schedule 5: <table><tr><td>2 – Lambkin</td><td>23A &amp; B - Kannar</td></tr><tr><td>13C - Skinner</td><td>31A,B,C &amp; D - Fisher</td></tr><tr><td>19A &amp; B – Kelly</td><td>51 – Hawkes</td></tr><tr><td>22 – Henderson</td><td>56 - Haynes</td></tr></table> <i>Table 1: Land subject to acquisition upon request</i>	2 – Lambkin	23A & B - Kannar	13C - Skinner	31A,B,C & D - Fisher	19A & B – Kelly	51 – Hawkes	22 – Henderson	56 - Haynes	• Letters to Kannar, Hawkes, Lambkin, Skinner, Kelly, Henderson and Haynes re Right to Property Acquisition Upon Request, 20 Jul 2005  • Letters from Curtis Delaney Gray Solicitors re Haynes Property Acquisition, 23 Jan 2006 and 21 July 2006  • Letters from CEC M Hawkes re Property Acquisition – “Springwood”, 21 Nov 2005, 21 Sep 2006  • Letter from Wambo to DoP re Hawkes Property	Yes	Two properties were purchased from Long in Feb 2003 and Dec 2003.  Fisher property was purchased in September 2004. Haynes property was purchased in September 2006. Kannar property was purchased in March 2007. Hawkes property was purchased in Sep 2006Lambkin, Henderson, Skinner, and Kelly properties have been advised of their right to acquisition.
2 – Lambkin	23A & B - Kannar											
13C - Skinner	31A,B,C & D - Fisher											
19A & B – Kelly	51 – Hawkes											
22 – Henderson	56 - Haynes											

	<p><i>Note: For more information on the numbering and identification of properties used in this consent, see Attachment 1 of the EIS for the Wambo Development Project.</i></p>	<p>Acquisition, 28 Jun 2006</p> <ul style="list-style-type: none"><li>• Letter to Wambo re Hawkes “Springwood” Property, Prince Property Valuers, 22 Sep 2006</li><li>• Letter from DoP re Hawkes “Springwood” Property, 23 Oct 2006</li><li>• Letter to Wambo re Kannar Property Acquisition, Smith Dunlop Lawyers, 23 Sep 2006</li></ul>																	
<b>AIR QUALITY - Impact Assessment Criteria</b>																			
<b>4/2</b>	<p>Applicant shall ensure that the air pollution generated by the development does not exceed the criteria listed in Tables 2, 3, and 4 at any privately-owned land.</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 2: 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>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 3: Short term impact assessment criterion for particulate matter</i></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>	<ul style="list-style-type: none"><li>• AEMR 2005-2006</li><li>• AEMR 2007-2008</li><li>• AEMR 2008-2009</li><li>• AEMR 2009-2010</li><li>• Dust and PM<sub>10</sub> Monitoring Program Results Jul 2006-May 2011</li><li>• Air Quality Monitoring Program, EMP008_AQMP, Jul 2008</li></ul>	Yes	<p>Air quality monitoring has been conducted in accordance with the Air Quality Monitoring Program and the MCoA and EPL requirements. The Air quality results indicated:</p> <p>All dust gauges located in residential properties demonstrated deposition rates below the annual average criteria of 4g/m<sup>2</sup>/mth.</p> <p><u>Air Quality Monitoring Stations</u></p> <p>Four (4) TEOM monitoring units are operated continuously. Daily averages are recorded and reported in each of the AEMR's. There were a number of exceedances of the 24hr criteria PM<sub>10</sub> 50 µg/m<sup>3</sup> limit during 2009-2011 period. It was reported that investigations undertaken by WCPL concluded the exceedances were not the result of WCPL activities.</p> <p>The annual average of PM<sub>10</sub> 30µg/m<sup>3</sup> was not exceeded at any of the four stations over the 2009-2011 period</p> <p><u>TSP</u></p> <p>Four (4) high volume dust samplers are operated throughout the year. 1 sample is taken every 6 days. The results indicated that the TSP Annual Average of &gt;90µg/m<sup>3</sup> was not exceeded at any of the four sites.</p> <p><u>Dust Deposition Gauges</u></p> <p>Dust deposition gauges have been installed around and within the Wambo Coal operations.</p> <p>Results are generally within the impact assessment criteria in MCoA Schedule 4 condition 2.</p> <p>The air quality data presented in the AEMR's does not contain analysis of the dust deposition results to determine the increase in dust deposition caused by site emissions. The AQMP should be reviewed to assess if the “Maximum increase in deposited</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>																	

(see Rec 1)

	<table><tr><th>Pollutant</th><th>Averaging period</th><th>Maximum increase in deposited dust level</th><th>Max. total dep. dust level</th></tr><tr><td>Deposited dust</td><td>Annual</td><td>2 g/m<sup>2</sup>/mth</td><td>4 g/m<sup>2</sup>/mth</td></tr></table> <p>Table 4: Long term impact assessment criteria for deposited dust</p>	Pollutant	Averaging period	Maximum increase in deposited dust level	Max. total dep. dust level	Deposited dust	Annual	2 g/m <sup>2</sup> /mth	4 g/m <sup>2</sup> /mth			dust level” (with a limit of 2g/m <sup>2</sup> /month) is exceeded and the assessment results should be reported in the next Annual report.																			
Pollutant	Averaging period	Maximum increase in deposited dust level	Max. total dep. dust level																												
Deposited dust	Annual	2 g/m <sup>2</sup> /mth	4 g/m <sup>2</sup> /mth																												
Land Acquisition Criteria																															
4/3	<p>If the air pollution generated by the development exceeds the criteria in Tables 5, 6, and 7 at any privately-owned land, the Applicant shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 9-11 of schedule 5.</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>Table 5: Long term land acquisition criteria for particulate matter</p> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Criterion</th><th>%ile</th><th>Basis</th></tr><tr><td>Particulate matter&lt; 10 µm (PM<sub>10</sub>)</td><td>24 hour</td><td>150 µg/m<sup>3</sup></td><td>99<sup>2</sup></td><td>Total<sup>3</sup></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>98.6</td><td>Increment<sup>4</sup></td></tr></table> <p>Table 6: Short term land acquisition criteria for particulate matter</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></table>	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	%ile	Basis	Particulate matter< 10 µm (PM <sub>10</sub> )	24 hour	150 µg/m <sup>3</sup>	99 <sup>2</sup>	Total <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>	98.6	Increment <sup>4</sup>	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	Yes	No written requests from landowners of privately owned land have been received.
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	%ile	Basis																											
Particulate matter< 10 µm (PM <sub>10</sub> )	24 hour	150 µg/m <sup>3</sup>	99 <sup>2</sup>	Total <sup>3</sup>																											
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>	98.6	Increment <sup>4</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				
Table 7: Long term land acquisition criteria for deposited dust								
Monitoring								
4/4	Applicant shall establish air quality monitoring stations at a minimum of 4 locations around the site including the residence on property 40 (Muller) whilst privately-owned, to monitor (by sampling and obtaining results by analysis) the concentration of each pollutant in Table 8 to the satisfaction of DECCW and the Director-General, using the specified averaging period, frequency, and sampling method:				<ul style="list-style-type: none"><li>• Environmental Monitoring Program – Section 4 Air Quality, Mar 2006</li><li>• Air Quality Monitoring Program, Aug 2005</li><li>• Letter from DEC re Air Quality Monitoring Program, 7 Sep 2005</li><li>• Letter from DIPNR re Air Quality Monitoring Program, 13 Sep 2005</li></ul>	Yes	Four air quality monitoring stations with continuous PM10, hi-volume dust samplers and dust deposition gauges have been established at Coralie, Wambo Road, Thelander and Muller locations. Additional 13 dust deposition gauges have also been installed around the project site.	
	Pollutant	Units of Measure	Averaging Period	Frequency				Sampling method <sup>1</sup>
	PM <sub>10</sub>	µg/m <sup>3</sup>	24 hour, annual	Continuous				AS3580.9.8 – 2001 <sup>2</sup>
	TSP	µg/m <sup>3</sup>	24 hour, annual	1 day in 6				AM-15
	Dust Deposition	g/m <sup>2</sup> /month	Month, annual	Continuous				AM-19
	Siting	-	-	-	AM-1			
Table 8: Air quality monitoring NSW EPA, 2001, Approved Methods for the Sampling and Analysis of Air Pollutants in NSW.								
4/5	Before carrying out any development, the Applicant shall prepare an Air Quality Monitoring Program, in consultation with DECCW, and to the satisfaction of the Director-General.				<ul style="list-style-type: none"><li>• Letter from DoP re Approval of Air Quality Monitoring Program, Aug 2005</li><li>• Environmental Monitoring Program – Section 4 Air Quality, Mar 2006</li><li>• Air Quality Monitoring Program, Rev 3, Jul 2008</li></ul>	Yes	The DEC advised in a letter dated 7 September 2005 that “while they encourage the preparation of management plans they will not review or comment on them”. A copy of the Air Quality Monitoring Program was provided to the DECC.	


NOISE						
4/6	<b>Noise Impact Assessment Criteria</b> The Applicant shall ensure that the noise generated by the development does not exceed the noise impact assessment criteria presented in Table 9.			<ul style="list-style-type: none"> <li>• Attended Noise Monitoring Q1 2010, Global Acoustics</li> <li>• Attended Noise Monitoring Q2 2010, Global Acoustics</li> <li>• Wambo Coal Mine Annual Report, Environmental Noise Monitoring, Global Acoustics, 2009/2010</li> <li>• Environmental Noise Assessment, Jan-Mar 2010, Advitech</li> <li>• Environmental Noise Assessment, Apr-Jun 2010, Advitech</li> <li>• Environmental Noise Assessment, Jul-Sep 2010, Advitech</li> <li>• Environmental Noise Assessment, Oct-Dec 2010, Advitech</li> </ul>	Yes	<p>The quarterly attended noise monitoring has indicated that extraneous noise sources (e.g. wind, birds, insects, highway traffic, mines other than Wambo) were the dominant sources of noise measured at the residences around the Wambo operations. Wambo mine noise levels were generally low although audible along with the other sources at some of the properties. Mine 'hum' from mine operations other than Wambo were audible on many occasions in the March and May monitoring runs.</p> <p>Real Time Noise Monitoring Stations were installed by Wambo at four locations in June 2006 to provide improved noise recording with the option of searching increased levels for interpretation of the results when noise complaints were received and noise criteria are exceeded.</p>
	<b>Day</b> <i>L<sub>Aeq</sub>(15 minute)</i>	<b>Evening/ Night</b> <i>L<sub>Aeq</sub>(5 1minute)</i>	<b>Night</b> <i>L<sub>A1</sub>(1 minute)</i>	<b>Land Number</b>		
	35	41	50	94 – Curlewis		
	35	40	50	3 – Birrell		
				4B – Circosta		
				15B - McGowen/Caslick		
				16 – Cooper		
				23C – Kannar		
				25 – Fenwick		
				28A & B – Garland		
				33 -Thelander/O'Neill		
				39 – Northcote		
				40 – Muller		
				254A – Algie		
	35	39	50	5 – Strachan		
				6 - Merrick		
				7 - Maizey		
				37 - Lawry		



			48 - Ponder			
	35	38	50	1 - Brosi		
				17 - Carter		
				18 - Denney		
				38 - Williams		
				49 - Oliver		
				63 - Abrocuff		
				75 - Barnes		
				91 - Bailey		
	35	37	50	27 - Birralelee		
				43 - Carmody		
				137 - Woodruff		
				163 - Rodger/Williams		
				246 - Bailey		
	35	36	50	13B - Skinner		
				178 - Smith		
				188 - Fuller		
				262A, B & C - Moses		
	35	35	50	All other residential or sensitive receptors, excluding the receptors listed in condition 1 above		

Table 9: Noise impact assessment criteria dB(A)

Land Acquisition Criteria					
7	If the noise generated by the development exceeds the criteria in Table 10, the Applicant shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 9-11 of schedule 5.		<ul style="list-style-type: none"><li>Letter to Wambo re Kannar Property Acquisition, Smith Dunlop Lawyers, 23 Sep 2006</li><li>Letter from Sparke Helmore Lawyers re Purchase from Kannar, dated 20 Mar 2007</li></ul>	Yes	A written request was received from Kannar on 23 Sep 2006. The acquisition process was completed on 20 March 2007. No other written requests for land acquisition under MCoA 7 were received. Acquisition of other properties has occurred via consultation and procedures outlined in MCoA Schedule 5 conditions 9-11.
	Day/Evening/ Night	Property			
	$L_{Aeq}(15\text{ minute})$				
	43	94 - Curlewis			
		23C – Kannar			
		254A - Algie			
40	All other residential or sensitive receptor, excluding the receptors listed in condition 1 above				
Table 10: Land acquisition criteria dB(A)					
Monitoring					
4/8	Applicant shall conduct real-time monitoring of the noise generated by the development at a minimum of four properties to the south and north-west of the site, in general accordance with the <i>NSW Industrial Noise Policy</i> and <i>AS1055-1997: Acoustics – Description and Measurement of Environmental</i> .	<ul style="list-style-type: none"><li>Environmental Monitoring Program – Section 5 Noise Monitoring Figure 2</li></ul>	Yes	Four real-time noise monitors have been located around the Wambo site. Additional attended and unattended monitoring is conducted on a quarterly basis. Four real time noise monitoring occurs at the following locations: NO16 - Muller residence NO20 -Thelander residence (northwest of the project area); NO21 - WA (located south of the project area); and N03 - Kelly residence (located to the east of the project area).	
4/9	Before carrying out any development, the Applicant shall prepare a Noise Monitoring Program to the satisfaction of the Director-General, which includes a noise monitoring protocol for evaluating compliance with the criteria in Tables 9 & 10	<ul style="list-style-type: none"><li>Noise Monitoring Program, Rev 3, May 2007</li><li>Letter from DoP re Approval of Revised Noise Monitoring Program, 2 Nov 2007</li></ul>	Yes	The Noise Monitoring Program was prepared by Wambo in September 2005 and approved by DoP on 10 October 2005. The Program was revised in May 2007 to consolidate the noise monitoring programs for the mine and the rail loader and rail loop. DoP approved the revision on 2 November 2007.	

METEOROLOGICAL MONITORING					
4/10	Applicant shall establish a permanent meteorological station at a location approved by the DECCW, and to the satisfaction of the Director-General, to monitor the parameters specified in Table 11, using the specified units of measure, averaging period, frequency, and sampling method in the table.				
	Parameter	Units	Averaging period	Frequency	Sampling method <sup>1</sup>
	Lapse rate	°C /100m	1 hour	Continuous	Note <sup>2</sup>
	Rainfall	mm/hr	1 hour	Continuous	AM-4
	Sigma Theta @ 10 m	°	1 hour	Continuous	AM-2
	Siting	-	-	-	AM-1
	Temp @ 10 m	K	1 hour	Continuous	AM-4
	Temp @ 2 m	K	1 hour	Continuous	AM-4
	Total Solar Radiation @ 10m	W/m <sup>2</sup>	1 hour	Continuous	AM-4
	Wind Speed &Direction @ 10 m	°	1 hour	Continuous	AM-2
Table 11: Meteorological monitoring					
<ul style="list-style-type: none"><li>• AEMR 2005-2006, Appendix 2A Meteorological Data</li><li>• Wambo Coal Weather Summary Sheets – Jul, Aug and Sep 2006</li><li>• Letter from DEC re relocation of the Meteorological Station, 11 Dec 2007</li><li>• Letter from DoP re Approval of the Relocation of the Meteorological Station, 31 Jan 2008</li></ul>					
Yes					
<p>A permanent meteorological station was installed at the Wambo Administration Building site in 2004 and provides data for the following parameters:</p> <ul style="list-style-type: none"><li>• rainfall;</li><li>• sigma theta at 10m;</li><li>• temperature at 10m;</li><li>• temperature at 2m;</li><li>• solar radiation at 10m;</li><li>• wind speed and wind direction at 10m.</li></ul> <p>The Meteorological station was relocated in 2007 adjacent to the Helicopter Landing Pad near the Administration Buildings, due to construction activities affecting the original site.</p>					
					






BLASTING & VIBRATION - Airblast Overpressure Limits					
4/11	The Applicant shall ensure that the airblast overpressure level from blasting at the development does not exceed the criteria in Table 12 at any residence on privately-owned land with the exception of property 13C (Skinner) (see condition 20 below).		<ul style="list-style-type: none"><li>• Blast Monitoring Program, Rev 2, Dec 2008</li><li>• Blast Monitoring Results 1 Nov 2005 to 31 Oct 2006</li><li>• Letter from DEC re blast Overpressure, 13 Jun 2006</li><li>• Environmental Incident Report re Blast Overpressure Exceedance at Kelly monitoring site, 13 Oct 2008</li><li>• Environmental Incident Report Blast Overpressure Exceedance at the Harris monitoring site, 14 Aug 2009</li><li>• Letter from DECCW re Penalty Infringement Notice re Blast Overpressure Exceedance, 4 Mar 2011</li></ul>	Yes  Yes  NO	Blast monitoring is conducted in accordance with the Blast Monitoring Program revision 2 December 2008.  All blast monitoring results demonstrated compliance with the 115 dBL criteria on all occasions.  The blast monitoring identified the following exceedances of the >120dBL criteria:  2007-2008: 4 of 109 blasts exceeded 115dBL (i.e. 3.6%) therefore compliant. No blasts exceeded 120dBL.  2008-2009: 2 of 102 blasts exceeded 115 dBL (i.e. 2%) therefore compliant. One blast exceeded 120dBL (120.3dBL at Kelly monitoring site on 13 October 2008) was reported to DECC.  2009-2010: 2 of 62 blasts exceeded 115dBL (i.e. 5%) therefore compliant. One blast exceeded 120dBL criteria (122.1dBL at Harris monitoring site 14 August 2009) was reported to DECCW.  2010-June 2011: One blast exceeded120dBL (i.e.124.2dBL at Muller monitoring site on 17 February 2011) was reported to DECCW. Wambo Coal was issued with a Penalty Infringement Notice in relation to this exceedance on 4 March 2011.
	Airblast overpressure level (dB(Lin Peak))	Allowable exceedance			
	115	5% of the total number of blasts over a period of 12 months			
	120	0%			
	Table 12: Airblast overpressure impact assessment criteria				
Ground Vibration Impact Assessment Criteria					
4/12	The Applicant shall ensure that the ground vibration level from blasting at the development does not exceed the criteria in Table 13 at any residence on privately-owned land with the exception of property 13C (Skinner) (see condition 20 below).		<ul style="list-style-type: none"><li>• AEMR 2005-2006</li><li>• Blast Monitoring Results 1 Nov 2005 to 31 Oct 2006</li></ul>	Yes	No vibration results have been recorded that exceed the 5mm/sec peak particle velocity criteria, during the 2006-June 2011 period.
	Peak particle velocity (mm/s)	Allowable exceedance			
	5	5% of the total number of blasts over a period of 12 months			
	10	0%			
	Table 13: Ground vibration impact assessment criteria				
Blasting Hours					
4/13	The Applicant shall only carry out blasting at the development between 9 am and 5 pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays or any other time without the written approval of DECCW.		<ul style="list-style-type: none"><li>• Blast Monitoring Results 1 Nov 2005 to 31 Oct 2006</li></ul>	Yes	No blasts have occurred outside the allowable hours of 0900 to 1700 hours during the 2006-June 2011 period.

<b>Public Notice</b>				
<b>4/14</b>	<p><i>During the life of the development, the Applicant shall:</i></p> <p>(a) operate a Blasting Hotline, or alternate system agreed to by the Director-General, to enable the public to get up-to-date information on blasting operations at the development; and</p> <p>(b) notify the occupants of any land within 2 km of the site about this hotline or system on an annual basis</p>	<ul style="list-style-type: none"> <li>• Letters to Residents (43) re Hotline and Blast Notification, 3 Nov 2005</li> <li>• Wambo Wrap 2006 to 2010</li> <li>• Singleton Argus, Apr 2011</li> </ul>	Yes	A blasting Hotline has been established (tel: 8250 5205). Residents within 2km of the mine have been advised of the Hotline number. The Hotline number has also been advised in the Singleton Argus, Wambo Wrap Newsletter that is distributed twice a year to the residents of Jerry's Plains, Warkworth Village, Long Point Road and Wambo Road.
<b>Property Inspection</b>				
<b>15</b>	The Applicant shall advise all landowners within 2 km of the site that they are entitled to a property inspection.	<ul style="list-style-type: none"> <li>• Letters to Residents (43) re Hotline and Blast Notification, 3 Nov 2005</li> </ul>	Yes	All residents within 2km of the mine site were advised that they were entitled to a property inspection in the letter of 3 Nov 2005.
<b>16</b>	<p><i>If the Applicant receives a written request for a property inspection from any landowner within 2 km of the site, the Applicant shall:</i></p> <p>(a) within 28 days of receiving the request, commission a suitably qualified person, whose appointment has been approved by the Director-General, to inspect the condition of any building or structure on the land, and recommend measures to mitigate any potential blasting impacts; and</p> <p>(b) give the landowner a copy of this property inspection report within 14 days of receiving the report</p>	<ul style="list-style-type: none"> <li>• Letter from DoP re Approval of Kane Building Services, 13 Oct 2005</li> <li>• Letters re Request for Property Inspection from: <ul style="list-style-type: none"> <li>◦ RTM at 563 Redmanvale Rd Jerrys Plains, 8 Nov 2005</li> <li>◦ Barnes 390 Redmanvale Rd Jerrys Plains, 15 Nov 2005</li> <li>◦ Carmody 2228 Jerrys Plains Road, 18 Nov 2005</li> <li>◦ Rodger &amp; Associates 449 Redmanvale Road Jerrys Plains, 23 Nov 2005</li> <li>◦ Lianos 217 Wambo Rd Bulga, 7 Dec 2005</li> <li>◦ Mills 469 Redmanvale Road Jerrys Plains, 25 Jan 2006</li> <li>◦ Woodruff 365 Redmanvale Rd Jerrys Plains, 7 Mar 2006</li> <li>◦ Northcote Lot 5, Jerrys Plains Rd, 21 Sep 2006</li> </ul> </li> </ul>	Yes	Five written requests and four telephone requests for property inspections were received and reports commissioned by the approved property inspectors. Reports have been prepared and provided to each of the property owners.
<b>Cumulative Impacts</b>				
<b>4/17</b>	The Applicant shall undertake all reasonable steps to co-ordinate blasting at the development with the blasting at surrounding mines – such as Bulga, Mount Thorley, Warkworth, and Hunter Valley Operations – to minimise the cumulative impacts of blasting in the region.		Yes	There was a procedure in place for interaction with United Collieries in relation to blasting (United Collieries was in care and maintenance at the time of this audit so no blasting was occurring). Blasting at Wambo Coal does not require road closures.



Monitoring																						
4/18	The Applicant shall monitor the air-blast overpressure and ground vibration impacts of the development at a minimum of four locations around the site, using the specified units of measure, frequency, sampling method, and location in Table 14. <table><tr><th>Parameter</th><th>Units of Measure</th><th>Frequency</th><th>Sampling Method</th><th>Location</th></tr><tr><td>Airblast over pressure</td><td>dB(Lin Peak)</td><td>During every blast</td><td>AS2187.2-1993<sup>1</sup></td><td>Not less than 3.5 m from a building or structure</td></tr><tr><td>Peak particle velocity</td><td>mm/s</td><td>During every blast</td><td>AS2187.2-1993</td><td>Not more than 30 m from a building or structure</td></tr></table> <i>Table 14: Airblast overpressure and ground vibration monitoring</i>				Parameter	Units of Measure	Frequency	Sampling Method	Location	Airblast over pressure	dB(Lin Peak)	During every blast	AS2187.2-1993 <sup>1</sup>	Not less than 3.5 m from a building or structure	Peak particle velocity	mm/s	During every blast	AS2187.2-1993	Not more than 30 m from a building or structure	<ul style="list-style-type: none"><li>• Blast Monitoring Program Sept 2005</li><li>• Environmental Monitoring Program Mar 2006</li><li>• Blast Monitoring Program, Rev 3, Jan 2009</li><li>• Letter to DoP re Blast Monitoring Program Review Approval, 7 Jan 2009</li></ul>	Yes	Air-blast overpressure and peak particle velocity were measured at fixed locations in accordance with the approved Blast Monitoring Program. Monitoring was conducted at the Muller, Kelly, Harris properties and the tailings emplacement embankment until Jan 2009. The revised Blast Management Program submitted to the DoP on 7 January 2009 continued monitoring at the Muller, Kelly and Harris properties.
Parameter	Units of Measure	Frequency	Sampling Method	Location																		
Airblast over pressure	dB(Lin Peak)	During every blast	AS2187.2-1993 <sup>1</sup>	Not less than 3.5 m from a building or structure																		
Peak particle velocity	mm/s	During every blast	AS2187.2-1993	Not more than 30 m from a building or structure																		
4/19	Before carrying out any development, the Applicant shall prepare a detailed Blast Monitoring Program for the development, in consultation with DECCW, and to the satisfaction of the Director-General.				<ul style="list-style-type: none"><li>• Blast Monitoring Program Sep 2005</li><li>• Letter from DoP re Approval of Blast Monitoring Program, 1 Dec 2006</li><li>• Blast Monitoring Program, Rev 3, Jan 2009</li><li>• Letter from DECC re Approval of Revised Blast Monitoring Program, 9 Nov 2009</li></ul>	Yes	The Blast Monitoring program was developed and implemented in September 2005. The Blast Monitoring program was revised in December 2008 to ensure that it reflected the current Wambo mine operations and updated AS/NZS 2187.2-2006.															
Blast Management																						
4/20	Before carrying out any development, the Applicant shall prepare a Blast Management Plan for property 13C (Skinner) in consultation with the landowner, and to the satisfaction of the Director-General. This plan must include measures to minimise, mitigate, and if necessary remediate the blasting impacts on the property. The Applicant shall implement this plan whilst the property is privately-owned.				<ul style="list-style-type: none"><li>• Skinner Property "Pinegrove" Blast Management Plan, Sep 2009</li><li>• Letter from D Skinner re Acceptance of of Peabody Offer for Acquisition, 30 Sep 2009</li></ul>	Yes	Correspondence has been received from Lawyers acting for D R Skinner re the sale of the "Pinegrove" property. The Skinner property acquisition was completed on 30 September 2009															

Property Investigations			
<b>4/21</b>	<p>If any landowner within a 2 km radius of the site claims that his/her property has been damaged as a result of blasting at the development, the Applicant shall:</p> <p>(a) within 28 days of receiving this claim in writing, commission a suitably qualified 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 within 14 days of receiving the report.</p> <p>If this independent investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant shall repair the damages to the satisfaction of the Director-General.</p> <p>If the Applicant or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution.</p> <p>If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (See Appendix 2</p>		<p>NA</p> <p>There have been no claims for damages caused by blasting, from residents within a 2km radius of the site.</p>
<b>SUBSIDENCE - Subsidence Management Plan</b>		<ul style="list-style-type: none"> <li>• Wambo Seam Underground First Workings Subsidence Management Plan, Mar 2005</li> <li>• Letter from DPI re Wambo First Workings SMP LW1, 21 Oct 2005</li> <li>• North Wambo Underground Mine Subsidence Management Plan, Mar 2006</li> <li>• Letter from DPI re North Wambo Underground Mine Subsidence Management Plan, 8 Mar 2006</li> </ul>	<p>A Subsidence Management Plan for 2005 to 2012 for first workings in the Wambo Seam was approved by DPI- Mineral Resources in October 2005 with mining commencing in November 2005.</p> <p>The SMP for Second Workings was lodged in March 2006 and was approved on the 11 December 2006.</p> <p>This SMP covers underground mining activities for the next seven years for longwall panels 1 through to 6 (LW 1-6), and includes the management of environmental impacts associated with subsidence.</p> <p>The modification to consent granted 28 February 2011 accepted an update of the existing subsidence management process within the development consent to reflect current requirements under development consents and project approvals for "Extraction Plans", rather than Subsidence Management Plans.</p>

Performance Measures – Natural and Heritage Features, etc																					
4/22	The Applicant shall ensure that the development does not cause any exceedances of the performance measures in Table 14A, to the satisfaction of the Director-General. Table 14A: Subsidence Impact Performance Measures		Yes																		
	<table><tr><td>Water</td><td></td></tr><tr><td>Wollombi Brook</td><td>Negligible impact</td></tr><tr><td></td><td>Controlled release of excess site water only in accordance with EPL requirements.</td></tr><tr><td>Biodiversity</td><td></td></tr><tr><td>Wollemi National Park</td><td>Nil impact</td></tr><tr><td>Warkworth Sands Woodland Community</td><td>Minor cracking and ponding of the land surface or other impact. Negligible environmental consequences</td></tr><tr><td>White Box, Yellow Box, Blakely's Red Gum, Woodland/Grassy White Box Woodland Community</td><td>Minor cracking and ponding of the land surface or other impact. Negligible environmental consequences.</td></tr><tr><td>Heritage</td><td></td></tr><tr><td>Wambo Homestead Complex</td><td>Negligible impact on heritage values, unless approval has been granted by the Heritage Branch and/or the Minister.</td></tr></table>			Water		Wollombi Brook	Negligible impact		Controlled release of excess site water only in accordance with EPL requirements.	Biodiversity		Wollemi National Park	Nil impact	Warkworth Sands Woodland Community	Minor cracking and ponding of the land surface or other impact. Negligible environmental consequences	White Box, Yellow Box, Blakely's Red Gum, Woodland/Grassy White Box Woodland Community	Minor cracking and ponding of the land surface or other impact. Negligible environmental consequences.	Heritage		Wambo Homestead Complex	Negligible impact on heritage values, unless approval has been granted by the Heritage Branch and/or the Minister.
	Water																				
	Wollombi Brook	Negligible impact																			
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	Biodiversity																				
	Wollemi National Park	Nil impact																			
	Warkworth Sands Woodland Community	Minor cracking and ponding of the land surface or other impact. Negligible environmental consequences																			
	White Box, Yellow Box, Blakely's Red Gum, Woodland/Grassy White Box Woodland Community	Minor cracking and ponding of the land surface or other impact. Negligible environmental consequences.																			
	Heritage																				
Wambo Homestead Complex	Negligible impact on heritage values, unless approval has been granted by the Heritage Branch and/or the Minister.																				
Notes: 1) The Applicant will be required to define more detailed performance indicators for each of these performance measures in the various management plans that are required under this consent (see condition 22C below). 2) The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of approval of modification 9.																					
																					
Warkworth Sands Woodland Community																					
																					
White Box, Yellow Box, Blakely's Red Gum, Woodland/Grassy White Box Woodland Community																					
																					
Wollemi National Park from the NWCD access road.																					
																					
Wambo Homestead and surrounds 2002																					
																					
Wambo Homestead and surrounds 2009																					

Performance Measures – Built Features										
22A	<p>The Applicant shall ensure that the development does not cause any exceedances of the performance measures in Table 14B, to the satisfaction of the Director-General of DII.</p> <p><b>Table 14B: Subsidence Impact Performance Measures</b></p> <table><tr><td>Built Features</td><td></td></tr><tr><td>All built features</td><td><p>Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated.</p><p>Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.</p></td></tr><tr><td>Public Safety</td><td>Public Safety No additional risk</td></tr></table> <p><b>Notes:</b></p> <p>1) The Applicant will be required to define more detailed performance indicators for each of these performance measures in Built Features Management Plans or Public Safety Management Plan (see condition 22C below).</p> <p>2) The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of modification 9.</p> <p>3) Requirements regarding safety or serviceability do not prevent preventative or mitigatory actions being taken prior to or during mining in order to achieve or maintain these outcomes.</p> <p>4) Compensation required under this condition includes any compensation payable under the Mine Subsidence Compensation Act 1961 and/or the Mining Act 1992.</p>	Built Features		All built features	<p>Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated.</p> <p>Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.</p>	Public Safety	Public Safety No additional risk	<ul style="list-style-type: none"><li>Wambo Coal Longwall 1 End-of-Panel Report, 16 Oct 2009</li><li>Wambo Coal Longwall 2 End-of-Panel Report, 24 Aug 2010</li></ul>	Yes Ongoing	<p>The End-of-Panel Reports for Longwall 1 and 2 conclude that the monitoring of actual subsidence along the monitoring lines for each longwall indicated that the actual <math>S_{max}</math> values across all chainages fall within the predicted subsidence movements as outlined in the SMP. Supplementary environmental monitoring indicated n=minimal impact on groundwater, surface water quality and creek bed condition from subsidence related to the coal extraction from LW1 and LW2.</p> <p>Longwall underground mining commenced in Longwall Panel 1 (LW1) in October 2007 and was completed in January 2009. Longwall mining commenced LW2 during March 2009. At the end of the reporting period LW3 had retreated approximately 500m.</p> <p>Subsidence monitoring is currently undertaken for longwall panels in accordance with WCPL's approved SMP. The results of subsidence monitoring are reported to the DII as required in the SMP. Subsidence in the South Wambo and Stony Creek areas is further discussed in Section 5.1.2 of this report.</p> <p>Baseline Riparian Vegetation and Bed Bank Stability Monitoring Programs were initiated in North Wambo, South Wambo and Stony Creeks in 2006.</p> <p>The Riparian Vegetation and Bed Bank Stability Monitoring Program continued in during the 2009-2010 reporting period.</p>
Built Features										
All built features	<p>Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated.</p> <p>Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.</p>									
Public Safety	Public Safety No additional risk									
22B	Any dispute between the Applicant and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 14B is to be settled by the Director-General of DII. The Director-General of DII may seek the advice of the MSB on the matter. Any decision by the D-G of DII shall be final and not subject to further dispute resolution under this consent		Noted							
Extraction Plan										
22C	The Applicant shall prepare and implement an Extraction Plan for the second workings within each seam to be mined to the	<ul style="list-style-type: none"><li>Wambo Coal Longwall 1 End-of-Panel Report, 16 Oct</li></ul>		A Subsidence Management Plan for 2005 to 2012 for first workings in the Wambo Seam was approved by DPI- Mineral Resources in October 2005 with mining commencing in						

	<p>satisfaction of the Director-General. Each Extraction Plan must:</p> <p>(a) be prepared by a team of suitably qualified and experienced persons whose appointment has been endorsed by the Director-General;</p> <p>(b) be approved by the Director-General before the Applicant carries out any of the second workings covered by the plan;</p> <p>(c) include detailed plans of the proposed first and second workings and any associated surface development;</p> <p>(d) include detailed performance indicators for each of the performance measures in Tables 14A and 14B;</p> <p>(e) provide revised predictions of the potential subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since this consent;</p> <p>(f) describe the measures that would be implemented to ensure compliance with the performance measures in Tables 14A and 14B, and manage or remediate any impacts and/or environmental consequences;</p> <p>(g) include the following to the satisfaction of DII:</p> <ul style="list-style-type: none"> <li>- a coal resource recovery plan that demonstrates effective recovery of the available resource;</li> <li>- a subsidence monitoring program to:</li> <li>- provide data to assist with the management of the risks associated with subsidence;</li> <li>- validate the subsidence predictions; and</li> <li>- analyse the relationship between the subsidence effects and impacts under the plan and any ensuing environmental consequences;</li> <li>- a Built Features Management Plan to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings, and which:</li> <li>- addresses in appropriate detail all items of public infrastructure and all classes of other built features; and</li> <li>- has been prepared following appropriate consultation with the owner/s of potentially affected feature/s;</li> <li>- a Public Safety Management Plan to ensure public safety in the mining area; and</li> <li>- appropriate revisions to the Rehabilitation Management Plan required under condition 40A; and</li> </ul>	<p>2009</p> <ul style="list-style-type: none"> <li>• Wambo Coal Longwall 2 End-of-Panel Report, 24 Aug 2010</li> </ul>		<p>November 2005. The SMP for Second Workings for 2006 to 2012 was lodged in March 2006 and was approved on the 11 December 2006.</p> <p>The current underground workings are being undertaken in accordance with the approved Subsidence Management Plan. The preparation of Extraction Plans (as described in the Modification of Consent MCoA 22C, was granted in February 2011) had not been prepared for submission at the date of this audit.</p>
	(h) include a:		Noted	WCPL advised that the Extraction Plan will include the Surface



	<ul style="list-style-type: none"> <li>Water Management Plan, which has been prepared in consultation with DECCW and NOW, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on surface water resources, groundwater resources and flooding, and which includes: <ul style="list-style-type: none"> <li>surface and groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse impacts on water resources or water quality;</li> <li>a program to monitor and report groundwater inflows to underground workings; and</li> <li>a program to manage and monitor impacts on groundwater bores on privately-owned land;</li> </ul> </li> <li>Biodiversity Management Plan, which has been prepared in consultation with DECCW and DII, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on flora and fauna;</li> <li>Land Management Plan, which has been prepared in consultation with any affected public authorities, to manage the potential impacts and/or environmental consequences of the proposed second workings on land in general;</li> <li>Heritage Management Plan, which has been prepared in consultation with DECCW, the Department's Heritage Branch and relevant stakeholders for Aboriginal and non-Aboriginal heritage, to manage the potential environmental consequences of the proposed second workings on heritage sites or values; and</li> </ul>			<p>Water and Groundwater Management Plan, Biodiversity Management Plan, Land Management Plan and Heritage Management Plan. The currently approved management plans for the above will be reviewed for conformance with the requirements of MCoA 22C, and revisions made where required for submission to the Director-General.</p> <p>A Subsidence Management Plan for 2005 to 2012 for first workings in the Wambo Seam was approved by DPI- Mineral Resources in October 2005 with mining commencing in November 2005. The SMP for Second Workings for 2006 to 2012 was lodged in March 2006 and was approved on the 11 December 2006.</p> <p>The Subsidence Management Plan (SMP) approved by DII prior to 30 July 2011 satisfies the requirements of this condition.</p> <p>The Extraction Plan will be prepared for submission to the Director-General for approval prior to the commencement of any secondary workings not currently approved under the existing Subsidence Management Plan.</p>
	<p>(i) include a program to collect sufficient baseline data for future Extraction Plans.</p> <p><b>Notes:</b></p> <p>1) An SMP approved by DII prior to 30 July 2011 is taken to satisfy the requirements of this condition.</p> <p>2) Management plans prepared under condition 22C(h) should address all potential impacts of proposed underground coal extraction on the relevant features. Other similar management plans required under this consent (eg under conditions 30 - 35 and 44 - 48) are not required to duplicate these plans or to otherwise address the impacts associated with underground coal extraction.</p>		Noted	
<b>22D</b>	<p>The Applicant shall ensure that the management plans required under condition 22C(h) above include:</p> <p>(a) an assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since this consent;</p>		Noted	

	(b) a detailed description of the measures that would be implemented to remediate predicted impacts; and (c) a contingency plan that expressly provides for adaptive management.						
First Workings							
22E	The Applicant may carry out first workings within the underground mining area, other than in accordance with an approved extraction plan, provided that DII is satisfied that the first workings are designed to remain stable and non-subsiding in the long term, except insofar as they may be impacted by approved second workings.  <i>Note: The intent of this condition is not to require an additional approval for first workings, but to ensure that first workings are built to geotechnical and engineering standards sufficient to ensure long term stability, with negligible resulting direct subsidence impacts.</i>		Noted				
Payment of Reasonable Costs							
22F	The Applicant shall pay all reasonable costs incurred by the Department to engage independent experts to review the adequacy of any aspect of an Extraction Plan.		Noted				
REJECTS EMPLACEMENT STRATEGY							
4/22G	Within 6 months of this consent commencing, the Applicant shall prepare a Life of Mine Rejects Emplacement Strategy for the development, to the satisfaction of the Director-General of DII.	<ul style="list-style-type: none"><li>Rejects Emplacement Strategy, May 2006</li><li>Updated Rejects Emplacement Strategy, Mar 2011</li></ul>	Yes	A Rejects Emplacement Strategy was submitted to the DPI within 6 months of the date of commencement of the Minister's Consent (i.e. 14 November 2005).  The Rejects Emplacement Strategy was updated in March 2011 to represent the current mine operations and emplacement areas.			
SURFACE & GROUND WATER - Note: The Applicant is required to obtain licences for the development under the Water Act 1912 and the Protection of the Environment Operations Act 1997							
Pollution of Waters							
4/23	Except as may be expressly provided by a DECCW licence, the Applicant shall comply with section 120 of the Protection of the Environment Operations Act 1997 during the carrying out of the development.	Protection of the Environment Operations Act 1997 section 120	Noted				
Discharge Limits							
24	Except as may be expressly provided by a DECCW licence or the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002, the Applicant shall: (a) not discharge more than 250 ML/day from the licenced	<ul style="list-style-type: none"><li>Letter to DEC re Hunter River Salinity Trading Scheme Annual Report 2005-06</li></ul>	Noted	Discharge records for Licence No. 529 to the Hunter River between July 2005 and 1 June 2011 were: <table><tr><td>Discharge Point No.</td><td>Date</td><td>Volume Discharged</td></tr></table>	Discharge Point No.	Date	Volume Discharged
Discharge Point No.	Date	Volume Discharged					

	<p>discharge point/s at the development;</p> <p>(b) ensure that the discharges from any licenced discharge point comply with the limits in Table 15:</p> <table><tr><th>Pollutant</th><th>Units of measure</th><th>100 percentile concentration limit</th></tr><tr><td>pH</td><td>pH</td><td>6.5 ≤ pH ≤ 9</td></tr><tr><td>Non-filterabl residue</td><td>mg/litre</td><td>NFR ≤ 120</td></tr></table> <p>Table 15: Discharge Limits</p>	Pollutant	Units of measure	100 percentile concentration limit	pH	pH	6.5 ≤ pH ≤ 9	Non-filterabl residue	mg/litre	NFR ≤ 120	<ul style="list-style-type: none"><li>Letter to DEC re Hunter River Salinity Trading Scheme Annual Report, 2007-2008</li><li>Letter to DEC re Hunter River Salinity Trading Scheme Annual Report, 2008-2009</li></ul>		<table><tr><td>1</td><td>4 July 2005</td><td>5.0 ML</td></tr><tr><td>1</td><td>5 July 2005</td><td>4.4 ML</td></tr><tr><td>1</td><td>2007-2008</td><td>Nil</td></tr><tr><td>4</td><td>1 April 2009</td><td>35.09 ML</td></tr><tr><td>4</td><td>2 April 2009</td><td>22.87</td></tr><tr><td>4</td><td>3 April 2009</td><td>10.81 ML</td></tr><tr><td>4</td><td>Apr 2009 to 30 Jun 2010</td><td>Nil discharge</td></tr><tr><td>4</td><td>17 Nov 2010</td><td>69ML</td></tr><tr><td>4</td><td>18 Nov 2010</td><td>34ML</td></tr><tr><td>4</td><td>19 Nov 2010</td><td>24ML</td></tr></table>	1	4 July 2005	5.0 ML	1	5 July 2005	4.4 ML	1	2007-2008	Nil	4	1 April 2009	35.09 ML	4	2 April 2009	22.87	4	3 April 2009	10.81 ML	4	Apr 2009 to 30 Jun 2010	Nil discharge	4	17 Nov 2010	69ML	4	18 Nov 2010	34ML	4	19 Nov 2010	24ML
Pollutant	Units of measure	100 percentile concentration limit																																									
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4	19 Nov 2010	24ML																																									
Site Water Balance																																											
4/25	<p>Each year, the Applicant shall:</p> <p>(a) review the site water balance for the development against the predictions in the EIS;</p> <p>(b) re-calculate the site water balance for the development;</p> <p>(c) assess current and forecast compliance with the rules of the Hunter River Salinity Trading Scheme; and</p> <p>(d) report the results in the Annual Reviews</p>	<ul style="list-style-type: none"><li>AEMR 2005-2006</li><li>AEMR 2006-2007</li><li>AEMR 2007-2008</li><li>AEMR 2008-2009</li><li>AEMR 2009-2010</li><li>Site Water Balance Review, Gilbert &amp; Associates, Mar 2010</li></ul>	Yes	<p>The site water balance is recalculated and reported each year in the AEMR/Annual Review in section 2.8 Water Management. In March 2010, WCPL completed a detailed review of the project water balance based on monitoring data. A comprehensive predictive site water and salt model has been developed in accordance with recent development consent requirements to include a predictive accounting system for water and salt budgets.</p>																																							
North Wambo Creek Diversion																																											
4/26	<p>The Applicant shall design, construct, maintain, and rehabilitate the temporary North Wambo Creek Bypass, the temporary North Wambo Creek Pipeline, and the North Wambo Creek Diversion in consultation with DII, NOW and to the satisfaction of the D-G.</p> <p>Note: The Department accepts that the Applicant is not required to “rehabilitate” the temporary North Wambo Creek Bypass.</p>	<ul style="list-style-type: none"><li>Low Flow Pipe Bypass of North Wambo Creek, Gilbert &amp; Associates, May 2008</li><li>North Wambo Creek Subsidence Response Strategy, Sep 2008</li><li>Letter from DoP re Approval of the North Wambo Creek Subsidence Response Strategy, 8 Oct 2008</li><li>Letter from DWE re Approval of the North Wambo Creek Subsidence Response Strategy, 8 Oct 2008</li></ul>	Yes	<p>An SEE was submitted to DoP in Sep 2006 in relation to the staged construction of the North Wambo Creek Diversion, a temporary North Wambo Creek pipeline and construction of gas drainage and dewatering infrastructure for the North Wambo Underground Mine was approved in October 2006.</p> <p>The North Wambo Creek Diversion Stages 1 and 2 were constructed and completed in 2008.</p> <p>A report on a Low Flow Pipe Bypass of North Wambo Creek for flow loss mitigation during longwall mining was prepared by Gilbert &amp; Associates in May 2008 and a North Wambo Creek Subsidence Response Strategy was prepared by WCPL in consultation with the relevant authorities in September 2008. The documentation addresses the requirements of this condition.</p>																																							

4/27	Within one month of completing the construction of the temporary North Wambo Creek Bypass, the temporary North Wambo Creek Pipeline, and the North Wambo Creek Diversion, the Applicant shall submit an as-executed report, certified by a practising registered engineer, to the D-G.	<ul style="list-style-type: none"> <li>• Notice of Modification of Consent, 20 Oct 2006</li> <li>• Temporary Deviation of North Wambo Creek, Gleeson Civil Engineering, 6 Jun 2007</li> </ul>	Yes	The as-executed report for the Stage 1 and 2 temporary bypass of North Wambo Creek (prepared by Gleeson Civil Engineering) was submitted to the Director-General and Department of Water and Energy on 11 July 2007.
4/28	Prior to destroying the original creek line by open cut mining, the Applicant shall demonstrate that the relevant stage of the North Wambo Creek Diversion is operating successfully from a hydrological and biological point of view to the satisfaction of DII and the D-G. <i>Note: This condition does not apply to the temporary North Wambo Creek Bypass.</i>	<ul style="list-style-type: none"> <li>• Notice of Modification of Consent, 20 Oct 2006</li> <li>• Review of North Wambo Creek Diversion (Stage 2), Gilbert &amp; Associates Sep 2009</li> <li>• Letter to DoP re North Wambo Creek Diversion Discharge Event Report, 24 Sep 2009</li> </ul>	Yes	An assessment of the North Wambo Creek Diversion discharge events during February and April 2009 was conducted by Gilbert & Associates to satisfy approval conditions from the DECC that stated <i>"Monitoring of discharge flows and calculation of bank full discharge capacities and velocities along the channel shall occur after the first event along the channel ..."</i>
	<b>Chitter Dump Dam</b>	•		
28A	The Applicant shall design and construct the Chitter Dump Dam in consultation with United Collieries Pty Ltd, and to the satisfaction of the DSC and DII. The design of the dam must be accompanied by a detailed assessment of the potential operational and environmental risks associated with the dam, particularly in relation to potential subsidence-related impacts.	<ul style="list-style-type: none"> <li>• Letter from Dam Safety Committee re Wambo Chitter Dump Water Dam, 27 May 2009</li> <li>• Chitters Dump Water Dam Design Report, Alan Watson Associates, May 2009</li> <li>• Letter from Dam Safety Committee re Wambo Chitter Dump Water Dam, 6 Jul 2009</li> </ul>	Yes	The Chitter Dump Dam design and construction was completed in 2009 and acceptance of the design and construction of the dam received from the Dam Safety Committee on 6 July 2009, following their review of the report from Alan Watson & Associates on the dam design.
<b>Monitoring</b>				
	<b>South Wambo Dam</b>			
28B	The Applicant shall design and construct the South Wambo Dam to the satisfaction of the DSC and DII. The design of the dam must be accompanied by a detailed assessment of the potential operational and environmental risks associated with the dam, particularly in relation to potential subsidence-related impacts.		Noted	
4/29	The Applicant shall: (a) measure: <ul style="list-style-type: none"> <li>• the volume of water discharged from the site;</li> </ul>	<ul style="list-style-type: none"> <li>• Letter to DEC re Hunter River Salinity Trading Scheme Annual Report 2005-06</li> </ul>	Yes	WCPL address each of the requirements of MCoA 29: (a) Measurements are made of: <ul style="list-style-type: none"> <li>• Water usage is recorded and reported as part of the water balance.</li> </ul>

	<ul style="list-style-type: none"> <li>• water use on the site;</li> <li>• dam and water structure storage levels;</li> <li>• water transfers across the site; and</li> <li>• water transfers between the site and surrounding mines;</li> </ul> <p>(b) monitor the quality of the surface water:</p> <ul style="list-style-type: none"> <li>• discharged from the licenced discharge point/s at the development; and</li> <li>• upstream and downstream of the development;</li> </ul> <p>(c) monitor flows in the Wollombi Brook; and North Wambo, South Wambo, and Stony Creeks;</p> <p>(d) monitor the volume and quality of water inflows from each separate source to the underground and open cut workings; and</p> <p>(e) monitor regional ground water levels and quality in the alluvial and overburden aquifers during the development and at least 10 years after mining, and</p> <p>(f) periodically assess groundwater pressure response in the coal measures; to the satisfaction of DECCW, NOW and the D-G.</p>	<ul style="list-style-type: none"> <li>• AEMR 2005-06</li> <li>• Dam Water Levels 2005/06</li> <li>• Flow Meters Monthly Readings 2005-06</li> <li>• Pump Meter Readings Jun 2006 to Oct 2006</li> <li>• Water Balance to 2007</li> <li>• Water Quality Wollombi Brook Nov 2005-Oct 2006</li> <li>• AEMR's</li> <li>• Surface Water and Groundwater Monitoring Program</li> </ul>		<ul style="list-style-type: none"> <li>• Dam and water structure storage levels are recorded and reported in the AEMR.</li> <li>• Water transferred to United Collieries is recorded in the monthly water balance.</li> </ul> <p>(b) (c), (d) and (e) Monitoring of:</p> <ul style="list-style-type: none"> <li>• Water quality is monitored upstream and downstream of the development as part of the surface water monitoring program.</li> <li>• Water flows are monitored at two DNR stations on Wollombi Brook; two V-notch weirs with capacitance sensors and data loggers are installed on both Stony Creek and South Wambo Creek; and</li> <li>• Volume and quality of water inflows to the mine workings are part of the water monitoring programs and water balance.</li> </ul>
<b>Site Water Management Plan</b>				
<b>4/30</b>	<p>Before carrying out any development, the Applicant shall prepare a Site Water Management Plan for the development in consultation with DII and NOW, and to the satisfaction of the Director-General. This plan must include:</p> <p>(a) the predicted site water balance;</p> <p>(b) the North Wambo Creek Diversion Plan;</p> <p>(c) an Erosion and Sediment Control Plan;</p> <p>(d) a Surface Water Monitoring Program;</p> <p>(e) a Ground Water Monitoring Program;</p> <p>(f) a Surface and Ground Water Response Plan; and</p> <p>(g) a strategy for the decommissioning water management structures on the site.</p> <p>By the end of October 2009, the Applicant shall revise the Site Water Management Plan in consultation with DII, DECCW and NOW, and to the satisfaction of the Director-General.</p> <p><i>Note: The North Wambo Creek Diversion Plan must also be prepared in consultation with NSW Fisheries.</i></p>	<ul style="list-style-type: none"> <li>• Site Water Balance, April 2006 - 2010</li> <li>• Letter from DoP re Site Water Balance, 10 Oct 2005</li> <li>• Letter from DoP re Site Water Balance, 30 Jun 2006</li> <li>• North Wambo Creek Diversion Plan 2007</li> <li>• Erosion and Sediment Control Plan, Mar 2006 and 2010</li> <li>• Surface Water Monitoring Program, Aug 2005 and 2010</li> <li>• Groundwater Monitoring Program, Mar 2006 and 2010</li> <li>• Surface Water and Ground Water Response Plan, Nov 2005 and 2010</li> </ul>	<p style="color: red;">(See Rec 2)</p> <p>(a) Yes (b) Yes</p> <p>Ongoing for Stage 3</p> <p>(c) Yes (d) Yes (e) Yes (f) Yes</p>	<p>The original 2005 and 2006 Plans that make up the Site Water Management Plan were prepared and approved by DoP. Wambo submitted revised SWB, ESCP, SWMP, GWMP and SGWRP to DP&amp;I in April 2010.</p> <p>A letter received from DoP extended the revision date for SWMPs to Nov 2011.</p> <p>Wambo had not received approval of the revised Plan from DoPI at the time of this audit.</p> <p>(a) Site Water Balance documentation approved by DoP</p> <p>(b) North Wambo Creek Diversion Plan (2007) was revised and prepared for submission to DoP on the 28 April 2010 following comments from the government agencies on the draft Plan. The North Wambo Creek Diversion Plan will be revised for Stage 3 construction and resubmitted to DP&amp;I for approval.</p> <p>(c) Erosion and Sediment Control Plan approved by DoP</p> <p>(d) Surface Water Monitoring Program approved by DoP</p> <p>(e) Groundwater Monitoring Program, approved by DoP</p> <p>(f) Surface and Ground Water Response Plan with North Wambo Creek Subsidence Response Strategy (2008)</p>



		<ul style="list-style-type: none"> <li>Letter from DII re Approval of Site Water Management Plan, April 2010</li> <li>Letter from DoP Approving an Extension of the date of Submission of the Site Water Management Plan, 4 Nov 2010</li> </ul>	(g)Yes	<p>contained as Appendix to the SGWRP</p> <p>(g) Strategy for decommissioning water management structures contained in SWMP Section 6.6</p> <p>No approval correspondence acknowledging the 2010 revised SWMPs has been received from DoP (DP&amp;I).</p>
<b>4/31</b>	<p>The North Wambo Creek Diversion Plan shall include:</p> <p>(a) the detailed design and specifications of the creek diversion, including the flow control bund, cut off wall, and channel;</p> <p>(b) a revegetation program for the channel using a range of suitable native riparian and floodplain species;</p> <p>(c) the detailed design of the system that would return intercepted ground water to the alluvial aquifer downstream of the open cut;</p> <p>(d) a construction program for the creek diversion, describing how the work would be staged, and progressively integrated with the mining operations and the mine waste emplacement drainage system;</p> <p>(e) water quality, ecological and geomorphic performance criteria for the creek diversion;</p> <p>(f) a program to monitor water quality, ecological, and geomorphic integrity of the creek diversion; and</p> <p>(g) a program to inspect and maintain the creek diversion and revegetation works during the development</p> <p><i>Note: The Applicant may prepare and submit the North Wambo Diversion Plan on a progressive basis to reflect the relevant stages of the proposed diversion.</i></p>	<p>North Wambo Creek Diversion Plan, Sep 2007</p> <p>Letter from DPI re Approval of the North Wambo Creek Diversion Plan, DWE, 15 Nov 2007</p> <p>Letter from DPI re Approval of the North Wambo Creek Diversion Plan, 31 March 2008</p> <p>Letter from DoP re Approval of the North Wambo Creek Diversion Plan, 14 Apr 2008</p> <p>Draft Revised North Wambo Creek Diversion Plan, April 2010</p> <p>North Wambo Creek Subsidence Response Strategy 2008</p>	<p>(a)Yes</p> <p>(b)Yes</p> <p><b>(c)NO</b> <b>(see Rec 3)</b></p> <p>(d)Yes</p> <p>(e)Yes</p> <p>(f)Yes</p> <p>(g)Yes</p>	<p>The North Wambo Creek Diversion Plan was prepared and submitted to the DPI, and DWE for comment and consultation in 2007-2008. The North Wambo Creek Diversion Plan was submitted to DoP on the 28 April 2010 following comments from DPI and DWE on the draft Plan.</p> <p>(a) Appendix A NWCD Design Report</p> <p>(b) Appendix B Tables 1, 2 and 3 NWCD Rehabilitation Plan</p> <p>(c) detailed design of the system that would return intercepted ground water to the alluvial aquifer downstream of the open cut is not included in the Plan</p> <p>(d) Appendix C NWCD Construction Program provides commentary on the activity and tasks to be undertaken during construction, describing how the diversion channel works would be staged, and progressively integrated with the mining operations. Site inspection confirmed that the first two stages of creek diversion have been undertaken, third stage yet to be constructed.</p> <p>(e) Water quality performance criteria considered in Wambo's SWMP and overall Environmental Monitoring Program. Section 3.5 of Appendix B of the NWCDP (Rehabilitation Plan) provides ecological performance criteria for the creek diversion. Section 7 of Appendix A of the NWCDP (Design Report) provides geomorphic performance criteria for the creek diversion.</p> <p>(f) Appendix D Surface Water Monitoring Program</p> <p>(g) Appendix A section 7 Inspections, Appendix B section 3.5 and 3.7 Inspections, and Appendix C section 4 Maintenance</p>
<b>4/32</b>	<p>Erosion and Sediment Control Plan shall:</p> <p>(a) be consistent with the requirements of the Department of Housing's <i>Managing Urban Stormwater: Soils and</i></p>	<ul style="list-style-type: none"> <li>Erosion and Sediment Control Plan, Mar 2006</li> <li>Mining Operations Plan Jul</li> </ul>		<p>The Erosion and Sediment Control Plan was approved as part of the Site Water Management Plan on 30 June 2006.</p> <p>The latest revision of the Erosion and Sediment Control Plan was</p>

	<p>Construction manual;</p> <p>(b) identify activities that could cause soil erosion and generate sediment;</p> <p>(c) describe the location, function, and capacity of erosion and sediment control structures; and</p> <p>(d) describe measures to minimise soil erosion and the potential for the migration of sediments to downstream waters.</p>	<p>2005 to Jun 2010</p> <ul style="list-style-type: none"> <li>Revised Erosion and Sediment Control Plan, Feb 2010</li> </ul>	<p>(a)NO (see section 3.2.2.4 and Rec 4)</p> <p>(b)Yes</p> <p>(c )Yes</p> <p>(d)NO</p>	<p>submitted to DoP on 28 April 2010.</p> <p>(a) The Wambo Erosion and Sediment Control Plan is not consistent with the <i>Managing urban stormwater: Soils and Construction Manual</i> (the Blue Book) and <i>Soils and Construction. Volume2E – Mines and Quarries</i> that propose a management objective of erosion control over sediment control. The focus of the Wambo Erosion and Sediment Control Plan is primarily sediment control. The control measures proposed in section 3 of the ESCP lack appropriate detail for dispersive soils/spoils observed at the Wambo site and design standards for erosion and sediment control structures at Wambo nominated in the ESCP section 4 are not consistent with the requirements of Table 6.1 of <i>Soils &amp; Construction. Volume2E – Mines &amp; Quarries</i>.</p> <p>(b) The Plan identifies activities that could cause erosion and generate sediment and refers to Figure 1B in the Mining Operations Plan for the location of erosion and sediment control structure on the site.</p> <p>(c) Section 4 Erosion and sediment control plans Table 4 and Figure 2 provide location, function, and capacity of erosion and sediment control structures</p> <p>(d) The Plan describes measures to minimise soil erosion and potential for sediment migration to downstream waters in section 3.3. Section 4.5 Mine Water Management describes measures to minimise soil erosion but does not address the main mechanism for erosion risk and sediment migration on site which is soil dispersion.</p>
4/33	<p>The Surface Water Monitoring Program shall include:</p> <p>(a) detailed baseline data on surface water flows and quality in the Wollombi Brook, and North Wambo, South Wambo, and Stony Creeks;</p> <p>(b) surface water impact assessment criteria;</p> <p>(c) a program to monitor surface water flows and quality in the Wollombi Brook; and North Wambo, South Wambo, and Stony Creeks;</p> <p>(d) a program to monitor bank and bed stability in North Wambo, South Wambo, and Stony Creeks;</p> <p>(e) a program to monitor the quantity and quality of the vegetation in the riparian zones adjacent to North Wambo, South Wambo, and Stony Creeks; and</p>	<ul style="list-style-type: none"> <li>Surface Water Monitoring Program, Aug 2005</li> <li>Environmental Monitoring Program, Mar 2006</li> <li>Surface Water Monitoring Program, Nov 2009</li> <li>Erosion and Sediment Control Plan, Feb 2010</li> </ul>	<p>(a)Yes</p> <p>(b)Yes</p> <p>(c )Yes</p>	<p>The Surface Water Monitoring Program was initially submitted to DoP and approved in 2005. The Site Water Monitoring Program was revised in November 2009 and the Plan approved by DoP on 28 April 2010.</p> <p>(a) Section 4 Baseline Surface Water Data – provides detailed baseline data on surface water flows and quality in the Wollombi Brook, and North Wambo, South Wambo, and Stony Creeks</p> <p>(b) Section 5 Surface Water Quality Criteria – provides Surface water impact assessment criteria</p> <p>(c) Section 6 Surface Water Monitoring Program - a program to monitor surface water flows and quality in</p>

	(f) a program to monitor the effectiveness of the Erosion and Sediment Control Plan		(d)Yes  (e)Yes  (f)Yes <b>(see Rec 5)</b>	local creeks is provided in Section 6 (d) Section 6.4 - Riparian vegetation and creek-bed stability monitoring refers to Flora and Fauna Management Plan (FFMP). (e) Section 6.4 - Riparian vegetation and creek-bed stability monitoring refers to Flora and Fauna Management Plan (FFMP). Details of annual bank stability and vegetation monitoring contained in Environmental Monitoring Program, section 8.2.4. (f) Section 6.3 Erosion and sediment control and Erosion and Sediment Control Plan section 5.
<b>4/34</b>	The Ground Water Monitoring Program shall include: (a) detailed baseline data on ground water levels and quality, based on statistical analysis, to benchmark the pre-mining natural variation in groundwater levels and quality; (b) ground water impact assessment criteria; (c) a program to monitor the volume and quality of ground water seeping into the open cut and underground mining workings; (d) a program to monitor regional ground water levels and quality in the alluvial and overburden aquifers; and (e) a program to investigate and monitor potential water loss from the Chitter Dump Dam and South Wambo Dam, including potential migration of stored water toward Wollombi Brook.	<ul style="list-style-type: none"> <li>• Groundwater Monitoring Program, Mar 2006</li> <li>• Environmental Monitoring Program – Section 7.0 Groundwater, Mar 2006</li> <li>• Groundwater Monitoring Program, Jan 2010</li> </ul>	(a)Yes  (b)Yes (c)Yes  (d)Yes <b>(see Rec 6)</b>  (e)Yes	The initial Groundwater Monitoring Program was originally submitted to DoP and approved in December 2005 and updated in March 2006 and approved by DoP in June 2006. The latest revision of the Groundwater Monitoring Program was submitted to DoP on 28 April 2010. (a) Section 4 Existing baseline data and Appendix A of the contains pre -2009 baseline groundwater data for 28 groundwater wells . (b) Section 5 Groundwater impact assessment criteria (c) Section 6 Groundwater monitoring program provided to monitor the volume and quality of groundwater seeping into the open cut and underground (d) Section 6.1 Monitoring network – identifies 28 groundwater monitoring locations three of which are located off the Wambo mining lease. (e) Section 6.4 Chitter Dam and South Wambo Dam – presents a Program to investigate and monitor potential water loss from the Chitter Dump Dam and South Dam.
<b>4/35</b>	The Surface and Ground Water Response Plan shall include: (a) measures to mitigate any adverse impacts on existing water supply bores or wells; (b) measures to mitigate the loss of surface water flows in the surface water streams or channel on the site; (c) deleted; (d) measures to mitigate the long term direct hydraulic connection between the backfilled open cut and the North Wambo Creek alluvium if the potential for an downstream adverse impact is detected; (e) measures to address the decrease in through flow rates caused	<ul style="list-style-type: none"> <li>• Surface and Groundwater Response Plan, Mar 2006</li> <li>• Letter from DEC re Surface and Groundwater Response Plan, 4 Nov 2005</li> <li>• Letter from DoP re Surface and Groundwater Response Plan, 14 Dec 2005</li> <li>• Letter from DoP re Updated Surface and Groundwater Response Plan, 30 Jun 2006</li> </ul>	(a)Yes (b)Yes (c)Yes	The Surface and Groundwater Response Plan was submitted to DoP and approved in December 2005. The Plan was revised and approved by DoP in June 2006 and October 2007. The February 2010 document submitted to DoP on 28 April 2010 for approval. No response from DoP (DP&I) has been received at the date of this audit. (a) Section 3.1 Groundwater Impacts (b) Section 3.2 Surface Water Impacts and NWCRS section 3.2 (Appendix A of the SGWRP) (c) – (d) Section 3.3 Direct Hydraulic Connection between

	<p>by the development within the Wollombi Brook alluvium downstream of the open cut;</p> <p>(f) measures to address any reduction in the stability or ecological quality of the North Wambo Creek Diversion below the established performance criteria;</p> <p>(g) trigger levels for the relinquishment of water extraction rights to compensate for surface and groundwater losses from streams, channels or alluvials to open cut and underground mining workings;</p> <p>(h) the procedures that would be followed if any unforeseen impacts are detected during the development; and</p> <p>(i) response times for undertaking the above measures.</p>	<ul style="list-style-type: none"> <li>• Surface Water and Groundwater Response Plan, Rev 5 February 2010</li> </ul>	<p>(d)Yes</p> <p><b>(e)NO</b> <b>(see to Rec 7)</b></p> <p>(f)Yes</p> <p><b>(g)NO</b> <b>(see to Rec 7)</b></p> <p>(h)and (i) Yes</p>	<p>Backfilled Open Cut and Creek Alluvium</p> <p>(e) Section 3.2 Surface Water Impacts and Section 3.3 Direct Hydraulic Connection between Backfilled Open Cut and Creek Alluvium</p> <p>(f) Section 3.4 North Wambo Creek Diversion</p> <p>(g) Section 3.1 Groundwater Impacts refers to Groundwater Monitoring Program Table 4 - trigger levels for the relinquishment of water extraction rights are not included</p> <p>(h) and (i) Section 3.5 Unforeseen Impacts</p>
<b>Surface &amp; Sub-surface Investigation Program</b>				
<b>4/36</b>	<b>Deleted</b>			
<b>Independent Audit</b>				
<b>4/37</b>	<p><u>Prior to seeking approval from the Department for each extraction plan</u>, unless the Director-General directs otherwise, the Applicant shall commission a suitably qualified person, whose appointment has been approved by the Director-General, to conduct an independent audit of the subsidence, surface water, and ground water impacts of the development. This audit shall:</p> <p>(a) review the monitoring data for the development;</p> <p>(b) identify any trends in the monitoring data;</p> <p>(c) examine the subsidence, surface water, and ground water impacts of the development;</p> <p>(d) compare these impacts against the relevant impact assessment criteria and predictions in the EIS; and, if necessary;</p> <p>(e) recommend measures to reduce, mitigate, or remediate these impacts</p>	<ul style="list-style-type: none"> <li>• Surface and Sub-Surface Investigation and Monitoring Plan for LW's 1 to 6 at the Proposed North Wambo Mine, Nov 2005</li> <li>• Groundwater Monitoring Program Review, GHD, February 2011</li> </ul>	Yes	<p>The Surface and Sub-Surface Investigation and Monitoring Plan on long-wall panels 1-6 was submitted to the relevant authorities and approved in January 2006.</p> <p>A groundwater quality trend analysis report was prepared by GHD (2011) to review groundwater quality data since 2003. The report concluded:</p> <ul style="list-style-type: none"> <li>• the current monitoring locations are suitable and monitoring should continue; and</li> <li>• pH, EC and water levels should be monitored quarterly, with biannual monitoring for major ions and heavy metals.</li> </ul>
<b>4/38</b>	<p>If the independent audit determines that the subsidence, surface water, and/or ground water impacts resulting from the underground mining operations are greater than those predicted in the EIS, the Applicant shall:</p> <p>(a) assess the significance of these impacts;</p> <p>(b) investigate measures to minimise these impacts, including modifying subsequent mine plans; and</p> <p>(c) describe what measures would be implemented to reduce, minimise, mitigate or remediate these impacts in the future; to the satisfaction of the Director-General.</p>		Noted	

	Final Void Strategy															
4/39	<p>At the end of Year 7 of the development, or as directed otherwise by the Director-General, the Applicant shall prepare a Final Void Management Plan for the development, in consultation with the DII, the Director-General and Council, and to the satisfaction of the Director-General. This Plan must:</p> <p>(a) investigate options for the future use of the final void;</p> <p>(b) re-assess the potential groundwater impacts of the development; and</p> <p>(c) describe what actions and measures would be implemented to:</p> <ul style="list-style-type: none"><li>• minimise any potential adverse impacts associated with the final void; and</li><li>• manage, and monitor potential impacts of, final void over time.</li></ul>	Letter from DoP re Final Void Management Plan, 7 Jan 2011	In progress	The Final Void Strategy had not been developed at the time of this audit. A letter from DoP agreed that submission of the Final Void Management Plan be delayed until 5 August 2011.												
	FAUNA & FLORA - Offset Strategy															
4/40	<p>Within the limits of current technology and best practice flora and fauna management, as determined by the Director-General in consultation with the Hunter Coalfield Flora &amp; Fauna Advisory Committee (when established), the Applicant shall implement:</p> <p>(a) the offset strategy summarised in Table 16; and</p> <p>(b) any subsequent revisions to the offset strategy, prepared in consultation with the Hunter Coalfield Flora &amp; Fauna Advisory Committee, (when established) and approved in writing by the Director-General;</p> <p>to the satisfaction of the Director-General.</p> <table><tr><th>Area</th><th>Size</th></tr><tr><td>Remnant Woodland Enhancement Area A</td><td>424 ha</td></tr><tr><td>Remnant Woodland Enhancement Area B</td><td>454 ha</td></tr><tr><td>Remnant Woodland Enhancement Area C</td><td>202 ha</td></tr><tr><td>Open Cut Woodland Revegetation</td><td>1,570ha</td></tr><tr><td>Other Areas (e.g. Community 15 and the Southern Area)</td><td>Where practicable</td></tr></table> <p>Table 16: Broad Targets for Offset Strategy</p> <p>Notes: (a)The Director-General shall form the Hunter Coalfield Flora &amp; Fauna Advisory Committee to:</p> <ul style="list-style-type: none"><li>• provide on-going advice on the Flora and Fauna Management Plan; and</li><li>• monitor and review the performance of the implementation of the</li></ul>	Area	Size	Remnant Woodland Enhancement Area A	424 ha	Remnant Woodland Enhancement Area B	454 ha	Remnant Woodland Enhancement Area C	202 ha	Open Cut Woodland Revegetation	1,570ha	Other Areas (e.g. Community 15 and the Southern Area)	Where practicable	<ul style="list-style-type: none"><li>• AEMR 2005 – 2006 Figure 3.20 Remnant Woodland Enhancement Program</li></ul>	<p>Yes</p> <p>(a)Yes</p> <p>(b)Yes</p>	<p>The Hunter Coalfield Flora and Fauna Advisory Committee had not been established at the time of this audit (i.e. June 2011). The review of currently available Wambo documents confirmed inclusion of offset strategy and Open Cut Woodland Revegetation requirements were addressed in the Flora and Fauna Management Plan and the status was reported in the AEMR's.</p> <p>(a) Wambo are implementing the offset strategy as outlined in Table 16.</p> <p>(b) No revisions to the offset strategy had been made at the time of this audit, except for the incorporation of an additional 50ha of remnant woodland area (refer to MCoA 41A) to satisfy the DoP approval of the SEE submitted in 2009.</p>
Area	Size															
Remnant Woodland Enhancement Area A	424 ha															
Remnant Woodland Enhancement Area B	454 ha															
Remnant Woodland Enhancement Area C	202 ha															
Open Cut Woodland Revegetation	1,570ha															
Other Areas (e.g. Community 15 and the Southern Area)	Where practicable															

	<i>Remnant Woodland Enhancement Program.</i> <i>(b) The area of Open Cut Woodland Revegetation in Table 16 is based on the establishment of 50% woodland within the mixed woodland/pasture areas shown in the EIS, and with the agreement of the Director-General, may vary depending on the shape of the final landform and the approved mine closure plan.</i>			
<b>Deed of Agreement</b>				
<b>4/41</b>	<p>Within 18 months of the commencement of this consent the Applicant shall enter into a Deed of Agreement with the Minister. In this agreement, the Applicant shall agree to:</p> <p>(a) conserve and manage the land in the offset strategy in accordance with the Remnant Woodland Enhancement Program (see Condition 0) in the Flora &amp; Fauna Management Plan (see Condition 0),</p> <p>(b) apply to rezone the land in Remnant Woodland Enhancement Area A for the purpose of:</p> <ul style="list-style-type: none"> <li>protecting the land for conservation; and</li> <li>excluding open cut mining;</li> </ul> <p>(c) conserve and manage the land in Remnant Woodland Enhancement Area A in accordance with any Aboriginal cultural heritage conservation agreement;</p> <p>(d) exclude open cut mining in Remnant Woodland Enhancement Areas B and C, unless, in the opinion of the Minister, the Applicant has demonstrated that there is a clear justification for this on social, economic, and/or environmental grounds. To assist the Minister in his decision-making, the Applicant shall:</p> <ul style="list-style-type: none"> <li>establish the coal reserve in Remnant Woodland Enhancement Area Areas B and C;</li> <li>investigate the options for mining this reserve;</li> <li>assess the implications of any open cut coal mining proposal on the offset strategy and broad conservation outcomes; and</li> <li>assess the environmental, economic and social aspects of any open cut mining proposal in the area; and</li> </ul> <p>(e) apply to rezone Remnant Woodland Enhancement Areas B and C, in whole or in part, excluding any lands approved for open-cut mining by the Minister</p>	<ul style="list-style-type: none"> <li>Draft Deed of Agreement between Wambo Coal Pty Ltd and The Minister for Planning, Sparke Helmore Lawyers</li> <li>Letter from DoP re Deed of Agreement, Ref S02/02197, 17 Nov 2006</li> </ul>	<p>In progress</p> <p><b>(see Rec 9)</b></p>	<p>The Deed of Agreement was sent to the Minister for Planning in November 2005. DoP provided a draft letter extending the requirement to enter into a Deed with the Minister until 28 February 2007.</p> <p>No correspondence acknowledging the Deed of Agreement has been received from DoP at the date of this audit (June 2011). No further action has occurred from the Minister in relation to ratifying the Deed of Agreement. This matter cannot be progressed by WCPL without action from the Minister.</p> <p>Wambo consulted with the Singleton Council in 2006-07 in relation to rezoning land for the Remnant Vegetation Enhancement Areas, but no action had occurred from the Council on this matter at the time of this audit.</p>
<b>41A</b>	<p>By the end of December 2009, the Applicant shall:</p> <p>(a) incorporate an offset of at least 46 hectares, generally consistent with the offset described in the 2009 SEE, into the Remnant</p>	<ul style="list-style-type: none"> <li>Flora and Fauna Management Plan Jan 2010</li> </ul>	Yes	<p>(a) The Flora and Fauna Management Plan Figures 2 and 5 identify the additional Area D of approximately 50ha of Remnant Woodland Enhancement Area incorporated into</p>



	Woodland Enhancement Program (see condition 47); and (b) establish mechanisms within the Flora and Fauna Management Plan for long-term conservation and management of this offset in accordance with condition 41 (d) & (e).		Yes	the offset areas. Area D was established in August 2009 following a Minor Modification approval to DA 305-7-2003 in which a water storage dam was constructed. (b) The Area D monitoring and management for long term conservation is included in the Flora and Fauna Management Plan in sections 3 and 4.1
<b>Hunter Coalfield Flora &amp; Fauna Advisory Committee Contribution</b>				
<b>4/42</b>	The Applicant shall contribute a reasonable amount, up to \$20,000, each year towards the operation of the Hunter Coalfield Flora & Fauna Advisory Committee		Noted	The Hunter Coalfield Flora and Fauna Advisory Committee had not been established prior to the conduct of this June 2011 audit, so no contribution had been made by WCPL.
<b>Strategic Study Contribution (when established).</b>				
<b>4/43</b>	If, during the development, the Department commissions a strategic study into the regional vegetation corridor stretching from the Wollemi National park to the Barrington Tops National Park, then the Applicant shall contribute a reasonable amount, up to \$20,000, towards the completion of this study		Noted	The DoP had not commissioned the strategic study into the regional vegetation corridor, so no contribution had been made by WCPL at the time of the June 2011 audit.
<b>Flora &amp; Fauna Management Plan</b>				
<b>4/44</b>	Before carrying out any development, the Applicant shall prepare a Flora and Fauna Management Plan for the development, in consultation with the Hunter Coalfield Flora and Fauna Advisory Committee, and to the satisfaction of the Director-General. This plan must include: (a) a Vegetation Clearance Protocol; (b) a Threatened Species Management Protocol; (c) a Remnant Woodland Enhancement Program; (d) a Flora and Fauna Monitoring Program; (e) strategies to manage any subsidence impacts in the Remnant Woodland Enhancement Areas; and (f) a description of who would be responsible for monitoring, reviewing, and implementing the plan  By the end of December 2009, the Applicant shall revise the Flora and Fauna Management Plan for the development to the satisfaction of the Director-General.	<ul style="list-style-type: none"> <li>• Flora and Fauna Management Plan Aug 2005</li> <li>• Letter from DIPNR re Flora and Fauna Management Plan, 13 Sep 2005</li> <li>• Letter from DoP re Approval of Revised Flora and Fauna Management Plan, 3 Jun 2008</li> <li>• Flora and Fauna Management Plan, Jan 2010</li> <li>• Letter to DoP re Revised Flora and Fauna Management Plan, 1 Mar 2010</li> </ul>	<p>Yes</p> <p>(a)Yes (b)Yes (c)Yes</p> <p>(e)Yes (f)Yes</p> <p>Yes  (see Rec 8)</p>	<p>The Flora and Fauna Management Plan was prepared in accordance with the requirements of the condition and the document was approved by DIPNR in September 2005. The approved Plan included:</p> <p>(a) Vegetation Clearance Protocol – section 3.1 (b) Threatened Species Management Protocol section 3.2 (c) Remnant Vegetation Enhancement Program section 3.3 (d) Flora and Fauna Monitoring Program section 4.0 (e) Subsidence Management section 4.2.5 (f) Monitoring, review and implementation section 6.0</p> <p>The Flora and Fauna Management Plan was revised to take account of the recommendations in the Offset Strategy Audit (dated 16 Oct 2009). DoP extended the submission date to 30 April 2010 to enable the recommendations to be included. The revised Flora and Fauna Management was submitted to DoP on 1 March 2010.</p>
<b>4/45</b>	The Vegetation Clearance Protocol shall include: (a) the delineation of areas of remnant vegetation to be cleared; (b) progressive clearing; (c) pre-clearance surveys;	<ul style="list-style-type: none"> <li>• Flora and Fauna Management Plan – Section 3.1 Vegetation Clearance Protocol, Aug 2005</li> </ul>		The Vegetation Clearance Protocol was developed within the Flora and Fauna Management Plan. The Protocol was approved by DIPNR as part of the Flora and Fauna Management Plan. The Vegetation Clearance Protocol is included in section 3.1 of

	<ul style="list-style-type: none"> <li>(d) identification of fauna management strategies;</li> <li>(e) collection of seed from the local area;</li> <li>(f) salvage and reuse of material from the site; and</li> <li>(g) control of weeds during clearing activities</li> </ul>	<ul style="list-style-type: none"> <li>• Flora and Fauna Management Plan – Section 3.1 Vegetation Clearance Protocol, Jan 2010</li> </ul>	<ul style="list-style-type: none"> <li>(a)Yes</li> <li>(b)Yes</li> <li>(c)Yes</li> <li>(d)Yes(e)Yes</li> <li>(f)Yes</li> <li>(g)Yes</li> </ul>	<p>the revised Flora and Fauna Management Plan, January 2010.</p> <ul style="list-style-type: none"> <li>(a) Section 3.1.1 Delineation of disturbance areas</li> <li>(b) Section 3.1.1 Pre-clearance Surveys</li> <li>(c) Section 3.1.1 Pre-clearance Surveys</li> <li>(d) Section 3.1.2 Fauna Management Strategies</li> <li>(e) Section 3.1.4 Seed collection</li> <li>(f) Section 3.1.5 Salvage and reuse of materials</li> <li>(g) Section 3.3.3 Enhancement strategies</li> </ul>
4/46	<p>The key components of the Threatened Species Management Protocol shall include:</p> <ul style="list-style-type: none"> <li>(a) observations/surveys for threatened species (facilitated by the vegetation clearance surveys and Flora and Fauna Monitoring Program);</li> <li>(b) consultation with regulatory authorities; and</li> <li>(c) threatened species management strategies and reporting.</li> </ul>	<ul style="list-style-type: none"> <li>• Flora and Fauna Management Plan – Section 3.2 Threatened Species Management Protocol, Aug 2005</li> <li>• Flora and Fauna Management Plan – Section 3.2 Threatened Species Management Protocol, Jan 2010</li> </ul>	<p>Yes</p> <ul style="list-style-type: none"> <li>(a)Yes</li> <li>(b)Yes</li> </ul>	<p>The Threatened Species Management Protocol was developed within the Flora and Fauna Management Plan. The Protocol was approved by DIPNR as part of the Flora and Fauna Management Plan in August 2005.</p> <p>The Threatened Species Management Protocol is included in section 3.2 of the revised Flora and Fauna Management Plan, January 2010.</p> <ul style="list-style-type: none"> <li>(a) Section 3.2.1 Site observations/surveys</li> <li>(b) Section 3.2.2 Threatened species management strategies</li> </ul>
4/47	<p>The Remnant Woodland Enhancement Program shall include:</p> <p>a habitat assessment of Remnant Woodland Enhancement Areas A, B and C and the offset area described in the 2009 SEE,</p> <ul style="list-style-type: none"> <li>(a) to obtain additional information on existing habitat resources and characteristics of each area;</li> <li>(b) investigation of other areas to be included in the Program, including the <i>Acacia anuera</i> Community (Community 15) and the Southern Area;</li> <li>(c) appropriate enhancement strategies to be implemented based on the habitat assessment including: <ul style="list-style-type: none"> <li>• the fencing of remnants to exclude livestock;</li> <li>• control measures to minimise the occurrence of weeds;</li> <li>• control measures to minimise the occurrence of feral pests;</li> <li>• limiting vehicular traffic;</li> <li>• selective planting of native vegetation; and</li> <li>• the provision of roosting/nesting resources for fauna.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Flora and Fauna Management Plan – Section 3.3 Remnant Woodland Enhancement Program, Aug 2005</li> <li>• Flora and Fauna Management Plan – Section 3.3 Remnant Woodland Enhancement Program, Jan 2010</li> </ul>	<p>Yes</p> <ul style="list-style-type: none"> <li>(a)Yes</li> <li>(b)Yes</li> <li>(c)Yes</li> </ul>	<p>The Remnant Woodland Enhancement Program was developed within the Flora and Fauna Management Plan and addressed each of the requirements of the condition. The Protocol was approved by DIPNR as part of the Flora and Fauna Management Plan.</p> <p>The Remnant Woodland Enhancement Program is included in section 3.4 of the revised Flora and Fauna Management Plan, January 2010:</p> <ul style="list-style-type: none"> <li>(a) Section 3.4.1 Habitat Assessment</li> <li>(b) Section 3.4.2 Potential Expansion of RWEPA Areas</li> <li>(c) Section 3.4.3 Enhancement Strategies. The Flora and Fauna Management Plan provides general statement and an overview of the strategies and programs associated with the specific issues listed.</li> </ul>
4/48	<p>The Flora and Fauna Monitoring Program shall include:</p> <ul style="list-style-type: none"> <li>(a) a program to monitor revegetation of disturbance areas including: <ul style="list-style-type: none"> <li>• visual monitoring to determine the need for maintenance and/or contingency measures; and</li> <li>• monitoring of the quality of rehabilitation using Ecosystem Function Analysis (or a similar systems based approach)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Flora and Fauna Management Plan – Section 4.0 Flora and Fauna Monitoring Program, Aug 2005</li> <li>• Environmental Monitoring</li> </ul>	<p>Yes</p>	<p>The Flora and Fauna Monitoring Program was developed within the Flora and Fauna Management Plan and addressed each of the requirements of the condition. The Protocol was approved by DIPNR as part of the Flora and Fauna Management Plan in 2005.</p> <p>The revised Flora and Fauna Management Program is included</p>



	<p>through the assessment of landscape function, vegetation dynamics and habitat complexity; and</p> <p>(b) a program to monitor the effectiveness of offset strategy in accordance with the description in Table 17.</p> <table><tr><th>Monitoring Component</th><th>Monitoring Description</th></tr><tr><td>Flora</td><td>A number of permanent flora survey quadrats (of varying sizes to survey tree, shrubs and ground cover) should be established in woodland enhancement areas to obtain quantitative data on plant species diversity and abundance.</td></tr><tr><td rowspan="4">Habitat Complexity</td><td>Habitat complexity should be monitored using a number of permanent transects established within woodland enhancement areas. Habitat complexity parameters such as canopy cover, shrub cover, ground vegetation cover, the amount of litter, fallen logs and rocks should be surveyed.</td></tr><tr><td>Terrestrial fauna surveys should be conducted to monitor the usage of enhancement areas by vertebrate fauna. Monitoring may include fauna species diversity and abundance or, alternatively, the use of indicator species to measure the effectiveness of enhancement measures.</td></tr><tr><td>Freshwater macro-invertebrate monitoring, including an assessment of SIGNAL A values and water quality (e.g. temperature, pH, and salinity).</td></tr><tr><td>Monitoring of specific enhancement initiatives (e.g. the provision of nesting/ roosting boxes, weed control or feral animal control).</td></tr></table> <p>Table 17: Flora &amp; Fauna Monitoring Program</p>	Monitoring Component	Monitoring Description	Flora	A number of permanent flora survey quadrats (of varying sizes to survey tree, shrubs and ground cover) should be established in woodland enhancement areas to obtain quantitative data on plant species diversity and abundance.	Habitat Complexity	Habitat complexity should be monitored using a number of permanent transects established within woodland enhancement areas. Habitat complexity parameters such as canopy cover, shrub cover, ground vegetation cover, the amount of litter, fallen logs and rocks should be surveyed.	Terrestrial fauna surveys should be conducted to monitor the usage of enhancement areas by vertebrate fauna. Monitoring may include fauna species diversity and abundance or, alternatively, the use of indicator species to measure the effectiveness of enhancement measures.	Freshwater macro-invertebrate monitoring, including an assessment of SIGNAL A values and water quality (e.g. temperature, pH, and salinity).	Monitoring of specific enhancement initiatives (e.g. the provision of nesting/ roosting boxes, weed control or feral animal control).	<p>Program – Section 6.0 Flora and Fauna Monitoring, Mar 2006</p> <ul style="list-style-type: none"><li>Flora and Fauna Management Plan – Section 4.0 Flora and Fauna Monitoring Program, Jan 2010</li></ul>	<p>(a)Yes</p> <p>(b)Yes</p>	<p>in section 4 of the Flora and Fauna Management Plan revision January 2011:</p> <p>(a) Section 4.1 Monitoring of Revegetation of Disturbed Areas - 4.1.1 Visual Monitoring and 4.1.2 Ecosystem Function Analysis</p> <p>(b) Section 4.2 Monitoring program for RWEPP:</p> <p>4.2.1 Flora</p> <p>4.2.3 Habitat Complexity</p> <p>4.2.2 Terrestrial Fauna</p> <p>4.2.4 Specific Enhancement Initiatives</p>
Monitoring Component	Monitoring Description												
Flora	A number of permanent flora survey quadrats (of varying sizes to survey tree, shrubs and ground cover) should be established in woodland enhancement areas to obtain quantitative data on plant species diversity and abundance.												
Habitat Complexity	Habitat complexity should be monitored using a number of permanent transects established within woodland enhancement areas. Habitat complexity parameters such as canopy cover, shrub cover, ground vegetation cover, the amount of litter, fallen logs and rocks should be surveyed.												
	Terrestrial fauna surveys should be conducted to monitor the usage of enhancement areas by vertebrate fauna. Monitoring may include fauna species diversity and abundance or, alternatively, the use of indicator species to measure the effectiveness of enhancement measures.												
	Freshwater macro-invertebrate monitoring, including an assessment of SIGNAL A values and water quality (e.g. temperature, pH, and salinity).												
	Monitoring of specific enhancement initiatives (e.g. the provision of nesting/ roosting boxes, weed control or feral animal control).												
Annual Review													
4/49	<p>The Applicant shall:</p> <p>(a) review the performance of the Flora and Fauna Management Plan annually, in consultation with the Hunter Coalfield Flora &amp; Fauna Advisory Committee; and</p> <p>(b) revise the document as necessary to take into account any recommendations from the annual review.</p>		<p>Yes</p> <p>Noted</p>	<p>(a) The Flora and Fauna Management Plan was reviewed in August 2005, October 2008 and January 2010.</p> <p>The Hunter Coalfield Flora and Fauna Advisory Committee has not yet been established ) see comment on MCoA section 3.3 )</p>									

Independent Audit				
<b>4/50</b>	<p>Within 5 years of the date of this consent, and every 5 years thereafter, unless the Director-General directs otherwise, the Applicant shall commission, and pay the full cost of, an Independent Audit of the offset strategy. This audit must:</p> <ul style="list-style-type: none"> <li>(a) be conducted by a suitably qualified, experienced, and independent person whose appointment has been endorsed by the Director-General;</li> <li>(b) assess the performance of the offset strategy;</li> <li>(c) review the adequacy of the Flora &amp; Fauna Management Plan; and, if necessary,</li> <li>(d) recommend actions or measures to improve the performance of the offset strategy, and the adequacy of the Flora &amp; Fauna Management Plan</li> </ul>	Independent Environmental Offset Strategy Report, Trevor Brown & Associates, 16 Oct 2009	<p>Yes</p> <p>(a)Yes</p> <p>(b)Yes</p> <p>(c)Yes</p> <p>(d)Yes</p>	<p>The Independent Audit of the offset strategy was undertaken on 25-26 August 2009.</p> <ul style="list-style-type: none"> <li>(a) The audit was conducted by Trevor Brown of Trevor Brown &amp; Associates and Travis Peake of Umwelt Australia, as part of the Audit of the EPBC conditions.</li> <li>(b) Section 7 Assessment of Performance of the Offset Strategy</li> <li>(c) Section 6 Adequacy of Flora and Fauna Management Plan</li> <li>(d) Section 8 Audit Findings</li> </ul>
ABORIGINAL CULTURAL HERITAGE				
Conservation Agreement				
<b>4/51</b>	<p>Within 12 months of the commencement of this consent, the Applicant shall develop a conservation agreement (as part of the Deed of Agreement with the Minister referred to in condition 41 above) for the management of Aboriginal cultural heritage in Remnant Woodland Enhancement Area A in consultation with the Aboriginal Communities and <b>DECCW</b>.</p>	<ul style="list-style-type: none"> <li>• Draft Deed of Agreement between Wambo Coal Pty Ltd and The Minister for Planning, Sparke Helmore Lawyers</li> <li>• Letter from DoP re Deed of Agreement, Ref S02/02197, Undated</li> <li>• Letter from DECC re Draft Aboriginal Cultural Heritage Conservation Agreement – Remnant Woodland Enhancement Area A, 27 May 2009</li> <li>• Aboriginal Cultural Heritage Conservation Agreement – Remnant Woodland Enhancement Area A Wambo Coal, 30 Jun 2009</li> <li>• Aboriginal Cultural Heritage Management Plan, 18 May 2010</li> </ul>	Yes	<p>The Deed of Agreement was sent to the Minister for Planning in November 2005. DoP provided a draft letter extending the requirement to enter into a Deed with the Minister until 28 February 2007.</p> <p>The Aboriginal Cultural Heritage Management Plan, (dated 18 May 2010) and the Aboriginal Cultural Heritage Conservation Agreement – Remnant Woodland Enhancement Area A Wambo Coal, (dated 30 Jun 2009) have been prepared in consultation with the Aboriginal Communities (Upper Hunter Wonnarua Council, Lower Wonnarua Tribal Consultancy, Wanaruah Local Aboriginal Land Council, Combined Council Aboriginal Corporation, Hunter Valley Cultural Consultants, Yarrawalk Enterprises, Ungooroo Aboriginal Corporation, Wattaka Wonnarua CCS, Wonnarua Nation Aboriginal Corporation) and the DECCW and the documents submitted to the relevant parties.</p>

<b>Salvage</b>				
<b>4/52</b>	Before making application for section 90 consents under <i>the National Parks &amp; Wildlife Act 1974</i> , the Applicant shall develop a targeted, strategic salvage program for the development in consultation with DECCW and the Aboriginal communities.	<ul style="list-style-type: none"> <li>• Application for Permit under Section 87 and Consent under Section 90 of National Parks and Wildlife Act 1974, Apr 2005</li> <li>• Attachment 3 Research Design and Study Plan, Section 87/90 Application, Apr 2005</li> <li>• Section 90 Permit No. 2085, 14 Dec 2004</li> <li>• Section 87 and 90 Consent No.2222, 20 Jun 2005</li> </ul>	Yes	Letters were sent to the Upper Hunter Wonnarua Council, Lower Wonnarua Tribal Consultancy, Wanaruah Local Aboriginal Land Council, Combined Council Aboriginal Corporation, Hunter Valley Cultural Consultants, Yarrawalk Enterprises, Ungooroo Aboriginal Corporation, Wattaka Wonnarua CCS, Wonnarua Nation Aboriginal Corporation, Upper Hunter Heritage Consultants, Wonnarua Consultants in relation to consultation on the Wambo application for section 87 and section 90 consents under the National Parks and Wildlife Act 1974. Consultation was conducted with the Aboriginal groups prior to the Application being submitted.
<b>4/53</b>	Before the commencement of salvage operations, the Applicant shall ensure that a keeping place is established to house objects recovered from the salvage program.	• Aboriginal Cultural Heritage Management Plan, section 3, 18 May 2010	Yes	The WACS, WCPL and the Archaeologist from RPS HSO met in February 2009 and agreed on a Temporary Keeping Place that was subsequently approved by the DECCW on 14 July 2009. All artefacts salvaged during the operation are stored at the Temporary Keeping Place under Permit No.3130 for Care and Control of Aboriginal Objects Salvaged under Section 87/ 90 permits No.2085 and No.2222 in accordance with Section 89/ 90 of National Parks and Wildlife Act.
<b>4/54</b>	The Applicant shall house the objects recovered during the salvage program in the keeping place established for the purpose.	<ul style="list-style-type: none"> <li>• AEMR 2005-2006</li> <li>• AEMR 2009-2010</li> </ul>	Yes	
<b>Further Investigations</b>				
<b>4/55</b>	<p>The Applicant shall:</p> <p>(a) investigate the cultural significance of the corridors A – Southern and B – Middle (see map in appendix 3) in consultation with the Aboriginal Communities;</p> <p>(b) examine the possible pathways between Remnant Woodland Enhancement Area A (which includes the camp ground associated with the bora) and Wollemi National Park to the east; and</p> <p>(c) investigate the feasibility of reserving from future mining operations, those areas identified as being of cultural significance to the Aboriginal Communities in consultation with DECCW.</p>	EIS Wambo Development Project 2003 , Appendix D	<p>(a)Yes</p> <p>(b)Yes</p> <p>(c)Yes</p>	<p>WCPL advised that the cultural significance of the corridors between the remnant woodland enhancement areas and Wollemi National Park were investigated in the EIS 2003 and WCPL is consulting with DP&amp;I who are assisting WCPL to resolve this matter.</p> <p>(a) the cultural significance of corridors A - Southern and B - Middle and possible pathways between RWEPA and Wollemi NP were investigated in appendix 3 of the EIS,</p> <p>(b) Aboriginal Heritage Assessment section D8.3.1 examines possible pathways between RWEPA and Wollemi National Park to the east of the Wambo development area.</p> <p>(c) an Aboriginal Heritage Conservation Area has been set aside in RWEPA Area A.</p>

<b>Trust Fund Contribution</b>				
<b>4/56</b>	Before carrying out the development, or as agreed otherwise by the D-G, the Applicant shall contribute \$50,000 to the Hunter Aboriginal Cultural Heritage Trust Fund for further investigations into Aboriginal cultural heritage, as defined by the Trust Deed.	<ul style="list-style-type: none"> <li>Receipt for \$50,000 contribution to Aboriginal Heritage Trust No.1, Public Trustee, 7 Nov 2005</li> </ul>	Yes (Complete)	WCPL satisfied the provision of this condition with the \$50,000 contribution to the Hunter Aboriginal Cultural Heritage Trust Fund on 7 November 2005.
<b>WAMBO HOMESTEAD COMPLEX</b>				
<b>Section 60 Approval</b>				
<b>4/57</b>	An application under section 60 of the Heritage Act must be submitted to and approved by the Heritage Council prior to the commencement of any development on land within the State Heritage Register listing boundary for the Wambo Homestead Complex. In this regard a mine management plan shall be required to accompany the application which demonstrates that the proposed underground mining shall not have adverse heritage impacts on the WHC due to land subsidence	<ul style="list-style-type: none"> <li>Letter to Heritage Branch re Proposed Maintenance Works to Wambo Homestead Complex, 17 Feb 2011</li> <li>Wambo Homestead Complex Voluntary Action Plan, Goden Mackay Logan, 17 Feb 2011</li> <li>Letter from Heritage Council re Wambo Homestead Complex, 25 Mar 2011</li> </ul>	Yes	<p>No disturbance of the Wambo Homestead Complex area had occurred by the Wambo Coal activities prior to June 2010. Maintenance of the structures had occurred to reduce potential deterioration from water damage from rainfall.</p> <p>A Section 60 application under the Heritage Act was submitted Heritage Branch DoP on 17 February 2011 for proposed maintenance works on the Wambo Homestead Complex (SHR200). Approval was granted by the Heritage Council to undertake the proposed works in accordance with the Wambo Homestead Complex Voluntary Action Plan and Supplementary GML Report.</p>
<b>Conservation Measures</b>				
<b>4/58</b>	Within 12 months of the commencement of this consent, the Applicant shall prepare a conservation management plan for the Wambo Homestead Complex in accordance with Heritage Office guidelines for the consideration of the Heritage Council of NSW.	<ul style="list-style-type: none"> <li>Wambo Home-stead Conservation Management Plan, Jun 2006</li> <li>Letter to NSW Heritage Office re Wambo Homestead Conservation Management Plan, 9 Nov 2006</li> <li>Letter from DoP re Extension of Time for Submission of the Conservation Management Plan, 16 May 2011</li> </ul>	Yes	<p>The Wambo Homestead Conservation Management Plan was prepared within 12 months of the commencement of the consent (i.e. 14 November 2005) and submitted to the NSW Heritage Office for review on 9 November 2006.</p> <p>The Wambo Homestead Conservation Management Plan was being revised at the date of this audit and will be due for submission to DoPI by 15 August 2011 in accordance with the DoP letter dated 16 May 2011.</p>
<b>4/59</b>	The conservation policies and an interpretation strategy contained in the conservation management plan are to be implemented in accordance with a timetable to be contained in the conservation management plan.	<ul style="list-style-type: none"> <li>Wambo Homestead Conservation Management Plan, Jun 2006</li> <li>Letter to Heritage Branch DoP re Voluntary Action Plan for Maintenance of Wambo Homestead, 9 Dec 2010</li> </ul>	Yes	<p>Conservation measures are being implemented in accordance with the Conservation Management Plan 2006 and the Voluntary Action Plan dated December 2010.</p> <p>Wambo proposed an inspection of the property in the letter to the Heritage Branch dated 9 December 2010. The visit occurred on the 8 June 2011 by a representative of the Heritage Branch.</p>
<b>4/60</b>	A suitably qualified and experienced consultant is to be engaged by the applicant to record an oral history of the Wambo Homestead Complex having regard to the strong associations of members of	<ul style="list-style-type: none"> <li>Wambo Homestead Conservation Management</li> </ul>	Yes	EJE Heritage consultants prepared a history of the Wambo Homestead complex as part of the development of the



	the local community with the site.	Plan – Section 3 Historical Context, EJE Heritage Consultants, Apr 2006		Conservation Management Plan.
<div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: center;"><b>Comparative views of the Wambo Homestead and surrounds 2002 and 2009</b></p>				
4/61	In circumstances where safe access to the Wambo Homestead Complex is able to be provided, opportunities are to be offered to the local community to visit the site during and after its conservation.	<ul style="list-style-type: none"> <li>Wambo CCC Minutes, Mar 2011</li> </ul>	Yes	<p>A visit of the Wambo Homestead site was arranged for the Singleton Historical Society in July 2006.</p> <p>An invitation to inspect the Wambo Homestead Complex was also presented to the CCC on 24 March 2011.</p>
4/62	<p>Prior to the commencement of mining operations, and then at yearly intervals prior to the approved structural engineer's inspections, a photographic record is to be prepared of all elevations of all structures within the Wambo Homestead Complex. The photographs are to be of archival quality in accordance with the Heritage Office guidelines, <i>How to Prepare Archival Records of Heritage Items 1994</i>, and <i>Guidelines for Photographic Recording of Heritage Items, 1994</i>. The photographic record is to be lodged with the NSW Heritage Office, the Department and the Council.</p> <p style="color: magenta;">The photographic record is to be lodged with NSW Heritage Office, and a copy is to be submitted to the Department and the Council.</p>	<ul style="list-style-type: none"> <li>Wambo Homestead Archival Photographic Record, EJE Heritage, Dec 2005</li> <li>Letters to NSW Heritage Office, DoP and Singleton Council re Archival Record of Wambo Homestead Complex, 12 Jan 2006</li> <li>Letter to DoP/Heritage Branch re Archival Photographic Record, 3 Jan 2007, 28 Jan 2009, 8 Feb 2010, and 9 Feb 2011</li> </ul>	Yes	<p>The Archival Photographic Record for Wambo Homestead prepared by EJE Group occurred in accordance with the guideline "How to Prepare Archival Records of Heritage Items" 1998 and "Guidelines for Photographic Recording of Heritage Items" 2004 as issued by the NSW Heritage Office.</p> <p>A full set of archival photographs were submitted to DoP, Council and NSW Heritage Office in January 2006.</p> <p>Archival Photographic Records of the Wambo Homestead Complex have been submitted to the DoP and Heritage Branch on an annual basis.</p>

<b>Blasting</b>				
<b>4/63</b>	Ground vibration and air blast levels are to be monitored and recorded at a blast monitoring station to be established within the Wambo Homestead Complex for each blast within 2 km of the Wambo Homestead Complex.	<ul style="list-style-type: none"> <li>Blast Monitoring Results 2006 - 2011</li> </ul>	Yes	A blast overpressure and vibration monitor has been established within the Wambo Homestead Complex. Of the 150 blasts monitored from 1 November 2005 to 19 October 2006, 7 blasts (or 4.6%) exhibited results greater than 115dBL, but no blast was greater than 120dBL.
<b>4/64</b>	A suitably qualified and experienced structural engineer, with expertise in vibration and blast monitoring is to be appointed to examine all monitoring records from the Wambo Homestead Complex blast monitoring station. The appointment of the structural engineer is to be approved in writing by the Director of the NSW Heritage Office.	<ul style="list-style-type: none"> <li>Letter from NSW Heritage Office re Approval of Appointment of Structural Engineer, 30 Nov 2005</li> </ul>	Yes	Mr Bill Jordan of Bill Jordan and Associates was approved by the Director of NSW Heritage Office to examine monitoring records from the Wambo Homestead Complex blast monitor.
<b>4/65</b>	Ground vibration and air blast levels experienced at the Wambo Homestead Complex blast monitoring station are not to exceed the structural damage assessment criteria prescribed by <i>Australian Standard AS 2187.2-1993 (or its latest version "Explosives – Storage Transport and Use" for Sensitive and Heritage Structures</i> to prevent damage to the heritage items.	<ul style="list-style-type: none"> <li>AS 2187.2-2006 Explosives – Storage and Use Part 2: Use of Explosives</li> </ul>	Noted	See condition 4/66 comments.
<b>4/66</b>	The approved structural engineer is to report to the Applicant on the monitoring results each month for blasting within 2 km of the Wambo Homestead Complex and 6 monthly for the remainder of the open cut mining operation and make recommendations to ensure the conservation and prevention of damage to the significant heritage structures. Copies of these reports are to be forwarded to the NSW Heritage Office.	<ul style="list-style-type: none"> <li>Structural Assessment of Wambo Homestead Buildings, Bill Jordan &amp; Associates, Nov 2005</li> <li>Letter from NSW Heritage Office re Compliance with Conditions of Consent, 12 Jan 2006</li> <li>Letter from Wambo to NSW Heritage Office re Compliance with Conditions of Consent, 18 Jan 2006</li> <li>Letter from Bill Jordan &amp; Associates re Blast Monitoring Nov 2005 to Feb 2006, 14 Mar 2006</li> <li>Letter Report from Bill Jordan &amp; Associates re Wambo Homestead Annual Report, 24 Dec 2008</li> <li>Letter Report from Bill Jordan &amp; Associates re</li> </ul>	Yes	<p>The reports from Bill Jordan &amp; Associates note that all ground vibration results measured at the Wambo Homestead site are below 5mm/sec peak particle velocity. The reports also note that many authorities consider that 2mm/sec should be the limit for historic, fragile buildings. The results of inspections conducted by Bill Jordan &amp; Associates have found there is no evidence of any blast damage to the homestead.</p> <p>(Peak particle velocity greater than 2mm/sec have been recorded at the Wambo Homestead site on the following occasions:</p> <p>1 November 2005 - 29 June 2006 - 6 occasions (150 blast events)</p> <p>3 July 2006 to 14 June 2007 – 5 occasions (155 blast events);</p> <p>5 July 2007 to 30 June 2008 – 4 occasions (109 blast events);</p> <p>2 July 2008 to 29 June 2009 - 4 occasions (103 blast events);</p> <p>2 July 2009 to 29 June 2010 – Nil (100 blast events)</p>
<b>4/67</b>	The approved structural engineer is to inspect the Wambo Homestead Complex structures annually and as soon as practical, but no later than 3 days after blasting monitoring which exceeds the structural damage assessment criteria prescribed by AS 2187.2-1993 (or its latest version). During the period between blasting		Yes	The Structural Assessment Reports prepared by Bill Jordan & Associates conclude that damage noted during the inspections was considered to be almost entirely due to causes other than ground vibration. Foundation movement due to dry ground conditions and termite damage were identified as the causes of

	monitoring being recorded which exceeds the criteria in AS 2187.2-1993 <i>(or its latest version)</i> and the engineer's inspection, ground vibration from blasting is to be limited to a level which will prevent further blasting damage. The structural engineer is to advise the applicant and the NSW Heritage Office of any action required to repair the damage.	Wambo Homestead Annual Report, 6 Jan 2011		structural damage observed.
4/68	The approved structural engineer is to make an assessment of whether blasting within 2km of the Wambo Homestead Complex is to cease or be managed in order to stabilise or repair the damage, and so advise the applicant and the Director of the NSW Heritage Office. If blasting has been required to cease, it is not to resume until the damage has been stabilised or repaired, and the written approval for resumption has been issued by the Director of the NSW Heritage Office		Yes	The reports from Bill Jordan & Associates note that all ground vibration results are less than 5mm/sec peak particle velocity. The building inspections have found there was no evidence of any blast damage to the homestead.
<b>Rehabilitation</b>				
4/69	Following the cessation of the use of the coal haulage road which traverses the Wambo Homestead Complex property, the land is to be returned to its former condition (pre1999) and the half palisade fence on the southern alignment of the mounting yard, which was removed, is to be reinstated as required by the approval of the Heritage Council for the construction of the road on 12 Feb 1999.		Noted	The access road along the boundary of the Wambo Homestead site is still in use for light vehicle access to the west and north of the Wambo activities and the Wollemi underground facilities (the underground mine is not active but the sheds are used for core storage).
<b>Movable Heritage Items</b>				
4/70	The Applicant shall liaise with the Power House Museum and Museums and Galleries Foundation regarding the significance of movable heritage which shall be displaced by the proposed open cut mining and suitable repositories for the conservation and storage of any significant items.	<ul style="list-style-type: none"> <li>Wambo Homestead Conservation Management Plan, Jun 2006</li> <li>Letter to NSW Heritage Office re Wambo Homestead Conservation Management Plan, 9 Nov 2006</li> </ul>	Noted	The Conservation Management Plan has been submitted to the NSW Heritage Branch DP&I. Discussions with the Power House Museum, other Museums and Galleries Foundation will occur as required regarding significance of movable heritage that shall be displaced by the proposed open cut mining.
<b>TRAFFIC &amp; TRANSPORT</b>				
<b>New Access Intersection</b> <i>Note: The Applicant requires RTA approval under the Roads Act 1993 for the new intersection.</i>				
4/71	The Applicant shall design and construct the proposed new access intersection with the Golden Highway to the satisfaction of the RTA.		Noted	The intersection with the Golden Highway has not been affected by the Wambo development. WCPL consulted with the RTA in relation to the construction of the new intersection and the RTA advised that it did not require the new access intersection to be constructed.
<b>Road Closure</b>				
4/72	Prior to closing Pinegrove Road, the Applicant shall prepare and implement a Road Closure Management Plan in consultation with	<ul style="list-style-type: none"> <li>EIS Wambo Development Project, Resource Strategies,</li> </ul>	Noted	The closure of Pinegrove Road planned to occur in Year 5 (i.e. 2010), is in the process of being de-gazetted. The Road Closure

	the affected landowners, and to the satisfaction of Council. This plan must describe the alternate access arrangements for any affected landowners.	Jul 2003		Management Plan will be prepared prior to the de-gazettal and closure. No landowners will be affected by the road closure (the last property owner – Mr Skinner – was brought out by Wambo Coal during 2009).
<b>Parking</b>				
<b>4/73</b>	The Applicant shall provide sufficient parking on-site for all mine-related traffic to the satisfaction of the Director-General.	<ul style="list-style-type: none"> <li>Email from DoP re On-site Vehicle Parking, 10 Feb 2006</li> <li>Letter from DoP re On-site Car Parking, 24 May 2011</li> </ul>	Yes	Parking available on-site at the Wambo Mine is provided for approximately 393 vehicles. Wambo Coal Preparation Plant – 35 parking spaces DoP advised on 24 May 2011 it was generally satisfied that there is sufficient car parking spaces available for mine related traffic.
<b>Coal Haulage</b>				
<b>4/74</b>	The Applicant shall not transport more than 3 million tonnes of product coal a year from the site until a rail coal loader is commissioned in the vicinity of the site. <i>Note: The Applicant has submitted a separate development application to the Minister for the Wambo "Rail and Train Loading Infrastructure" (DA 306-7-2003)</i>	• Wambo "Rail and Train Loading Infrastructure" (DA 306-7-2003)	Yes	From 1 November 2005 to 30 June 2006, approximately 2.2Mt of clean coal was hauled from Wambo Coal to the Mount Thorley Coal Loader by road transport. The Wambo rail loop and coal loader was commissioned in May 2006 and officially commenced operation in June 2006. No coal has been transported by road since June 2006
<b>4/75</b>	The Applicant shall cease all coal haulage on public roads as soon as a rail coal loader is commissioned in the vicinity of the site, except in an emergency, and as agreed by the Director-General in consultation with Council.		Yes	Road haulage of coal ceased from Wambo in June 2006 when the Wambo rail loader was commissioned.
<b>4/76</b>	If no rail loader is commissioned in the vicinity of the site within 2 years of the commencement of this consent, the Applicant shall submit a report to the Director-General outlining the alternatives to road haulage, and describing the proposed arrangements for transporting coal from the site.		Not applicable	See above.
<b>4/77</b>	The Applicant shall ensure that all loaded coal haulage vehicles entering or leaving the site are covered.		Not applicable	See above
<b>4/78</b>	The Applicant shall pay Council 0.5 cents for each tonne of product coal hauled along Council roads to the Mount Thorley Coal Loader, in accordance with Council's Section 94 Contribution Plan.		Not applicable	No road haulage of coal has occurred since June 2006.
<b>Monitoring</b>				
<b>4/79</b>	The Applicant shall keep records of the: <ul style="list-style-type: none"> <li>amount of coal transported from the site each year; and</li> <li>number of coal haulage truck movements generated each day by the development; and</li> <li>include these records in <a href="#">the Annual Review</a>.</li> </ul>	<ul style="list-style-type: none"> <li>AEMR's / Annual Review Appendix 1</li> <li></li> </ul>	Yes	The amount of coal transported from the site each year is recorded and reported in the AEMR/Annual Review Appendix 1.

<b>Traffic Management Plan</b>				
<b>4/80</b>	The Applicant shall prepare and implement a Traffic Management Plan in consultation with Council, and to the satisfaction of the RTA for the proposed blasting activities that require the temporary periodic closure of the Golden Highway. This plan shall ensure that adequate warning is given to road users prior to blasting, and that follow up inspections are made to ensure that public roads are safe and clear of debris.	<ul style="list-style-type: none"> <li>Draft Traffic Management Plan, Mar 2005</li> </ul>	Noted	Closure of the Golden Highway for blasting is currently not required by Wambo. When closure of the Highway becomes necessary in 2014 to 2015 it was reported that the Traffic Management Plan will be submitted to the Singleton Council for comment and the RTA for comment and approval.
<b>VISUAL IMPACT - Visual Amenity</b>				
<b>4/81</b>	The Applicant shall implement measures to mitigate visual impacts including: <ul style="list-style-type: none"> <li>(a) design and construction of development infrastructure in a manner that minimises visual contrasts; and</li> <li>(b) progressive rehabilitation of mine waste rock emplacements (particularly outer batters), including partial rehabilitation of temporarily inactive areas.</li> </ul>	<ul style="list-style-type: none"> <li>Visual Assessment Study of Wambo Coal, Integral Landscape Architecture and Visual Planning, Nov 2007</li> </ul>	Yes Ongoing	Design and construction of the buildings during the development of the project included non-reflective materials and colours to blend in with the environment, with natural vegetation retained where practicable to screen the development. Total area of rehabilitation at the Wambo site is 343.90ha (temporary rehabilitation 82ha and final rehabilitation 261.90ha), Ongoing rehabilitation of disturbed areas will occur as activities are completed.
<b>4/82</b>	The Applicant shall investigate and where feasible implement the following measures at locations assessed in the EIS as having a high potential visual impact: <ul style="list-style-type: none"> <li>(a) implement landscaping works in consultation with affected rural residents (see Condition 0); and/or</li> <li>(b) place and maintain visual screens between development infrastructure and the viewing location.</li> </ul>		Yes	The West Wambo Vegetation Buffer involved planting approximately 2km by 30m wide vegetation buffer to the northwest of the Wambo operations to provide a visual screen for the Fisher, Muller and other Jerry's Plains residences.
<b>4/83</b>	If a landowner of any dwelling assessed in the EIS as having a high potential visual impact requests the Applicant in writing to investigate ways to minimise the visual impact of the development on his/her dwelling, the Applicant shall: <ul style="list-style-type: none"> <li>(a) within 14 days of receiving this request, commission a suitably qualified person whose appointment has been approved by the D-G, to investigate ways to minimise the visual impacts of the development on the landowner's dwelling; and</li> <li>(b) give the landowner a copy of the visual impact mitigation report within 14 days of receiving this report.</li> </ul> If both parties agree on the measures that should be implemented to minimise the visual impact of the development, then the Applicant shall implement these measures to the satisfaction of the D-G. If the Applicant and the landowner disagree on the measures that should be implemented to minimise the visual impact of the development, then either party may refer the matter to the D-G for resolution. If the matter cannot be resolved within 21 days, the D-G shall refer the matter to an Independent Dispute Resolution Process.		Not Activated	No requests were received from landowners for visual impact investigation related to the Wambo mine development, under the mine consent between 2007 and 2011.



Overburden Dumps																		
4/84	The Applicant shall construct the overburden emplacements generally in accordance with the EIS, and to the satisfaction of DII.	<ul style="list-style-type: none"><li>• EIS Wambo Development Project, Resource Strategies, Jul 2003</li><li>• Mining Operations Plan 2010-2016</li><li>• Rejects Emplacement Strategy, Mar 2011</li></ul>	Yes Ongoing	The rehabilitation of the site is generally in accordance with Figure 2.5 of the EIS – General Arrangement. Progress on the development of the overburden emplacements are reported in the AEMR Section 5 and under requirements of the approved Mining Operations Plan for 2010 to 2016.														
Lighting Emissions																		
4/85	The Applicant shall take all practicable measures to mitigate off-site lighting impacts from the development.	<ul style="list-style-type: none"><li>• Environmental Complaint Form No.2 Ross Hawkes “Springwood” Lighting from CHPP</li><li>• Environmental Complaint Form No.2 Ron Fenwick Lighting complaint</li><li>• Email to Ross Hawkes re action on lighting complaint, 14 Jul 2006</li><li>• Complaint Registers 2005-2011</li></ul>	Yes	Complaints received in relation to lighting from the site: between 2005 and June 2011 have been: <table><tr><th>Period</th><th>No. of Complaints</th></tr><tr><td>2005-2006</td><td>2</td></tr><tr><td>2006-2007</td><td>Nil</td></tr><tr><td>2007-2008</td><td>Nil</td></tr><tr><td>2008-2009</td><td>2</td></tr><tr><td>2009-2010</td><td>Nil</td></tr><tr><td>2010-June 2011</td><td>4</td></tr></table>	Period	No. of Complaints	2005-2006	2	2006-2007	Nil	2007-2008	Nil	2008-2009	2	2009-2010	Nil	2010-June 2011	4
Period	No. of Complaints																	
2005-2006	2																	
2006-2007	Nil																	
2007-2008	Nil																	
2008-2009	2																	
2009-2010	Nil																	
2010-June 2011	4																	
4/86	Unless otherwise agreed to by the Director-General, all external lighting associated with the development shall comply with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting.	Audit of External Lighting for Compliance with AS4282-1995, MultiSkilled Resources Australia, 12 May 2011	Yes	WCPL manages external lighting generally in accordance with AS4282:1995. A proposal for the audit of external lighting at Wambo Coal has been obtained by WCPL on 12 May 2011 in relation to compliance with AS4282:1995 – Control of Obtrusive Effects of Outdoor Lighting.														
GREENHOUSE GAS																		
4/87	For the life of the development, the Applicant shall: (a) monitor the greenhouse gas emissions generated by the development; (b) investigate ways to reduce greenhouse gas emissions generated by the development; and (c) report on greenhouse gas monitoring and abatement measures in the Annual Review, to the satisfaction of the Director-General	<ul style="list-style-type: none"><li>• Greenhouse Gas Assessment (GGA), WDP Nov 2005</li><li>• Letter from DoP re GGA, 20 Jan 2006</li><li>• Letter from DoP re Approval of Extended Submission Date for GGA, 16 Nov 2006</li></ul>	Yes Ongoing	A Greenhouse Gas Assessment was submitted to DoP in November 2005, and DoP responded with required amendments to the document. DoP agreed to an extension of the date for submission to 30 December 2006. Wambo fully reports all Scope 1 and Scope 2 emissions in accordance with NGERS annually. The AEMR's Section 3.18 broadly report on Wambo's methane emissions from the vent fans.														
WASTE MINIMISATION																		
4/88	For the life of the development, the Applicant shall: (a) monitor the amount of waste generated by the development; (b) investigate ways to minimise waste generated by the development;	<ul style="list-style-type: none"><li>• Waste Management Procedure, Mar 2009</li><li>• AEMR's section 2.6</li></ul>	(a)Yes	(a) Wambo have a Waste Management Procedure that is used as the basis for the total waste management contract for the project. Thiess Services are contracted for the management of waste recycling and disposal from the site.														



	(c) implement reasonable and feasible measures to minimise waste generated by the development; and (d) report on waste management and minimisation in the <b>Annual Review</b> , to the satisfaction of the Director-General.		(b)-(c)Yes  (d)Yes	(b) and (c ) Wambo segregate metal, waste oil and batteries for collection by a waste management contractor for recycling. (d) Waste management is reported in the AEMR in section 2.6 for solid waste, rubbish and oily waste disposal, sewerage treatment and disposal.
<b>HAZARDS MANAGEMENT</b>				
<b>Spontaneous Combustion</b>				
<b>4/89</b>	The Applicant shall: (a) take the necessary measures to prevent, as far as is practical, spontaneous combustion on the site; and (b) manage any spontaneous combustion on-site to the satisfaction of <b>DII</b> .	<ul style="list-style-type: none"> <li>Insurance Risk Survey, Open-cut, Underground and CHPP Final Report pages 36 and 72, Hawcroft Consulting International Pty Ltd Jul 2006</li> <li>Spontaneous Combustion Management Plan, 7 Jan 2011</li> </ul>	(a)Yes  (b)Yes	(a) The insurance risk survey report provides the controls to be implemented by Wambo to reduce the potential for spontaneous combustion at the mine. (b) A Spontaneous Combustion Management Plan has been prepared for the CHPP operations and the Wambo underground mine operations. There has not been any spontaneous combustion incidents in the underground workings reported between 2007 and 2011. There was one minor spontaneous combustion incident on the north western side of the Hunter Pit within the Open Cut operations, during 2009-2010. This area continues to be monitored by WCPL as part of the Open Cut inspection program.
<b>Dangerous Goods</b>				
<b>4/90</b>	The Applicant shall ensure that the storage, handling, and transport of: (a) dangerous goods is done in accordance with the relevant <i>Australian Standards</i> , particularly <i>AS1940</i> and <i>AS1596</i> , and the <i>Dangerous Goods Code</i> ; and (b) explosives are managed in accordance with the requirements of <b>DII</b> .	<ul style="list-style-type: none"> <li>Security Plan Wambo Coal Pty Ltd, Aug 2006</li> <li>Dangerous Goods Licence No. 35/020750</li> <li>Downer EDI Mining Explosive Management Plan and Security Management Plan, 9 Sep 2009</li> <li>Licence for Keeping of Dangerous Goods, Licence No. 35/020750</li> </ul>	(a)Yes  (b)Yes	(a) Dangerous goods are managed on site in accordance with the Australian Standards. Dangerous goods licence No. 35/020750 provides approval for 19 depots for storage of Class 1A, 1B, 1C, 1D, 2, 3A, 4A 4B, 4C,5A-1, 5A-2, 5B, 5C, 5E,5F,6A, 6B, 6C, 7A, 7B products in the approved depots. (b) Explosives are managed by Downer EDI in accordance with their Mining Security Management Plan and Explosives Management Plan. These plans provide detail of the requirements for secure storage, stock control, and transport of explosives and dangerous substances on the site, in accordance with the relevant Australian Standards.
<b>4/91</b>	Before carrying out any development, the Applicant shall update the Safety Management System covering all operations on the site, including the safe storage of ammonium nitrate, to the satisfaction of the Director-General.	<ul style="list-style-type: none"> <li>Downer EDI Mining Security Management Plan, 9 Sep 2009</li> <li>Wambo HSMS Hazardous Substances Management Plan</li> </ul>	Yes	There are separate safety management systems in place for the open-cut, underground and CHPP facilities at the Wambo Mine operations. The management plans are available from mining contractor Downer EDI Mining.
<b>BUSHFIRE MANAGEMENT</b>				
<b>4/92</b>	The Applicant shall: (a) ensure that the development is suitably equipped to respond	<ul style="list-style-type: none"> <li>Bushfire Management Plan, Apr 2008</li> </ul>	Yes	(a) Wambo has plant and equipment that may assist in fire response including water carts, dozers and graders.

	to any fires on-site; and (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire on-site during the development.		Yes	(b) Wambo Coal Pty Ltd is responsible for fire suppression on the mine site, with the Hunter Valley Area Rural Fire Service available as a support brigade.
<b>4/93</b>	Before carrying out any development, the Applicant shall prepare a Bushfire Management Plan for the site, to the satisfaction of Council and the Rural Fire Service.	<ul style="list-style-type: none"> <li>• Bushfire Management Plan, Apr 2008</li> <li>• Letter from NSW Rural Fire Service re Bushfire Management Plan, 1 Jul 2008</li> </ul>	Yes	A Bushfire Management Plan was prepared by Wambo in April 2005 and submitted to Singleton Council and the Rural Fire Service. Both organisations provided written approval of the plan. An updated Bushfire Management Plan was submitted to the Singleton Shire Council and Hunter Valley Rural Fire Service in 2008 and accepted by the HVRFS on 1 July 2008.
<b>REHABILITATION</b>				
<b>Progressive Rehabilitation</b>				
<b>4/94</b>	The Applicant shall carry out the rehabilitation of the DA area progressively, that is, as soon as reasonably practicable following disturbance. <i>Note: See also condition 81 of schedule 4.</i>	<ul style="list-style-type: none"> <li>• Open-cut Mining Operations Plan, Jul 2010 to Jun 2016</li> <li>• Underground Mining Operations Plan 2005-2012</li> </ul>	Yes	The approved open cut Mining Operations Plan developed for the site includes rehabilitation of the mining areas. Progressive rehabilitation is reported in the AEMR providing the current total area affected or rehabilitated, the current area and estimated area for the next 12 months that will be disturbed/rehabilitated.
<b>4/94A</b>	<b>Rehabilitation Management Plan</b>			
	The Applicant shall prepare and implement a Rehabilitation Management Plan for the development, to the satisfaction of the Director-General of DII. This plan must: (a) be prepared in consultation with the Department, DECCW, NOW, Council and the CCC; (b) be prepared in accordance with any relevant DII guideline; (c) build, to the maximum extent practicable, on the other management plans required under this consent; and (d) be submitted to the Director-General of DII for approval by the end of December 2011. <i>Note: The Rehabilitation Management Plan should address all land impacted by the development, whether prior to or following the date of this consent. See also conditions 69 and 81 of schedule 4.</i>		In progress (refer to section 3.2.2.5)	This Rehabilitation Management Plan is being developed in accordance with the DII Guideline, for submission in accordance with MCoA.94A.
<b>MINE EXIT STRATEGY</b>				
<b>4/95</b>	The Applicant shall work with the Council to investigate the minimisation of adverse socio-economic effects of a significant reduction in local employment levels and closure of the development at the end of its life.		Noted	MCoA Schedule 3 condition 6 states "This consent lapses 21 years after the date it commences." A letter from DoP states the consent lapses on 14 November 2023. Mine closure is not planned to occur prior to 2023, so the Mine Exit Strategy has not yet been developed.

<b>SCHEDULE 5 ADDITIONAL PROCEDURES FOR AIR QUALITY &amp; NOISE MANAGEMENT</b>				
<b>Notify Landowners</b>				
<b>5/1</b>	If the air dispersion and/or noise model predictions in the documents listed in condition 2 of schedule 3 identify that the air pollution and/or noise generated by the development are likely to be greater than the air quality and/or noise impact assessment criteria in conditions of schedule 4, then the Applicant shall notify the relevant landowners and/or existing or future tenants (including tenants of mine-owned properties) accordingly before it carries out any development.	<ul style="list-style-type: none"> <li>Landowner Notification Procedure – Air Quality, Jun 2008</li> <li>Letters to Kannar, Hawkes, Lambkin, Skinner, Kelly, Henderson and Haynes re noise and air impacts, 20 Jul 2005</li> </ul>	Yes	WCPL developed a Landowner Notification Procedure that has been implemented to address the requirements of MCoA Schedule 5 condition 1.  Residents within the area of affectation identified in the EIS have been notified in writing of the potential impacts and the avenues open to them in relation to acquisition of their properties.
<b>5/2</b>	If the results of the air quality and/or noise monitoring required in schedule 4 identify that the air pollution and/or noise generated by the development are greater than the air quality and/or noise impact assessment criteria in schedule 4, then the Applicant shall notify the relevant landowners and/or existing or future tenants (including tenants of mine-owned properties) at the end of each quarter.		Yes Ongoing	Communication with the relevant landholders within the areas of affectation in relation to air quality and noise monitoring and their rights under the acquisition conditions.
<b>5/3</b>	<p><i>Before carrying out any development, the Applicant shall develop a procedure in consultation with DECCW and NSW Health and approved by the Director-General, for notifying landowners and tenants referred to in condition 0. This procedure must ensure that:</i></p> <p>(a) all existing and future tenants are advised in writing about:</p> <ul style="list-style-type: none"> <li>air quality impacts likely to occur at the residence during the operational life of the mine; and</li> <li>likely health and amenity impacts associated with exposure to particulate matter;</li> </ul> <p>(b) the written advice in (a) is based on current air quality monitoring data, dispersion modelling results, research and literature; and</p> <p>(c) there is an ongoing process for providing current air quality monitoring data, dispersion modelling results, research and literature to the tenants</p>	<ul style="list-style-type: none"> <li>Landowner Notification Procedure – Air Quality, Aug 2005</li> <li>Fact Sheet – Air Quality – Particulate Matter and Health</li> <li>Letters to Residents re Fact Sheet, 4 Nov 2005</li> <li>Letter from DoP re Landowner Notification Procedure, 13 Sep 2005</li> <li>Letter from DEC re Landowner Notification Procedure, 7 Sep 2005</li> <li>Landowner Notification Procedure -Air Quality, Jun 2008</li> </ul>	Yes	The Landowner Notification Procedure was prepared and submitted to DEC, DoP and NSW Health for review in 2005. NSW Health advised that they would produce a NSW Health endorsed brochure for distribution to the community.  The Landowner Notification Procedure has been implemented and was revised in June 2008.
<b>Independent Review</b>				
<b>5/4</b>	If a landowner considers the development to be exceeding the air quality and/or noise impact assessment criteria listed in schedule 4 at his/her dwelling, or at any proposed dwelling on his/her vacant land, then he/she may ask the Applicant for an independent review of the air pollution and/or noise impacts of the development on his/her dwelling, or proposed dwelling.  If the Director-General is satisfied that an independent review is	Wambo Sentinex N21/Fenwick Residence Noise Assessment, Global Acoustics, 21 Mar 2011	Yes Ongoing	<p>(a) Wambo consult regularly with the Fenwick residents in relation to noise levels and mine operations. This consultation has recently (since April/May 2011) reduced the complaints from the Fenwicks.</p> <p>(b) An acoustic assessment was conducted to determine if the noise levels received at the real-time monitoring location at the Fenwick residence was representative</p>

	<p>warranted, the Applicant shall:</p> <p>(a) consult with the landowner to determine his/her concerns; and</p> <p>(b) commission a suitably qualified person – whose appointment has been approved by the Director-General – to conduct air quality and/or noise monitoring at the relevant dwelling to determine whether the development is complying with the relevant impact assessment criteria, and identify the source(s) and scale of any air quality and/or noise impact at the dwelling, and the development's contribution to this impact.</p> <p>Within 14 days of receiving the results of this independent review, the Applicant shall give a copy of these results to the Director-General and landowner.</p>			<p>of the noise levels received at the property. The report concluded good correlation between the measured noise levels and model results for noise received from the Wambo Coal operations at the Fenwick residence.</p>
<b>5/5</b>	<p>If the independent review (referred to in condition 4) determines that the development is complying with the relevant impact assessment criteria listed in schedule 4 at the dwelling, then the Applicant may discontinue the independent review with the approval of the Director-General.</p>		<p>Yes Ongoing</p>	<p>See MCoA 5/4.</p>
<b>5/6</b>	<p>If the independent review (referred to in condition 4) determines that the development is not complying with the relevant impact assessment criteria listed in schedule 4 at the dwelling, and that the development is primarily responsible for this non-compliance, the Applicant shall:</p> <p>(a) take all practicable measures, in consultation with the landowner, to ensure that the development complies with the relevant impact assessment criteria; and conduct further air quality and/or noise monitoring at the dwelling to determine whether these measures ensure compliance; or</p> <p>(b) secure a written agreement with the landowner to allow exceedances of the air quality and/or noise impact assessment criteria listed in schedule 4.</p> <p>If the additional monitoring referred to above subsequently determines that the development is complying with the relevant impact assessment criteria listed in schedule 4 at the dwelling, then the Applicant may discontinue the independent review with the approval of the Director-General.</p> <p>If the measures referred to in (a) do not ensure compliance with the air quality and/or noise land acquisition criteria listed in schedule 4 at the dwelling, and the Applicant cannot secure a written agreement with the landowner to allow exceedances of the air quality and/or noise impact assessment criteria listed in schedule 4, then the Applicant shall, upon receiving a written request from the landowner, acquire all or part of the landowner's land in accordance with the procedures in conditions 9-11 below</p>		<p>Noted Not activated</p>	<p>See MCoA 5/4.</p>

<b>5/7</b>	<p>If the independent review determines that the development is not complying with the air quality and/or noise impact assessment criteria listed in schedule 4 at the dwelling, but that several mines are responsible for this non-compliance, then the Applicant shall , with the agreement of the landowner and other mine(s) prepare and implement a Cumulative Air Quality and/or Noise Impact Management Plan for the land to the satisfaction of the Director-General. This plan must provide the joint approach to be adopted by the Applicant and other mine(s) to manage cumulative air quality and/or noise impacts at the landowner's dwelling, and the acquisition of any land.</p> <p>If the Applicant is unable to finalise an agreement with the landowner and/or other mine(s), and/or prepare a Cumulative Air Quality and Noise Impact Management Plan, then the Applicant or landowner may refer the matter to the Director-General for resolution.</p> <p>If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process.</p> <p>If, following the Independent Dispute Resolution Process, the Director-General decides that the Applicant shall acquire all or part of the landowner's land, then the Applicant shall acquire this land in accordance with the procedures in conditions 9-11 below.</p>		Noted Not activated	
<b>5/8</b>	<p>If the landowner disputes the results of the independent review (referred to in condition 4), either the Applicant or the landowner may refer the matter to the Director-General for resolution.</p> <p>If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process</p>		Noted Not activated	
<b>Land Acquisition</b>				
<b>5/9</b>	<p>Within 6 months of receiving a written request from the landowner, the Applicant shall pay the landowner:</p> <p>(a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development the subject of the DA, having regard to the:</p> <ul style="list-style-type: none"> <li>existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and</li> <li>presence of improvements on the land and/or any approved building or structure which has been physically commenced</li> </ul>	<ul style="list-style-type: none"> <li>Letter from Smith Dunlop Lawyers re Kannar Estate, 1096 and 1138 Jerrys Plains Road and 92 High Road Warkworth, 23 Sep 2005</li> <li>Letter from M Webb Bros Pty Ltd re Receipt of Cheque for Kannar Estate, 1096 and 1138 Jerrys Plains Road and 92 High Road Warkworth, 10 Nov 2005</li> </ul>	Yes Ongoing (if required)	<p>Written requests were received by Wambo between September 2005 and November 2006 for the acquisition of properties owned by Haynes, Kannar and Hawkes.</p> <p>Kannar property was purchased in November 2005 in accordance with the consent conditions.</p> <p>Haynes property was purchased in September 2006 in accordance with the consent conditions.</p> <p>Skinner property was purchased in September 2009 in accordance with the consent conditions.</p> <p>Hawkes property agreement reached for purchase in 2009 in accordance with the consent conditions.</p>

	<p>at the date of the landowner's written request, and is due to be completed subsequent to that date;</p> <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> <li>relocating within the Singleton local government area, or to any other local government area determined by the Director-General;</li> <li>obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is required; and</li> </ul> <p>(c) reasonable compensation for any disturbance caused by the land acquisition process.</p> <p>However, if within 6 months of receiving this written request, the Applicant 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.</p> <p>Upon receiving such a request, the Director-General shall request the <b>President of the NSW Division of the Australian Property Institute</b> to appoint a qualified independent valuer or Fellow of the Institute, to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or terms upon which the land is to be acquired.</p> <p>If either party disputes the independent valuer's determination, then the independent valuer must refer the matter back to the Director-General.</p> <p>Upon receiving such a referral, the Director-General shall appoint a panel to determine a fair and reasonable acquisition price for the land, and/or the terms upon which the land is to be acquired, comprising the:</p> <ol style="list-style-type: none"> <li>appointed independent valuer,</li> <li>Director-General or nominee, and</li> <li>President of the Law Society of NSW or nominee.</li> </ol> <p>Within 14 days of receiving the panel's determination, the Applicant shall make a written offer to purchase the land at a price not less than the panel's determination.</p> <p>If the landowner refuses to accept this offer within 6 months of the date of the Applicant's offer, the Applicant's obligations to acquire the land shall cease, unless otherwise agreed by the Director-General.</p>	<ul style="list-style-type: none"> <li>Letter from CEC M Hawkes Pty Ltd re Land Acquisition "Springwood", 21 Nov 2005</li> <li>Letter from Wambo re Land Acquisition "Springwood", 21 Dec 2005</li> <li>Letter from Wambo re Offer for Acquisition "Springwood", 7 Apr 2006</li> <li>Letter to DoP re Status of Acquisition "Springwood", 28 Jun 2006</li> <li>Letter from Prince Property Valuers Land Acquisition "Springwood", 22 Sep 2006</li> <li>Letter from Curtis Delaney Gray re Acquisition of Haynes Property at 50 High Road Warkworth, 23 Jan 2006</li> <li>Letter to Curtis Delaney Gray re Acquisition of Haynes Property at 50 High Road Warkworth, 25 Jan 2006</li> <li>Letter to Curtis Delaney Gray re Acquisition of Haynes Property at 50 High Road Warkworth, 2 May 2006</li> <li>Letter from Curtis Delaney Gray re Acquisition of Haynes Property at 50 High Road Warkworth, 21 Jul 2006</li> <li>Letter from D Skinner re Acceptance of Purchase by WCPL, 30 Sep 2009</li> </ul>		
<b>5/10</b>	The Applicant shall bear the costs of any valuation or survey assessment requested by the independent valuer, panel, or the		Yes	Wambo paid for the valuations of the properties referred to in MCoA 5/9.



	Director-General and the costs of determination referred to in Condition 9.			
5/11	If the Applicant and landowner agree that only part of the land should be acquired, then the Applicant shall pay all reasonable costs associated with obtaining Council approval for any plan of subdivision, and registration of the plan at the Office of the Registrar-General		Noted	Properties purchased by WCPL have not been subdivided.
<b>SCHEDULE 6 - ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING &amp; REPORTING</b>				
<b>ENVIRONMENTAL MANAGEMENT STRATEGY</b>				
6/1	Before carrying out any development, the Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Director-General. This strategy must: a) provide the strategic context for environmental management of the development; b) identify the statutory requirements that apply to the development; c) describe in general how the environmental performance of the development would be monitored and managed during the development; d) describe the procedures that would be implemented to: e) keep the local community and relevant agencies informed about the operation and environmental performance of the development; f) receive, handle, respond to, and record complaints; g) resolve any disputes that may arise during the course of the development; h) respond to any non-compliance; i) manage cumulative impacts; and j) respond to emergencies; and k) describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the development.	<ul style="list-style-type: none"> <li>• Environmental Management Strategy, Jan 2009</li> <li>• Letter from DoP re Approval of Revised Environmental Management Strategy, 23 Mar 2009</li> </ul>	<p>Yes</p> <p>(a)Yes (b)Yes (c)Yes (d)Yes (e)Yes (f)Yes (g)Yes (h)Yes (i)Yes (j)Yes (k)Yes</p>	<p>An Environmental Management Strategy was prepared for the project in accordance with the requirements of the condition and the Strategy was approved by DoP on 10 October 2005. The revised EMS was approved by DoP on 23 March 2009:</p> <p>(a) Section 1 Purpose and Scope of EMS (b) Section 3.2 Legal and Other Requirements (c) Section 3 Planning – EMP's and Procedures (d) Section 4 Implementation and Operation (e) Section 4.3.2 External reporting (f) Section 4.3.4 Complaints (g) Section 4.3.5 Dispute Resolution (h) Section 5.2 Corrective and Preventative Action (i) Section 5.2 Corrective and Preventative Action (j) Section 4.6 Emergency Preparedness (k) Section 4.1 Structure and Responsibility</p>
6/2	Within 14 days of the D-G approval, the Applicant shall: (a) send copies of the approved strategy to the relevant agencies, Council, and the CCC; and (b) ensure the approved strategy is publicly available during the development.	<ul style="list-style-type: none"> <li>• Letters to Singleton Council, DPI and Members of the CCC re Environmental Management Strategy, 16 Dec 2005</li> </ul>	Yes	<p>Copies of the Environmental Management Strategy were provided to the Singleton Council, DPI, Members of the CCC and The Association of Mining Related Councils.</p> <p>A copy of the approved Environmental Management Strategy is available at the Singleton Council library.</p>
<b>ENVIRONMENTAL MONITORING PROGRAM</b>				
6/3	Before carrying out any development, the Applicant shall prepare an Environmental Monitoring Program for the development in	<ul style="list-style-type: none"> <li>• Environmental Monitoring</li> </ul>	Yes	An Environmental Monitoring Program was prepared and consolidated the monitoring requirements from each of the

	consultation with the relevant agencies, and to the satisfaction of the Director-General. This program must consolidate the various monitoring requirements in schedule 4 of this consent into a single document.	Program, Rev 1, Mar 2006 • Environmental Monitoring Program Rev 2, Apr 2006 • Draft Revision of Environmental Monitoring Program, Rev 3, 2010		relevant management plans.
6/4	The Applicant shall regularly review, and if necessary update, this program in consultation with the Director-General.		Yes	The Environmental Monitoring Program was reviewed and updated by Wambo in April 2006 and approved by DoP on 30 June 2006. The Environmental Monitoring Program was revised in 2010 and is currently under internal review.
<b>ANNUAL REVIEW</b>				
6/5	<p>The Applicant shall submit an annual review of the environmental performance of the development to the satisfaction of the Director-General. This review must:</p> <p>(a) describe the development (including any rehabilitation) that was carried out in the past year, and the development that is proposed to be carried out over the next year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the development over the past year, which includes a comparison of these results against:</p> <ul style="list-style-type: none"> <li>the relevant statutory requirements, limits or performance measures/criteria;</li> <li>the monitoring results of previous years; and</li> <li>the relevant predictions in the EIS;</li> </ul> <p>(c) identify any non-compliance over the past year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the development;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and</p> <p>(f) describe what measures will be implemented over the next year to improve the environmental performance of the development.</p>	<ul style="list-style-type: none"> <li>• AEMR 2005-2006</li> <li>• AEMR 2006-2007</li> <li>• AEMR 2007-2008</li> <li>• AEMR 2008-2009</li> <li>• AEMR 2009-2010</li> <li>• Letters to DoP, DPI, DEC, NPWS, SC and CCC members re Annual Environmental Management Report</li> </ul>	<p>Yes</p> <p>(a)Yes (b)Yes (c)Yes (d)Yes (e)Yes (f)Yes</p>	<p>The AEMR has been prepared for the period 1 July to 30 June each year and addresses each of the components of this condition:</p> <p>(a) Section 2.0 Operations During the Reporting Period</p> <p>(b) Section 3 Environmental Management and Performance</p> <p>(c) Section 3 Environmental Management and Performance</p> <p>(d) Section 3 Environmental Management and Performance</p> <p>(e) Section 3 Environmental Management and Performance</p> <p>(f) Section 7 Activities Proposed in the Next AEMR Period</p> <p>Copies of the AEMR have been provided to the relevant authorities, Councils and CCC members each year.</p>
<b>REVISION OF STRATEGIES, PLANS AND PROGRAMS</b>				
6/6	<p>Within 3 months of:</p> <p>(a) the submission of an annual review under Condition 5 above;</p> <p>(b) the submission of an audit report under Condition 7 below;</p> <p>(c) the submission of an incident report under Condition 10 below;</p> <p>(d) any modification to the conditions of this consent, (unless the conditions require otherwise),</p> <p>the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the D-G.</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 development and monitoring systems.</i></p>		Noted	<p>This current Independent Environmental Audit was conducted by Trevor Brown &amp; Associates on 6-10 June 2011.</p> <p>The comments provided under the sections related to the management plans and monitoring programs (section 3) are provided for the guidance of Wambo Coal in relation to suggested improvements to the documents communicated by the auditors.</p>

<b>INDEPENDENT ENVIRONMENTAL AUDIT</b>			Noted	
<b>6/7</b>	<p>Every 3 years, unless the Director-General directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:</p> <p>(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;</p> <p>(b) include consultation with the relevant agencies;</p> <p>(c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these consents/approvals);</p> <p>(d) review the adequacy of strategies, plans or programs required under the abovementioned consents/approvals; and</p> <p>(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned consents.</p> <p><i>Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Director-General. Within 6 weeks of the completion of this audit, or as otherwise agreed by the Director-General, the Applicant shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.</i></p>	<ul style="list-style-type: none"> <li>Letter to DoP re Independent Environmental Auditor, 21 Sep 2006</li> <li>Letter from DoP re Approval of the Independent Environmental Audit, 16 Nov 2006</li> <li>Independent Environmental Audit, Trevor Brown &amp; Associates, 22 Nov 2006</li> <li>Independent Environmental Audit, Trevor Brown &amp; Associates, 22 Nov 2006</li> <li>Letter from DoP re Approval of the Independent Environmental Audit Team, 4 May 2011</li> </ul>	<p>Yes</p> <p>(a)Yes</p> <p>(b)Yes</p> <p>(c)Yes</p> <p>(d)Yes</p> <p>(e)Yes</p>	<p>An Independent Environmental Audit Report for the Wambo Development Project was conducted in 2006. DoP endorsed Trevor Brown to undertake an Independent Environmental Audit that was conducted on 22 November 2006.</p> <p>(a) This current Independent Environmental Audit site visit was conducted by Trevor Brown &amp; Associates on 6-10 June 2011 and additional information provided by Wambo between 10 June and 15 July 2011.</p> <p>(b) The audit team was: Trevor Brown Principal Auditor Wayne Jones Water Michelle Collins-Roe Biodiversity Michael Frankcombe Rehabilitation Thomas Cockings Noise</p> <p>(c) Section 3 and Attachment tables - assessment of environmental performance and compliance of the development;</p> <p>(d) Section 3 and Attachment tables - review the adequacy of strategies, plans or programs;</p> <p>(e) Section 3 and Conclusions and Recommendations - recommend appropriate measures or actions to improve the environmental performance of the development.</p>
<b>COMMUNITY CONSULTATIVE COMMITTEE</b>				
<b>6/8</b>	<p>Before carrying out any development, the Applicant shall establish a new Community Consultative Committee to oversee the environmental performance of the development. This committee shall:</p> <p>(a) be comprised of:</p> <ul style="list-style-type: none"> <li>2 representatives from the Applicant, including the person responsible for environmental management at the mine;</li> <li>1 representative from Council; and</li> <li>at least 3 representatives from the local community, whose appointment has been approved by the Director-General in consultation with the Council;</li> </ul> <p>(b) be chaired by the representative from Council or by a third party as approved by the Director-General;</p> <p>(c) meet at least twice a year; and</p> <p>(d) review and provide advice on the environmental performance of the development, including any construction or environmental management plans, monitoring results, audit reports, or complaints.</p>	<ul style="list-style-type: none"> <li>Letter from DoP re CCC Chair, 20 Jun 2005</li> <li>Letter from DoP re Nominations for the CCC, 1 Dec 2005</li> <li>CCC Meeting 28 Sep 2005</li> <li>CCC Meeting 13 Mar 2006</li> <li>CCC Meeting 7 Aug 2006</li> <li>CCC Meeting 9 Oct 2006</li> <li>CCC Meeting 29 Oct 2007</li> <li>CCC Meeting 25 Feb 2008</li> <li>CCC Meeting 23 Jun 2008</li> <li>CCC Meeting 15 Dec 2008</li> <li>CCC Meeting 12 Mar 2009</li> <li>CCC Meeting 29 Jul 2009</li> <li>CCC Meeting 18 Nov 2009</li> <li>CCC Meeting 24 Mar 2010</li> </ul>	<p>Yes</p> <p>(a)Yes</p> <p>(b)Yes</p> <p>(c)Yes</p> <p>(d)Yes</p>	<p>WCPL Community Consultative Committee was formed in 2005:</p> <p>(a) Members of the CCC include WCPL Representatives including the Wambo Coal General Manager, Mr Lachlan Crawford Environmental and Community Manager and Environmental Officer; a representative of Singleton Council and 3 residents were approved by the D-G on 1 Dec 2005</p> <p>(b) Chairperson - Mrs Margaret MacDonald-Hill was approved by the D-G on 20 June 2005.</p> <p>(c) Meetings have been held at least twice a year;</p> <p>(d) The CCC are provided with information on the environmental performance of the development, including construction or environmental management plans, monitoring results, audit reports, and a summary of complaints.</p>

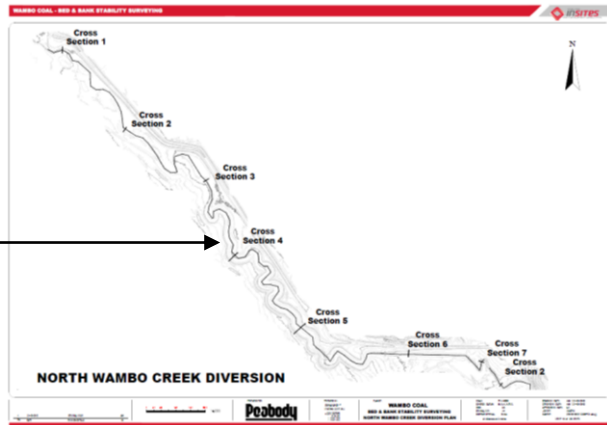
<b>6/9</b>	<p>The Applicant shall, at its own expense:</p> <ul style="list-style-type: none"> <li>(a) ensure that 2 of its representatives attend the Committee's meetings;</li> <li>(b) provide the Committee with regular information on the environmental performance and management of the development;</li> <li>(c) provide meeting facilities for the Committee;</li> <li>(d) arrange site inspections for the Committee, if necessary;</li> <li>(e) take minutes of the Committee's meetings;</li> <li>(f) make these minutes available to the public for inspection within 14 days of the Committee meeting, or as agreed to by the Committee;</li> <li>(g) respond to any advice or recommendations the Committee may have in relation to the environmental management or performance of the development;</li> <li>(h) forward a copy of the minutes of each Committee meeting, and any responses to the Committee's recommendations to the Director-General within a month of the Committee meeting.</li> </ul>		<ul style="list-style-type: none"> <li>(a)Yes</li> <li>(b)Yes</li> <li>(c)Yes</li> <li>(d)Yes</li> <li>(e)Yes</li> <li>(f)Yes</li> <li>(g)Yes</li> <li>(h)Yes</li> </ul>	<ul style="list-style-type: none"> <li>(a) WCPL provides two representatives for each CCC Meeting;</li> <li>(b) The CCC is provided with information on performance (e.g. AEMR presentation).</li> <li>(c) CCC Meetings have been held in the Wambo Coal Pty Ltd – Administration Board Room.</li> <li>(d) Site inspections have been arranged as required (e.g. rail loading facility site inspection, Wambo Homestead).</li> <li>(e) WCPL takes the Minutes for each CCC meeting.</li> <li>(f) The CCC Minutes are made available for public inspection at the Council chambers following each meeting;</li> <li>(g) The CCC Minutes provide a summary of matters discussed and highlight action items that are to be covered for the next meeting.</li> <li>(h) Copies of the CCC Minutes are provided to each member of the CCC within 14 days and a copy of the Minutes is provided to DoP.</li> </ul>
<b>REPORTING</b>				
<b>Incident Reporting</b>				
<b>10</b>	<p>The Applicant shall notify the Director-General and any other relevant agencies of any incident associated with the development as soon as practicable after the Applicant becomes aware of the incident. Within 7 days of the date of the incident, the Applicant shall provide the Director-General and any relevant agencies with a detailed report on the incident.</p>	<ul style="list-style-type: none"> <li>• AEMR's 2007-2010</li> <li>• Letter to DECCW re Environmental Incident Report - Blast Overpressure Exceedance (124.4 dBL) 17 Feb 2011</li> </ul>	<p>Yes Ongoing</p>	<p>WCPL reported the following notifiable incidents between 2007 and June 2011:</p> <p>2007-2008: Two uncontrolled discharges from a storm water dam into Wollombi Brook after heavy rainfall and one uncontrolled release of groundwater to land from a burst water pipe.</p> <p>2008-2009: One blast overpressure exceedance in October 2008 and one uncontrolled discharge from Eagles Nest Dam to Wollombi Brook in December 2008.</p> <p>2009-2010: One blast overpressure exceedance in August 2009 and one uncontrolled flow of mine water from a ruptured pipeline in May 2010.</p> <p>2010-2011: Blast overpressure exceedance (124.4 dBL) reported to the DECCW on 17 Feb 2011.</p>
<b>11</b>	<b>Regular Reporting</b>			
	<p>The Applicant shall provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.</p>	<ul style="list-style-type: none"> <li>• <a href="http://www.peabodyenergy.com.au">www.peabodyenergy.com.au</a></li> </ul>	<p>Yes Ongoing</p>	<p>Wambo Coal provides environmental performance and project assessment documentation on its website <a href="http://www.peabodyenergy.com.au">www.peabodyenergy.com.au</a>.</p>

ACCESS TO INFORMATION				
12	<p>From the end of June 2011, the Applicant shall:</p> <p>(a) make copies of the following publicly available on its website:</p> <ul style="list-style-type: none"> <li>the documents referred to in Condition 2 of Schedule 3;</li> <li>all current statutory consents for the development;</li> <li>all approved strategies, plans and programs required under the conditions of this consent;</li> <li>a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;</li> <li>a complaints register, updated on a monthly basis;</li> <li>minutes of CCC meetings;</li> <li>the annual reviews of the development;</li> <li>any independent environmental audit of the development, and the Applicant'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>	<ul style="list-style-type: none"> <li><a href="http://www.peabodyenergy.com.au">www.peabodyenergy.com.au</a></li> </ul>	Yes Ongoing	<p>The requirements of this condition come into effect on 30 June 2011. Peabody Energy currently provides WCPL environmental performance and project assessment documentation on its website <a href="http://www.peabodyenergy.com.au">www.peabodyenergy.com.au</a>, and the requirements of MCoA 12 will occur on an ongoing basis.</p>

## **Attachment B      Additional Requirements – North Wambo Creek Diversion**



## Additional Requirements – North Wambo Creek Diversion

Approval Condition	Audit Evidence	Compliance	Comments
<b>Department of Planning April 2008</b>			
In April 2008, the North Wambo Creek Diversion Plan was approved by DoP subject to additional requirements: The company must comply with the requirements of the Department of Water and Energy (DWE) and the Department of Primary Industries (DPI) as outlined in the attached letters to the Company		Noted	Refer to additional requirements of the Department of Water and Energy (DWE) and the Department of Primary Industries (DPI) below.
The SWMP must be updated to include at least two additional surface monitoring sites within the area of the North Wambo Creek Diversion footprint to replace those to be discontinued in the old North Wambo Creek footprint (i.e. SW27 & SW32).	<ul style="list-style-type: none"> <li>Surface Water Monitoring Program, Aug 2005 and 2010</li> </ul>	Yes	Review of the 2010 SWMP confirms that SW27 & SW32 have been replaced by SW41, SW47 and SW48.
<b>Department of Water and Energy Conditions 15 November 2007</b>			
DWE grants approval of the detailed design plans for the constructed diversion channel, subject to the following: Long profile gradients and channel cross sections shall be constructed in accordance with the design plans submitted to DWE.		Yes	No onsite assessment comparing the design and the actual construction was made during the site inspection. Anecdotal information suggests that the channel profile and gradient were constructed in accordance with the design plans submitted to DWE. DPI and DWE inspections occurred during the works.
	Approved North Wambo Creek Diversion design cross sections for construction works.		
Armouring protection works shall be incorporated into the inlet and outlet of the channel at design sizes sufficient to resist scour and dislodgement under design discharge conditions.	North Wambo Creek Diversion, Gilbert & Associates, Sep 2009	Yes	Large rip-rap has been placed over the bed and banks of the temporary diversion channel and the channel of the North Wambo Creek confluence.

Stage 2 works shall include additional armouring or other protective works with revegetation to prevent scour or erosion damaging the channel.	North Wambo Creek Remedial Works, GSSE, Oct 2009 North Wambo Creek Diversion Stage 2 Maintenance Program, 2010	Yes Ongoing	Blanket rip-rap has been placed on the outside of bends (particularly Bend 8) to protect the diversion from erosion. Small scouring occurred during the April 2009 flow event and additional rip-rap on the affected areas was placed to reduce flow energy and turbulence associated with merging flows.
Survey plans shall be submitted for the as-executed survey, including identification of sites requiring rock or other protection to bed and banks of the diversion channel.		<b>NO</b> (Submission will be post Stage 3 construction)	See above. Also the as-executed report for the NWCD are planned to be submitted to the relevant authorities at completion of Stage 3 of the North Wambo Creek Diversion.
Revegetation using suitable native species as approved by DWE, shall commence on completion of the construction of the channel.		Yes Ongoing	The NWCDP Appendix B provides a Rehabilitation Plan and sections 3.3 and 3.4 discuss native vegetation species. Revegetation of the Stage 2 diversion channel banks occurred when the construction of the channel was complete. The majority of the Stage 2 diversion channel exhibited established grass cover.
Monitoring of discharge flows, and calculation of bank-full discharge capacities shall occur at each discharge event along the channel for the first 5 years of the diversion and then there after as directed by DWE.	<ul style="list-style-type: none"> <li>Letter from DWE re NWCD, 15 Nov 2007</li> <li>Letter from DPI re NWCD, 31 Mar 2008</li> <li>Letter from DoP re NWCD 14 Apr 2008</li> <li>North Wambo Creek Discharge Report, Gilbert &amp; Associates, Sep 2009</li> </ul>	Yes	No flow was recorded in the NWCD between April 2008 and February 2009 period. The first recorded flows were in February and April 2009 and a report was prepared by Gilbert & Associates in relation to these events. Further flow was recorded in 1 <sup>st</sup> Quarter 2011 and the report of this was being prepared at the time of this audit.
Comparative performance with agreed reaches upstream and downstream of the diversion shall occur, together with agreed stable reaches of control catchments, as approved by DWE.	North Wambo Creek Discharge Report, Gilbert & Associates, Sep 2009	Yes Ongoing	The NWCD recorded the first flow after construction in April 2009. A Flow Assessment Report was prepared by Gilbert and Associates in September 2009 reporting on the April 2009 flow characteristics.
Reporting of performance of the diversion channel shall occur annually, and after each discharge event as agreed with DWE.	North Wambo Creek Discharge Report, Gilbert & Associates, Sep 2009	Yes Ongoing	No reporting on the performance of the diversion channel was recorded for the 2007 to 2008. The NWCD recorded the first flow after construction in 2009. In accordance with this requirement, a Flow Assessment Report was prepared by Gilbert and Associates in September 2009 reporting on the April 2009 flow characteristics.
The finalised diversion channel shall be incorporated into the final landform plan for the Wambo mine site as agreed between the DPI and DWE.	Wambo Rehabilitation Plan, Sep 2008	Yes Ongoing	The North Wambo Creek Diversion (Stage 3) is identified in the current MOP Plans (in Plan 6A Conceptual Final Rehabilitation).
The as executed report shall include channel bank-full capacity and hydraulic radius figures, and explanation for the size and grade of material used to stabilise the diversion channel prior to vegetation establishment.	North Wambo Creek Discharge Report, Gilbert & Associates, Sep 2009	<b>NO</b> (Submission will be post Stage 3 construction)	The as-executed final report for Stage 2 as Stage 3 of the Diversion will be sent to the departments at the completion of the Diversion (i.e. after Stage 3).
Ongoing reporting of the stability of the diversion channel and vegetation establishment shall occur to the DWE.	2009-2010 AEMR section 5.1.4	Yes	EFA's and Stability Surveys on the stability of the diversion channel, and vegetation establishment is reported in the 2009-2010 AEMR with reference to the consultants' reports.

DWE requires these measures to be incorporated into the Diversion Management Plan required under conditions 11 and 12 of Licence 20SL61690.	North Wambo Creek Diversion Rehabilitation Plan, HLA, Sep 2007 Wambo Rehabilitation Plan, Sep 2008	Yes	The North Wambo Creek Diversion Management Plan includes stabilisation, revegetation, grade of cuttings and plans of final landform.
<b>Department of Primary Industries Requirements 31 March 2008</b>			
DPI requires additional matters to be addressed in the Rehabilitation Plan (North Wambo Creek Diversion Rehabilitation Plan, HLA-Envirosciences, September 2007:		Noted	The North Wambo Creek Rehabilitation Plan 2007 was sighted during the audit. The NWCDP Stage 2 is attached to the Wambo Rehabilitation Plan (Appendix B). WCPL will revise the NWCDP for Stage 3 of the NWCD when it is constructed.
Site Preparation to include assessment of weeds and a weed control / eradication program by approved spraying and/or grubbing. This is to enhance germination of the revegetation works.	North Wambo Creek Diversion Rehabilitation Plan, HLA, Sep 2007 Wambo Rehabilitation Plan, Sep 2008	<b>NO</b> (Revision of NWCDP Stage 3 - prior to construction)	Stages 1 and 2 of the NWCD have been completed and the construction and status of the diversion reported in the 2009-2010 AEMR. The North Wambo Creek Rehabilitation Plan is attached to the Wambo Rehabilitation Plan (Appendix B). No assessment of weeds and a weed control / eradication program by approved spraying and/or grubbing was provided in the North Wambo Creek Diversion Rehabilitation Plan
Large woody debris is to be used for habitat creation and for stability design of diversion banks and bed. Wambo is to use large trunks and bowls of trees pre-stripped in the open cut operations for this purpose and assign management procedures for the evaluation, select handling, stockpiling and placement of large pre-strip vegetation for the diversion works,	North Wambo Creek Diversion Rehabilitation Plan, HLA, Sep 2007 Wambo Rehabilitation Plan, Sep 2008	Yes	During construction and rehabilitation, trees, woody debris and rock were used to stabilise sections of the low flow channel in the North Wambo Creek Diversion. The North Wambo Creek Rehabilitation Plan is attached to the Wambo Rehabilitation Plan (Appendix B). WCPL will revise the NWCDP for Stage 3 of the NWCD when it is constructed.
Ecological performance 's visual monitoring program should be supplemented by Wambo control protocols for any mining purpose activity within the diversion area, vehicle and equipment access, signage of material stockpile areas, revegetation areas, monitoring and transect areas.	2009-2010 AEMR section 5.1.4	Yes	Each year Wambo undertakes creek stability monitoring of the NWCD and Ecosystem Function Analysis (EFA).
DPI recommends Wambo facilitates a systematic review, in consultation with DWE/DPI officers during Stage 1 works program.	Letter from DWE re NWCDP Works, Nov 2007	Yes	Consultation with DWE and DPI officers occurred for the Stage 1 Temporary By-pass works program.
DPI requires supplementary specifications were required to detail the diversions project management and schedule.		Yes (for Stage 1 and 2)	Anecdotal information suggests DPI was provided supplementary information as required for the Stage 1 and 2 diversion works project management and schedule. Since the completion of Stage 2, no supplementary specifications have been required. WCPL are currently preparing the revised NWCDP for Stage 3.
DPI will require the as-executed report and survey drawings of the North Wambo Creek diversion to be provided as an annexure to the Wambo MOP documentation. <ul style="list-style-type: none"> <li>DPI requires an as-executed report and survey drawings for Stages 1 and 2</li> </ul>	Review of North Wambo Creek Diversion Stage 2, Gilberts and Associates, 2009	<b>NO</b> (Submission will be post Stage 3 construction)	Stage 1 involved the completion of the North Wambo Creek Temporary By-pass (see Figure 5.1 from 2006-2007 AEMR). Completion of Stage 1 works allowed WCPL to develop detailed design for Stages 2 of the permanent diversion. The as-executed report for Stage 2 has not yet been sent to the relevant authorities. WCPL will send the final as-executes report to the authorities at the completion of the Stage 3 diversion.

## **Attachment C Minister's Conditions of Approval Development Application: DA 177-8-2004 - Development of rail and coal loading infrastructure adjacent to the Wambo Coal Mine**

**Development Application:** DA 177-8-2004 - The development of rail and coal loading infrastructure adjacent to the Wambo Coal Mine

Blue type represents Notice of Modification 15 December 2006 (126-10-2006)

MCoA	Development Application: DA 177-8-2004	Audit Evidence	Compliance	Comments								
SCHEDULE 3 ADMINISTRATIVE CONDITIONS												
Obligation to Minimise Harm to the Environment												
1	The Applicant shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.		Noted									
Terms of Approval												
2	The Applicant shall carry out the development generally in accordance with the: (a) DA 177-8-2004; (b) SEE titled <i>Proposed Alterations to the Wambo Development Project – Rail and Train Loading Infrastructure</i> , dated June 2004, and prepared by Resource Strategies Pty Ltd; (c) letter to Minister, dated 13 August 2004, from Wambo Coal Pty Ltd; (d) traffic Study titled <i>Report for Upgrade of Wallaby Scrub Road/Golden Highway Intersection</i> dated May 2006, and prepared by GHD Pty Ltd; and (e) conditions of this consent.	<ul style="list-style-type: none"><li>SEE - Rail and Train Loading Infrastructure, Resource Strategies dated Jun 2004</li><li>Report for Upgrade of Wallaby Scrub Road/Golden Highway Intersection, GHD, May 2006,</li></ul>	Yes	The Wambo Rail Development was constructed generally in accordance with DA177-8-2004 and the Statement of Environmental Effects - <i>Rail and Train Loading Infrastructure, 2004</i> .								
3	If there is any inconsistency between the above documents, the latter document shall prevail over the former to the extent of the inconsistency. However, the conditions of this consent shall prevail over all other documents to the extent of any inconsistency.		Noted									
4	The Applicant shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of: (a) any reports, plans or correspondence that are submitted in accordance with this consent; and (b) the implementation of any actions or measures contained in these reports, plans or correspondence.		Noted	No additional requirements from the Director-General were received.								
Limits on Approval												
5	This consent lapses 21 years after the date it commences.		Noted	This consent will lapse on 15 Dec 2027.								
6	The Applicant shall not transport more than 15 million tonnes of product coal via this development each year.	<ul style="list-style-type: none"><li>AEMR 2006-2007</li><li>AEMR 2007-2008</li><li>AEMR 2008-2009</li><li>AEMR 2009-2010</li></ul>	Yes	Product railed from the Wambo Rail loop each year has been less than 15 mtpa: <table><tr><th>Year</th><th>Tonnage/Year</th></tr><tr><td>Jun 2010-May 2011</td><td>5,090,166</td></tr><tr><td>Jul 2009-Jun 2010</td><td>6,402,290 (includes 1,502,936 from United).</td></tr><tr><td>Jul 2008-Jun 2009</td><td>6,259,738 (includes 1,911,530 from United).</td></tr></table>	Year	Tonnage/Year	Jun 2010-May 2011	5,090,166	Jul 2009-Jun 2010	6,402,290 (includes 1,502,936 from United).	Jul 2008-Jun 2009	6,259,738 (includes 1,911,530 from United).
Year	Tonnage/Year											
Jun 2010-May 2011	5,090,166											
Jul 2009-Jun 2010	6,402,290 (includes 1,502,936 from United).											
Jul 2008-Jun 2009	6,259,738 (includes 1,911,530 from United).											

				Jul 2007-Jun 2008	6,328,629 (includes 2,331,866 from United).
				Jul 2006-Jun 2007	4,108,697
	<b>Structural Adequacy</b>				
7	The Applicant 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 requirement of the BCA.		Yes	The rail loop and rail loader structures were constructed in accordance with the BCA.	
	<b>Demolition</b>				
8	The Applicant shall ensure that all demolition work is carried out in accordance with AS 2601-2001: <i>The Demolition of Structures</i> , or its equivalent latest version.		Yes	No demolition works were required during the construction of the rail loader or rail loop.	
	<b>Protection of Public Infrastructure</b>				
9	The Applicant shall: (a) repair, or pay the full cost associated with repairing any public infrastructure that is damaged by the development; and (b) relocate, or pay the full cost associated with relocating, any public infrastructure that needs to be relocated as a result of the development.		Not triggered		
	<b>Operation of Plant and Equipment</b>				
10	The Applicant shall ensure that all items of plant and equipment used at the site, are: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner		Noted		
<b>SCHEDULE 4 GENERAL ENVIRONMENTAL CONDITIONS</b>					
<b>ACQUISITION UPON REQUEST</b>					
1	Upon receiving a written request for acquisition from the landowner of the land listed in Table 1, the Applicant shall acquire the land in accordance with the procedures in conditions 1-3 of schedule 5. <i>Table 1: Land subject to acquisition upon request</i> 19 - L Kelly                      51 - CM Hawkes Pty Ltd 20 - Jerrys Plains Coal Terminal    55 - E & C Burley 22 - OJ Henderson                  56 - K & L Haynes 23 - HE Kannar	<ul style="list-style-type: none"> <li>Review of Landscape Amelioration Treatments for the Hawkes Property, EDAW Australia, Apr 2006</li> <li>Letter from DoP re Mitigation of Visual Impact Springwood Property (Hawkes), 2 Mar 2006</li> </ul>	Noted	<p>The visual impact assessment of the Springwood property Warkworth Village (property 51 - Hawkes owner) was considered by DoP to be entirely consistent with information presented in the Wambo EIS and SEE and Wambo was obliged to implement the requirements of the MCoA in relation to visual amenity related to the Springwood property.</p> <p>The EDAW report proposed landscape treatments and these amelioration works were commenced by Wambo in 2006.</p>	
2	While the land listed in Table 1 is privately owned, the Applicant shall implement all practicable measures to ensure that the impacts of the development comply with the predictions in the SEE, and the relevant conditions in this consent, at any residence on this land, to the satisfaction of the Director-General.		Yes		
<b>NOISE</b>					
<b>Noise Impact Assessment Criteria</b>					
3	The Applicant shall ensure that the noise generated by the development does not exceed the noise impact assessment criteria presented in Table 2. <i>Table 2: Noise impact assessment criteria dB(A)</i>		Noted		



	<b>Day</b> <i>L<sub>Aeq</sub>(15 minute)</i>	<b>Evening/ Night</b> <i>L<sub>Aeq</sub>(51 minute)</i>	<b>Night</b> <i>L<sub>A1</sub>(1 minute)</i>	<b>Land Number</b>		Noted	Quarterly attended noise monitoring is reported in the AEMR's. No complaints related to noise from the coal loader or rail siding have been recorded by Wambo.
	35	41	50	94 – Curlewis			
				3 – Birrell			
				4B – Circosta			
				15B - McGowen/ Caslick			
				16 – Cooper			
				25 – Fenwick			
	35	40	50	28A & B – Garland			
				33 -Thelander/O'Neill			
				39 – Northcote			
				40 – Muller			
				254A – Algie			
				5 – Strachan			
				6 - Merrick			
				7 - Maizey			
	35	39	50	37 - Lawry			
				48 - Ponder			
				1 - Brosi			
				17 - Carter			
				18 - Denney			
				38 - Williams			
	35	38	50	49 - Oliver			
				63 - Abrocuff			
				75 - Barnes			
				91 - Bailey			
				27 - Birralee			
	35	37	50	43 - Carmody			
				137 - Woodruff			
				163 - Rodger/Williams			
				246 - Bailey			
				13B - Skinner			
	35	36	50	178 - Smith			
				188 - Fuller			
				202 - Moses			
	35	35	50	All other residential or sensitive receptors, excluding the receptors listed in condition 1 above			
<b>Construction Hours</b>							

4	The Applicant shall ensure that all construction work is carried out from 7 am to 6 pm Monday to Saturday (inclusive) and 8 am to 6 pm Sundays and Public Holidays.			Yes (Completed)	Construction works associated with the rail loader and rail loop were conducted during normal work hours (i.e. 7:00am to 6:00pm Monday to Saturday).						
Operating Hours											
5	The Applicant shall: (a) take all practicable measures to minimise train movements at the development on Friday evening (6 pm-9 pm) and Sunday morning (9 am-12 am); (b) report on the implementation and effectiveness of these measures, to the satisfaction of the Director-General.			Yes	Train movements are determined by the availability of rail access and where practicable train movements conform with this condition.						
Monitoring											
6	The Applicant shall monitor the noise generated by the development at least 4 times a year at a minimum of 3 representative locations near the site, in general accordance with the <i>NSW Industrial Noise Policy</i> and <i>AS1055-1997: Acoustics – Description and Measurement of Environmental</i> .		<ul style="list-style-type: none"><li>Quarterly Environmental Noise Monitoring Reports, Global Acoustics, 2007-2010</li></ul>	Yes	Noise monitoring is conducted quarterly for the noise generated by the rail loop and coal loader and the results are reported in the AEMR's. The quarterly monitoring during construction was conducted using noise loggers placed near the Henderson, Kelly, Haynes and Dyson residences, during 2005. Rail pass-by monitoring is conducted on the Wambo Coal Rail Spur at the Dyson property. Sound exposure level (SEL) and $L_{Amax}$ recorded for a total of three empty trains, and three loaded trains at this location were used to ensure consistent data is collected and assessed (atypical data can then be identified and excluded if required).						
7	Before carrying out any development, the Applicant shall prepare a Noise Monitoring Program for the development to the satisfaction of the Director-General, which includes a noise monitoring protocol for evaluating compliance with the criteria in Table 2.		<ul style="list-style-type: none"><li>Construction/Operational Noise Management Plan and Monitoring Program, Jan 2005</li><li>Noise Monitoring Program, May Rev 3 2007</li><li>Letter from DoP re Approval of the Noise Monitoring Program, 2 Nov 2007</li></ul>	Yes	A Construction/Operational Noise Management Plan and Monitoring Program for the Wambo Rail Development was prepared and implemented in January 2005. The noise monitoring program for the rail operations was included into the Wambo Noise Monitoring program in 2007, following commencement of operation of the rail loop and loader. The revised Noise Monitoring Program was approved by the DoP on 2 Nov 2007.						
BLASTING AND VIBRATION											
Airblast Overpressure Criteria											
8	The Applicant shall ensure that the airblast overpressure level from blasting at the development does not exceed the criteria in Table 3 at any residence on privately owned land. <i>Table 3: Airblast overpressure impact assessment criteria</i> <table><tr><td>Airblast Overpressure Level (dB(Lin Peak))</td><td>Allowable Exceedance</td></tr><tr><td>115</td><td>5% of total number of blasts over 12 mths</td></tr><tr><td>120</td><td>0%</td></tr></table>		Airblast Overpressure Level (dB(Lin Peak))	Allowable Exceedance	115	5% of total number of blasts over 12 mths	120	0%	<ul style="list-style-type: none"><li>Quarterly Environmental Noise Monitoring Reports, Global Acoustics</li></ul>	Yes (Completed)	Airblast overpressure during the construction of the rail loop were compliant with the 1115 dBL criteria and no blasts exceeded the 120dBL criteria.
Airblast Overpressure Level (dB(Lin Peak))	Allowable Exceedance										
115	5% of total number of blasts over 12 mths										
120	0%										

Ground Vibration Impact Assessment Criteria										
9	<p>The Applicant shall ensure that the ground vibration level from blasting at the development does not exceed the criteria in Table 4 at any residence on privately owned land.</p> <p><i>Table 4: Ground vibration impact assessment criteria</i></p> <table><tr><th>Peak Particle Velocity (mm/s)</th><th>Allowable Exceedance</th></tr><tr><td>5</td><td>5% of total number of blasts over 12 mths</td></tr><tr><td>10</td><td>0%</td></tr></table> <p>For St Philip's Church, the Applicant shall ensure that ground vibration peak particle velocity generated by the development does not exceed 2.5 mm/s.</p>	Peak Particle Velocity (mm/s)	Allowable Exceedance	5	5% of total number of blasts over 12 mths	10	0%	<ul style="list-style-type: none"><li>Quarterly Environmental Noise Monitoring Reports, Global Acoustics</li><li>Vibration Monitoring Report – Henderson Residence and Warkworth Village Anglican Church, Hunter Acoustics</li></ul>	Yes (Completed)	<p>No ground vibration monitoring results exceeded the 5mm/s criteria during the construction of the rail loop.</p> <p>Ground vibration peak particle velocity (ppv) generated by the rail loop construction and operation have not exceeded 2.5 mm/s.at the St Philip's Church, or 5mm/s at the Henderson residence Warkworth Village.</p>
Peak Particle Velocity (mm/s)	Allowable Exceedance									
5	5% of total number of blasts over 12 mths									
10	0%									
Structural Assessment										
10	<p>Within 3 months of this consent, the Applicant shall:</p> <p>(a) engage a suitably qualified, experienced, and independent structural engineer, whose appointment has been approved by the Director-General, to undertake a structural assessment of the St Philip's Church, and recommend measures required to reduce the impacts of the development on the church; and</p> <p>(b) advise the Director-General of any measures required to be implemented to reduce the impacts of the development on the church.</p>	<ul style="list-style-type: none"><li>Letter to DoP re Structural Assessment of St Phillips Church, 13 Nov 2006</li><li>Structural Condition Assessment of St Phillips Church Warkworth, GHD, 17 Oct 2007</li></ul>	Yes	<p>GHD conducted a structural condition assessment of St. Phillips Anglican Church at High Street, Warkworth in September 2007 as part of an ongoing visual site inspection to assess any impacts construction and use of the rail line may have had on the structure following completion of the construction of the rail line.</p> <p>The assessment concluded that the building had no additional damage since the previous inspection in 2006. All existing cracking was in the same or better condition as previously inspected and it was concluded that no further structural damage would result from the operation of the rail line, with any additional cracking likely to be caused by seasonal soil movement.</p>						
11	<p>The Applicant shall implement these measures to the satisfaction of the Director-General.</p>		Noted	Not triggered						
Vibration Monitoring										
12	<p>The Applicant shall monitor the vibration from the operation of the rail spur and the rail line at least 4 times a year, or as directed by the Director-General.</p>	<ul style="list-style-type: none"><li>Quarterly Vibration Monitoring Reports 2005-2008</li><li>Letter from DoP re Approval to discontinue Vibration Monitoring, Dec 2008</li></ul>	Yes (Complete)	<p>Quarterly monitoring of vibration was conducted between 2005 and 2008. A summary report of the results was prepared and submitted to the DoP. Approval to discontinue vibration monitoring associated with the rail loop operation was granted in December 2008.</p>						
13	<p>Within 3 months of this consent, the Applicant shall prepare a Vibration Monitoring Program for the development to the satisfaction of the Director-General.</p>	<ul style="list-style-type: none"><li>Construction/Operation Vibration Monitoring Program, 2005</li></ul>	Yes (Complete)	<p>The vibration monitoring program for the rail loop construction and operation was prepared for the quarterly monitoring of vibration at Warkworth Village and the St Philips Church Warkworth. Vibration monitoring discontinued in Dec 2008 (see above).</p>						

AIR QUALITY																												
Impact Assessment Criteria																												
14	<p>The Applicant shall ensure that air pollution emissions from the development do not exceed the criteria listed in Tables 5, 6, and 7 at 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 matter (TSP)</td><td>Annual</td><td>90 µg/m3</td></tr><tr><td>Particulate matter &lt; 10 µm (PM10)</td><td>Annual</td><td>30 µg/m3</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 (PM10)</td><td>24 hours</td><td>50 µg/m3</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>Max. increase in dust level</th><th>Max. total deposited dust</th></tr><tr><td>Deposited dust</td><td>Annual</td><td>2g/m<sup>2</sup>/mth</td><td>4g/m<sup>2</sup>/mth</td></tr></table>		Pollutant	Averaging Period	Criterion	Total suspended particulate matter (TSP)	Annual	90 µg/m3	Particulate matter < 10 µm (PM10)	Annual	30 µg/m3	Pollutant	Averaging Period	Criterion	Particulate matter < 10 µm (PM10)	24 hours	50 µg/m3	Pollutant	Averaging Period	Max. increase in dust level	Max. total deposited dust	Deposited dust	Annual	2g/m <sup>2</sup> /mth	4g/m <sup>2</sup> /mth	<ul style="list-style-type: none"><li>• Air Quality Monitoring Program, Jul 2008</li><li>• 2009-2010 AEMR section 3.2.2.3</li><li>• 2008-2009 AEMR section 3.2.2.3</li></ul>	Yes	Review of air quality monitoring program indicated that the monitoring program, as outlined in EMP008_July_2008 is appropriate for the rail loop and loading facilities. Dust deposition gauges at D03 and D19 monitor dust in the vicinity of the rail loop and coal loading infrastructure and the results indicate levels less than the 4g/m <sup>2</sup> /mth criteria.
Pollutant	Averaging Period	Criterion																										
Total suspended particulate matter (TSP)	Annual	90 µg/m3																										
Particulate matter < 10 µm (PM10)	Annual	30 µg/m3																										
Pollutant	Averaging Period	Criterion																										
Particulate matter < 10 µm (PM10)	24 hours	50 µg/m3																										
Pollutant	Averaging Period	Max. increase in dust level	Max. total deposited dust																									
Deposited dust	Annual	2g/m <sup>2</sup> /mth	4g/m <sup>2</sup> /mth																									
Operating Conditions																												
15	<p>The Applicant shall:</p> <p>(a) ensure any visible air pollution generated by the development is assessed regularly, and that operations are modified, and/or stopped as required to minimise air quality impacts on privately owned land;</p> <p>(b) implement all practicable measures to minimise air pollutant emissions from the development; and</p> <p>(c) report on the effectiveness of these measures in the AEMR, to the satisfaction of the Director-General</p>		<ul style="list-style-type: none"><li>• AEMR 2006-2007</li><li>• AEMR 2007-2008</li><li>• AEMR 2008-2009</li><li>• AEMR 2009-2010</li><li>• Monthly Dust Deposition Data Gauge D03 – 2006 to 2010</li><li>• Air Quality Data 2006-2010</li></ul>	Yes	Dust deposition data for the period 2006-2010 demonstrated compliance with the criteria with all monthly results exhibiting less than 4g/m <sup>2</sup> total deposition.																							
SOIL AND WATER MANAGEMENT																												
Note: The Applicant is required to obtain licences for the development under the Rivers and Foreshores Improvement Act 1948 and the Protection of the Environment Operations Act 1997.																												
Pollution of Waters																												
16	Except as may be expressly provided by a DEC licence, the Applicant shall comply with section 120 of the <i>Protection of the Environment Operations Act 1997</i> during the carrying out of the development.			Noted																								
Soil and Water Management Plan																												
17	<p>Before carrying out any development, the Applicant shall prepare and implement a Soil and Water Management Plan for the development, to the satisfaction of the Director-General. This plan must include:</p> <p>(a) an Erosion and Sediment Control Plan that:</p> <ul style="list-style-type: none"><li>_ is consistent with the requirements of the Departments of Housing's <i>Managing Urban Stormwater: Soils and Construction</i> manual;</li><li>_ identifies activities that could cause soil erosion and generate</li></ul>		<ul style="list-style-type: none"><li>• Construction Environmental Management Plan, Barclay Mowlem, Mar 2005</li><li>• Soil and Water Quality Management - Clean Coal Load-out System, 1 Apr 2005</li></ul>	Yes  (a)Yes	<p>Managing Urban Storm Water – Soils and Construction. Volume 1 (the Blue Book) proposes a management objective of erosion control over sediment control. The focus of the Wambo ESCP is primarily sediment control.</p> <p>(a) The erosion and sediment control structures related to the rail loop area were constructed to collect runoff from the area surrounding the train loader</p>																							

	sediment; _ describes the location, function and capacity of erosion and sediment control structures; and describes measures to minimise soil erosion and the potential for the migration of sediments to downstream waters; (b) a Surface Water Monitoring Program; and (c) a strategy for decommissioning the water management structures on the site.	<ul style="list-style-type: none"> <li>Erosion and Sediment Control Plan</li> <li>Wambo Surface Water Monitoring Program</li> </ul>	<p>(b)Yes</p> <p>(c)Yes</p>	<p>and rail loop batters to minimise potential for loss of sediment to Wollombi Creek.</p> <p>(b) Surface water monitoring locations criteria identified in the Surface Water Monitoring Program include Wollombi Brook, Longford Creek and Doctors Creek requiring surface water quality criteria to be less than 20% more than upstream concentrations for pH, EC and TSS.</p> <p>(c) The decommissioning of water management structures (as outlined in section 6.6 of the Site Water Monitoring Program).</p>
	<b>TRANSPORT</b>			
	<b>Monitoring of Coal Transport</b>			
18	The Applicant shall: (a) keep records of the: <ul style="list-style-type: none"> <li>amount of coal loaded at the development each year; and</li> <li>number of coal haulage train movements generated by the development (on a daily basis); and</li> </ul> (b) include these records in the AEMR.	<ul style="list-style-type: none"> <li>AEMR's Appendix 1 - Rail Haulage Records</li> </ul>	<b>NO</b>	Appendix 1 of the AEM's has the rail records for the tonnage of coal railed from the Wambo Coal Terminal. The number of daily rail haulage movements from the Wambo Coal Terminal are not reported in the AEMR's, as required by this condition. It was advised that the coal train movements average about 4 trains per day.
	<b>Road Works</b>			
19	The Golden Highway/Wallaby Scrub Road intersection shall be designed and constructed as an Austroads Type B (or RTA Type AUR) intersection with left turn deceleration lane, realigned at right angles to the Golden Highway, in accordance with the RTA's <i>Road Design Guide</i> , to the satisfaction of the RTA.		In progress	The works have not been undertaken. WCPL have consulted with RTA and was advised that the RTA did not require the redesign and construction of the intersection to occur. This matter is still to be resolved to satisfy this condition.
20	The Applicant shall design and construct the underpass beneath Wallaby Scrub Road to the satisfaction of Council. Detailed design plans must be approved by Council prior to carrying out any development associated with the underpass.		Noted	See MCoA 19 above
21	Before carrying out any development in the Wallaby Scrub Road or Golden Highway road reserves, the Applicant shall prepare and implement a Traffic Management Plan for the road and railway works to the satisfaction of the RTA and Council.		Noted	See MCoA 19 above.
22	All road works associated with the development shall be at the full cost of the Applicant.		Noted	
	<b>Road Safety</b>			
23	The Applicant shall take all practicable measures to minimise road safety impacts from train headlight glare on motorists using the Golden Highway and Wallaby Scrub Road, including consideration of appropriate screening measures, to the satisfaction of the RTA and Council.		Noted	The rail loop design and rehabilitation along the alignment has screened the rail line from the Golden Highway and minimised potential for train headlight glare to affect motorists on the Golden Highway.
	<b>Access</b>			
24	While it is privately owned, the Applicant shall ensure continuity of suitable, safe access to the Hawkes property off Wallaby Scrub Road,		Yes (Completed)	Access to the Hawke property was maintained during the construction and operation of the rail loop. The Hawke

	and to the northern boundary of the property, to the satisfaction of the Director-General.			property has now been acquired by Wambo Coal.
	<b>Parking</b>			
25	The Applicant shall provide sufficient parking on-site or at the Wambo coal mine for all construction-related traffic generated by the development to the satisfaction of the D-G.		Yes (Complete)	Adequate parking was provided on the Wambo site for construction related traffic.
	<b>VISUAL</b>			
	<b>Visual Amenity</b>			
26	The Applicant shall implement all practicable measures to mitigate the visual impacts of the development to the satisfaction of the D-G.	<ul style="list-style-type: none"> <li>Review of Landscape Amelioration Treatments, EDAW Australia, Apr 2006</li> </ul>	Yes	Wambo reduced visual impacts of the rail infrastructure with vegetative screening and landscape amelioration treatments as proposed in the EDAW report.
27	The Applicant shall investigate and where feasible implement the following measures at locations within the Warkworth Village: (a) implement landscaping works in consultation with affected rural residents; and/or (b) place and maintain visual screens between development infrastructure and the viewing location.	<ul style="list-style-type: none"> <li>Review of Landscape Amelioration Treatments for the Hawkes Property, EDAW Australia, Apr 2006</li> <li>Letter from DoP re Mitigation of Visual Impact Springwood Property (Hawkes), 2 Mar 2006</li> </ul>	Yes	Wambo reduced visual impacts of the rail infrastructure with vegetative screening and landscape amelioration treatments as proposed in the EDAW report.
28	If a landowner in the Warkworth Village requests the Applicant in writing to investigate ways to minimise the visual impact of the development on his/her dwelling or land, the Applicant shall: (a) within 14 days of receiving this request, commission a suitably qualified, experienced and independent person, whose appointment has been approved by the D-G, to investigate ways to minimise visual impacts of the development on the landowner's dwelling or land; and (b) give the landowner a copy of the visual impact mitigation report within 14 days of receiving this report. If both parties agree on the measures that should be implemented to minimise the visual impact of the development, then the Applicant shall implement these measures to the satisfaction of the D-G. If the Applicant and the landowner disagree on the measures that should be implemented to minimise the visual impact of the development, then either party may refer the matter to the D-G for resolution. If the matter cannot be resolved within 21 days, the D-G shall refer the matter to an Independent Dispute Resolution Process.	<ul style="list-style-type: none"> <li>Review of Landscape Amelioration Treatments for the Hawkes Property, EDAW Australia, Apr 2006</li> <li>Letter from DoP re Mitigation of Visual Impact Springwood Property (Hawkes), 2 Mar 2006</li> </ul>	Yes	The Hawke property "Springwood" was investigated and amelioration treatment agreed to reduce the visual impact of the rail loop development on the property.
	<b>Lighting Emissions</b>			
29	The Applicant shall take all practicable measures to mitigate off-site lighting impacts from the development, including measures to minimise the impacts of train headlight glare on privately owned land, to the satisfaction of the D-G.		Yes	All lighting associated with the rail loader has been located to reduce potential for off-site light glare and the train headlight glare is reduced by the revegetation measures along the alignment within the Wambo site.
30	All external lighting associated with the development shall comply with <i>Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting</i> .		Yes Ongoing	Lighting from the Wambo operations is managed on an ongoing basis to minimise light spill from the operations.



<b>FLORA &amp; FAUNA</b>				
<b>31</b>	The Applicant shall take all practicable measures to minimise vegetation clearing during the development.		Noted	
<b>32</b>	Before carrying out the development, the Applicant shall prepare, and then subsequently implement, a Flora and Fauna Management Plan for the development to the satisfaction of the Director-General. This plan must include: (a) a Vegetation Clearance Protocol; and (b) Revegetation and Landscaping Plan for the area marked on the map in Appendix 3.	<ul style="list-style-type: none"> <li>Wambo Rail Development Flora and Fauna Management Plan, Aug 2005</li> <li>Flora and Fauna Management Plan Jan 2010</li> </ul>	Yes	The Wambo Rail Development Flora and Fauna Management Plan August 2005 included a Vegetation Clearance Protocol and the Revegetation and Landscape Plan for the rail loop area was consistent with Appendix E of the Flora and Fauna Management Plan.
<b>33</b>	The Vegetation Clearance Protocol shall include: (a) the delineation of areas of remnant vegetation to be cleared; (b) progressive clearing; (c) the identification of fauna management strategies; (d) the collection of seed from the local areas; (e) the salvage and reuse of material from the site; and (f) the control of weeds during clearing activities;	<ul style="list-style-type: none"> <li>Vegetation Clearance Protocol</li> </ul>	Yes  (a) Yes (b) Yes (c) Yes (d) Yes (e) Yes (f) Yes	The Wambo Rail Development Flora and Fauna Management Plan August 2005 section 3.1 addresses the components of MCoA 33: (a) Section 3.1.1 Delineation of Disturbance Areas – Figure 2 (b) Section 3.1.4 Progressive Clearing (c) Section 3.1.5 Seed Collection; (d) Section 3.1.3 Fauna Management Strategies; (e) Section 3.1.6 Salvage and Reuse of Materials (f) Section 3.3.3 Weed Control Program
<b>34</b>	The Revegetation and Landscaping Plan shall: (a) describe the measures that would be implemented to revegetate the area marked on the map in Appendix 3, including: <ul style="list-style-type: none"> <li>measures to control the occurrence of weeds;</li> <li>measures to minimise the occurrence of feral pests;</li> <li>selective planting of native vegetation;</li> <li>the provision of roosting/nesting resources for fauna; and</li> <li>describe the measures that would be implemented to:</li> <li>landscape the new Wallaby Scrub Road/Golden Highway intersection; and</li> <li>maintain this landscaping during the life of the development;</li> </ul> (b) include a program to monitor the effectiveness of the plan during the development.	<ul style="list-style-type: none"> <li>Wambo Rail Development Flora and Fauna Management Plan, August 2005</li> <li>Wambo Flora and Fauna Management Plan, Appendix E Rail Loop Revegetation and Landscaping Plan, Jan 2010</li> <li>Letter from DoP re Approval of Revised FFMP, 3 Jun 2008</li> <li>Letter to DoP re Revised Flora and Fauna Management Plan, 1 Mar 2010</li> </ul>	Yes	The Revegetation and Landscaping Plan was appended to the Wambo Rail Development Flora and Fauna Management Plan, and an additional Revegetation and Landscaping Plan for the rail loop area prepared by EDAW/AECOM and appended to the Wambo Flora and Fauna Management Plan January 2010. The components of MCoA 34 are addressed in the Plans: <ul style="list-style-type: none"> <li>Section 6 Weed Control Measures</li> <li>Section 7 Pest Control</li> <li>Section 5.3 Selective Planting of Native Vegetation</li> <li>Section 5.2.1 Screening Views from Wallaby Scrub Road/Golden Highway Intersection</li> <li>Section 8 Maintenance and Monitoring of Revegetation and Landscaping Works</li> </ul>
<b>ABORIGINAL HERITAGE</b>				
<b>Conservation</b>				
<b>35</b>	The Applicant shall take all practicable measures to ensure that the following sites or objects are not damaged by the development: 17, 18, 24, 25, 26, and 28. <i>Note: For more information on the sites and objects, see Figure 12 of the SEE for the Alterations to the Wambo Development Project – Rail</i>		Noted	

	<i>and Train Loading Infrastructure.</i>			
<b>Consent to Destroy</b>				
<b>36</b>	The Applicant shall obtain section 90 consents under <i>the National Parks and Wildlife Act 1974</i> prior to destroying any known Aboriginal sites or objects. <i>Note: The Applicant is likely to need these consents for the following sites or objects: 14, 15, and 16 (see Figure 12 of the SEE for the Alterations to the Wambo Development Project – Rail and Train Loading Infrastructure).</i>	<ul style="list-style-type: none"> <li>Letter from DEC re Section 90 Consent, 15 Dec 2004</li> </ul>	Yes (Complete)	A Heritage Impact Permit No. 2085 for the Wambo Rail Development was granted in 15 December 2004 to destroy objects in the course of archaeological salvage and subsequent construction of the Wambo Rail Development as described in the Application for Permit under Section 87 and Consent under Section 90 of the National Parks and Wildlife Act 1974.
<b>Salvage</b>				
<b>37</b>	Before making application for section 90 consents under the <i>National Parks and Wildlife Act 1974</i> , the Applicant shall develop a targeted, strategic salvage program for the development in consultation with DEC and the Aboriginal communities.	<ul style="list-style-type: none"> <li>AEMR 2004-2005</li> <li>AEMR 2005-2006</li> </ul>	Yes	A salvage program was established by Wambo Coal in consultation with the DEC and Aboriginal community, and representatives of the Aboriginal community participated in all stages of the Salvage Program.
<b>38</b>	Before the commencement of salvage operations, the Applicant shall establish a keeping place to house objects recovered from the salvage program.	Aboriginal Cultural Heritage Management Plan, section 3, 18 May 2010	Yes	Wambo have established a Keeping Place for Aboriginal artefacts in accordance with this condition.
<b>39</b>	The Applicant shall house the objects recovered during the salvage program in the keeping place established for that purpose.		Yes	The WACS, WCPL and the Archaeologist from RPS HSO met in February 2009 and agreed on a Temporary Keeping Place that was subsequently approved by the DECCW on 14 July 2009. All artefacts salvaged during the operation are stored at the Temporary Keeping Place under Permit No.3130 for Care and Control of Aboriginal Objects Salvaged under Section 87/ 90 permits No.2085 and No.2222 in accordance with Section 89/ 90 of National Parks and Wildlife Act.
<b>HERITAGE</b>				
<b>40</b>	The Applicant shall take all practicable measures to avoid non-Aboriginal heritage sites 5 and 6 during the development. However, if this is not practicable, the Applicant shall record the sites to an archival standard, in accordance with the requirements of the NSW Heritage Office, and provide these records to a suitable institution, to the satisfaction of the Director-General.	<ul style="list-style-type: none"> <li>AEMR 2004-2005</li> <li>AEMR 2005-2006</li> </ul>	Yes (Complete)	The European heritage site 5 (abandoned homestead) and site 6 (piggery and butchers hut) were avoided during the construction of the Wambo Rail Development.
<b>ELECTRICITY TRANSMISSION LINE</b>				
<b>41</b>	The Applicant shall ensure that all development in the easement under Transgrid's 330kV Transmission Line No. 81 is carried out strictly in accordance with the relevant safety guidelines for works under or near high voltage transmission lines, in consultation with Transgrid, and to the satisfaction of the Director-General.		Yes (Complete)	The development of the rail infrastructure occurred in accordance with the relevant safety guidelines and standards in consultation with Transgrid.
<b>SCHEDULE 5 LAND ACQUISITION PROCEDURES</b>				
<b>Land Acquisition</b>				
<b>1</b>	Within 6 months of receiving a written request from the landowner, the Applicant shall pay the landowner: (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development the subject of the DA, .....		Not triggered	

	If the landowner refuses to accept this offer within 6 months of the date of the Applicant's offer, the Applicant's obligations to acquire the land shall cease, unless otherwise agreed by the Director-General.			
2	The Applicant shall bear the costs of any valuation or survey assessment requested by the independent valuer, panel, or the Director-General and the costs of determination referred to in condition 1 above.		Not triggered	
3	If the Applicant and landowner agree that only part of the land should be acquired, then the Applicant shall pay all reasonable costs associated with obtaining Council approval for any plan of subdivision, and registration of the plan at the Office of the Registrar-General.		Not triggered	
<b>SCHEDULE 6 ENVIRONMENTAL MANAGEMENT, MONITORING &amp; REPORTING</b>				
<b>CONSTRUCTION MANAGEMENT PLAN</b>				
1	<p>Before carrying out any development, the Applicant shall prepare, and subsequently implement, a Construction Management Plan for the development to the satisfaction of the D-G. This plan must:</p> <p>(a) describe the proposed construction works;</p> <p>(b) outline the program for the proposed works;</p> <p>(c) describe the procedures that would be implemented to:</p> <ul style="list-style-type: none"> <li>keep the local community and relevant agencies informed about the proposed</li> <li>construction works;</li> <li>receive, handle, respond to, and record complaints;</li> <li>resolve any disputes that may arise during the proposed construction works;</li> <li>respond to any non-compliance;</li> <li>respond to emergencies;</li> </ul> <p>(d) describe what measures would be implemented to minimise the dust and noise impacts of the development;</p> <p>(e) include the relevant management plans required in schedule 4 of this consent; and</p> <p>(f) describe the role, responsibility, authority, and accountability of all key personnel involved in the environmental management of the development.</p>	<ul style="list-style-type: none"> <li>Design, Construction and Maintenance of the Wambo Rail Spur Project, Downer EDI, 2004</li> <li>Construction Environmental Management Plan, Barclay Mowlem, Mar 2005</li> </ul>	Yes (Complete)	A Construction Management Plan was prepared and approved for the rail infrastructure works. These works are now complete.
<b>ENVIRONMENTAL MONITORING PROGRAM</b>				
2	Before carrying out any development, the Applicant shall prepare, and subsequently implement, an Environmental Monitoring Program for the development, in consultation with the relevant agencies, and to the satisfaction of the Director-General. This program must consolidate the various monitoring requirements in schedule 4 of this consent into a single document.	<ul style="list-style-type: none"> <li>Environmental Monitoring Program, 30 Jun 2006</li> <li>Revised Environmental Monitoring Program, 2010</li> </ul>	Yes Ongoing	An Environmental Monitoring Program was prepared and approved in 2006. The monitoring was conducted in accordance with this Plan during the construction works.
3	The Applicant shall regularly review, and if necessary update, this program to the satisfaction of the Director-General	<ul style="list-style-type: none"> <li>Revised Environmental Monitoring Program, 2010</li> </ul>	Yes (Ongoing)	Environmental monitoring has been integrated into the Wambo Environmental Monitoring Program and was reviewed in 2008 and 2010 and revised in 2010.

ANNUAL REPORTING				
4	<p>Within 1 year of the date of this consent, and annually thereafter, the Applicant shall submit an AEMR on the development to the Director-General and relevant agencies. This report must:</p> <p>(a) identify the standards and performance measures that apply to the development;</p> <p>(b) include a summary of the complaints received during the last year, and compare this to the complaints received in previous years;</p> <p>(c) include a summary of the monitoring results on the development during the last year;</p> <p>(d) include an accurate record of the amount of product coal transported on the development over the last year on a weekly basis;</p> <p>(e) include an analysis of these monitoring results against the relevant:</p> <ul style="list-style-type: none"> <li>• impact assessment criteria;</li> <li>• monitoring results from previous years; and</li> <li>• predictions in the SEE;</li> </ul> <p>(f) identify any trends in the monitoring over the life of the development;</p> <p>(g) identify any non-compliance during the last year; and, if necessary,</p> <p>(h) describe what actions were, or are being taken, to ensure compliance.</p>	<ul style="list-style-type: none"> <li>• AEMR 2004-2005,</li> <li>• AEMR's 2006-2010</li> </ul>	<p>Yes</p> <p>(a)Yes</p> <p>(b)Yes</p> <p>(c)Yes</p> <p>(d)Yes</p> <p>(e)Yes</p> <p>(f)Yes</p> <p>(g)Yes</p> <p>(h)Yes</p>	<p>An initial AEMR describing the construction phase of the rail project was prepared for the Wambo Rail Development by Hansen Consulting in August 2005.</p> <p>The monitoring of the rail development operations has been reported in the Wambo Coal AEMR's since 2006.</p> <p>(a) The air quality standards and performance criteria are shown in MCoA 14;</p> <p>(b) No complaints related to air quality issues with the rail loop and coal loading have been received;</p> <p>(c) Monitoring results are reported annually in the AEMR's section 3.2;</p> <p>(d) Appendix A of the AEMR provides coal transport.</p> <p>(e) Section 3.0 provides monitoring compliance;</p> <p>(f) Trends are provided in the AEMR</p> <p>(g) See (e) and (f) above;</p> <p>(h) Management actions for emissions from the coal loader activities are summarised as required under each section of the AEMR.</p>

## **Attachment D      Environment Protection Licence No. 0529**

## Environment Protection Licence No. 0529

Environment Protection Licence No. 0529				
No.	Condition	Audit Verification	Compliance	Comments
A1	<b>What the licence authorises and regulates</b>			
A1.1	Not applicable			
A1.2	This licence authorises the carrying out of the scheduled activities listed at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee based activity classification and the scale of the operation.		Noted	The Wambo Coal project involves the mining of coal and coal works (Coal Handling and Preparation Plant) as specified below.
	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. <b>Scheduled Activity</b> Mining for coal Coal works <b>Fee Based Activity Scale</b> Coal works > 5000000 - Tonnes loaded Mining for coal > 5000000 - Tonnes produced		Yes	The Wambo Coal operations are coal mining and coal works (Coal Handling and Preparation Plant) and rail load out facilities have has a production rate of less than 5,000,000 tonnes per year between 2007 and 2010.  If the production rate exceeds the 5,000,000 tonnes per annum produced the Fee Based Activity Scale will need to be amended.
A1.3	Not applicable			
A2	<b>Premises to which this licence applies</b>			
A2.1	The licence applies to the following premises: <b>Premises Details</b> <b>Wambo Coal Pty Ltd</b> Jerrys Plains Road, Warkworth NSW 2330 Wambo Colliery Holdings and the area covered by DA 306-7-2003 shown in Figure 1 titled "Project Layout and Surrounds" accompanying the Licence Variation Application received by the EPA on 27/10/2004.		Yes	The Wambo Coal development is carried at the nominated premises, as described in the Wambo Development Project Environmental Impact Statement 2003.
A3	<b>Other activities</b>			
A3.1	This licence applies to all other activities carried on at the premises, including: Chemical Storage Facilities Sewage Treatment Systems		Yes	The Wambo Coal Development activities include storage of chemicals in approved facilities (under a Licence for keeping of Dangerous Goods No. 35/020750) and sewage treatment for the onsite facilities.
2	<b>2 Discharges to air and water and applications to land</b>			
P1	<b>Location of monitoring/discharge points and areas</b>			
P1.1	The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.		Noted	



	<i>Air</i>			<ul style="list-style-type: none"><li>Environmental Monitoring Program, 2006</li><li>Wambo Air Quality Monitoring Program, July 2008</li></ul>	Yes	The Wambo Air Quality Monitoring Program includes monitoring points for the specified air quality parameters, in accordance with the requirements of this condition.
	<b>EPA No.</b>	<b>Monitoring Point</b>	<b>Description of Location</b>			
	5	Dust deposition monitoring network	At locations where dust deposition levels are representative of the levels experienced at residential properties, or other sensitive receivers, resulting from the operation of the mine.			
	6	TSP dust monitoring site	At locations where the level of particulate matter being sampled is representative of emissions from the operation of the mine taking into account prevailing wind direction and the location of residential properties or other sensitive receivers			
	8	Particulate Monitoring (PM10 network)	At locations where the level of particulate matter being sampled are representative of emissions from the operation experienced at residential properties, or other sensitive receivers.			
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.			<ul style="list-style-type: none"><li>Environmental Monitoring Program, 2006</li><li>Site Water Monitoring Program, Jan 2010</li></ul>	Yes	
P1.3	The following utilisation areas referred to in the table below are identified for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.				Noted	
	<i>Water and land</i>			<ul style="list-style-type: none"><li>Environmental Monitoring Program, 2006</li><li>Site Water Monitoring Program, Jan 2010</li><li>Groundwater Monitoring Program, Feb 2010</li></ul>	Yes	The Wambo Site Water Monitoring Program and Groundwater Monitoring Program include monitoring points for the specified water quality parameters, in accordance with the requirements of this condition
	<b>EPA No.</b>	<b>Monitoring point</b>	<b>Description of location</b>			
	4	Saline discharge to waters Discharge quality Volume monitoring	Outlet from Eagles Nest Dam labelled SW15 on Figure 3.4 Site Monitoring Locations diagram			
	7	Groundwater quality monitoring	Groundwater quality and Surface Water quality must be measured at locations representative of impacts likely to be experienced outside the premises as a result of the operation of the mine.			
	9	Surface water monitoring				

3	Limit conditions					
L1	Pollution of waters					
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.			<ul style="list-style-type: none"><li>Protection of the Environment Operations Act 1997, clause 120</li></ul>	Noted	
L2	Load limits - Not applicable					
L3	Concentration limits					
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 concentration limits specified for that pollutant in the table.			<ul style="list-style-type: none"><li>Site Water Monitoring Program, Jan 2010</li><li>Groundwater Monitoring Program, Feb 2010</li></ul>	Yes	The Wambo Site Water Monitoring Program and Groundwater Monitoring Program include monitoring for specified parameters, in accordance with the requirements of this condition.
L3.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.				Noted	
L3.3	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s.			<ul style="list-style-type: none"><li>Site Water Monitoring Program, Jan 2010</li><li>Groundwater Monitoring Program, Feb 2010</li></ul>	Noted	The Wambo Site Water Monitoring Program and Groundwater Monitoring Program include monitoring for specified parameters, in accordance with the requirements of this condition.
	Water and Land					
	POINT 4					
	Pollutant	Unit of Measure	100 percentile Conc. Limit			
	pH	pH units	6.5 – 9.5			
Total suspended solids	milligrams per litre	120				
L4	Volume and mass limits					
L4.1	For each discharge point or utilisation area specified below (by a point number), the volume/mass of:			<ul style="list-style-type: none"><li>Site Water Monitoring Program, Jan 2010</li></ul>	Noted	
	(a) liquids discharged to water; or;					
	(b) solids or liquids applied to the area, must not exceed the volume/mass limit specified for that discharge point or area.					
	Point	Unit of measure	Volume/Mass Limit			
	4	megalitres per day	250			
L5	Waste - Not applicable					
L6	Noise Limits					
L6.1	Noise generated at the premises must not exceed the noise limits presented in the table. The noise limits in the table represent the noise contribution from the premises:				Noted	Refer to MCoA Schedule 4 condition 9 (DA 305-7-2003-i).
L6.2	For the purposes of condition L6.1 <ul style="list-style-type: none"><li>Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays</li><li>Evening is defined as the period 6pm to 10pm</li><li>Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.</li></ul>				Noted	

	The Receiver Land Owner locations are as detailed in the Environmental Impact Statement titled " <i>Wambo Development Project</i> ", Volumes 1-5 dated July 2003 prepared by Resource Strategies Pty Ltd.			
L6.3	Noise from the premises is to be measured at the most affected point or within the residential boundary or at the most affected point within 30m of the dwelling (rural situations) where the dwelling is more than 30m from the boundary to determine compliance with the LAeq(15 minute) noise limits in condition L6.1. Where it can be demonstrated that direct measurement of noise from the premises is impractical, the EPA may accept alternative means of determining compliance. The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.	<ul style="list-style-type: none"> <li>Noise Monitoring Program, May 2007</li> <li>Quarterly Attended Environmental Noise Monitoring Reports , Wambo Coal Mine and Rail Spur</li> </ul>	Yes	The monitoring requirements are identified in the Noise Monitoring Program 2007 and have been applied in the quarterly noise monitoring reports provided by Advitech and Global Acoustics for the monitoring locations and method of measurement specified.
L6.4	Noise from the premises is to be measured at 1m from the dwelling façade to determine compliance with the LA(1 minute) noise limits in condition L6.1.	<ul style="list-style-type: none"> <li>Quarterly Attended Noise Monitoring Reports , Wambo Coal Mine and Rail Spur</li> </ul>	Yes	This requirement is applied and monitoring locations are described in the quarterly noise monitoring reports provided by Global Acoustics.
L6.5	The noise emission limits identified in condition L6.1 apply under meteorological conditions of: <ul style="list-style-type: none"> <li>Wind speeds of up to 3m/s at 10 metres above ground level; or</li> <li>Temperature inversion conditions of up to 3°C/100m and wind speeds of up to 2m/s at 10m above the ground.</li> </ul>	<ul style="list-style-type: none"> <li>Quarterly Attended Environmental Noise Monitoring Reports , Wambo Coal Mine and Rail Spur</li> </ul>	Noted	These meteorological conditions are applied and described in the quarterly noise monitoring reports provided Global Acoustics in relation to assessment of noise monitoring results.
L7	<b>Blasting limits</b>			
L7.1	Blasting in or on the premises must only be carried out between 0900 hours and 1700 hours, Monday to Saturday. Blasting in or on the premises must not take place on Sundays or Public Holidays without the prior approval of the EPA.		Yes	Blasting on the Wambo Mine site has only occurred between 0900-1700 hours Monday to Saturday.
L7.2	The airblast overpressure level from blasting operations in or on the premises must not exceed: <ul style="list-style-type: none"> <li>(a) 115 dB (Lin Peak) for more than 5% of the total number of blasts during each reporting period; and</li> <li>(b) 120 dB (Lin Peak) at any time.</li> </ul> At any residence or noise sensitive location that is not owned by the licensee or subject of a private agreement between the owner of the residence or noise sensitive location and the licensee as to an alternative overpressure level .		<b>NO</b> 120 dBL exceedance noted in 2008, 2009 and 2010	<p>Monitoring data has confirmed that blast overpressure levels are generally in compliance with the criteria in L7.2:</p> <p>2007-2008: 4 of 109 blasts exceeded 115dBL (i.e. 3.6%) therefore compliant. No blasts exceeded 120dBL.</p> <p>2008-2009: 2 of 102 blasts exceeded 115 dBL (i.e. 2%) therefore compliant. One blast exceeded 120dBL (120.3dBL at Kelly monitoring site on 13 October 2008) was reported to DECC.</p> <p>2009-2010: 2 of 62 blasts exceeded 115dBL (i.e. 5%) therefore compliant. One blast exceeded 120dBL criteria (122.1dBL at Harris monitoring site 14 August 2009) was reported to DECCW.</p> <p>2010-June 2011: One blast exceeded 120dBL (i.e. 124.2dBL at Muller monitoring site on 17 February 2011) was reported to DECCW.</p>

L7.3	The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed: (a) 5mm/s for more than 5% of the total number of blasts carried out on the premises during each reporting period; and (b) 10 mm/s at any time. At any residence or noise sensitive location that is not owned by the licensee or subject of a private agreement between the owner of the residence or noise sensitive location and the licensee as to an alternative ground vibration level.		Yes	No vibration results have been recorded that exceed the 5mm/sec peak particle velocity criteria, during the 2006-June 2011 period.
L8	<b>Potentially offensive odour</b> - Not applicable			
4	<b>Operating conditions</b>			
O1	<b>Activities must be carried out in a competent manner</b>			
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.		Noted	
O2	<b>Maintenance of plant and equipment</b>			
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.		Noted	
O3	<b>Dust</b>			
O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.		Noted	
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.		Yes	Water carts are used on trafficable areas, coal storage areas and vehicle manoeuvring areas at the Wambo site to control dust generation. In the event of wind blown dust generation use of water carts is increased to reduce dispersion.
O4	<b>Management of utilisation area</b>			
O4.1	Effluent application must not occur in a manner which causes surface runoff.		Noted	No effluent is applied to the land at the Wambo Mine site. Sewage effluent of pumped out and disposed of off-site by a licensed waste contractor
O4.2	Spray from effluent application must not drift beyond the boundary of the premises.		Noted	No spray irrigation of effluent occurs at the Wambo Mine site.
O4.3	The quantity of effluent/solids applied to the utilisation area must not exceed the capacity of the area to effectively utilise the effluent/solids. For the purpose of this condition, 'effectively utilise' include the use of the effluent/solids for pasture or crop production, as well as the ability of the soil to absorb the nutrient, salt, hydraulic load and organic material.		Not applicable	No spray irrigation of effluent occurs at the Wambo Mine site.


5	Monitoring and recording conditions																																					
M1	M1 Monitoring records																																					
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.				Noted	All monitoring results are retained by the Environment Section on site.																																
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.				Yes	All raw monitoring data is retained and archived by the Environment Section and is available on request.																																
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.				Yes	Monitoring records include the sampling point number, date and time of collection.																																
M2	Requirement to monitor concentration of pollutants discharged																																					
M2.1	For each monitoring/discharge point or utilisation area specified below, the licensee must monitor the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, sample frequency, specified opposite in the other columns: <table border="1"><thead><tr><th colspan="4">Point 4</th></tr><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr></thead><tbody><tr><td>Conductivity</td><td>microsiemens / centimetre</td><td>Continuous during discharge</td><td>Probe designed to measure 0 to 10,000 uS/cm</td></tr><tr><td>Total suspended solids</td><td>milligrams per litre</td><td>Daily during any discharge</td><td>Grab sample</td></tr><tr><td>pH</td><td>pH units</td><td>Continuous during discharge</td><td>In line instrumentation</td></tr></tbody></table> <table border="1"><thead><tr><th colspan="4">Point 5</th></tr><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>gms/m<sup>2</sup>/mth</td><td>Once/month (min. of 4 weeks)</td><td>AM-19</td></tr></tbody></table>			Point 4				Pollutant	Units of measure	Frequency	Sampling Method	Conductivity	microsiemens / centimetre	Continuous during discharge	Probe designed to measure 0 to 10,000 uS/cm	Total suspended solids	milligrams per litre	Daily during any discharge	Grab sample	pH	pH units	Continuous during discharge	In line instrumentation	Point 5				Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	gms/m <sup>2</sup> /mth	Once/month (min. of 4 weeks)	AM-19	<ul style="list-style-type: none"><li>Environmental Monitoring Program, 30 Jun 2006</li><li>Site Water Monitoring Program, Jan 2010</li></ul>	Yes	The Site Water Monitoring Program includes the monitoring points and parameters expressed in M2.1. Samples collected are sent to a NATA registered Laboratory for analysis of the specified parameters using approved standard methods.
Point 4																																						
Pollutant	Units of measure	Frequency	Sampling Method																																			
Conductivity	microsiemens / centimetre	Continuous during discharge	Probe designed to measure 0 to 10,000 uS/cm																																			
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	Point 6						
	Pollutant	Units of measure	Frequency	Sampling Method			
	Total suspended particles	micrograms / cubic metre	Every 6 days	AM-15			
	Point 7						
	Pollutant	Units of measure	Frequency	Sampling Method			
	Conductivity	microsiemens /centimetre	Every 2mths	Grab sample			
	pH	pH units	Every 2mths	Grab sample			
	Point 9						
	Pollutant	Units of measure	Frequency	Sampling Method			
	Conductivity	microsiemens /centimetre	Every 2mths	Grab sample			
	Total suspended solids	milligrams / litre	Every 2mths	Grab sample			
	pH	pH units	Every 2mths	Grab sample			
M3	Testing methods - concentration limits						
M3.1	Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with: (a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or (b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or (c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.					Yes	The monitoring samples collected for analysis are tested in a NATA registered laboratory using standard testing methods.
M3.2	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.					Yes	The samples collected for analysis are tested in a NATA registered laboratory using standard testing methods.



M4	<b>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.		Yes	Environmental Complaints register is kept by the Environment Department and a summary reported in the AEMR's.
M4.2	The record must include details of the following: (a) the date and time of the complaint; (b) the method by which the complaint was made; (c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; (d) the nature of the complaint; (e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and (f) if no action was taken by the licensee, the reasons why no action was taken.		Yes	Complaints recorded in the Environment Complaints register include the information required under M4.2.
M4.3	The record of a complaint must be kept for at least 4 years after the complaint was made.		Yes	All complaints are recorded on an electronic spreadsheet and the files are archived for keeping at least 4 years. Complaint records were sighted for 2006 to 2011 during the audit.
M4.4	The record must be produced to any authorised officer of the EPA who asks to see them.		Noted	
M5	<b>Telephone complaints line</b>			
M5.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.		Yes	Wambo maintains a 24 hour community information line. The telephone number is 02 6570 2245.
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.		Yes	The Wambo 24 hour community information line - telephone number 02 6570 2245 is included in the quarterly Wambo Community and Environment Newsletters.
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.		Noted	Conditions M5.1 and M5.2 are active.
M6	<b>Requirement to monitor volume or mass</b>			
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;	<ul style="list-style-type: none"> <li>Site Water Management Plan, 2010</li> <li>Site Water Monitoring Program, Jan 2010</li> </ul>	Yes	Monitoring of Point 4 occurs in accordance with the requirements of EPL condition M6.1.

	(c) the mass of pollutants emitted to the air; at the frequency and using the method and units of measure, specified below for Point 4.																																				
	<table><tr><td>Frequency</td><td>Unit Of Measure</td><td>Sampling Method</td></tr><tr><td>Continuous</td><td>megalitres per day</td><td>In line instrumentation</td></tr></table>	Frequency	Unit Of Measure	Sampling Method	Continuous	megalitres per day	In line instrumentation																														
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M7	<b>HRSTS Monitoring</b>																																				
M7.1	The licensee must continuously operate and maintain communication equipment which makes the conductivity and flow measurements, taken at Point 4 available to the "Service provider" within one hour of those measurements being taken and makes them available in the format specified in the "Hunter River Salinity Trading Scheme Discharge Point Site Equipment" as published by the Dept of Land and Water Conservation on 7 May 2002.	<ul style="list-style-type: none"><li>• Site Water Management Plan, 2010</li><li>• Site Water Monitoring Program, Jan 2010</li></ul>	Yes	<p>WCPL Point 4 discharge location has continuous online equipment installed for flow and conductivity measurements during discharge.</p> <p>Period of flow, volume discharged and conductivity of discharged water are available when releases to Wollombi Brook occur and results are provided to the DECCW (OEH) in the annual return for the EPL and HRSTS scheme reporting.</p> <p>Discharge records for Licence No. 0529 to the Hunter River between July 2005 and 1 June 2011 were:</p> <table><tr><th>Discharge Point No.</th><th>Date</th><th>Volume Discharged</th></tr><tr><td>1</td><td>4 July 2005</td><td>5.0 ML</td></tr><tr><td>1</td><td>5 July 2005</td><td>4.4 ML</td></tr><tr><td>1</td><td>2007-2008</td><td>Nil</td></tr><tr><td>4</td><td>1 April 2009</td><td>35.09 ML</td></tr><tr><td>4</td><td>2 April 2009</td><td>22.87</td></tr><tr><td>4</td><td>3 April 2009</td><td>10.81 ML</td></tr><tr><td>4</td><td>Apr 2009 to 30 Jun 2010</td><td>Nil discharge</td></tr><tr><td>4</td><td>17 Nov 2010</td><td>69ML</td></tr><tr><td>4</td><td>18 Nov 2010</td><td>34ML</td></tr><tr><td>4</td><td>19 Nov 2010</td><td>24ML</td></tr></table>	Discharge Point No.	Date	Volume Discharged	1	4 July 2005	5.0 ML	1	5 July 2005	4.4 ML	1	2007-2008	Nil	4	1 April 2009	35.09 ML	4	2 April 2009	22.87	4	3 April 2009	10.81 ML	4	Apr 2009 to 30 Jun 2010	Nil discharge	4	17 Nov 2010	69ML	4	18 Nov 2010	34ML	4	19 Nov 2010	24ML
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M7.2	The licensee must ensure that all monitoring data is within a margin of error of 5% for conductivity measurements and 10% for discharge flow measurement.		Yes	Calibration of the conductivity and flow meters is conducted annually to ensure compliance with this requirement.																																	
M7.3	The licensee must mark monitoring point(s) number 4 with a sign which clearly indicates the name of the licensee, whether the monitoring point is up or down stream of the discharge point(s) and that it is a monitoring point for the Hunter River Salinity Trading Scheme.		Yes	The discharge point 4 has signage and is compliant with this requirement.																																	

M8	<b>Requirement to monitor weather</b>																		
M8.1	<p>For each monitoring point specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) each weather parameter specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:</p> <p><b>Point 6 Meteorological Monitoring</b></p> <table><tr><th>Parameter</th><th>Units</th><th>Frequency</th></tr><tr><td>Rainfall</td><td>Mm</td><td>Morning and evening</td></tr><tr><td>Air Temperature</td><td>°C</td><td>Continuous Instrumental</td></tr><tr><td>Wind Direction</td><td>°</td><td>Continuous Instrumental</td></tr><tr><td>Win Speed / Run</td><td>m/s</td><td>Continuous Instrumental</td></tr></table>	Parameter	Units	Frequency	Rainfall	Mm	Morning and evening	Air Temperature	°C	Continuous Instrumental	Wind Direction	°	Continuous Instrumental	Win Speed / Run	m/s	Continuous Instrumental		Yes	<p>The solar powered meteorological station installed at the Wambo site includes instrumentation for the measurement of the required parameters:</p> <p>Rainfall in mm</p> <p>Air Temperature continuous</p> <p>Wind Speed and Direction continuous</p>
Parameter	Units	Frequency																	
Rainfall	Mm	Morning and evening																	
Air Temperature	°C	Continuous Instrumental																	
Wind Direction	°	Continuous Instrumental																	
Win Speed / Run	m/s	Continuous Instrumental																	
M9	<b>Blasting monitoring</b>																		
M9.1	<p>To determine compliance with condition(s) L7.2 and L7.3:</p> <p>a) Airblast overpressure and ground vibration levels must be measured at locations representative of impacts likely to be experienced at residential properties, or other sensitive receivers, resulting from the operation of the mine; and</p> <p>b) Instrumentation used to measure the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard 2187.2 of 1993.</p>	<ul style="list-style-type: none"><li>Blast Monitoring Program, Jan 2009</li></ul>	Yes	<p>Six blast and vibration monitors are located around the Wambo site at representative locations:</p> <p>BM01 Homestead</p> <p>BM02 Kelly residence</p> <p>BM03 Harris residence</p> <p>BM05 Muller residence</p> <p>BM06 Dam wall</p>															
6	<b>Reporting conditions</b>																		
R1	<b>Annual return documents</b>																		
	<b>What documents must an Annual Return contain?</b>																		
R1.1	<p>The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:</p> <p>(a) a Statement of Compliance; and</p> <p>(b) a Monitoring and Complaints Summary.</p> <p>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>	<ul style="list-style-type: none"><li>EPL Annual Return</li></ul>	Yes	<p>The EPL Annual Returns are prepared on the approved forms and include a Statement of Compliance (Form section A) and a Monitoring and Complaints summary (Form Section B).</p>															
	<b>Period covered by Annual Return</b>																		
R1.2	<p>An Annual Return must be prepared in respect of each reporting period, except as provided below.</p>	<ul style="list-style-type: none"><li>EPL Annual Return</li></ul>	Yes	<p>EPL Annual Return reporting period is 15 October to 14 October.</p>															


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.		Noted	
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.		Noted	
<b>Deadline for Annual Return</b>				
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').	<ul style="list-style-type: none"> <li>• 2006-07 Annual Return, dated 5 Nov 2007</li> <li>• 2008-09 Annual Return, dated 9 Dec 2009</li> <li>• 2009-10 Annual Return, dated 9 Dec 2010</li> </ul>	Yes	The Annual Reports for 2007 to 2010 have been submitted to the DECCW (OEH) within 60 days of the end of the reporting period
<b>Notification where actual load cannot be calculated - Not applicable</b>				
<b>Licensee must retain copy of Annual Return</b>				
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.		Yes	Copies of the EPL Annual Return are available from the Environmental Manager Wambo Coal site office.
<b>Certifying of Statement of Compliance and signing of Monitoring and Complaints Summary</b>				
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.		Yes	The EPL Annual Return is signed by the Wambo Mine Manager and Company Secretary on behalf of Peabody Energy Pty Ltd.
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.		Noted	

<b>R2 Notification of environmental harm</b>				
R2.1	<p><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></p> <p>Notifications must be made by telephoning the Environment Line service on 131 555.</p>	<ul style="list-style-type: none"> <li>• Wambo Coal Incident Report</li> <li>• Blast Overpressure Exceedance, 17 Feb 2011</li> <li>• Uncontrolled Release to North Wambo Creek, 10 May 2010</li> <li>• Blast Overpressure Exceedance, 14 Aug 2009</li> </ul>	Yes	<p>Notifications of incidents have been made to the DECCW (OEH) Pollution Hotline 131 555 for each notifiable incident.</p> <p>A written report on each incident and actions taken has been submitted to the DECCW (OEH) within 7 days of the incident occurring</p>
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.	<ul style="list-style-type: none"> <li>• Blast Overpressure</li> <li>• Uncontrolled Discharge to Wollombi Brook, 8 Dec 2008</li> <li>• Exceedance, 13 Oct 2008</li> <li>• Uncontrolled Release from Hales Crossing Sediment Dam, 4 Jun 2008</li> <li>• Uncontrolled Discharge from Dewatering Borehole No.2 to land, 10 Jun 2008</li> <li>• Uncontrolled Discharge from Hales Crossing Sediment Dam, 4 Feb 2008</li> </ul>	Yes	Written notifications have been prepared and submitted to the DECCW (OEH) within 7 days.
R3	<b>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.		Noted	
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.		Noted	
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,		Noted	

	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.																																				
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.		Noted																																		
R4	<b>HRSTS Reporting</b>																																				
R4.1	The licensee must compile a written report of the activities under the Scheme for each scheme year. The scheme year shall run from 1 July to 30 June each year. The written report must be submitted to the EPA's regional office within 60 days after the end of each scheme year and be in R3.4a form and manner approved by the EPA. The information will be used by the EPA to compile an annual scheme report.	<ul style="list-style-type: none"><li>• 2007-08 Hunter River Salinity Trading Scheme Annual Report, dated 8 Jul 2008</li><li>• 2008-09 Hunter River Salinity Trading Scheme Annual Report, dated 28 Jul 2009</li><li>• 2009-10 Hunter River Salinity Trading Scheme Annual Report, dated Jul 2008</li></ul>	Yes	<p>The Hunter River Salinity Trading Scheme Annual Reports have been prepared and submitted to the DECCW within 60 days of the end of each scheme year.</p> <p>Discharge records for Licence No. 529 to the Hunter River between July 2005 and 1 June 2011 were:</p> <table><tr><th>Discharge Point No.</th><th>Date</th><th>Volume Discharged</th></tr><tr><td>1</td><td>4 July 2005</td><td>5.0 ML</td></tr><tr><td>1</td><td>5 July 2005</td><td>4.4 ML</td></tr><tr><td>1</td><td>2007-2008</td><td>Nil</td></tr><tr><td>4</td><td>1 April 2009</td><td>35.09 ML</td></tr><tr><td>4</td><td>2 April 2009</td><td>22.87</td></tr><tr><td>4</td><td>3 April 2009</td><td>10.81 ML</td></tr><tr><td>4</td><td>Apr 2009 to 30 Jun 2010</td><td>Nil discharge</td></tr><tr><td>4</td><td>17 Nov 2010</td><td>69ML</td></tr><tr><td>4</td><td>18 Nov 2010</td><td>34ML</td></tr><tr><td>4</td><td>19 Nov 2010</td><td>24ML</td></tr></table>	Discharge Point No.	Date	Volume Discharged	1	4 July 2005	5.0 ML	1	5 July 2005	4.4 ML	1	2007-2008	Nil	4	1 April 2009	35.09 ML	4	2 April 2009	22.87	4	3 April 2009	10.81 ML	4	Apr 2009 to 30 Jun 2010	Nil discharge	4	17 Nov 2010	69ML	4	18 Nov 2010	34ML	4	19 Nov 2010	24ML
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R5	<b>Noise Reporting</b>																																				
R5.1	A noise compliance assessment report must be submitted to the EPA on an annual basis with the Annual Return as set out in condition R1. The report must determine compliance with the noise limits in condition L6.	<ul style="list-style-type: none"><li>• 2007-08 Annual Noise Monitoring Report</li><li>• 2008-09 Annual Noise</li></ul>	Yes	Annual Reports of noise monitoring have been prepared in accordance with the requirement of this condition since 2007. The Noise Monitoring Reports for 2007-2009 were not																																	



		Monitoring Report • 2009-10 Annual Noise Monitoring Report		submitted to the DECCW until 13 July 2010 after the DECCW noted the reports had not been submitted with the Annual Returns. (WCPL noted that the Annual Noise Monitoring Reports were appended to the AEMR's and these were submitted to the DECCW each year).
	<b>General conditions</b>			
G1	<b>Copy of licence kept at the premises</b>			
G1.1	A copy of this licence must be kept at the premises to which the licence applies.		Yes	A copy of the EPL is retained and available from the Environment Manager.
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.		Noted	
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.		Noted	A copy of the EPL is retained and available from the Environment Manager
	<b>Pollution studies and reduction programs</b>			
U1	<b>Site Water Balance Report</b>			
U1.1	The licensee must provide a report to the EPA on the current site water balance at the premises. The report must include, but need not be limited to, the following: a) Details of the current capacity of all surface water storage dams; b) Details of the current integrity of all dam walls; c) Details of the current dam maintenance program including the frequency of de-silting of all dams and other sediment control structures; d) Details of the ability of the current surface water management system to effectively capture, contain and treat all contaminated surface water at the premises to ensure that pollution of waters does not occur; and e) Details of works or other actions required to ensure that the surface water management system is capable of preventing or minimising to the maximum extent possible the uncontrolled discharge of surface waters from the premises. The report must be addressed to The Manager, Hunter Region and be received no later than 25 February 2011.	<ul style="list-style-type: none"> <li>Wambo Coal Mine Site Water Balance Review, Gilbert &amp; Associates, Mar 2010</li> <li>Letter Report to DECCW re U1 Site Balance Report, 25 Feb 2011</li> <li>2008-2009 AEMR</li> <li>2009-2010 AEMR</li> </ul>	Yes	WCPL commissioned Gilbert & Associates to produce a site water balance that modelled the water management system at the Wambo Coal Mine. The site water balance is reviewed annually and reported in the AEMR's.  The site water balance model indicated that no mine water storage dams represent a significance risk of spilling due to excessive water and that Wambo Coal Mine is likely to experience a deficit of water towards the end of year 5 of operations.
U2	<b>Ground Water Trend Report</b>			
U2.1	The Licensee must provide a report to the EPA identifying any historical temporal trends in ground water quality associated with the Wambo premises. The report must contain but need not be limited to; a) A review of at least the last five years of ground water quality data; and b) Parametric statistical analysis identifying any significant temporal trends in groundwater quality associated with the Wambo	<ul style="list-style-type: none"> <li>Letter Report to DECCW re U2 Groundwater Trend Report, 25 Feb 2011</li> </ul>	Yes	GHD were commissioned by WCPL to review temporal trends in historical groundwater quality data for Wambo Coal Mine, from 2003 to 2010.  The report concluded that pH and EC showed statistically significant trends that appeared to be affected by rainfall events. Alluvial groundwater is brackish to saline and is sodium bicarbonate dominant, while groundwater in the alluvium/Whybrow seam inter-burden is sodium chloride

	premises. The report must be addressed to The Manager, Hunter Region and be received by no later than 25 February 2011.			dominant.
	<b>Special conditions</b>			
E1	<b>Hunter River Salinity Trading Scheme</b>			
E1.1	This licence authorises the discharge of saline water into the Hunter River Catchment from an authorised discharge point (or points), in accordance with the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002.		Noted	 <p><b>HRSTS approved discharge point 4</b></p>
E1.2	For the purposes of Clauses 23 and 29 of the <i>Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002</i> the licensee must apply the conversion factor of 0.6.		Noted	
E1.3	Under this licence the licensee may only discharge saline water into Wollombi Brook when the flow in the brook exceeds 500 ML/day, measured at the Bulga gauging station.		Yes	Discharges have only occurred when the flow in Wollombi Brook exceeded 500ML/day as measured at the gauging station.

## **Attachment E      Mining Lease Conditions 1 May 2007**

## Mining Lease Conditions 1 May 2007

No.	Condition	Audit Verification	Compliance	Comments
	<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 a notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice.		Yes	Landholder notification occurred prior to commencement of the WDP.
	<b>Mining, Rehabilitation, Environmental Management Process (MREMP) Mining Operations Plan (MOP)</b>			
2	(1) Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:- (a) ongoing mining operations and environmental management; and (b) ongoing monitoring of the project.	<ul style="list-style-type: none"> <li>Underground Mining Operations Plan Nov 2005 to Nov 2012</li> <li>Open Cut Mining Operations Plan July 2010 to June 2016</li> </ul>	Yes	<p>A Mining Operations Plan for the open cut was prepared by Wambo for the period July 2005 to June 2010 and submitted to the DPI on 8 September 2005.</p> <p>WCPL has two current Mining Operations Plans (MOP's), one for the Open Cut and one for the Underground:</p> <p>The current Open Cut Mining Operations Plan for July 2010 to June 2016 was prepared in accordance with the DII's <i>Guidelines and Format for Preparation of Mining Operations Plan</i> Version 3, January 2006 and was approved by the DII on the 29 June 2010.</p> <p>The MOP for the Underground was approved by the DII in November 2005 for the period November 2005 to November 2012.</p>
	(2) The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement.	<ul style="list-style-type: none"> <li>Guidelines and Format for Preparation of Mining Operations Plan Version 3, January 2006</li> </ul>	Yes	
	(3) A Plan must be lodged with the Director-General: (a) prior to the commencement of mining operations (including mining purposes); (b) subsequently as appropriate prior to the expiry of any current plan; and (c) in accordance with any direction issued by the Director-General.	<ul style="list-style-type: none"> <li>Underground Mining Operations Plan Nov 2005 to Nov 2012</li> <li>Open Cut Mining Operations Plan July 2010 to June 2016</li> </ul>	Yes	<p>A Mining Operations Plan (MOP) for the open cut was prepared by Wambo for the period July 2005 to June 2010. A current Open Cut Mining Operations Plan for July 2010 to June 2016 was approved by the DII on the 29 June 2010.</p> <p>The Underground MOP was approved by the DME in November 2005 for the period November 2005 to November 2012.</p>

2	<p>(4) The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:-</p> <p>(a) area(s) proposed to be disturbed under the Plan;</p> <p>(b) mining and rehabilitation method(s) to be used and their sequence;</p> <p>(c) areas to be used for disposal of tailings/waste;</p> <p>(d) existing and proposed surface infrastructure;</p> <p>(e) existing flora and fauna on the site;</p> <p>(f) progressive rehabilitation schedules;</p> <p>(g) areas of particular environmental, ecological and cultural sensitivity measures to protect these areas;</p> <p>(h) water management systems (including erosion and sediment controls);</p> <p>(i) proposed resource recovery; and</p> <p>(j) where the mine will cease extraction during the term of the plan, a closure plan including final rehabilitation objectives/methods and post mining land use/vegetation.</p>	<ul style="list-style-type: none"> <li>Underground Mining Operations Plan Nov 2005 to Nov 2012</li> <li>Open Cut Mining Operations Plan July 2010 to June 2016</li> </ul>	Yes	<p>The Open Cut MOP has been prepared for 5 years (i.e. 2010 to 2016) and the Underground MOP was prepared for 7 years 2005 to 2012:</p> <p>(a) section 3 Mining Operations</p> <p>(b) Section 4 Proposed Rehabilitation Activities during the MOP Term</p> <p>(c) Section 3.7 Ore and Product Stockpiles and section 3.9 Hazardous Materials</p> <p>(d) Section 4.4 Buildings</p> <p>(e) Section 2 Pre-MOP Environment</p> <p>(f) Section 4 Proposed Rehabilitation Activities during the MOP Term</p> <p>(g) Section 7 Environmental Management Controls</p> <p>(h) section 3.9 Water Management</p> <p>(i) Section 1.6 Constraints to Mining</p> <p>(j) Not applicable to this MOP period</p>
	(5) The Plan when lodged will be reviewed by the Department.			
	(6) The Director-General may within two (2) months of the lodgement of a Plan, require modification and re-lodgement.		Noted	
	(7) If a requirement in accordance with clause (6) is not issued within two (2) months of the lodgement of a Plan, the lease holder may proceed with implementation holder may proceed w1h of the plan.		Noted	
	(8) During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the D-G and will be subject to the review process outlined in clauses (5) to (7) above.		Noted	
	<b>Annual Environmental Management Report (AEMR)</b>			
3	<p>(1) Within 12 months of the commencement of mining operations and thereafter annually or, at such other time as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the D-G.</p>	<ul style="list-style-type: none"> <li>2007-2008 AEMR</li> <li>2008-2009 AEMR</li> <li>2009-2010 AEMR</li> </ul>	Yes	Wambo have lodged AEMR's each year with the department.
	<p>(2) The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:</p>	<ul style="list-style-type: none"> <li>Guidelines and Format for Preparation of an Annual</li> <li>Environmental Management Report Version 3, Jan 2006.</li> </ul>	Yes	
	<p>(a) the accepted Mining Operations plan;</p> <p>(b) development consent requirements and conditions;</p> <p>(c) Department of Environment and Conservation and Department of Planning licences and approvals;</p> <p>(d) any other statutory environmental requirements;</p> <p>(e) details of any variations to environmental approvals applicable to</p>		Yes	<p>(a) section 1.3.6 Mining Operations Plan</p> <p>(b) Section 1.3.1 Development Consents</p> <p>(c) Section 1.3.3 Environment Protection Licence</p> <p>(d) Sections 1.3.4 (NPW Act approvals), 1.3.8 (Emplacement Area approvals)</p>

	the lease area; and (f) where relevant, progress towards final rehabilitation objectives.			(e) Section 1.3 Consents. Leases and licenses (f) Section 5 Rehabilitation
	(3) After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.		Noted	
	(4) The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies and the local council.	<ul style="list-style-type: none"> <li>• 2007-2008 AEMR</li> <li>• 2008-2009 AEMR</li> <li>• 2009-2010 AEMR</li> </ul>	Yes	The AEMR's have been prepared and distributed to the relevant government authorities and Council and a presentation provided by Wambo to representatives of the authorities and Council.
	<b>Subsidence Management</b>			
4	(a) The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface.		Yes	The Subsidence Management Plan (SMP) for First Workings was approved in October 2005 with mining commencing in November 2005. The SMP for Second Workings was lodged in March 2006 and approved on the 11 December 2006. This SMP covers underground mining activities for seven years for long-wall panels 1 through to 6 (LW 1-6).
	(b) Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as long-walls or mini-walls, associated first workings (gate roads, installation roads and associated main headings, etc), and pillar extractions, and are otherwise defined by the Applications for Subsidence Management Approvals guidelines (EDG17)		Noted	
	(c) The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management plan approved by the Director-General, an approval under the Coal Mine Health and Safety Act 2002, or the document New subsidence Management plan Approval Process - Transitional Provisions (EDp0g).		Yes Ongoing	
	(d) Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for subsidence Management Approvals.		Yes.	Also refer to MCoA
	(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.	<ul style="list-style-type: none"> <li>• 2007-2008 AEMR</li> <li>• 2008-2009 AEMR</li> <li>• 2009-2010 AEMR</li> </ul>	Yes	The SMP is part of the Underground Mining Operations Plan and subsidence management is reported in the AEMR's section 1.3.7 – SMP, section 3.16 – Mine Subsidence and section 5.1.2 Rehabilitation Performance (South Wambo Creek and Stony Creek).



	<b>Working Requirement</b>			
5	<p>The lease holder must:</p> <p>(a) ensure that at least 11 competent people are efficiently employed on the lease area on each week day except Sunday or any week day that is public a holiday; <u>OR</u></p> <p>(b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$192,500 per annum whilst the lease is in force.</p>		Noted	There were approximately 700 personnel, including contractors, employed at WCPL during 2010-2011. Open Cut mining, employed a total of 333 personnel at 30 June 2010, underground mining 276 personnel, CHPP 60 personnel and administration 68 staff..
	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.		Noted	
	<b>Control of Operations</b>			
6	<p>(a) If an Environmental Officer of the Department believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:</p> <p>(i) cease working the lease; or</p> <p>(ii) cease that part of the operation not complying with the Act or conditions;</p> <p>until in the opinion of the Environmental Officer the situation is rectified.</p>		Noted	
	<p>(b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction.</p> <p>(c) A direction referred to in this condition may be served on the Mine Manager.</p>		Noted	
	<b>Reports</b>			
7	<p>The lease holder must provide an exploration report, within a period of twenty- eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year. The report must be to the satisfaction of the Director-General and contain the following:</p> <p>(a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;</p> <p>(b) Details of expenditure incurred in conducting that exploration;</p> <p>(c) A summary of all geological findings acquired through mining or development evaluation activities;</p> <p>(d) Particulars of exploration proposed to be conducted in the next twelve months period;</p> <p>(e) All plans, maps, sections and other data necessary to satisfactorily interpret the report.</p>		Yes	WCPL provides annual reports to the D-G in relation to exploration conducted during each 12 month period.

	<b>Licence Use Reports</b>			
8	(a) The lease holder grants to the Minister, by way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright. (b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.		Noted	
	<b>Confidentiality</b>			
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: (i) the lease holder has agreed that specified reports may be made non-confidential; (ii) reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease. (b) Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease. The confidentiality will last until that flow-on title or any subsequent flow-on title, has terminated. (c) The Director-General may extend the period of confidentiality.		Noted	
	<b>Terms of the non-exclusive licence</b>			
10	The terms of the non-exclusive copyright licence granted under conditions (a) are: (a) the Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports. (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.		Noted	
	(c) the lease holder does not warrant ownership of all copyright report works in any and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright. (d) there is no royalty payable by the Minister for the licence- (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 3 mths notice.		Noted	
	<b>Blasting</b>			
11	(a) Ground Vibration The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more		Yes	No vibration results have been recorded that exceed the 5mm/sec peak particle velocity criteria, during the 2006-June 2011 period.

	than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment and conservation.			
11	<p>(b) Blast Overpressure</p> <p>The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment and Conservation.</p>		<b>NO</b>	<p>Monitoring data has confirmed that blast overpressure levels are generally in compliance with the criteria in 11(b):</p> <p>2007-2008: 4 of 109 blasts exceeded 115dBL (i.e. 3.6%) therefore compliant. No blasts exceeded 120dBL.</p> <p>2008-2009: 2 of 102 blasts exceeded 115 dBL (i.e. 2%) therefore compliant. One blast exceeded 120dBL (120.3dBL on 13 October 2008) reported to DECC.</p> <p>2009-2010: 2 of 62 blasts exceeded 115dBL (i.e. 5%) therefore compliant. One blast exceeded 120dBL criteria (122.1dBL on 14 August 2009) reported to DECCW.</p> <p>2010-June 2011: One blast exceeded 120dBL (i.e. 124.2dBL at Muller monitoring site on 17 February 2011) reported to DECCW.</p>
	<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 drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.		Noted	
	<b>Rehabilitation</b>			
13	<p>(a) Land disturbed must be rehabilitated to a stable and permanent form suitable for a subsequent land use acceptable to the Director-General and in accordance with the Mining operations plan so that there is no adverse environmental effect outside the disturbed area and that the land is properly drained and protected from soil erosion.</p> <ul style="list-style-type: none"> <li>the state of the land is compatible with the surrounding land and land use requirements.</li> <li>the landforms, soils, hydrology and flora require no greater maintenance than that in the surrounding land.</li> <li>in cases where revegetation is required and native vegetation has been removed or damaged, the original species must be re-established with close reference to the flora survey included in the Mining Operations Plan. If the original vegetation was not native, any re-established vegetation must be appropriate to the area and at an acceptable density;</li> <li>the land does not pose a threat to public safety.</li> </ul>		Yes Ongoing	Land disturbed by the Wambo coal operations is rehabilitated in accordance with the Mining Operations Plan and progress is reported annually in the AEMR's.

	Any topsoil that is removed must be stored and maintained in a manner acceptable to the Director-General-		Yes	All topsoil removed from areas of disturbance is used for rehabilitation or stockpiled for later use.
14	The lease holder must comply with any direction given by the Director-General regarding the stabilisation and revegetation of any mine residues, tailings or overburden dumps situated on the lease area.		Noted	
	<b>Exploratory Drilling</b>			
15	(1) At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Natural Resources regional hydrogeologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes. (2) If the lease holder drills exploratory drill holes he must satisfy the Director-General that:- (a) all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established; (b) all holes cored or other wise are sealed to prevent the collapse of the surrounding surface; (c) all drill holes are permanently sealed with cement plugs to prevent surface discharge of ground waters; (d) if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape; (e) if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers. (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. (g) once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.		Noted	
	<b>Prevention of Soil Erosion and Pollution</b>			
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, water body or ground waters. The lease holder must observe and perform any instructions given by the Director-General in this regard.		Noted	
	<b>Transmission lines, Communication lines and pipelines</b>			
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 D-G and subject to any conditions he may stipulate.		Yes	

	<b>Fences and Gates</b>			
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. (b)Gates within the lease area must be closed or left open in accordance with the requirements of the landholder.		Yes	The majority of the lands areas that are affected by Wambo Coal operations are owned by WCPL. All gates and fences are maintained by WCPL.
	<b>Roads and Tracks</b>			
19	(a)Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director-General and subject to any conditions he may stipulate. (b)The lease holder must pay to the designated authority in control of the road (generally the local council or the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.		Yes	The majority of the lands areas that are affected by Wambo Coal operations are owned by WCPL. All roads and access tracks are maintained by WCPL.
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 Natural Resources.		Noted	
	<b>Trees and Timber</b>			
21	(a) The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or if such a landholder refuses consent or attaches unreasonable conditions to the consent, without the approval of a warden. (b) The lease holder must not cut, destroy, ringbark or remove any timber or other vegetative cover on the lease area except such as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the Mining Act 1992 must comply with the provisions of the Native Vegetation Act 2003. (c) The lease holder must obtain all necessary approvals or licences before using timber from any Crown land within the lease area.		Noted	
22	No applicable			
	<b>Resource Recovery</b>			
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		Noted	

	<p>which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to recover such minerals.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p>			
	<p>(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;</p> <p>(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.</p>		Noted	
	<b>Indemnity</b>			
<b>24</b>	<p>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.</p>		Noted	
	<b>Single Security (Extended)</b>			
<b>26</b>	<p>(a) The single security given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under CCL 743 (Act 1973), CL 365 (Act 1973), CL 374 (Act 1973), CL 397 (Act 1973), ML 14AZ (Act 1992) and ML 1572 (Act 1992) is extended to apply to this lease.</p> <p>(b) If the lease holder fails to fulfil any one or more of the obligations under this lease, then the security held may be applied at the</p>		Noted	



	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 the lease if the lease holder fails to comply with any condition or provision hereof, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder.			
	<b>Prescribed Dam</b>			
<b>27</b>	(A) Notwithstanding any Mining Operations Plan, the lease holder must not mine within any part of the lease area which is within the notification area of the Wambo Tailings Dam without the prior written approval of the Minister and subject to any conditions he may stipulate.		Noted	